

INCLUDING STUDENTS WITH DISABILITIES IN UAE SCHOOLS: A DESCRIPTIVE STUDY

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The United Arab Emirates is devoted to inclusive education, which respects the right for all learners, regardless of their strengths or weaknesses in any area, to become part of the mainstream school. This study describes the current practices that shape the nature of inclusive education in UAE schools from the teachers' perspective. Data drawn from the questionnaire that was directed to 26 teachers in UAE private and public schools indicated that such teachers were concerned about inclusive education in their schools. Teachers' dissatisfaction was due to a lack of qualified special education professionals to deal with students with disabilities, a lack of proper training for teachers in mainstream classrooms, a lack of knowledge about inclusion among senior-level administrators, a lack of financial support for resources and services specifically in private schools, and a lack of awareness of the inclusion issues that students with and without disabilities may face in inclusive settings.

The entire structure of special education services has been undergoing significant change over the past 20 years in the UAE. Globally, several laws have been issued across different countries in the world to maximize the participation of students with disabilities in mainstream schools (Salend, 2005). However, special needs educators had never reached to an agreement on the extent and nature of including students with disabilities in mainstream schools. Three major beliefs were proposed as a result of this debate among educators to include students with disabilities in mainstream schools: restricted belief (resists inclusion); least restricted belief (allows inclusion under certain conditions); unrestricted belief (accepts inclusion with no or few restrictions), (Friend & Bursuck, 2002).

Many educators questioned the belief that students who needed extra services should routinely be *pulled out* to receive them in a separate environment such as a resource room or a special education classroom (Stanovich, 1999; Salend & Duhaney, 1999; Wladron & McLeskey, 1998). They stressed that *pull-out* services are stigmatizing and cause fragmentation of learning (Friend & Bursuck, 2002). Some educators argue that it is extremely feasible to provide almost all necessary supports for students with disabilities in general classrooms when teachers and school professionals are effectively trained and well prepared to work with such students and related concerns are tackled (Pearman, Haug, & Mellblom, 1997). As a result of this belief, the inclusion philosophy was proposed by such educators as an alternative for the mainstreaming assumption which hypothesizes that settings determine the quality and quantity of services. According to Friend and Bursuck (2002), inclusion stands for the philosophy that *students with disabilities should be fully integrated into general education classrooms as long as they are making progress toward the achievement of IEP goals, even if they cannot meet classroom or content demands* (p.4). Some educators such as Ryan and Paterna, (1997) and Wilson, (1999) added that inclusion comprises physical integration, placing students with disabilities in the same classroom as non-disabled peers; social integration, nurturing student relationships with peers and adults; and instructional integration, teaching students based on their needs and not on a predetermined set of curricular standards (as cited in Friend & Bursuck, 2002, p. 4)

Proponents of inclusion such as Schattman and Benay (1992) found that students with disabilities in an inclusionary setting are exposed to talented teachers, refine new social relationships with the same-age peer group, and experience more quality programs in a regular education classroom. Stainback and Stainback (1990) concluded that inclusion is an appropriate instructional model because students with disabilities are accepted and supported by their peers and other members of the school community while having their educational needs met.

On the other hand, there are some educators who are concerned about inclusion. They argue that students with disabilities involved in inclusionary teams make small and moderate gains in academic and social settings. Teacher time is taken away from the other students in the inclusive classroom. Some teachers lack the training, resources and other necessary supports to teach students with disabilities. Teachers have to take more time when planning lessons in order to adapt the lesson to the student or students with special needs (Baker, Wang, & Walberg, 1995; Cohen, 1994; Tornillo, 1994; Lieberman, 1992). Opponents of inclusion further noted that classroom management is harder because of the addition of more students, students with disabilities *were monopolizing an inordinate amount of time and resources and, in some cases, creating violent classroom environments* (Sklaroff, 1994, p. 7). One additional concern is that students with disabilities may not feel comfortable because they feel that they are different from other students (Sklaroff, 1994).

Stronger concern about and resistance to inclusion has been raised by Skrtic (1991). He argued that special education system emerged precisely because of the *non-adaptability of regular classrooms and that, since nothing has happened to make contemporary classrooms any more adaptable ..., [inclusion] most likely will lead to rediscovering the need for a separate system in the future* (p. 160).

Both opponents and proponents of inclusion can find convincing research to support their respective views. Today many research studies exist to show positive and negative results for both special and general education students, including academic and social benefits and consequences. Currently, the *philosophy* of inclusion appears to be debatable; some are in agreement with this educational philosophy (e.g., Schattman & Benay, 1992; Stainback & Stainback, 1990; Friend & Bursuck, 2002) and others are against it (e.g., Skrtic, 1991; Sklaroff, 1994; Baker, Wang, & Walberg, 1995; Cohen, 1994; Tornillo, 1994; Lieberman, 1992). It is up to the country's legislation to support or oppose the practice. If the country is in agreement with the values and merits of inclusion, then it will facilitate the process of implementing it across its schools by providing the necessary support needed for the establishment of efficient inclusion.

Teachers' attitudes toward inclusion and students with disabilities were found to be a critical factor in inclusive practices (Salend, 2005; Friend & Bursuck, 2002; Bender et al., 1995; Scruggs & Mastropieri, 1996). However, the findings from previous studies have been mixed. El-Ashry (2009) reviewed several studies that identified teachers' attitudes toward inclusion, and then he classified their attitudes into three groups; negative, positive, and neutral:

Some researchers have found that general education teachers were not in favor of inclusion (Coates, 1989; Gersten, Walker, & Darch, 1988; Larrivee & Cook, 1979; Semmel, Abernathy, Butera, & Lesar, 1991). Similarly, in their 1996 review, Scruggs and Mastropieri found that ten studies, only 33% of general education teachers agreed that the general education classroom was the best social or academic placement for students with disabilities, although about two thirds of the participants supported the concept of inclusion. On the other hand, other researchers reported that teachers had more positive attitudes toward inclusion (Avramidis et al., 2000a; Villa, Thousand, Meyers, & Navin, 1996; Ward et al., 1994; York, Vandercock, MacDonald, Heise-Neff, & Caughey, 1992). In addition, few researchers reported that teachers had uncertain or neutral attitudes (Bennett, Deluca, & Bruns, 1997; Leyser & Tappendorf, 2001) (p. 23).

Generally speaking, inclusion protects students' human right to be educated with peers, maximize the potential of most students, and is the ultimate goal whenever possible. Later in this section, the *issue* of including students with disabilities in mainstream schools will be addressed from the United Arab Emirates' perspective.

According to the UAE Ministry of Education, the development of education in the UAE *started effectively in 1962, where the number of schools then was barely 20 schools, in which less than 4000 students studied, mostly male students* (2011, Para. 1). Upon the exploration of Oil and the beginning of development, the UAE focused a lot of attention on education. The country sat a plan to raise the rate of

nationals in the educational sector into 90% by the year 2020. Several departments were established to ensure the right of education for all without discrimination; women, adults, young youths, and students with special needs are welcomed in the UAE schools. Consequently, a special department was established in the Ministry of Education to cater for children with special needs, to empower them for positive contributions to their communities. This department started to record some success such as: *The establishment of a special farm runs completely by a group of physically challenged students. The farm was called Zayed Agricultural Center for the challenged* (Ministry of Education, 2011, Education in UAE, para. 15). The project received huge attention and praise on an international level.

The United Arab Emirates (UAE) has always been keen to provide all means of comprehensive welfare for people with special needs in the field of education. Federal Law No. (29) of 2006 is *the first law to be issued in UAE to protect the rights of people with special needs* (Abu Dhabi Government, 2011, para. 1). The [UAE Ministry of Education](#) released a *School for All or General Rules for the Provision of Special Education Programs and Services* guidebook in 2010 in collaboration with the UAE Ministry of Social Affairs, with information and rules about special needs education in the UAE. The handbook also includes certain sections about the country's vision toward the inclusion philosophy. Particularly, article 13 of the same law (Law No. 29 of 2006) comes in agreement with educators' principles of effective inclusion. It emphasized that the UAE Ministry of Education shall be committed to secure the complete participation of students having disabilities in mainstream schools (Abu Dhabi.ae, 2011a). According to the UAE Minister of Education, *Inclusive education means that all students in a school, regardless of their strengths or weaknesses in any area, become part of the school community* (Hassan, 2008, p.8).

Although there are several supportive attempts that are made to promote effective inclusive education in the UAE schools, there are some challenges that are in the way. My contact with teachers in inclusive schools indicated that such teachers bemoan the fact that their schools and staff were not *ready* yet to include students with disabilities. Consequently, it became my goal to conduct this study to describe the experiences and perspectives of a sample of UAE teachers towards the inclusive education in the country. Another goal was to highlight the current practices that are shaping the process of inclusive education in UAE.

Over the past few years, a great number of students with disabilities were integrated into public and private schools, as well as in nurseries throughout the UAE. In a major renovation of special education policy, the Ministry of Education published that *it is to develop special needs programs in 110 public schools* (Lewis & Shaheen, 2010, para. 1). Private schools will also be required to accept children with mild and moderate disabilities, though they will be permitted to charge higher fees to fund the development of their own special education programs. The General Secretariat Executive Council Emirate of Abu Dhabi reported that many students from Abu Dhabi Rehabilitation and Care Center for People with disabilities have been integrated into public schools this year [2010] in addition to 23 students who had no previous schooling...In addition, 15 students have been integrated into higher education institutions (Lewis & Shaheen, 2010). It was posted on ADEC's official website on 1/3/2010 a *total of 173 students with special needs have been integrated into Abu Dhabi's mainstream schools* (Tahnoon, 2011, para. 5). The available data indicated that the number of inclusive schools in the country is increasing.

It is important to mention here that the governmental (public) schools are free for citizens and compulsory for students aged 6–12. Non-UAE nationals may attend governmental schools as fee-paying students. Governmental schools are gender-segregated, but private schools are co-educational. It is worth mentioning here also that the UAE Ministry of Education is responsible for all levels of government schooling, as well as supervision of the private sector. Private schools at all levels must be licensed by the Ministry and their programs accredited. About 25% of total government expenditure is directed towards education. There is also a large network of private schools operating at all levels on a fee-paying basis (Abu Dhabi.ae, 2011b).

Method

Participants

The study targeted 26 teachers in 26 schools; this sample represents 30 % of the total number of inclusive schools in Abu Dhabi, UAE. All teachers in the inclusive schools received a letter from the researcher to invite them to participate in the study. The sample was randomly selected from the list of those who positively responded to the invitation. The majority of the teachers and students in these schools were Muslim-Arabs with diverse socioeconomic status.

Teachers. The sample included 26 teachers in 26 inclusive schools in UAE. An application had been submitted to Abu Dhabi Education Council (ADEC), UAE to allow me to carry out a survey of teachers who teach in inclusive settings. An IRB approval was obtained from ADEC to survey teachers in any of the participant schools. The Council also sent a memo to all participant schools to cooperate with the researcher upon request. Teachers were invited to contact me if they were interested in participating. Teachers were assured that participation was voluntary, and they signed consent forms. No incentives were offered. All except two teachers in this sample were Muslim-Arabs, Arabic was their first language and English was their second language. Only two teachers were Americans with English tongue.

Schools. The sample included 26 randomly selected governmental (public) and private schools (9 private and 17 governmental) across all cycles (elementary, preparatory, and secondary). The sample, unintentionally, included six female schools, ten male schools, and ten co-educational schools.

Instrument

The researcher created a bilingual English-Arabic survey to target teachers who were involved in teaching students with disabilities in UAE inclusive schools. The participant teachers would select the language of their preference. The responses expected were identical for both languages. The survey began with five general questions to gather information about the participant schools (e.g., school's name; location; sector (public/private); level (elementary, preparatory, secondary); and category (male, female, co-educational). Section two of the survey asked eight general questions about inclusion in UAE schools. Each question had a stem that started with the statement *Place a tick next to...*, and each question was followed by a number of choices to select from. All the questions ended with this choice: *Other*, this option was included to allow the respondents to add any further items if they needed so. The following were the stems of the questions included in the survey: (a) Place a tick next to the kinds of disabilities that the students in your school have; (b) Place a tick next to the inclusion services that are implemented in your school; (c) Place a tick next to the staff who is/are responsible for teaching students with disabilities in your school; (d) Place a tick next to the special education professionals if employed in your school; (e) Place a tick next to the educational tools, equipment, or services if available in your school; (f) Place a tick next to the accommodations that are made in your school's buildings to facilitate the movement of students with disabilities; (g) Place a tick next to the professional development courses or training programs that you received to teach students with disabilities; and (h) Place a tick next to the item that represents your overall perspective toward inclusion as an educational philosophy.

Procedure

Twenty-six schools were randomly selected from the seventy-five inclusive schools in Abu Dhabi-UAE. The researcher contacted these schools and invited teachers to contact her if they were willing to share their experiences as teachers in inclusive education. At least one positive response was received from each school to end up with 26 participants from 26 distinct schools. The 26 respondents were teachers of children who were either fully included in general education classes or were in self-contained settings in general education schools and were included to a lesser degree in some classes. The participants were either general classroom teachers or special education teachers. All except two teachers in this sample were Muslim-Arabs, Arabic was their first language and English was their second language. Only two teachers were Americans with English tongue.

Survey Distribution

After an IRB approval from Abu Dhabi Education Council (ADEC), was obtained, to survey teachers in the participating schools, and after these schools received a memo from ADEC- requesting them to allow the researcher to carry out the survey in their schools, the researcher would send an invitation, via E-mail or phone, asking these teachers if they were interested in participating in this study. Once their acceptance to answer the survey was received, the researcher would visit their schools in order to conduct the survey. All respondents could read and answer the questionnaire within 30 minutes.

Data Analysis

This descriptive study was conducted to shed the light on the nature of inclusive education in UAE schools. The primary data collection instrument used in this study was a bilingual Arabic-English survey to target teachers in inclusive settings. After the data collection had been completed, the data were analyzed qualitatively in four major steps of data translation: (a) initial tabulation and coding; (b) separate analysis of individual and groups of questions; (c) counting and analyzing the responses using designed tables; and (d) synthesis, interpretation, and discussion of results. Each question in the survey

was followed by a number of choices to select from. Simply, the researcher would count the number of responses made by the participant teachers next to each choice. To analyze the responses drawn from the questionnaire, a table was made for each question to count the number of responses placed next to each item. For example, one of the questions asked if the school was private or governmental. For this question, the table had two columns: column one had the title *Private School* and column two had the title *Governmental school*. Next, the researcher would refer to that particular question across all the surveys to place a tick under column one if the respondent chose *Private School* or a tick under column two if the respondent chose *Governmental School*. Later the number of ticks that were marked by the researcher in each column would be tallied to conclude that the sample included 9 private schools and 17 governmental schools. This process of placing classified data into tables facilitated the process of data interpretation. For data interpretation, a separate analysis of individual and groups of questions was made. The units of meaning were compared with each other and subsequently grouped with similar units of meaning.

Based on the responses made on each question in the survey the following five major themes emerged to describe the nature of inclusive education in UAE public and private schools: (a) the existence of students with disabilities in mainstream schools and the kinds of disabilities they have; (b) types of teachers and school professionals in the inclusive schools; (c) learning tools, equipment, and electronic services; (d) school services and accommodations designed to facilitate the mobility of students with disabilities; and (e) professional development courses and training programs for staff to improve their experiences in inclusive settings.

To enhance reliability and internal validity, appropriate sampling techniques were used and build a trail of evidence (hard copies of the answered surveys with raw data, schedules of schools' visits, electronic messages with respondents, data reduction and data construction products, soft copies of tables created for data analysis). In order to have error-free results, the data analysis procedure was repeated two times by the researcher.

Results

This descriptive study was conducted to shed the light on the nature of inclusive education in UAE schools. The survey covered five major areas to describe the nature of inclusive education in UAE public and private schools: (a) the existence of students with disabilities in mainstream schools and the kinds of disabilities they have; (b) the availability of qualified teachers and school professionals in the inclusive schools; (c) the availability of necessary learning tools, equipment, and electronic services; (d) the availability of school services and accommodations designed to facilitate the mobility of students with disabilities; and (e) the accessibility of professional development courses and training programs for staff to improve their experiences in inclusive settings.

Students with Disabilities

Referring to the questionnaire, all participant teachers emphasized that their schools included students with different disabilities. Table 1 below classifies such types of disabilities:

Table 1. Types of Disabilities in UAE Schools

Type of Disability	Number of Students
learning disabilities	10
speech or language impairments	7
emotional impairments	2
autism	3
hearing impairments	5
visual impairments	8
orthopedic impairments	2
attention deficit-hyperactivity disorder	10

The data indicated that these UAE schools mainly included students with mild and moderate disabilities. None of the respondents reported the existence of the following severe disabilities in their schools: traumatic brain injury (TBI); multiple disabilities; developmental disabilities; deaf-blindness; and mental retardation. Participant teachers expected that their schools will include more students with disabilities in the coming few years.

Inclusive Services

The questionnaire discussed the types of inclusive services and the kinds of educational placements implemented in the participant schools. The list of inclusive educational services that were implemented in the participant schools were as shown in Table 2 below:

Table 2. Kinds of Inclusive Educational Services in UAE Schools

Kinds of inclusive educational services	Number and sector of schools
Option 1. Full-time special education classroom (restrictive educational placement, moderate educational need).	2, Governmental
Option 2. Special education classroom with part time in general education classroom (restrictive educational placement, moderate educational need)	5, Governmental
Option 3. General education classroom, placement with resource room assistance (restrictive educational placement, moderate educational need)	2, Governmental
Option 4. General education classroom, placement with itinerant specialist assistance (least restrictive educational placement, mild educational need)	2, Governmental
Option 5. General education classroom placement with collaborative teacher assistance (least restrictive educational placement, mild educational need)	2, Governmental 2, private
Option 6. General education classroom placement with few or no supportive services (least restrictive educational placement, mild educational need)	4, Governmental 7, private

Note: The list of inclusive educational services & educational placements was adapted from Salend's continuum of educational services (2005, p 13).

It is important to mention here that the participant schools used a continuum of educational placements ranging from the highly integrated setting of the general classroom to the highly segregated setting where instruction is delivered in special education classrooms or resource rooms. It is no surprise that the majority of the private schools in this sample placed special needs students in the general education classrooms because it is the least costing program. Such private schools cannot afford the expenses for employing additional personnel or for providing any supportive curricular services and facilities in their schools. For example, few or no special education professionals were employed in the participant private schools as the regular teachers were usually the only personnel who were in charge of helping and teaching their special needs students.

School Professionals

The participant teachers were also asked to identify the special education professionals employed in their schools. The teachers' responses were as shown in Table 3.

Table 3. The kind and Number of Special Education Professionals Employed in the Participant Schools

Professionals	No. Governmental sector	No. Private sector	Total No.
Special education teachers	14	2	16
Audiologists	0 (available upon request)	0 (available upon request)	0
Counselors	8 (visit schools on a regular basis)	0	8
Occupational therapists	0 (available upon request)	0 (available upon request)	0
Psychologists	17	9	26
Recreational therapists	0 (available upon request)	0 (available upon request)	0
Social workers	17	9	26
Speech-language pathologists	8 (visit schools on a regular basis)	0	8
Teacher assistants	5	2	7

It is no surprise that the schools which placed students in least restrictive environment to be the ones which also assigned the teaching responsibility to the general classroom teachers because such schools include students with mild educational needs. The questionnaire also addressed the availability of other professionals who may work collaboratively with the school team to diagnose, plan, teach, and assess

students with disabilities. According to the teachers' responses, none of the schools in this sample employed audiologists, occupational therapists, or recreational therapists; however, they might be available upon request. Eight schools indicated that itinerant speech-language pathologists may visit schools on a regular basis (once a week) or upon request. The same applies to counselors who may be consulted if needed. As for the following professionals: psychologists and social workers, they were usually available in each school in the UAE, and they had a share in the inclusion process.

Training Experiences

In regard to training, data drawn from the questionnaire indicated that almost two thirds of the participants received some training. On the other hand, the in-service teachers indicated that they had not taken the necessary training to facilitate their roles as teachers in inclusive schools. In many cases, participant teachers were unsatisfied about the sketchy training sessions that they had received. They expressed their urgent need for more specialized intensive courses and training programs on the proper care for students with disabilities.

Tools and Equipment

As for the availability of special equipment and tools in the participant schools, the data drawn from the questionnaire indicated that the accessibility of the developed tools and equipment is limited in these schools. The participant teachers were asked to place a tick next to the items that were available in their schools and the responses were as shown in Table 4.

Table 4. Learning Tools and Equipment

Tools & Equipment	Availability in Schools
Special laptops	available in 2 schools
Smart Boards	available in 3 schools
Data Shows	available in 15 schools
Braille Printers	available in 1 school
Electronic Magnification Kits	available in 3 schools
Portable Magnifiers	available in 3 schools
Talking calculator	available in 2 schools
Perkins Braille	available in 2 schools
Tactile globe	available in 1 school
Derbi Share Language Test Kit	available in 1 school

When participating teachers were asked to identify if other tools, equipment, or services existed in their schools, they listed the following: FM, I Pad, AirWriter, large screen TV, Solo liberty low vision aids, and various manipulatives such as ORT stories, blocks, balls, play dough, etc. Interestingly, almost all of the schools that claimed the availability of supportive services and electronic educational tools and equipment were from the governmental sector. It is obvious that the Ministry of Education is paying special efforts to develop successful inclusive environment in the governmental schools, however less attention had been made to support the private sector.

Accommodations

Concerning the design of the school building, seven teachers responded that their schools have ramps for wheel chairs. No other accommodations were described by the participant teachers. The rest of the respondents in this sample reported that their schools were not really designed to include students with disabilities.

Teachers' Perspective

Surprisingly, when the participant teachers were asked to express their overall perspective toward the philosophy of inclusive education, all except three teachers agreed that it is a positive step toward the future of special education in UAE. However, all participant teachers were more likely to support inclusive education when: (a) Schools employ a team of specialized professionals to deal with inclusive issues; (b) Schools create warm learning environments by emphasizing the values of diversity among students with and without disabilities and in the whole society; (c) Schools are supported with all necessary developed learning tools, equipment, and electronic services; (d) Schools design their classrooms and the whole school building to facilitate the mobility of students with disabilities; and (e) Schools promote ongoing specialized training for teachers and other professionals to develop professionally.

Discussion

Data drawn from the questionnaire that was directed to 26 teachers in UAE inclusive schools indicated that the participant schools used a continuum of educational placements ranging from the highly integrated setting of the general classroom to the highly segregated setting where instruction is delivered in special education classrooms and resource rooms. This finding is consistent with previous research results (Salend, 2005; Friend, & Bursuck, 2002), they suggested full or partial placement in general classrooms based on student's special needs and disability status. El-Ashry (2009) found in his study that many Egyptian teachers claimed to support inclusion. However, these teachers believed in the importance of maintaining separate settings based on the students' academic performance and based on the severity of students' disabilities. Indeed, similar concerns were raised by the teachers in the present study.

In regard to the number of students included in mainstream schools, data showed that the number of students ranged from three to ten in each school. It is relatively a small number; however, the number is increasing every year since UAE had adopted the philosophy of inclusion in 2006. It was reported in the *Al Manal* specialized magazine that the UAE Ministry of Education works endlessly to *adjust 600 schools [to become inclusive schools], which represents 62% of the population [schools], in the coming three years* (Al Manal, 2011, para., 2). This attitude of including a small number of students with disabilities in mainstream schools is consistent with other studies that described inclusion in Egypt, Jordan, and Palestine; they reported that these Arab countries implemented inclusion in a limited number of schools at the experimental levels, later on, the number would be increased gradually (Alghazo, Dodeen, & Algaryouti, 2003; Gumpel & Awartani, 2003; Romi & Leyser, 2006).

Data also showed that the types of disabilities that the students had were mainly moderate and minor. None of the participant schools in the present study included students with severe disabilities. This finding affirms the previous research results that schools are more inclined to include students with minor and mild disabilities than students with more severe intellectual and emotional and behavioral disabilities (El-Ashry, 2009; Wladron, & McLeskey, 1998; Ward et al., 1994). This specific attitude might be based on a common belief that students with mild disabilities require less modification of curriculum and instruction (Mastropieri & Scruggs, 2000). It is reasonable for UAE schools, which had not implemented inclusion for long, to include students with minor disabilities until they become competent to include students with severe disabilities- such children need special care and attention.

In regard to training and professional development opportunities, all the teachers who participated in this study were concerned about the available trainings. Although there is evidence that positive attitudes about inclusion correlate with feelings of being well prepared (Mastropieri & Scruggs, 2000; Bender et al., 1995), all teachers in this study reported a lack of confidence and unpreparedness to teach in inclusive classrooms. All what they received were sketchy training sessions which did not necessarily prepare them to teach in inclusive settings. This is hardly surprising given that the structure of their general education program did not include a single course about exceptional learners in general or inclusive education in particular. Previous literature has documented the positive effect of special education coursework and professional training in relation to teachers' perspectives toward inclusion and increased awareness of techniques for successful inclusive practices (as cited in El-ashry 2009; Carroll et al., 2003; Scruggs & Mastropieri, 1996; Shade & Stewart, 2001; Shippen, Crites, Houchins, Ramsey, & Simon, 2005). It is necessary that UAE undergraduate programs consider including courses on teaching exceptional learners in inclusive settings. In a study by Bender et al., (1995) a positive correlation was found between teachers attitudes and the number of courses taken in teaching students with disabilities.

Although research emphasized that ongoing observation and evaluation by specialists are essential elements for improving students' learning (Mastropieri & Scruggs, 2000; Hines & Johnston, 1997), the participant teachers reported that their schools lacked special education professionals and personnel. For example, none of the schools in this sample employed audiologists, occupational therapists, or recreational therapists.

The participating teachers in the present study were unsatisfied due to a lack of necessary educational resources, tools and equipment in their classrooms. Similarly, previous studies reported that teachers considered the absence of appropriate materials and equipment in general education schools as barriers to successful inclusion (Alghazo, Dodeen, & Algaryouti, 2003; El-Ashry, 2009).

The majority of the schools in this sample were not efficiently designed to facilitate the movement of children with exceptional disabilities. Although previous research has documented the relationship between successful inclusion and efficient accommodations in school's physical environment (Salend, 2005; Mastropieri & Scruggs, 2000; Salend, & Duhaney, 1999), teachers reported that insufficient accommodations were made to support inclusion. The only accommodation that was reported by the participants in this sample was ramps for wheel chairs. No other accommodations or services were described by the respondents.

In regard to the teachers' overall perspective toward the concept of inclusion, the participating teachers shared the same perceptions about inclusion with other teachers in other earlier studies. The primary findings are that teachers agree in principle with the goals of inclusion, but many do not feel prepared to work in inclusive settings (Mastropieri & Scruggs, 2000; Hines & Johnston, 1997). May be this is due to the fact that inclusion is relatively a new practice in the UAE and teachers are not necessarily capable of dealing with the inclusion issues.

Conclusion

In order to get a clear image of the nature of inclusive education in UAE schools, it is necessary to conduct a study that describes the issues related to inclusion from teachers' perspectives. A bilingual Arabic-English questionnaire was developed to target teachers in 26 public and private schools in the UAE. The results drawn from this questionnaire indicated that a variety of public and private organizations under the umbrella of the UAE Ministry of Education are committed to secure the complete participation of students having special needs in mainstream schools. Generally speaking, the participant teachers in this study agreed in principle with the concept of inclusion, yet they lacked confidence and preparedness to work in inclusive settings. Their dissatisfaction about the inclusion process in the UAE schools was due to a lack of appropriate training for teachers in mainstream classrooms, ignorance about inclusion among senior-level administrators, a general lack of funding for resources and training, and a lack of society awareness regarding the issues they may face during the inclusion process. These findings are consistent with those of other studies conducted in other countries. For example, Alghazo, Dodeen, and Algaryouti (2003) found that Jordanian teachers, in general, are concerned about teaching in inclusive settings for the lack of professional development training to teach in inclusive environments. Similarly, Palestinian and Egyptian Arab teachers reported anxious attitudes toward inclusion at both in-service (Gumpel & Awartani, 2003) and pre-service (El-Ashry, 2009; Romi & Leyser, 2006) levels due to their limited expertise to teach students with different disabilities. This attitude might be attributed to the fact that inclusion is a relatively new phenomenon and it is less widely practiced in the Arab countries as compared to Western countries like the US, Germany, and Canada. In their cross-cultural study, Leyser and colleagues (1994) found that teachers in the United States and Germany expressed the most positive attitudes toward inclusion.

Data showed that none of the UAE schools included students with severe disabilities (e.g., severe mental impairments or emotional impairments). Some of the teachers in this study expressed concerns about the inclusion of such types of disabilities as they need extra support and effort during the teaching process. Similarly, Romi and Leyser (2006) found that although teachers supported inclusion and believed in the benefits of inclusion for all students, they expressed concerns about behavior problems and management issues in inclusive settings. Although inclusion in the UAE still at the experimental level, it would be insightful to study how students with and without disabilities accept each other in the inclusive classroom. This would be an important study because teaching strategies that utilize peer assistance are integral part of the inclusive settings.

Participant teachers did emphasize that there is a great need for extra efforts to create a culture of team work, *one hand can't clap*. They added that the UAE inclusive schools should encourage the effective involvement of special need students, parents, school professionals, educators, and community stakeholders in the inclusion process. It's only by team work spirit that we will be able to achieve the ultimate goal of the UAE Ministry of Education, to craft a *School for All* and to ensure that no student with disability is left behind.

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