European Journal of Adapted Physical Activity, 1(2), 21–30

INCLUDING CHILDREN WITH DISABILITY IN PHYSICAL EDUCATION: GENERAL AND SPECIFIC ATTITUDES OF HIGH-SCHOOL STUDENTS

Yeshayahu Hutzler
The Zinman College of Physical Education and Sport Sciences at the Wingate Institute, Netanya, Israel
The Israel Sport Center for the Disabled in Ramat Gan, Israel

Inbal Levi
The Zinman College of Physical Education and Sport Sciences at the Wingate Institute, Netanya, Israel

The purpose of this study was to validate an Israeli version of the Children's Attitude towards Inclusion in Physical Education (CAIPE) scale (Block, 1995). Participants were 120 high school students from grades 9, 11, and 12. Twenty-five students participated in sport classes and the others were regular students. A modified version of the Attitudes Toward Including Students with Disability in Physical Education ATISD-PE questionnaire was used as a measure of concurrent validity. Results indicated a bi-factorial structure with moderate to adequate Cronbach's Alpha reliability of the general and sport-specific sub-scales of the CAIPE, respectively. No difference in attitude was found between children who participated in sport classes and those who did not. Children who had previous exposure to children with disability exhibited reduced willingness toward including them in physical education classes. Previous exposure did not appear to have an effect on peers' attitudes toward including children with disability in basketball.

INTRODUCTION

Due to the increased manifestation of community support services, Israeli children with special education needs (SEN) are increasingly included in regular education settings in their communities. In 2005 about 73,000 children who comprise 7.9% of all children in regular schools and 75% of the children with SEN were recognized as eligible for supportive educational measures (Special Education Department, 2007). One of the curricular areas where supportive educational measures are required is physical education (PE), which is warranted as a primary service in the USA (Sherrill, 2004). In Israel as well as in most European countries, however, PE is not yet recognized as a primary service and many administrators and professionals expect the generalist teacher to cope with a class of 40 children that includes one or more children with SEN (e.g., Boursier & Kahrs, 2003; Talmor, Reiter, & Feigin, 2005). For example in one study of 31 children with motor impairments, the outcome was that only 13 children (42%) reported full participation, and another nine children (29 %) were totally excluded from participation in PE. Similarly, only 10 children (31%) reported full participation and another 10 (31%) reported exclusion from self-organized children's activity during recess (Hutzler, Zamir, & Fliess-Douer, 2004). Observations in actual school settings revealed that the interactions between the children without disabilities during the physical activity were by far more intensive than those between them and children with disabilities (Ellis, Wright, & Cronis, 1996; Lisboa, 1997). During PE classes children with disabilities were more likely to engage in off-task behaviors, and demonstrated very little (2% of class time) use of social talk (Place & Hodge, 2001). Also, self reports of students with disabilities demonstrated a range of negative incidences, described as "bad days" ridicule from peers, not being provided with appropriate adaptations and being excluded from class (Goodwin, 2001; Hutzler, Fliess-Douer, Chacham, & van den Auweele, 2002; Goodwin & Watkinson, 2000). Based on the current International Classification of Function

and disability (ICF) (World Health Organization, 2001), the restriction of *participation* in socially appropriate activities (e.g. play during recess in school and in community centers) is one of the outcomes of an impaired body and a certain physical environmental context.

The typical physical activity context of participants with a disability is one, in which one or a few individuals with a disability are placed together with a large number of individuals without any significant disability. The aims of the group are usually derived from the functions available to the individuals without disability, and the individuals with disability eventually try to share them, but often are partially or completely excluded. Most general PE lessons attended by children with a disability represent such a context. Typical scenes depicting this context include, for instance, a child with a paralyzed leg attempting to participate in a catching game or a ball game, a child in a wheelchair trying to participate in athletics, a child with visual impairment in a swimming class etc. (e.g., Goodwin, 2001; Hutzler, 2003; Van Lent, 2006). The degree of restriction from participation is strongly related to what are labeled in the ICF as psycho-social barriers, mostly associated with negative attitudes.

Attitude is defined for the purpose of this study as "an idea charged with emotions which predisposes a class of actions to a particular class of social situations" (Triandis, 1971, p. 2). The emotional charge of the idea leading to attitude is the degree to which performance in a behavior is positively or negatively valued (Ajzen, 2005). Based on Ajzen's Theory of Planned Behavior (TPB), the attitude together with the perceived social pressure to engage or not to engage in a behavior is labeled as "subjective norm", and participants' perceptions of their ability to perform a given behavior ("perceived control beliefs") lead to an intention to perform the behavior. This means that an attitude toward including children with disability in physical activity would be related to (a) the degree to which the participant estimates the outcome of inclusion as positive or negative, (b) what he or she believes is expected of him or her by teachers, parents, peers and other social agents, and (c) the degree to which he or she perceives himself or herself as competent in such a context. In a systematic review, Hutzler (2003) retrieved 39 studies appearing in peer reviewed journals, depicting barriers associated with professional, personal, and peer attitudes toward the participation of children with disabilities in PE. Ten studies (four cross-sectional and six intervention) referred to attitudes of peer school children, mostly in grades K-2 and in 4-6. Findings suggested that being female (Block, 1995; Loovis & Loovis, 1997; Slininger, Sherrill, & Jankowski., 2000; Tripp, French, & Sherrill, 1995; Woodward, 1995), and having a family member or a close friend with a disability (Block, 1995), were related with positive attitudes.

Until now no study has linked the inclusion context to peers' involvement in sports. Based on findings related to the Goal Perspective Theory (GPT: Duda, 1992; Duda & Nichols, 1992), it may be hypothesized that high school students who participate in organized sports are likely to be more competitive and mastery-oriented than their peers, and that they perceive the inclusion context as a barrier to presenting their best performance and to fulfilling their competitive desires.

One of the most frequently used instruments to measure peers' attitudes towards inclusion in PE is the Children's' Attitudes towards Inclusion in Physical Education – Revised questionnaire (CAIPE-R: Block, 1995; Obrusníková, Block, & Válková, 2003). This is an inventory permitting specific descriptions of tasks and individuals presented in an inclusive setting. This instrument was developed to measure how children without disabilities feel about having children with disabilities placed in their PE class (Block, 1995) in accordance with the theory of planned behavior (Block & Obrusníková, 2007). In the context of inclusion in physical activity, this theory suggests, that children's intentions of including peers with disabilities are an outcome of their attitudes, normative beliefs, and perceptions of control or competence over the events during and after the activity.

In this particular study we were interested in (a) validating the version of the CAIPE that has been translated and adapted to the Israeli context; (b) measuring the relationships among attitudes toward including children with disability in general, including them in PE, and in a specific sport context – namely, basketball; and (c) determining whether any differences exist in attitudes between children who participate in a sport specialization and those who don't participate in such specializations, as well as between those who had previous exposure to children with disability in school, in physical activity or in their family and those who did not have such exposure. We hypothesized that children in sport classes would have less and children who had previous exposure more positive attitudes.

METHOD

Participants

One hundred and twenty high school students from grades 9, 11, and 12 (58 females and 62 males) participated in this study. The 9th grade classes in this school were considered sport classes, providing extra classes in PE to those of their students. Each sport class included 12–13 sport participants out of the total of 25 students. The sport students engaged in basketball, track and field, and gymnastics events. All of the sport students participated in our study. The other 95 participants were enrolled in four 11th and 12th grade classes which were randomly chosen.

Instruments

Attitude Toward Including Students with Disability in Physical Education (ATISD-PE). This is a measure based on a questionnaire originally used to measure teacher attitudes toward including children with disability in Israel (Shechtman, 1991). Most questions derive from the well-known Attitudes Toward Disabled Persons instrument (ATDP; Yuker, 1987; Yuker, Block, & Campbell, 1960) designed to measure the extent to which the respondents perceive persons with disabilities as similar to rather than different from persons without disabilities, and the extent to which the respondents believe people with disabilities should be treated similarly to and not differently from people without disabilities (Yuker & Hurley, 1987). The ATISD-PE questionnaire included 15 items designed to measure attitudes towards including children with disabilities in educational contexts, on a 6-point scale (ranging from –3 = I agree very much to +3 = I disagree very much). The ATISD-PE instrument was adapted for measuring inclusion in physical education, and it was found valid and reliable in PE students. Unlike the ATDP, the ATISD-PE consisted of three major factors (threat to teacher; threat to students; opportunities) accounting for 47% of the variance among 153 physical education students of two colleges in Israel (Hutzler, Zach, & Gafni, 2005).

Israeli version of Children's Attitude Toward Integrated Physical Education – Revised (CAIPE-R). We used a Hebrew translated version of CAIPE-R (Block, 1995), developed to assess attitudes of students in regular schools toward including children with disabilities in their PE classes. The original version used a description of a child with disability participating in a softball game. Our version, labelled CAIPE-IL was adapted describing a child with physical disability participating in basketball, which is a much more popular game in Israeli schools than softball. The original version of the CAIPE was revised and validated based on a sample of 208 fifth- and sixth-grade students (Block, 1995). Factor analysis of the CAIPE-R confirmed that all items of the general attitude scale clustered around one factor, with a range of loadings between .37 to .80 and that the items of the sport specific subscale clustered around another factor with a range of loadings between .52 and .76. The standardized item alphas reported were .78 and .67 to the general and the sport specific subscales, respectively, indicating good to moderate consistency of these sub-scales.

The Hebrew translation and adaptation to the Israeli context was independently conducted by two English speaking APA professionals, who then compared their results. The final sport specific sub-scale of the

CAIPE-IL appears in Table 1. Our questionnaire included descriptive data of the respondent and a description of a student with a physical disability similar to the one described in the CAIPE-R instrument (Block, 1995).

Table 1
The Sport specific items of the CAIPE-IL

#	Item description
1	It is required to get as close as possible, when you pass the ball to Jimmy
2	It is required to lower the basket's height when Jimmy plays with us
3	It is not allowed to pressure Jimmy while he is standing or moving with or without the ball in the basketball court
4	It is not allowed to pressure Jimmy when he is at a shooting position
5	Jimmy can play basketball with everybody

Thirteen statements followed – eight regarding the possibility of including a child with disabilities in a general PE class (CAIPE-Gen) and five statements regarding adaptations to a specific sport, in this case basketball (CAIPE-Sp). Participants rated their agreement or disagreement with the statements on a 4-point Likert scale (4 = yes, 3 = probably yes, 2 = probably no, 1 = no).

Procedure

The CAIPE-IL and ATISD-PE questionnaires were administered during one 20-min period at the beginning of a non PE lesson with the main class contact teacher. Both questionnaires were filled in one after the other (CAIPE-IL first) and were given a personal code for each student. Prior to having filled in the questionnaires, the students filled in details relating to their grade, gender, and age, and to their previous exposure to children with disability. The students were not allowed to talk with each other during the session. A Physical Education student disseminated the questionnaires and collected them immediately after the students had completed filling them in.

Statistical Analysis

Factor analysis was performed to validate the CAIPE-IL structure in the translated version for a selected Israeli population, followed by a Cronbach alpha reliability analysis. In addition, a correlation analysis between the sub-scales of the CAIPE-IL and the ATISD-PE was performed to provide an estimate of concurrent validity of the CAIPE-IL. In order to measure the effects accounted by the independent variables (a) having experience with children with disability in PE or sports; (b) having experience with children with disability at school; (c) having a family member with disability, and (d) being member of a sport or regular class, t-tests were computed. In order to measure the effect of the class grade (9^{th}, 11^{th}, and 12^{th}) a one-way ANOVA was performed. Significance was set at $\rho = .05$.

RESULTS

Altogether 120 participants responded to our questionnaire. Twenty-five of them were sport students and the rest did not have extra PE classes. Sixty two students (52%) reported having previous experience with students with disability in PE classes. Twenty four students (20%) had previous contact with students with disability in school, and 46 students (38%) reported having a family member with a disability. Generally, it can be concluded that the participants had considerable previous contact with children with disabilities.

A bi-factor solution was computed for the CAIPE-IL accounting for 42% of the variance and 48% of the variance, if items two of the general scale ("Because Jimmy needs help to play sport, he would slow down the game") and item five of the sport specific scale ("Jimmy can play basketball with everybody") were omitted. Due to the increased explained variance, we decided to omit these two items while conducting the inference statistics. After omitting the two items, Cronbach's alpha (α) coefficients were computed with satisfactory reliability coefficients $\alpha = .77$ in the general scale and $\alpha = .62$ in the sport specific scale.

Table 2 depicts the clustering of the CAIPE-IL items around two factors, indicating their extracted factor loadings. The ATISD-PE had an overall Cronbach alpha value of .88, suggesting good internal consistency. It revealed a similar three factorial structure as observed in Hutzler et al. (2005) accounting for 59% of variance, and Cronbach alpha values of individual factors ranging .64–.85.

Table 2
Extracted factor loading of the CAIPE-IL

Statement	Factor 1	Factor 2
1	0.72	-0.17
3	0.71	-0.34
4	0.76	-0.16
5	0.31	-0.46
6	0.55	-0.03
7	0.69	0.00
8	0.80	0.11
9	0.19	0.56
10	0.13	0.48
11	0.29	0.75
12	0.23	0.69

The descriptive statistics and results of t-tests computed for each of the independent variables are presented in Tables 3–6.

Table 3
Descriptive and t-test statistics for participation in sport classes

Scale	**CAIPE General**		**CAIPE Specific**		**ATISD-PE**	
	Sport students	**Regular students**	**Sport students**	**Regular students**	**Sport students**	**Regular students**
Mean	3.24	3.25	2.77	2.66	4.0	4.11
(SD)	(0.48)	(0.56)	(0.58)	(0.80)	(0.67)	(0.89)
t	–0.07		0.62		–0.53	
p	ns		ns		ns	

Table 4
Descriptive and t-test statistics for previous exposure to disability in Physical Education or sport

Scale	**CAIPE General**		**CAIPE Specific**		**ATISD-PE**	
	Previous PE Contact	**No previous PE Contact**	**Previous PE Contact**	**No previous PE Contact**	**Previous PE Contact**	**No previous PE Contact**
Mean	3.11	3.40	2.67	2.70	3.82	4.37
(SD)	(0.50)	(0.55)	(0.81)	(0.70)	(0.89)	(0.69)
t	–2.95		0.16		–3.80	
p	>0.04		ns		>.003	

Table 5
Descriptive and t-test statistics for previous exposure to disability in school

Scale	CAIPE General		CAIPE Specific		ATISD-PE	
	Previous Exposure	No previous Exposure	Previous Exposure	No previous Exposure	Previous Exposure	No previous Exposure
Mean	3.04	3.30	2.56	2.72	3.63	4.20
(SD)	(0.67)	(0.49)	(0.85)	(0.73)	(0.88)	(0.80)
t	–2.13		–0.88		–3.05	
p	>0.03		Ns		>.003	

Table 6
Descriptive and t-test statistics for previous exposure to disability in the family

Scale	CAIPE General		CAIPE Specific		ATISD-PE	
	Having member	Not having member	Having member	Not having member	Having member	Not having member
Mean	3.12	3.33	2.68	2.69	4.01	4. 13
(SD)	(0.53)	(0.54)	(0.77)	(0.75)	(0.91)	(0.81)
t	–2.00		–0.57		–0.80	
p	>0.05		ns		ns	

The descriptive statistics demonstrated a higher mean value for the CAIPE-Gen than for the CAIPE-Sp (3.24 $\pm$ 0.55 vs. 2.68 $\pm$ 0.76 on a scale of 1–4). The ATISD-PE averaged 4.07 $\pm$ 0.86 on a scale of 1-6. The group comparison for sport participation did not reveal a significant effect in any of the outcome measures. In contrast, exposure to disability in school as well as exposure to physical activity revealed a significant effect in both the CAIPE-Gen and the ATISD-PE but not in the CAIPE-Sp, in favor of those who did not have previous exposure. Exposure to disability in the family revealed a significant effect only in the CAIPE-Gen sub-scale.

Outcomes of the ANOVA by class did not reveal any significant outcomes for the CAIPE-Gen; CAIPE-Sp and ATISD-PE [$F(2,114) = 2.91$, $p < .06$; $F(2,115) = 1.21$, $p < .3$; and $F(2,117) = 2.21$, $p < .15$ respectively]. The correlations computed between outcome measures revealed fair, though significant, correlation between ATISD-PE and CAIPE-Gen ($r = 0.27$, $p < .03$). The correlations between CAIPE-Sp and CAIPE-Gen or ATISD-PE were around 0, suggesting no relationship among these variables.

DISCUSSION

After omitting the items which lowered the factor loadings, the internal consistency of the CAIPE-IL scale with 11 items (seven in the CAIPE-Gen and four in the CAIPE-Sp) reached acceptable values, indicating adequate to moderate internal consistency in both sub-scales, respectively (Litwin, 2002), with very similar values to those of the revised CAIPE-R (Block, 1995).

The descriptive statistics of the CAIPE-IL and ATISD-PE results, as seen in Tables 3–6, as well as the correlation analysis suggest a link between the CAIPE-Gen and the ATISD-PE, and no relation between the general attitude and the sport specific attitude (CAIPE-Sp). These findings may be interpreted with respect to the theory of planned behavior (Ajzen, 2005). The differences in mean values of the general and the sport specific sub-scales suggest a different attitude due to varied expectations that the specified behavior would yield to preferable outcomes - i.e., one may expect a student with a disability to be included in a PE class if there were no specific indication of what the consequences to the

participant without disabilities would be. In contrast, the CAIPE-Sp specifies such consequences in terms that may be interpreted as having adverse effects on the respondent, such as having to wait longer for the ball, failing to exhibit his or her own skillful activity in not being allowed to accomplish person to person screening. Unless the class has received extensive awareness training, most students would not consider as positive a consequence of a behavior in which they are expected to concede their own performance in favor of the student with disabilities. This notion is consistent with research findings of intervention studies measuring the effect of inclusion practices on attitudes, which mostly found no or even adverse effects of inclusion on attitudes (Lockhart, French, & Gench, 1998; Slininger, et al., 2000; Tripp et al., 1995).

Furthermore, it should be noted that the claim to concede individual performance in favor of a student with disability has never been acknowledged as an inclusion objective; on the contrary, most scholars insist that the inclusion practice can be conducted without adverse effects to the non-disabled students (e.g., Block, 2007; Sherrill, 2004). How this can be achieved within a competitive context, such as that very often exhibited and encouraged during sport games at schools, remains a major professional dilemma. Nevertheless, it should be noticed, that the average results obtained in our sample of high school students were different than those found in previous research conducted with middle school students of grades 5 & 6, reporting higher values of the sport specific than the general sub-scales (Block, 1995). It is well known, that the normative social comparison is stronger among high school than in middle school students.

The findings of the group mean comparisons between participants who did and those who did not have previous exposure to students with disabilities consistently indicated inferior values for both the CAIPE-Gen and the ATISD-PE in those who had previous exposure either at school or in physical activity. This finding can be interpreted in two ways: (a) perhaps students without previous exposure were more biased, due to social desirability, than those who had prior experience; (b) the previous experience was such that it decreased rather than increased expectations of success in the activity. A negative change or no change in attitudes were also reported in some carefully structured contact studies lasting 3.5 to 4 weeks (see Block & Zeman, 1996; Sliningeret al., 2000; Obrusníková, Block, & Válková, 2003), mostly failing to reveal significant positive change in attitudes. More research is needed in order to identify the effects of previous exposure to children with disabilities in physical activity and sports, and the factors that could contribute to a positive shift in attitudes towards including these children.

In contrast to our expectation, no differences were observed between respondents, who participated and those who did not participate in a sport class. This outcome could be due to (a) the small number of respondents in the sport class, (b) that the degree of task and ego orientation in the respondents was not strong enough, or (c) that the high task and ego orientation of sport participants did not influence their attitudes toward inclusion. Further research with larger samples, controlling for task and ego orientation, is warranted for this purpose.

The correlations between sub-scales demonstrate a greater relationship between the CAIPE-Gen and the ATISD-PE than between CAIPE-Gen and CAIPE-Sp. With respect to the mean values and the group comparisons, it appears that the tangibility of the depicted sport scenes (a) lowered the positive attitude towards including children with disability, and (b) diminished the difference between those who had and those who did not have previous exposure.

Limitations

While the original CAIPE-R was developed for middle-school students, we used in this study an adapted version, measuring attitudes of high school students. Therefore, results of the CAIPE-IL may differ from those of the younger students measured by means of the CAIPE-R (Block, 1995; Obrusníková, Block, & Válková, 2003). This may be the

reason for the different magnitude reported for the general and sport-specific sub-scales in our and previous studies. Also, the appropriateness of the ATSID-PE as a measure used to examine concurrent validity of the new instrument, CAIPE-IL, is questionable, due to its rather limited psychometric evidence. However, while a well established reference is available for American middle school students grades 6 – 8 (Verderber, Rizzo, & Sherrill, 2000) no well evidenced questionnaires were identified in Hebrew language for measuring attitudes toward inclusion in physical activity.

CONCLUSIONS

The CAIPE-IL appears valid with adequate internal consistency. Increasing item number could, perhaps, increase Alpha reliability, but may also increase the burden of filling in the questionnaire, and this could in turn reduce responsiveness. Concurrent validity was established for the general scale of the CAIPE-IL through significant correlations with another attitude questionnaire. In our sample of Israeli high school students; (a) the effect of unstructured previous exposure appeared to decrease children's willingness toward including children with disability in physical activity, and (b) participation in a sport class did not have an influence on children's attitudes. Future studies are encouraged to measure motivational orientation toward sport in order to control for the sport participation effect.

REFERENCES

Ajzen, I. (2005). *Attitudes, personality, and behavior* (2nd ed.). Milton-Keynes, England: Open University Press / McGraw-Hill.

Block, M. E. (2007). *A teacher's guide to including children with disabilities in general physical education* (3rd ed.). Baltimore: Paul H. Brooks.

Block, M. E. (1995). Development and validation of the Children's Attitudes Toward Integrated Physical Education – Revised (CAIPE-R) Inventory. *Adapted Physical Activity Quarterly, 12*, 60–77.

Block, M. E., & Obrusníková, I. (2007). Inclusion in physical education: A review of the literature from 1995-2005. *Adapted Physical Activity Quarterly, 24*, 103–124.

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

Boursier, C., & Kahrs, N. (2003). Inclusion in sports. In H. Van Coppenolle, J-C. De Potter, A. Van Peteghem, S. Djobova, & K. Wijns (Eds.) Inclusion and integration through adapted physical activity (pp. 75–112). End report of the Thematic Network Educational and Social Integration of Persons with a Disability through Adapted Physical Activity. Available from Professor H. Van Coppenolle. Faculty of Physical Education and Physiotherapy, Tervuursevest 101, 3001 Heverlee, Belgium.

Duda, J. L. (1992). Motivation in sport settings: A goal perspective approach. In G.C. Roberts (Ed.), *Motivation in sport and exercise* (pp. 57–92). Champaign, IL: Human Kinetics.

Duda, J. L., & Nicholls, J. (1992). Dimensions of achievement motivation in schoolwork and sport. *Journal of Educational Psychology, 84*, 290–299.

Ellis, D. N., Wright, M., & Cronis, T. G. (1996). A description of the instructional and social interactions of students with mental retardation in regular physical education settings. *Education and Training in Mental Retardation and Developmental Disabilities, 31*, 235–241.

Goodwin, D. L. (2001). The meaning of help in PE: Perceptions of students with physical disabilities. *Adapted Physical Activity Quarterly, 18,* 289–303.

Goodwin, D. L., & Watkinson, E. J. (2000).Inclusive physical education from the perspective of students with physical disabilities. *Adapted Physical Activity Quarterly, 17*, 144–160.

Hutzler, Y. (2003). Attitudes toward the participation of individuals with disabilities

in physical activity: A review. *Quest, 55*, 347–373.

Hutzler, Y., Zach, S., and Gafni, O. (2005). Physical education students' attitudes and self-efficacy towards the participation of children with special needs in regular classes**.** *European Journal of Special Needs Education*, *20*, 309–327.

Hutzler, Y., Zamir, G., & Fliess-Douer, O. (2004). Inclusion of children with physical disabilities in physical education: facilitators and limiting factors. *Issues in Special Education and Rehabilitation, 19*, 33–58.

Hutzler, Y., Fliess-Douer, O., Chacham, A., & van den Auweele, Y. (2002). Perspectives of children with physical disability on inclusion and empowerment: Supporting and limiting factors. *Adapted Physical Activity Quarterly, 19,* 300–317.

Lisboa, F. L. F. (1997). Interaction and social acceptance of children with austism in physical education. *Brazilian International Journal of Adapted Physical Education Research, 4,* 1–14.

Litwin, M. S. (2002). *How to assess and interpret survey psychometrics*. The Survey Kit series, Vol. 8. Thousand Oaks, CA: Sage.

Lockhart, R. C., French, R., & Gench, B. (1998). Influence of empathy training to modify attitudes in physical education of normal children toward peers with physical disabilities. *Clinical Kinesiology, 52*, 34–41.

Loovis, E. M., & Loovis, C. L. (1997). A disability awareness unit in physical education and attitudes of elementary school students. *Perceptual and Motor Skills, 84*, 768–770.

Obrusníková, I., Block, M. E., & Válková, H. (2003). Impact of inclusion in general physical education on students without disabilities: Preliminary investigation. *Adapted Physical Activity Quarterly*, *20*, 230–245.

Place, K., & Hodge, S. R. (2001). Social inclusion of students with physical disability in GPE: A behavioral analysis. *Adapted Physical Activity Quarterly, 18,* 389–404.

Shechtman, Z. (1991). Changing attitudes of teachers in regular education toward integrating the exceptional in regular settings: empirical findings and an intervention plan. *Dapim, 13*, 54–59 [in Hebrew].

Sherrill, C. (2004). *Adapted physical activity, recreation and sport* (6th ed.). Boston: McGraw-Hill.

Slininger, D., Sherrill, C., & Jankowski, C. M. (2000). Children's attitudes toward peers with severe disabilities: Revisiting contact theory. *Adapted Physical Activity Quarterly, 17*, 176–196.

Special Education Department (2007). *Support to students with special needs within the inclusion program*. Retrieved May 15, 2007, from http://cms.education.gov.il/EducationCMS/ Units/ Special/Matyaot/TmichaTochnitShilouv.htm

Talmor, R., Reiter, S. & Feigin, N. (2005). Factors relating to regular education teacher burnout in inclusive education. *European Journal of Special Needs Education, 20*, 215–229.

Triandis, H.C. (1971). *Attitude and attitude change*. New York: John Wiley and Sons.

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

Van Lent, M. (Ed.) (2006). *Count me in: A guide to inclusive physical activity, sport and leisure for children with a disability*. Leuven: Acco.

Verderber, J. M. S., Rizzo, T., & Sherrill, C. (2000). Assessing student intention to participate in inclusive physical education. *Adapted Physical Activity Quarterly, 20*, 26–45.

Woodward, R. (1995). The effects of gender and type of disability on the attitudes of children toward their peers with physical disabilities. *Therapeutic Recreation Journal, 29*, 218–227.

World Health Organization (WHO) (2001). *International classification of functioning, disability and health (ICF)*. Geneva, Switzerland: Author [On-line]. Available: http://www3.who.int/icf/icftemplate.cfm

Yuker, H. E. (1987). *Attitudes toward persons with disabilities*. New York: Springer.

Yuker, H. E., Block, J. R., & Campbell W. (1960). *A scale to measure attitudes toward disabled persons.* Albertson: Human Resources Foundation.

Yuker, H. E., & Hurley, M. K. (1987). Contact with and attitude toward persons with disabilities: The measurement of intergroup contact. *Rehabilitation Psychology, 32*, 145–154.

Corresponding author's e-mail addres:
shayke.hutzler@gmail.com

INKLUSION VON KINDERN MIT BEHINDERUNG IM SPORTUNTERRICHT: ALLGEMEINE UND SPEZIFISCHE EINSTELLUNGEN VON OBERSTUFEN-SCHÜLERN UND SCHÜLERINNEN (HIGH-SCHOOL)

(Resümee)

Die Absicht dieser Studie war die Validierung der israelischen Version der Einstellungsmessung von Kindern gegenüber Inklusion im Sportunterricht - Children's Attitude towards Inclusion in Physical Education (CAIPE)-Scale (Block, 1995). Es nahmen 120 Highschool Schüler/innen der 9., 11. und 12. Stufe daran teil. 25 Schüler/innen kamen aus Sportklassen, die übrigen waren reguläre Schüler/innen. Eine modifizierte Version des Einstellungs-Fragebogens (Attitudes Toward Including Students with Disability in Physical Education – ATISD-PE) wurde für die übereinstimmende Validitätsmessung verwendet. Die Ergebnisse zeigten eine bifaktorielle Struktur mit außerdem mäßiger bis ausreichender Cronbach's Alpha Reliabilität in der allgemeinen sowie der sportspezifischen Subskalen des CAIPE. Keine Einstellungsunterschiede wurden zwischen Kindern, die an Sportklassen teilnahmen, und solchen, die das nicht taten, festgestellt. Kinder, die schon früher mit Kindern mit Behinderung zusammen waren, wiesen eine reduzierte Bereitschaft auf, diese im Sportunterricht miteinzubeziehen. Früherer Kontakt schien keine Auswirkung auf die Mitschüler hinsichtlich der Inklusion der Kinder mit Behinderung im Basketball zu haben.

SCHLÜSSELWÖRTER: Behinderung, Sportunterricht, Inklusion, Einstellung.

INCLUSION D'ELEVES EN SITUATION DE HANDICAP EN COURS D'EDUCATION PHYSIQUE : ATTITUDES GENERALES ET SPECIFIQUES D'ELEVES DE COLLEGE

(Résumé)

Le but de cette étude est de valider la version israélienne du test « Attitudes des Enfants envers l'Inclusion en Education Physique » (Children's Attitude towards Inclusion in Physical Education (CAIPE)) (Block, 1995). 120 élèves de collège en 9ème, 11ème et 12ème grade ont participé à cette étude. 25 élèves font partis de classes sport étude, les autres sont des élèves appartenant à des classes standards. Une version modifiée du test « Attitudes envers des élèves en situation de Handicap Intégrés en cours d'Education Physique » (« Attitudes Toward Including Students with Disability in Physical Education (ATISD-PE)) à été utilisée comme témoin pour mesurer la validité du CAIPE. Les résultats indiquent une structure bi-factorielle avec une fiabilité de l'Alpha de Cronbach modérée à satisfaisante concernant respectivement les sous échelles des attitudes générales et spécifiques. Aucune différence d'attitude n'a été trouvée entre les élèves en sport étude et ceux des classes standards. Les élèves qui ont déjà été exposés à des enfants en situation de handicap marquent un enthousiasme plus faible concernant l'inclusion. Une expérience antérieure n'apparaît pas comme ayant un effet sur l'inclusion d'enfants en situation de handicap en cours de basket-ball.

MOTS CLEFS : Handicap, Education Physique, Inclusion, Attitude.