INCLUSION OF CHILDREN WITH DISABILITIES: TEACHERS' ATTITUDES AND REQUIREMENTS FOR ENVIRONMENTAL ACCOMMODATIONS

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Teachers in general education are expected to cope with students with diverse needs. They might not always be ready or sufficiently supported to meet these challenges. The current study aims at identifying child, teacher and environmental barriers to inclusion. Specifically it addresses the importance of preschool teachers' attitudes as the human environment factor that may facilitate inclusion of children with disability, and teachers' major concerns about environmental accommodations that inclusion implies.

The study assessed how teachers' attitudes towards inclusion of children with disability are affected by the teachers' personal characteristics and are related to the accommodations they deem necessary for admission of such children to their kindergartens. It also examined whether the teachers' attitudes and requirements for accommodations differ in respect of four groups of children's disabilities: learning disabilities, sensory/motor disabilities, ADHD, and emotional disabilities.

Fifty-three preschool teachers completed the Attitudes toward Disabled Persons Scale (ATDP-A) and the Environmental Accommodations of School (EAS), which was designed especially for this study (Appendix 1). The teachers' requirements proved to correlate with various teachers' characteristics such as age, experience, education and personal contact with disability. Teacher's requirements for accommodations also highly correlated with environmental working conditions (e.g., working hours, number of children). Teachers were most concerned about accommodations for children with potential behavior problems. Implications for practice and education are discussed.

Background
Inclusion in general education is a philosophy of acceptance and belonging to the community so that a class is structured to meet the needs of all its students. Educational strategies and collaboration among educators yield specially designed instruction and supplementary aids and services for all diverse students as needed for effective learning (Moore, Gilbreath, & Mairuri, 1998). Inclusion was made compulsory by legislation toward equal rights. One such law is the Individuals with Disabilities Education Act (IDEA, 1997). The law states that a continuum of placement options be made available to meet the special needs of students, indicating the major importance of choice of an adapted environment for groups of individuals with certain characteristics. To emphasize the active and extensive involvement of the child in life situations,

The International Classification of Function (ICF) of the Word Health Organization (ICF, 2001) uses the term *participation* rather than *inclusion* (ICF, 2001; Simeonsson, Leonard, Dollar, Bjorck-Akessoon, Hollenweger, & Martinuzzi, 2003). The ICF acknowledges the many barriers children with disabilities typically face in their educational experience. It shifts the debate, which traditionally was much child-oriented, to become more focused on environmental factors that both affect and potentially facilitate children's participation in their everyday lives (ICF, 2001; Simeonsson et al., 2003). Both IDEA and ICF use the term *least restrictive environment* (LRE), which is broadly defined as the greatest degree that will satisfactorily afford children with disabilities a meaningful educational benefit,

together with children who do not have disability, suggesting that society is responsible for providing an accessible physical and human environment (IDEA, 1997; ICF, 2001).

Factors that effect inclusion
To create a LRE, potential barriers to inclusion must be identified. The literature identifies child factors and environmental factors that may present challenges to the success of inclusion.

Child factors
Children with disabilities face constraints resulting from their own physical, emotional and cognitive limitations. These limitations or barriers reside within the individual and can be transient or permanent (Smith, Austin, Kennedy, Lee, & Hutchison, 2005). The child variable explored in existing research relates to the child's special needs, which may be physical, cognitive, emotional, and more. While LRE aims at addressing the specific needs of each individual, the most appropriate placements of children with varied disabilities are perceived largely to depend on the disability category (Praisner, 2003). In different countries systems are designed to address the individual's special needs, but services and programs are provided according to those general categories of disabilities.

Various categories of children are placed in typical education settings, and additionally to the special accommodations each individual requires, each population presents specific general requirements for accommodations. For example, children with sensory and motor disabilities are often classified on the basis of severity: those with mild to moderate sensory/motor disabilities may not require extensive special education and related services. As such, they are deemed to manage easily in regular education environments. However the mobility barrier, such as the need for transfers of children who suffer from more severe motor disabilities, or the need for learning different languages, such as sign language or Braille in the case of sensory loss, may result in the placement of these students in atypical educational settings. An additional frequent concern is the ability of the regular education environment to meet their needs for special health and personal care (Campbell, 1989).

Children with emotional disabilities may pose problems of their own for the educator in a typical learning environment. Such a child may demonstrate extremely challenging behaviors that distance him or her from others, inhibits communication, interfere with activity performance, and contribute to a negative self-image (Casey-Black & Knoblock, 1989). The teacher must meet those child's needs, in addition to those of the others in the class, who are directly affected by the special education child's behaviors. Sometimes, behaviors of children with Attention Deficit Hyper Activity Disorder (ADHD) pose a similar problem for their teachers. They display chronic behavioral symptoms of inattention, impulsiveness, and hyperactivity, may often have difficulty fulfilling an assigned task or following directions, and may lack the social skills required to get along with others; this significantly interferes with their own family and peer relationships, as well as their educational and social functioning (APA, 1994).

The biggest group included in general education settings in the past two decades is students with learning disabilities (LD). While most students with LD require direct and intensive instruction in reading, writing or math, the literature suggests that often their specific need for intensive direct teaching is not met in either special education or general education classes (Lyon et al., 2001).

The philosophy of inclusion is tightly connected to concepts of human rights and equal opportunities for individuals to participate. It calls for listening to an individual's goals and needs that are impeded by a disability to engage in activities, regardless the disability type (Wolery, 2000). The question then is whether the various needs of students should be addressed on an individual or on group basis, according to populations with a shared functional disability.

The latter approach, differentiating children also according to their disabilities, may ease the evaluation of needs of groups of children to provide support services. We therefore investigated whether the teachers' requirements for accommodations distinguished four children's populations with different disabilities: attention, learning, emotional regulation, and sensory/motor.

Environmental factors
The body of knowledge on human occupation and performance implies close relationships and interactions between person, occupation and environment (Christiansen, 2005). One's joining in everyday life accordingly depends on one's engaging in activities in diverse environments with a

variety of characteristics, and meeting the challenges they may present. To study the environmental characteristics that may facilitate or hinder children's participation in the classroom, we identified four categories of environmental barriers to inclusion from the literature: attitudinal, architectural, administrative, and programmatic (Cross, Traub, Hutter-Pishgahi & Shelton, 2004; Heyne, 2003).

Teachers' attitudes to disabilities and to inclusion have proved a crucial variable in the success of inclusion schemes (Chow & Winzer, 1992; Hastings & Oakford, 2003; Hayes & Gunn, 1988; Pivik, McComas, & LaFlanne, 2002; Williams & Algozine, 1977). Many of the teachers' characteristics are variables that could affect their attitude to disabilities, hence to the inclusion of children with disabilities in their classes: age, gender, education level, and years of teaching experience, acquaintance with a person with a disability, having a family member with a disability, or having other contact with a person with disability. Among these, those that correlate most strikingly significantly with teachers' attitudes to inclusion are contact or experience with people with special needs, and amount of teaching experience (Beh-Pajooh, 1991; Hastings & Graham, 1995; Parasuram, 2006). Attitudinal barriers are perceived to be the basis of all other environmental barriers, and are the most difficult to change. They are reflected in misconceptions, stereotypes, labeling, fear from the unknown, resistance, misunderstanding people's rights and opportunities, and further isolation of children with disabilities (Heyne, 2003; Odom, 2000; Parsarum, 2006).

Architectural or physical environmental barriers (e.g., lack of elevators, ramps, automatic doors, Braille signage, and telecommunication devices) are more obvious as deterring and restricting the participation of people with disabilities. Administrative barriers may be identified as lack of funding, workload norms, lack of training staff in inclusive practices, lack of adequate transportation, and insufficient funding for coordinated services and individual supports. The programmatic barrier may include lack of knowledge and ability to assess and provide appropriate support for every individual's needs. Lacks of behavioral teaching techniques, and accommodations of equipment and activities properly suited to children with some types of disabilities, are also frequently observed (File & Kontos, 1992; Heyne, 2003; Jennings, 2007; Voorman et al, 2006). The educational system displays a discrepancy between the administrators' role, which directly affects the architectural, and programmatic factors as well, and the teachers' role. The former is required to address the various needs of diverse populations, while the latter often has to handle the needs of an individual child. This role discrepancy may affect teachers' versus administrators' viewpoints and attitudes, and those of the teachers' may well serve as distinctive factors beyond environmental ones.

The current study therefore separates the various barriers into three categories: the child category, covering the various disabilities; the teacher category, covering teachers' attitudes; and the environment category, covering architectural, administrative, and programmatic factors. The relations among these three categories are investigated here.

Specifically we examined: (1) whether teachers' attitudes towards inclusion of children with disability in their classes are affected by various teachers' personal characteristics; (2) how teachers' attitudes relate to their requirements of various environmental accommodations; (3) how their requirements for accommodations differ in respect of four groups of children with different disabilities: learning, sensory/motor, ADHD, and emotional.

Method
Population:
Sixty-two preschool teachers attended a workshop at the clinical laboratory at the University of Haifa in northern Israel. The workshop was the initiative of the municipal department of education, and participation was obligatory. The workshop's aim was to raise teachers' awareness of children with special needs and of the services available to them and their families. From the 62 attendees a convenience sample of 53 teachers who signed consent forms to participate in the study was recruited. All 53 preschool teachers were Jewish females; most were Israeli-born (81%), and worked in the Israeli state education system. The group was heterogeneous in age, years of work experience, and work characteristics (Table 1).

Most of the preschool teachers who completed the questionnaires had graduated higher education programs (94.3%); three had a Master's degree (5.7%). Most were married (79.2%) and had children (67.9%). Most lived in Haifa (94.3), and reported mainly a good (37.7%) or an excellent (56.6%) state of health.

Table 1:
Parametric Demographic data

	N	Mean	SD	Range
Age	49	38.9	10.18	23-57
Years of experience	50	12.4	9.49	1-35
Working hours per week	42	28.1	8.22	5-42
Number of children in kindergarten	51	26.8	8.63	7-37

Forty-one percent of the preschool teachers had taught children with disabilities in their kindergarten. Only few of them had experience with any other people with disabilities.

Research instrumentation
The teachers were asked to complete questionnaires on demographic characteristics, attitudes to children with disabilities, and accommodations they required for their integration into the kindergarten. Three questionnaires served to investigate the teachers' attitudes and requirements for environmental accommodations. These questionnaires consisted of a demographic questionnaire, The Attitudes toward Disabled Persons Scale, and The Environmental Accommodations of School.

The demographic questionnaire consisted of personal background and work conditions. Nine items of personal background relate to age, gender, education and health. Three items within this questionnaire focus on work conditions such as years, hours and number of children in their kindergarten.

The Attitudes toward Disabled Persons Scale (ATDP-A) was developed in 1962 by Yuker, Block, and Campbell (in Antonak & Livneh, 1988), and is widely used in the literature. A Hebrew translation of the ATDP-A was used in this study. The questionnaire consists of 30 items, which depict two types of statements: characteristics of individuals with disabilities (personal, intellectual, emotional, social) and treatment modalities they need (educational, vocational, social). Respondents express their agreement or disagreement with each item on a six-point scale: –3 (*I disagree very much*), –2 (*I disagree pretty much*), –1 (*I disagree a little*), +1 (*I agree a little*), +2 (*I agree pretty much*), +3 (*I agree very much*). No neutral response can be given. A sample item is *Most children with disabilities do not give up easily*. About half of the items are worded negatively and therefore require sign alteration, for example, *Children with disabilities look for affection and praise more than typical children do*. A high total score indicates a positive attitude.

The Human Resources Center provides extensive psychometric data on the three forms of the ATDP. Reliability of form A was examined by stability estimate through test-retest (+. 79), by alternative forms (+. 83), and by split-half (from +. 73 to +. 89) (Antonak, & Livneh, 1988; Yuker, Block, & Young, 1970). The validity of form A has been checked in extensive studies. No relationship was found between age, intelligence and vocation and acceptance or rejection of people with disabilities. Several variables were found to correlate with greater acceptance: gender (in favor of females), greater contact with people with disabilities, low aggressiveness, positive self-concept, and low anxiety. ATDP scores also correlated with scores on attitudes to other groups (Antonak & Livneh, 1988). The literature presents diverse opinions on the vulnerability of the ATDP to social desirability, and on whether it is one-dimensional or multi-factorial.

The Environmental Accommodations of School (EAS) research tool (Appendix I) was developed for the purposes of this study. This questionnaire assesses the accommodations deemed necessary to enhance participation of children with various disabilities in the kindergarten environment. Conceptually the EAS relates to two dimensions. The first contains factors of special needs of groups of children who have some common characteristics as a result of their disability (sensory/motor, attention, learning, and emotional regulation). The second contains factors of environmental adaptations required to address the children's needs, according to the teacher's perceptions regarding each group of children.

The EAS questionnaire requires that respondents evaluate the need for each of the nine accommodations on a four-point scale: 3 (*very much*), 2 (*pretty much*), 1 (*a little*), 0 (*not needed*). A high total score indicates more intense perceived need for accommodations so that children with disabilities can be included and can participate in a typical class. To assess internal consistency of the EAS dimensions we calculated Cronbach's alpha coefficient, and found medium-high internal

consistency (see Table 2). We tested teachers' perceptions of accommodation requirements by means of the new Environmental Adaptations of School (EAS) measure.

The second dimension contains nine questions that represent the three environmental factors, namely architectural, administrative, and programmatic, covering various areas for potential accommodations that the teachers perceive as necessary for inclusion of children with disabilities in their pre-school environment: connection with parents; budget; number of children in the class; skilled assistants; unskilled assistants, adaptation of activities; accessibility of the physical environment; consultation and support from experts; intensive connection with external medical and educational sources of knowledge.

Table 2:
Cronbach's alpha coefficient for EAS scores

EAS scores	Cronbach's alpha
Sensory/motor disabilities	.66
Attention disabilities	.81
Learning disabilities	.69
Emotional regulation disabilities	.70

Qualitative evaluation of the EAS revealed face validity; also, the questionnaire tapped into each category of environmental barriers by asking about various types of required accommodations. Furthermore, the EAS was found valid by its distinguishing needs of groups of children (i.e., by disability) from requirements of groups of teachers (i.e., by age and experience). It contributes an evaluation that can identify and prioritize support and accommodations, in a given educational system.

Procedures
Sixty-two kindergarten teachers from Haifa were invited to a workshop at the multi-disciplinary clinic of the Faculty of Social and Welfare Studies of the University of Haifa.
Fifty-three of them (85.5%) signed a consent form and participated in the study. They were asked to answer three questionnaires described above. Most questionnaires were handed in at the end of the workshop a few were mailed later.

Data analysis
Analyses were performed with SPSS 14. Cronbach's alpha coefficient was used to examine the internal consistency of EAS. Following descriptive statistics, independent t-tests were performed to examine the significance of differences in teachers' attitudes and perceptions of requirements for accommodations according to their personal characteristics and work conditions. Pearson test served to analyze correlations between independent variables such as teacher's characteristics and attitudes towards people with disabilities; and between these independent variables and teachers' perception of requirements for accommodations. MANOVA was used to distinguish teachers according to three different kinds of past experience with people with disabilities, and their various attitudes towards inclusion of children with disabilities.

Results
The study's results relate to teachers' attitudes to inclusion of children with disabilities in their classes, and their requirements for accommodations in general and according to children's characteristics. To assess the participant teachers' general attitudes to inclusion of children with disabilities in their classes, we calculated the total mean scores of the ATDP-A. The results indicated overall positive attitudes to inclusion (Mean 3.12; SD= 0.45) for the attitude questionnaire (score range 1-4, 4 indicating very positive attitude). On further analysis, various teachers' characteristics proved significantly correlated with their attitudes to inclusion; these characteristics included teacher's age and years of experience, and work conditions such as number of children in the class and number of working hours.

Teachers' age was correlated with the total score of the Attitudes to Disabled Persons scale (ATDP-A) (r= -.316; p<. 05), suggesting a less positive attitude to children with disabilities among older teachers. *Number of years of teaching* confirmed the above trend, being positively and significantly correlated with a few items indicating a negative attitude to children with disability; specifically, more experienced teachers believed that children with disabilities were *usually not friendly* (r=. 37; p=. 008), *did not succeed as well as typical children* (r=.35; p=.012), and *gave up easily* (r=.43; p=.046).

Work conditions such as *number of teaching hours* correlated with negative teachers' attitudes. For example, this positively correlated with the statement *Children with disabilities do not succeed as well as typical children* (r=. 313; p=. 041) and *Children with disabilities are often less intelligent than typical children* (r=-.411; p=. 007).

There was no significant correlation between total score of ATDP and past experience with people with disabilities. However, three different kinds of past proximity to people with disabilities proved to relate diversely to teachers' attitudes. The three kinds of past experience were with (a) children with disabilities in the close environment, (b) friends with disabilities, and (c) family members with disabilities.

Teachers who had known children with disabilities in their close environment showed mixed attitudes: they indicated a less worried approach to their health ($F_{(1,18)}$=12.7; p=. 002) and their *give up* behavior ($F_{(1,18)}$=5.83; p=. 027) than teachers who had had no contact with such children in their close environment. However, they stated that children with disabilities were less successful than typical children ($F_{(1,18)}$=8.22; p=. 01).

Teachers who had friends with disabilities in their close environment showed a significantly more positive attitude than those without disabled friends ($F_{(2,17)}$ =167.22; p= .006). Teachers with family members with disability in their close environment did not differ significantly in their attitudes from those who did not have disabled family members. However, the former group expressed more awareness of the needs for accommodations of children with disabilities.

Teachers' characteristics and their requirements for accommodations
We applied the Environmental Adaptations of School (EAS) tool to assess the accommodations deemed necessary to enhance participation of children with various disabilities in the kindergarten environment, according to the teachers' concerns. Results revealed that teachers' personal characteristics (e.g., years of experience, family members who were disabled) and teachers' work conditions (e.g., number of working hours, number of children in the class) were associated with their various requirements for accommodations.

Number of years of teaching correlated with a requirement to reduce the number of children in the kindergarten (r=. 30; p=. 036) in case of inclusion children with disabilities. This means that the more experienced teachers believed that they could address the needs of children with disabilities only in much smaller classes.

Teachers with family members with disabilities were more aware of the need for various special accommodations for children with disabilities than teachers without such family members. The former group indicated that when children with motor disabilities were included in the class they required more intensive communication with external facilities (medical; educational) (t=-1.31; p=. 001), a larger budget for the kindergarten (t=-3.28; p=. 002), and more assistants (t=-3.08; p=.0001). These teachers indicated the last-named requirement also in respect of children with learning disabilities (t=-2.15; p=. 036) and children with emotional disabilities (t=-2.23; p=.03).

The interaction between the teachers and the children takes place in the single physical human and administrative environment of the kindergarten. Teachers' occupational performance in general, and their handling the demanding task of including children with disabilities in their kindergarten in particular, may be also affected by physical and administrative environmental factors. The factors examined in this study were the job conditions of weekly working hours and number of children in the kindergarten, together defined as the workload.

Results revealed that teachers who worked more weekly hours called for more communication with parents of all populations: children with motor disabilities (r=.465; p=.002), with ADHD (r=.35; p=.023), with learning disabilities (r=.44; p=.004) and with emotional disabilities (r=.471; p=.002). Regarding number of children in the kindergarten, this figure correlated positively with the mean score of the accommodations needed for children with motor disabilities (r=.289; p=.004).

Accommodations required for different groups of disabilities
Table three summarizes the accommodations that teachers found necessary for inclusion of four groups of children with disabilities. Various requirements proved significantly essential for children with three

of the four disabilities, namely ADHD, learning disabilities, and emotional regulation disability. These requirements distinguished them from children with sensory/motor disabilities, for whom they were not expressed.

The accommodations deemed essential were administrative (e.g., bigger budget, more unskilled assistants) and programmatic (e.g., adaptations of activities and consultation and support from experts). The only accommodation highly expressed for children with sensory and/or motor deficits was accessible physical environment (r=. 69; p<.01). Furthermore, no significant correlations were found between need for accessibility of physical environment for children with ADHD and for children with emotional regulation disability. For those two groups and for children with learning disabilities higher correlations represented a high need for most administrative and programmatic accommodations.

Table 3:
Correlations between specific disability of children and type of accommodations

Environmental accommodations	Disability characteristics			
	Sensory/ motor Disability	Attention deficit Disorder (ADHD)	Learning Disability	Emotional Regulation disability
1. Increasing the budget	NS	.70**	.66**	.66**
2. Decreasing number of children	.39**	.72**	.60**	.70**
3. Need for skilled assistants	.32*	.49**	.47**	.53**
4. Need for unskilled assistants	NS	.58**	.49**	.65**
5. Adaptation of activities	.29*	.61**	.52**	.69**
6. Intensive contact with external medical and educational professionals	.38**	.43**	.45**	.28*
7. Consultation and support from experts	NS	.56**	.47**	.38**
8. Intensive contact with parents	.43**	.35*	.36**	.40**
9. Accessibility of physical environment	.69**	NS	.45*	NS

*p<.05   **p<.01

Discussion
In this study, attitudes of teachers of typical kindergartens to including children with disabilities proved generally positive. This result is in line with previous literature (Scruggs & Mastropieri, 1996; Stoiber, Gettinger, & Goetz, 1998), and may be explained by both social expectations and characteristics of the teachers, who had chosen a helping profession and were educated in a philosophy of inclusion. However, further in-depth investigation of teachers' personal and work characteristics, as well as their concerns for accommodations to provide better inclusion settings, led to a better understanding of the complexity of teacher-child-environment interactions in those settings. Specifically, the study identified a discrepancy between the teachers' generally positive attitudes and some specifically negative attitudes they expressed, in keeping with findings of previous studies (Hastings & Oakford, 2003; Center & Ward, 1987; Soodak, Podell, & Lehman, 1998). The negative attitudes were related to some characteristics of the pre-school teachers such as age, experience, and previous experience with people with disabilities.

The current study further revealed that concerns and needs were more expressed among more experienced pre-school teachers. Such needs included, for example, the need to reduce the number of children in the classroom, a bigger budget, more assistants, and a lighter workload. The different needs expressed by more experienced teachers may represent a difference in awareness and ability to identify accommodations required for children with disabilities, as well as more self-confidence and readiness to express their concerns.

The study not only identified teachers' required accommodations, but also further consolidated the relationship of the need for environmental accommodations to the child factor, as expressed in the kind of disability of the child. The teachers' required accommodations distinguish three different populations of children with disabilities: attention, learning, and emotional regulation, from a fourth population, namely children with sensory/motor disabilities.

Teachers' stated requirements of various accommodations (e.g., bigger budget, fewer children in the kindergarten, assistants and adaptation of activities) were found significantly essential for the first three groups, but not for the fourth. The only strong concern that teachers expressed for children with sensory/ motor disabilities was accessibility of the physical environment. Surprisingly, no concern was expressed regarding essential accommodations such as increasing the budget and consulting with experts.

These results suggest that children with learning disabilities, ADHD or emotional regulation disabilities present bigger challenges for the teachers than children with sensory/ motor disabilities. One possible explanation for this distinction rests on the high co-morbidity between these populations, for example, many children with learning disabilities also have ADHD (Semrud-Clikeman, et al, 1992; Smith et al, 2005) so they may be viewed similarly by teachers. These populations may also be united by a shared functional basis underlying their common needs. For example, students with learning/cognitive and especially emotional disabilities are perceived as more of a behavioral challenge than students with sensory/motor disabilities. The literature indeed suggests that children with learning disabilities were found three times more likely to have emotional disorders and behavior problems than typical children, and also to have various difficulties with daily activities and fewer social contacts. These difficulties often present a bigger challenge to inclusion than the obvious learning challenge (Law, Haight, Milory, Willms, Stewart, & Rosenbaum, 1999; Voorman et al., 2006).

The lack of requirements expressed in relation to children with sensory/motor disabilities may be explained by the sufficient funding and personal support provided for these children, which is not the case with children with emotional, attentional or learning disabilities. Alternatively, children with sensory/motor disabilities more rarely present inappropriate behavioral patterns, or when they do vary from the norm, it is more in the direction of the passive pattern, which may require less individual attention from the teacher. Some previous studies indicated that children who are perceived less demanding in terms of teachers' input are generally viewed more positively as candidates for inclusion (Avramidis, Bayliss, & Burden, 2000; Praisner, 2003; Soodak et al., 1998; Stoiber et al., 1998).

Our findings are reinforced by earlier documentation suggesting that the perceived most appropriate placements of children with varied disabilities largely depend on the disability category; the least restrictive placements in regular education have more often been chosen for children with motor or sensory disabilities, and less often for children with serious emotional disturbance and autism (Praisner, 2003). Populations that require more environmental accommodations seem more prone to be placed in a restrictive educational environment.

The role of the environmental factors in facilitating the person's functioning is emphasized by the World Health Organization (WHO, 2001). The WHO claims that an accessible human and physical environment is necessary for furnishing equal opportunities for the participation of people with disabilities. According to this approach, in order to facilitate students' participation, rather than just having them in their classes, teachers are obliged to create a suitable physical environment (e.g., less, more, or different stimuli), suitable didactic strategies (e.g., consistency, routines, repetitions), and accommodations of assessments and tasks (combinations of visual and auditory information, breaking-down tasks) (Dumas, Bedell, & Hamill, 2003). Young teachers in typical education report that they are not trained for these challenges (Jennings, 2007). To rectify this, they need to have training and basic support, such as reasonable workload and working hours, a proper budget, and assistance, as reflected in their concerns expressed in the current study. It is therefore recommended that various environmental accommodations be used to create a *least restrictive environment* (LRE), which facilitates the interactions between the child and his/her environment.

Conclusion, limitations and recommendations
The study addressed: (1) the importance of preschool teachers' attitudes as the human environment factor that may facilitate inclusion of children with disability; and (2) teachers' major concerns about environmental accommodations that inclusion implies.

Our results showed a correlation between teachers' requirements and various teachers' characteristics such as age, experience, education and personal contact with disability. Teachers' requirements for accommodations also highly correlated with environmental work conditions. They were most concerned about accommodations for children with potential behavior problems.

The results may suggest that while inaccessible environments might limit children's participation, potential solutions are not always implemented due to negative attitudes and environmental factors. These, which may erect specific barriers to inclusion, include lack of direct support for the student and lack of indirect support for the teacher by the school and the general education system. The required supports include professional training, reduction of workload, assistance, and ratio of adults per children in the classroom.

Creative solutions require not only believing in and educating towards inclusion, but also identifying the environmental barriers to successful inclusion. The current study aimed at raising awareness, and identifying some barriers to inclusion as well as optional and available solutions. It is recommended that further studies address a wider range of disabilities such as intellectual handicaps and pervasive developmental disorders (PDD). We also recommend differentiating sensory from motor disabilities; this dual category differed from others in terms of barriers and accommodations, but different barriers may apply to each population within it. Likewise, it would be well to expand the EAS to include three additional categories of accommodations: assistive technology distinct from physical environment; staff education and training; and other options (Appendix 1, in grey).

The discrepancy between the results of the attitudes questionnaire and of the accommodations questionnaire may suggest that teachers *do* have positive attitudes, although they have diverse requirements. It may alternatively suggest that the current attitudes questionnaire is not sensitive or reliable enough to identify negative attitudes due to the way some questions are stated, cueing toward the *right* response.

It is recommended that environmental factors, which affect teachers' attitudes as well as the child's right to LSE, enjoy the benefit of much greater attention in the literature, and in educational settings. Further research may enhance awareness, as well as evidence-based knowledge about accommodations that can facilitate inclusion of children with disabilities in the regular educational system.

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APPENDIX I
The Environmental Accommodations of School (EAS)

Below are nine identified statements regarding optional accommodations for facilitating the participation of children with diverse disabilities in your kindergarten. Please mark your personal opinion about the necessity of each one of them, scoring:

0 = *not needed*; 1 = *a little*;   2 = *pretty much*; 3= *very much*

Environmental accommodations		Disability characteristics			
		Sensory/motor disability	Attention Deficit Disorder (ADHD)	Learning disability	Emotional regulation disability
1	Increasing the budget				
2	Decreasing number of children				
3	Need for skilled assistants				
4	Need for unskilled assistants				
5	Adaptation of activities				
6	Intensive contact with external medical and educational professionals				
7	Consultation and support from experts				
8	Intensive contact with parents				
9	Accessibility of physical environment				
10	Assistive technology				
11	Staff education and training				
12	Other				

* Items in gray were added following the pilot study's conclusions