Investigating Differences in Attitudes, Beliefs and Knowledge of Inclusion of Students with Autism between Special and General Primary Teachers in Jordan

Mahmoud Muhanna

The University of Sydney, Australia

Abstract

This research profiles the attitudes, beliefs and knowledge of general and special primary school teachers towards inclusion of students with autism into the general classroom in Jordan. The study was designed to investigate the correlation between general education teachers and special education teachers' attitudes' towards inclusion in the mainstream education classroom. Results will be analysed in regards to the background of teachers (e.g., training, teaching practice, professional development opportunities, experience in teaching students with autism).

Two hundreds and forty copies of the questionnaire were distributed to 24 primary schools, 240 were returned. Of those, 120 were elementary teachers from female only schools, and 120 were elementary teachers from male only schools. The questionnaire contained a series of statements, and teachers responded using a five point Likert scale (i.e., 1 to indicate strongly agree, 2 to indicate agree, 3 to indicate neutral, 4 to indicate disagree, 5 to indicate strongly disagree). Descriptive statistics are reported, along with t test and ANOVA used to compare the differences between the two groups of teachers.

Results showed there were non-significant differences between special and general education elementary schools' teachers on their perspectives on the inclusion of students with autism in general classroom. The significant factors were found to include age and years of experience. More research studies should be conducted to analyse the above mentioned factors in depth to determine attitudes concerning the education of students with autism in the general classroom in the whole regions of Jordan to produce a clear illustration of teachers' attitudes' towards inclusion. Reviewing university courses and the education system in Jordan will highlight its weaknesses which might help special and general education teachers to improve their teaching methods to include students with autism into general classroom learning.

Keywords: Education, Autism, Special, General, Teachers

Introduction

Inclusion promotes quality of life, enabling individuals to have control over their own lives, providing individuals with the opportunity to select the life of their choosing and conferring individuals with the socio-political power to protect their choice (Renzaglia, Karvonen, Drasgow, & Stoxen, 2003). The empowerment of persons with a disability is driven by three

principles of inclusion – social justice, legislation, and research findings (Foreman & Arthur-Kelly, 2008).

One of the social justice principles that influence policy and practice in relation to inclusion is normalisation. Nirje (1992) defined normalisation as making accessible to people with a disability a lifestyle that is the same or similar to other individuals in the society. Normalisation involves providing persons with a disability the opportunities to the rhythm of everyday life, separation of life functions, and cultural values (Cook, 2001). This includes accessing the typical stages of life such as schooling, employment, and freedom of choice. Social justice is the way which the main policies and legislation of society combine into one system and provide a way that the principles of social cooperation can be fair and accepted by everyone in the community regardless of the differences between individuals (Foreman & Arthur-Kelly, 2008).

Another principle of social justice is the least restrictive environment. The principle of least restrictive environment is defined as:

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily (US Department of Education, 2010).

This principle enhances the participation of children with disabilities in the community as well as helping to determine the way in which education programs should be implemented to meet all individuals' needs (Foreman & Arthur-Kelly, 2008). The Individuals with Disabilities Education Act IDEA (2004), for example, requires that students with disabilities in the United States of America be educated to the maximum extent possible with their non-disabled peers in a mainstream environment. The Act also mandates that a specific educational program be designed to meet their needs in this least restrictive environment.

In New South Wales, Australia, the current enrolment policy states that all students are entitled to enrol at any school of their parent's choice. Schools are required to demonstrate that all students have equal access to the benefits of education irrespective of their sex, culture, linguistic background, race, location, socio-economic background or disability. They must pursue equity for all enrolled students but should especially focus on those groups of students who are known to gain significantly less from their education than the community as a whole (Dempsey, Foreman, & Jenkinson, 2002; Foreman, Bourke, Mishra, & Frost, 2001; Forlin, 2004).

The United Nations Educational, Scientific and Culture Organisation (UNESCO) (1994) states that supporting inclusive education and working towards overcoming barriers to learning and participation for all children is a human right of every child. Moreover, the UNESCO Disability Convention, Article 28 and 23, requires all member states to ensure that the right of children's education at all levels without discrimination and to pursue the aim of life-long learning. It also

supports the right of children to participate effectively in the community and the belief that it is the responsibility of governments to ensure that children with disabilities receive a quality education (UNESCO, 2005). Such support itself, however, cannot guarantee that the policy towards inclusion will be favourably accepted or supported by educators (e.g., teacher, administrators, and support staff).

Teachers' attitudes' and beliefs are a major factor in the success or failure of a policy of inclusion. Jung (2007), for example, found that the nature of academic preparation within pre-service teacher education programs appeared to impact on the development of attitudes. Teachers who participated in guided field experiences expressed more positive attitudes than teachers who only completed a course towards inclusion of students with special needs. Specifically, some teachers held negative personal attitudes towards the practice of educating children with high support needs and behavioural problems (Avramidis & Norwich, 2002; Monahan, Marino, & Miller, 1996).

In upholding the intent of the United Nations Disability Convention, maintaining a program of research regarding teacher attitudes and beliefs towards inclusion is essential. Attitudes and beliefs of teachers in the context of the Convention will vary across schools, schooling sectors, states or provinces, and countries. Greater understanding of teacher attitudes and beliefs towards inclusion across countries is an important aspect of understanding the impact of the Convention, and will assist further attempts to promote schooling for all children within a framework of inclusion (United Nation Disability Convention, 2008).

Statement of the Problem

Students with disabilities have been excluded over the past decades from the opportunity to learn alongside their peers, and have been treated inequitably in terms of their access to general education (Artiles, Harris-Murri & Rostenberg, 2006). Inclusive education, therefore, is an important strategy for achieving social justice for students with disabilities. In achieving one of the central aims of inclusion, there has been a move from educating students with a disability in a segregated specialist education setting to educating them in mainstream or general education settings. This is considered one of the most important components of contemporary special education (Artiles et al., 2006).

Inclusive education is considered an important concept in addressing discriminatory attitudes, creating a welcoming society, building a broader inclusive community and society, and achieving education for all individuals regardless of their abilities. Inclusion of all children with disabilities in mainstream schools is an issue of social justice. Internationally, the move over the past two decades has been towards providing people with disabilities the same opportunities as their same aged peers. Achieving this has been difficult due to a number of reasons (e.g., attitudes and beliefs of teachers, structural barriers, funding).

Inclusive education is not only about the inclusion of students with disabilities but fundamentally is about changing educational systems to accommodate all learners regardless of their abilities

(Renzaglia et al., 2003). Children who experience a range of impairments should have the opportunity to develop relationships with typically developing children because of the importance for all children to learn to live in a pluralistic community and to accept individual differences (Lipsky & Gartner, 1994; Neil, 2008). Achieving the goals of inclusive education will require significant energy, research and funding given the number of children with unique, individual needs.

The United Nation (2008) estimate that there are more than 650 million persons across its member countries with a disability. The figures appear to underestimate the actual number of children with disabilities, with an estimated 30-40% of children with disabilities in developing countries not included in the UNESCO report (UNESCO, 2008). Further, the number of children from developing countries affected by war and malnutrition is not accounted for in these numbers, placing even further pressure on schools and education providers on how best to cater for the diverse range of education needs.

In achieving the goals of UNSECO to provide a free and appropriate education for all children, including children with a disability requires more than conventions. It requires countries to legislate and enact policies that uphold these goals. In Australia, for example, the Disability Discrimination Act (1992) and the Disability Standards for Education (2005) were enacted to protect people with disabilities from discrimination in education. This illustrates how the opportunity for quality education may arise for children with and without disabilities in the mainstream schools (Department of Employment Education Training and Youth Affairs, 1997). Central to this discussion are Federal policies that recognise the right of every child with disabilities to learn. The Australian Government is committed to promoting the inclusion of people with disabilities in education in all environments by promoting the ideals that public schools, higher education contexts and adult community education work to support all people with disabilities access education opportunities (Department of Employment Education Training and Youth Affairs, 1997).

Other countries have implemented legislation and policy to protect the rights of students with a disability and their access to an appropriate education. In the Unites States of America, legislation was adopted in the early 60's to protect the rights of students with a disability. This legislation, known as PL 94-142, has undergone numerous amendments and adjustments, reflecting changing attitudes and outcomes of research. Legislation in the United States of America, now known as the Individuals with Disability Act (2004) or IDEA, continues to protect the rights of students with a disability and allow them access to a free and appropriate education on the same basis as other students. In Korea, the Special Education Promotion Act (1977) mandated that students with disabilities receive an educational program along with appropriate resources (Hwang & Evans, in press).

Jordan was the first nation in the Middle East, for example, to enact disability-specific legislation. The law, *Welfare of People with Disabilities* (Directorate of Educational Studies and Research, 1996), guarantees integration and inclusion in the life of the community in a wide

variety of areas, including education, employment and health care in line with other developed countries (e.g., United States of America, United Kingdom, Australia). Jordan's leadership on disability rights was initiated by his Royal Highness Prince Ra'ad, who believed that government should guarantee rights, regulate duties, and protect human dignity (Al Hendawy, 1992; Ministry of Education, 1996; Ministry of Education Department of Educational Documentation, 1980).

The movement towards inclusive education programs has had impact on schooling and communities. Researchers argue that taking an inclusive approach to educational activities for children with severe disabilities has not only brought us closer to upholding the rights of children with disabilities, but also improving their quality of life (McGregor & Vogelsberg, 1998; Ryndak, Morrison, & Sommerstein, 1999).

Despite these promising outcomes, there are still many issues, dilemmas and obstacles that face students with a disability, and their families, in accessing an appropriate education program. Development of positive attitudes by teachers and community members towards the principles of inclusion is one such issue.

A number of studies have shown that differing factors are associated with positive attitudes towards the inclusion of students with disabilities. Avramidis, Bayliss, & Burden (2000) in a study conducted in London, for example, found that teacher's positive attitudes were linked to experiences in teaching students with disabilities, access to university-based professional learning experiences, and their own confidence in undertaking individual planning.

In a study undertaken in Australia, Westwood and Graham (2003) examined teacher's perceptions about the benefits and obstacles to including students with disabilities in mainstream classrooms. Teachers from South Australia and New South Wales reported general support towards the concept of inclusion, but felt limited in their ability to meet the expectations it posed. They reported a lack of professional knowledge about how to cater students with a disability, and the need to access specialist support and advice in regards to behaviour management and instructional strategies.

In a similar study, Hwang and Evans (in press) investigated the attitudes of Korean teachers towards the inclusion of students with a disability in mainstream schools. The 33 teachers who participated in this study reported through a questionnaire and interview that they supported the general principles of inclusion. However, they emphasised that they were reluctant to participate in the inclusion of students with a disability in their classroom. While a small sample of teachers from only four schools, this outcome appears to represent a general consensus about the gap between theory and practice.

A relatively new dimension to the research literature regarding inclusion is the education of students with autism in mainstream classrooms. The growth in the number of students diagnosed with autism in many countries is a new issue facing schools, and has resulted in renewed efforts to assist teachers to cater for the unique education needs of these students (Simpson, 2005). As differing legislations mandate teachers provide a free and appropriate educational program for

these students, there is need to better understand the attitudes of teachers towards catering for students with autism in their classrooms. Further, there is a growing call to identify evidence-based practices that assist teachers to cater for students with autism. Identification of these practices will enable teachers to be more confident in identifying and using these strategies consistently in general education and special education classes to catering for students with autism (Simpson, 2005).

Specific Aims of the Study

The primary aim of this study was to identify general and special primary education teachers' attitudes about educating students with autism in the general classroom in Jordan. In addition, this study aimed to establish the perspective of both groups of teachers towards inclusion, and identify the strategies they use to assist students with autism achieve identified educational outcomes.

Significance of the Study

An aim of in-service and pre-service of special and general education programs is to prepare and enhance the knowledge, skills and values of teachers to provide quality programs for all students, including those students with diverse learning needs, in the mainstream classrooms. The education of teachers with these skills, knowledge and values will not only increase teachers' general level of confidence and expertise, but will enhance positive attitudes towards the inclusion of students with disabilities into the general classroom learning environment (Alahbabi, 2009; Johnson & Howell, 2009).

Positive teachers' attitudes, beliefs and knowledge influence the outcomes of inclusive education (Johnson & Howell, 2009). Furthermore, researchers acknowledge that the beliefs and attitudes of teachers are vital factors to any inclusion experience (Alahbabi, 2009; Johnson & Howell, 2009). Practical experience and previous research (e.g., (Jamieson, 2004; Sawyer, Luiselli, Ricciardi, & Gower, 2005; Wilkinson, 2008) showed that the teachers' role is significant in defining the effectiveness of education programs. Teachers are considered the school personnel most accountable for implementing inclusive service delivery models for students with autism.

This research study is significant because it will examine the attitudes, beliefs and knowledge of primary special and general primary education teachers in Jordan towards the inclusion of students with autism into the general classroom learning environment. Very little research has investigated the attitudes and beliefs of teachers towards inclusion; no research has been located that examines teacher's attitudes and beliefs towards the inclusion of students autism in mainstream classes.

Conclusion

The primary purpose of this research study was to investigate the attitudes of primary special and general education schools teachers towards the inclusion of students with autism into general classroom learning. The following chapter will put into context current education policy and

practices within Ministry of Education in Jordan. This chapter will then provide evidence of current international perspectives on inclusive education, and provide a specific overview of attitudes and beliefs towards the inclusion of students with autism in mainstream classes.

The methodology chapter will provide a description of the procedures and methodology used in conducting this research project. Following this chapter, the results of the study will be reported, and then discussed in regards to the literature as part of the final chapter of this thesis.

Literature Review

The following chapter will examine a number of key variables underpinning this research project. The initial part of this chapter will provide an overview of the education system in Jordan, with particular reference to the education provided for students with a disability. Building on this introduction, discussion will focus on the principles of inclusion, and how they link to the education system in Jordan. This chapter will then highlight research in regards to the education of students with autism, and the features of effective programs that contribute to achieving positive outcomes for these students. The final part of this chapter will focus on the issue of teacher attitudes and beliefs, and how these attitudes and beliefs assist them to provide quality programs for students with autism.

Education in Jordan

In a nation of almost 6 million people living in an area of 96,000 square kilometers, Jordan has approximately 200,000 citizens identified with disabilities. Jordanian law stresses the rights of persons with disabilities to have access to education commensurate with their abilities, to have work commensurate with their capabilities and qualifications, to live and work in an environment that allows them safe and secure freedom of movement, and to participate in any decision-making relevant to their lives (Jordan Department of Statistics, 2008; Ministry of Education, 2004).

When the Emirate of Transjordan was created in 1921, educational facilities consisted of twenty-five religious schools that provided a limited education to a small number of children. A review of education services in 1952, and adoption, resulted in the provision of free and compulsory for children between the ages of 6 and 15. Education services were divided into four levels: primary level from grade one through six, preparatory level from grade seven through nine, secondary grades from ten through twelve and postsecondary level all higher education. In the late 1980, nearly 75% of students in grades 1 through 12 received a free education in government schools; another 15% attended the United Nations Relief and Works (UNRW) schools, also free, and about 10% attended private schools. At this time the Department of Statistics reported that there were 194 UNRW schools and 682 private schools (Ministry of Education, 2004).

In 1987, plans for educational renewal in Jordan were posed at a national conference for educational development. This decision was a radical turning point in the history of education in Jordan. The recommendation of this Conference, in coordination with the Board of Education, was for two phases of development. The first phase began in 1988, and involved the

development of infrastructure and basic education policy (i.e., philosophy and objectives, levels of education, planning and research). The formulation of objectives for a four level education service resulted in a range of legislation and regulations being established.

One-third of the total population was involved in education by early 1987. Nearly 99% of the population aged 6-12 years old was enrolled in the primary level, nearly 79% of children from 12-15 years old were enrolled in the preparatory schools, and 37% of students 15-18 years old were in the secondary schools (Ministry of Education, 2004). There were 9,9645 students enrolled in 3,366 schools, with more than 39,600 teachers. The second phase of development commenced in 1996. This phase aimed to improve the qualitative impact of the development process and raise the capacity and efficiency in the educational processes, targeted curricula and books, and linking the educational process to everyday life.

The educational system in Jordan today includes formal and non-formal systems.

The formal system includes the following cycles:

> A compulsory stage for children ages 6 to 15 (grades 1-10), consisting of primary school cycle (grades 1-6) and preparatory school cycle (grades 7-10).

> A comprehensive secondary education (academic and vocational) and applied secondary education (training centres and apprenticeship).

> Higher education, either a two-year intermediate level course offered by community colleges, or four year university level courses, either in public or private institutions. The student's achievement on the General Secondary Education Certificate Examination is the sole criterion for admission into higher education institutes.

The non-formal education system today includes pre-school education, which is offered by private institutions and enroll children as young as age three. Vocational training centers, home schooling and literacy campaigns are also part of non-formal education system.

Over the past decades education in Jordan has become more accessible. The government has continued to reinforce vocational and technical education and to provide in-service training for teachers. Today there 1,563,540 students enrolled in 5,637 schools, with more than 92,446 teacher (Jordan Department of Statistics, 2008; Ministry of Education, 2004).

Special education. Jordan is one of the leading Arab world countries in promoting disability rights, and was the first country in the Middle East to enact disability-specific legislation and introduce building codes to support access for persons with a disability. Furthermore, in 2005 Jordan was the first Arab Islamic country to receive the Franklin Delano Roosevelt International Disability Award. This award "recognizes and encourages progress by nations toward the fulfillment of the goal of the United Nations World Program of Action Concerning Disabled Persons" (UNESCWA, 2005). The award, according to King Abdullah II, was the result of Jordan's 1993 Law for the welfare of disabled persons affirming the rights of persons with a

disbility to be integrated into society, education, employment and health care, and the establishment of the National Council for the Welfare of Disabled Persons (UNESCWA, 2005).

Prince Ra'ad urged the right of persons with disabilities to an education with a view to realising this right without discrimination and on the basis of equal opportunity. His majesty sought to ensure an inclusive education system at all levels and lifelong learning directed to:

> The development of human potential and sense of dignity and self-worth, and the strengthening of respect for human rights, fundamental freedoms and human diversity.

> The development by persons with disabilities of their personality, talents and creativity, as well as their mental and physical disabilities to their fullest potential.

> Enabling persons with disabilities to participate effectively in a free society (Ministry of Education, 2004).

The philosophy behind the policies of the Hashemite Kingdom of Jordan (HKJ) with regard to its citizens with disabilities emerges forth from Arab-Islamic values, the Jordanian Constitution and the World Declaration on Human Rights (Ministry of Education, 1988). This philosophy also stresses that people with disabilities should be included in regular classrooms. Furthermore, the services and activities this inclusive approach provides should enable children with disabilities to pursue their lives in an independent manner vocationally, intellectually and socially (Ministry of Education, 1995b).

Central to the provision of special education services across Jordan is the training of special education teachers. Teachers working in general education schools complete a university Bachelor's degree, qualifying them to teach at differing levels within Jordanians schools. Teachers training in special education enroll in a separate course to that of general education teachers; unlike many countries, special education teachers do not have a qualification or licensing in general education pedagogies and curriculum. They are qualified to teach in the area of special education, and cannot transfer into the general education system of education.

In order to create well-trained special teachers in Jordan, it was imperative that teachers became professionally skilled in meeting the educational needs of students with disabilities in an inclusive setting. Al-Yarmouk University, Mu'tah University, Alhussaien University and the University of Jordan initially offered a Bachelor's degree in special education. Teachers working with students with a disability are now able to achieve a Masters level qualification in special education, as well as fieldwork experience in two-year college courses offered by Jordanian government.

Special education services within Jordan, in line with new legislation, are associated with the Ministry of Education (MOE). These services provide a full range of education services to students with disabilities in schools for students with a range of identified disabilities (e.g., blind, deaf, mentally, physically disabled children). All students are entitled to benefit from such services as a right regardless their abilities.

The Ministry of Social Development (MSD) also has responsibility for special education services in Jordan. However, according to the new legislation, the MSD is mainly responsible for training, care and rehabilitation services for persons with disabilities (Ministry of Social Development Jordan, Sep/2009; UNESCO, 1996). Article 4 of Law 12/1993 pledges that the MSD will provide appropriate services to meet the ability of children and needs in the field of welfare rehabilitation, and training as well as information services. On the other hand, the MOE will provide young children with disabilities with special programs and curriculum to meet their needs (Ministry of Social Development Jordan, Sep/2009). The role of the special education teacher, therefore, is an important part in delivering these programs to students with a disability in Jordan.

Services for students with disabilities in Jordan are provided free through the school system. Two thirds of students receiving special education services have a diagnosis of mental disability. In contrast, very few children with severe disabilities (i.e., cerebral palsy, Down Syndrome and severe autistic children) have access to these services. Although special education services have spread throughout the country, most services have been provided to children with disabilities through day care, government institutions or residential centre (Ministry of Social Development Jordan, Sep/2009).

As other countries around the world, Jordan is experiencing an increase in the number of students diagnosed with autistic spectrum disorder (ASD). The following discussion will focus on this group of students in Jordan, and the education services they are provided.

Students with ASD. The HKJ policy of inclusion of students with disabilities into regular classroom learning aims to ensure that all students with autism have the opportunity to access a learning, social and physical environment that supports the learning process, and maximises learning outcomes for students. In Jordan, however, there are no reliable figures on the number of children diagnosed with autism. Tentative figures indicate that approximately 7,000 to 8,000 children have been diagnosed with ASD (Al-hindi, 2010). These data represent 0.14% of the total population.

Identification of children with a disability, including autism, allows the Jordanian government to plan and deliver services and resources. In Jordanian culture, however, having a child with a disability is viewed as a social stigma. Some parents keep their child with a disability out of sight of society fearing that their child and/or family will be rejected. As a result, valid and reliable figures on the number of school-aged children with disabilities, and autism, are not available.

This cultural view is also apparent in the schooling sector. It is uncommon for schools and teachers in Jordan to create an education environment that accepts and provides an education program for students with autism. The reasons for this situation are not well known due to the lack of research into the issue. Projecting results of other research (e.g., Main, & Hammond, 2008; Shaddock, 2007; Westwood & Graham, 2003) it is anticipated that teachers and school administrators are limited in their knowledge of the principles of inclusive education. Teachers are often unsure of their own knowledge and skills in how to develop an inclusive class program

and implement it to meet the needs of students with ASD. Yet, like many teachers, they are now faced with legislation and policy that requires them to become skilled and knowledgeable on the principles of inclusion and the education practices that best address the education needs of students with a disability, and in particular, students with ASD.

This research study, therefore, plans to investigate a range of variables that surround delivery of education programs for students with autism in Jordan (e.g., teacher attitudes, parental attitudes, peer attitudes, teacher preparation, and knowledge of best practice). The outcomes of this research will help address the limited information currently available about the education of students with ASD in Jordan, and better inform plans to assist families, teachers and schools to cater for students with ASD. Before reviewing the literature on teacher attitudes and beliefs towards the education of students with disabilities and autism in particular, the concept of inclusion will be examined along with a review of evidence-based practice identified to meet the educational needs of students with autism.

Inclusion of Students with Disabilities

The principles of inclusion are that all children in a school community should be valued in the same manner as other members of the school's culture. This includes the right to an opportunity for education. The policies of the society should afford opportunity for all members to be included regardless of their culture, physical abilities, gender, language, type of disabilities and emotional or other requirements (Dybvik, 2004; Wertheimer, 1997).

Figure 1 outlines a number of variables that influence the inclusion of students with disabilities. While these are some of the variables that may influence the inclusion of students with disabilities, they represent some of those that impact on this study, and the literature that is being reviewed to contextualise this study. Key to this study are the variables that surround the education of students and the place they receive their education program (e.g., environment, policy and legislation, community). These variables impact on the programs that are delivered in schools, and directly or indirectly impact on the teachers and the development of their beliefs and attitudes towards the education student students from a range of diverse backgrounds.
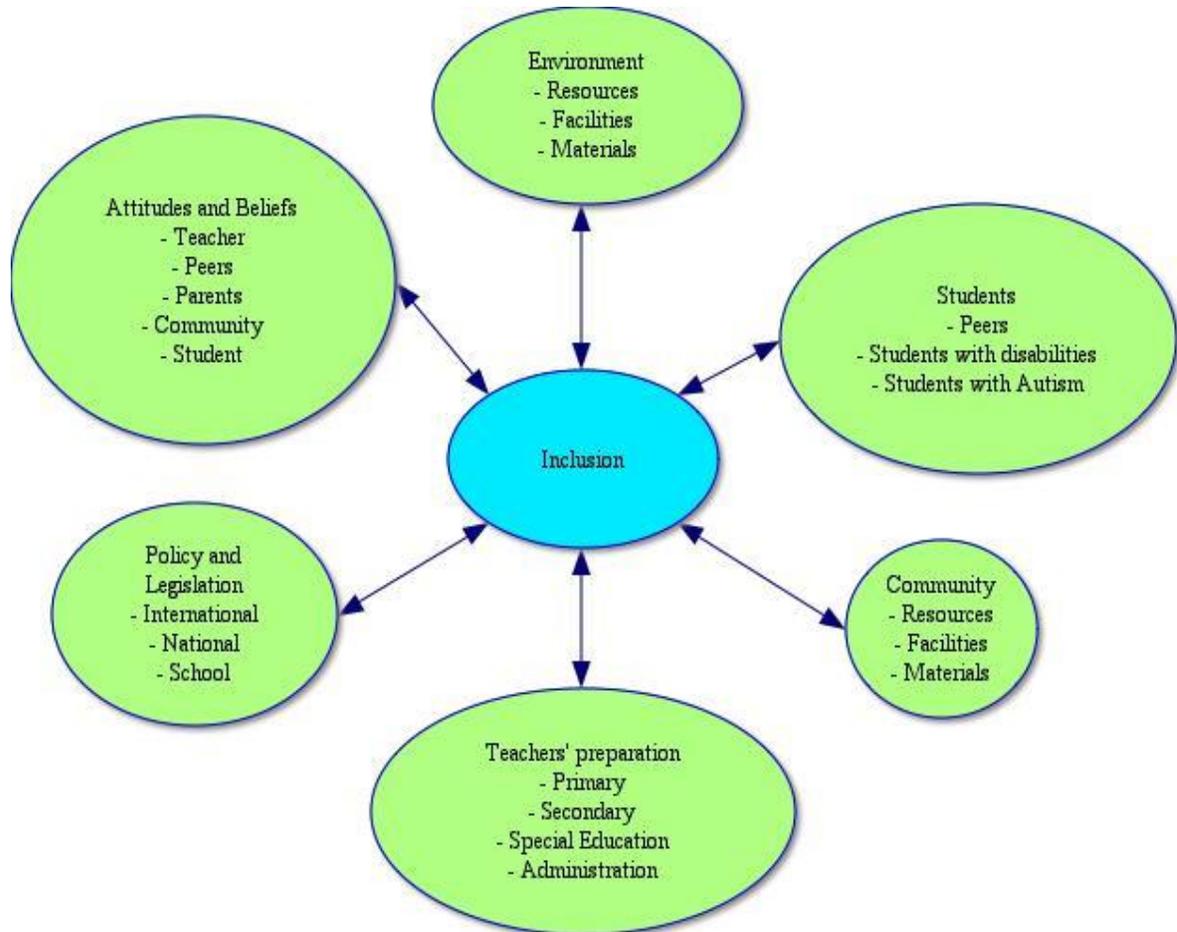
Figure 1. The variables that impact on the inclusion of students with diverse education backgrounds.

A number of these variables can become barriers to the inclusion of students with a disability. For example, if teacher preparation does not addressed the education of students with a disability, then teachers often feel unprepared to provide a quality programs for these children (Westwood & Graham, 2003). If community members' beliefs about children with disabilities are such that education programs are not provided for these children, then there will not be resources, materials and policies in place. Typically developing children may never engage with students with a disability, therefore maintaining a limited, negative and/or uninformed belief about the education of students with a disability.

Inclusion means removing barriers and providing supports in order to allow children with disabilities to participate in all aspects of life to the best of their abilities (Baker, Wang, &

Walberg, Dec 1994/Jan 1995). All children need a sense of belonging in their communities for self-esteem and healthy development. Being with their peers helps children with disabilities to engage with learning the social values and expectations of their community, and contributes to their leading active and independent lives (Sawyer et al., 2005). Inclusive approaches help all children be more aware, sensitive, and compassionate individuals and more accepting of everyone's differences including their own. All children, no matter what their ability, disability or learning difficulty, have a part to play in society and at school. An early start in an integrated education followed by continual education in regular schools is the optimum preparation for being included in one's society (Foreman & Arthur-Kelly, 2008; UNESCO, 1994).

Since the early 1970's in the United States of America, the inclusion of children with disabilities in school and society became an important educational issue. Initially these students were often isolated from their society and routinely placed in separate educational and living settings for persons with disabilities. Lipsky and Gartner (1994) considered inclusive education to be an approach that looks at how to transform education systems so that they can best respond to the diversity of learners. It aims to enable both learners and educators to feel comfortable with diversity and to see it as a challenge and of value in the learning environment, rather than a problem.

Typically developing children also benefit from settings that promote the principles of inclusion. They are provided with opportunities to develop more positive attitudes toward others with diverse needs and to accept those differences, realising they too, have special qualities different from others. They learn more grounded views about children with disabilities who they will no doubt encounter throughout their lives. Children, who grow up appreciating others with differences, grow up to be more compassionate, understanding and accepting of others (Jones, 2007; Owen-DeSchryver, Carr, Cale, & Blakeley-Smith, 2008).

In accepting the principles of inclusion, all members of the education community need to be part of the processes implemented. These members include families, students, siblings, community members, and members of the school staff (e.g., administrators, support staff, teachers). It is the skills, knowledge and values that these members of the community bring to the school that are critical. Central to this study are the attitudes of teachers, no matter the setting where they deliver their education Programs.

Teachers are professionally charged with providing educational Programs for all children, regardless of their gender, race and ability. Where these students receive their education has over the years been a major focus of theory and practice. In schools today across most countries, the majority of students with disabilities received their education in a regular or mainstream school. There are some students who due to their level of need and disability receive their education Programs in specialist setting (e.g., special school, segregated schools). Despite where students receive their education Programs, the attitudes, beliefs and knowledge of teachers, administrators, support staff, peers, and community members are paramount to the overall development of an inclusive education environment.

The findings of research related to teacher attitudes toward inclusion are mixed with studies of secondary school teacher attitudes fewer in number (Shaddock, 2007). In addition, findings show that these attitudes are related to factors such as teacher experience, training, support, and age, and student disability and behaviour (Jung, 2007). Monsen and Frederickson (2003) found that students who had been taught by teachers with more positive attitudes towards inclusion reported higher levels of classroom satisfaction; in contrast, students taught by teachers with less positive attitudes reported lower levels of classroom satisfaction.

The knowledge of teachers about how to implement a classroom program that recognises the individual differences of students is paramount. Funding is often an issue that is raised as a barrier to implementing an inclusive education Programs (Westwood & Graham, 2003). While considered an important aspect of all education program, upholding the principles of inclusion often means working with what we have, the best we can (Wertheimer, 1997). The benefits of inclusion are often described in ways that cannot be given a monetary value, with all children benefiting substantially from an inclusive classroom (Baker et al., Dec 1994/Jan 1995).

The way teachers organise and work in their classroom can influence their attitude towards inclusion. The way teachers establish a community early on in the classroom, for example, that allows for positive group dynamics to be developed and enhanced (Jones, 2007). Teachers recognise that all members of their classroom have strengths and weaknesses, and everyone has something to contribute. Teachers acknowledge these strengths and encourage students to help each other, being aware that they have something to give and there is something to take (Lanier & Lanier, 1996). What an empowering feeling for a child to be "class expert" or to know that their thoughts and ideas are important. Teachers want them to know that they have a voice. Teachers can help to seek out those strengths and build confidence within every child - including students with a disability. Achieving this outcome requires teachers to be positive towards the principles of inclusion, and have the beliefs, skills and knowledge to achieve the goals of inclusion.

Successful inclusion takes a network of dedicated teachers and professionals working together to meet the needs of each child. It takes creative thinking and often unconventional teaching methods (Anderson & Antonka, 1992; Monahan et al., 1996; Simpson, 2005). Teachers cannot be afraid to try strategies, or to have a classroom that may appear to be chaotic to an outside observer. Teachers might be sometimes frustrated and other times elated. Those moments of success will give them the passion to move on.

Teachers have the responsibility to further the principles of inclusion. Teachers need to lead by example. They need to talk about it, teach it, and share success stories to help change attitudes, even if it is just one at a time. Furthermore, teachers can change the attitudes of other teachers, of parents and students, one person at a time, or one classroom at time, they can and will make a difference. Teachers with positive attitudes can help people believe and trust. When attitudes change the world can change (Winterman & Sapona, 2002).

In conclusion, when teachers are well trained and educated, and there is support from all persons and services involved with a child, they are more likely to provide a quality, inclusive, educational environment, and to generate positive attitudes in their students as well as themselves (Bang & Lamb, 1996; Simpson, 2005). The benefits to a student are lifelong; the benefits to society are forever.

Students with Autistic Spectrum Disorder

Autism is a pervasive developmental disorder (PDD) that begins in early childhood and persists throughout adulthood (Lamers & Hall, 2003). Researchers define autism as a lifelong neurobiological disorder that effects the functioning of the brain and ranges from mild to severe (Brownell & Walter-Thomas, 2001; Jamieson, 2004). The characteristics of autism fall into three crucial areas: stereotypic behaviour, communication deficit or delays, and limited social relatedness American Association of Metal Retardation, 2000). These three areas are often termed the triad of impairments (Wing & Gould, 1979), and form the central basis of education programs for students with autism.

Towbn, Mauk, and Batshaw (2001) state, "The cause of PDD's is developmental brain abnormalities with significant genetic influence. It appears unlikely that autism is the result of infections, adverse nutrition, or maternal stress" (p.371). Children and adults with autism typically have difficulties with verbal and non-verbal communication that affect their lives socially and academically (Terpstra, Higgins, & Pierce, 2002). According to the American Association on Mental Retardation (2000), autism is the most common of the PDD's affecting an estimated 2 to 6 individuals per 1,000; it is four times more prevalent in boys than in girls (Williams, MacDermott, Ridley, Glasson, & Wray, 2008).

The prevalence of autism has changed over the years and appears across countries. Fombonne (2009) reported that the prevalence of autism in North America in 1960 was 4 to 5 in 10,000, while in 2009 it was reported to be 66 in 10,000,. A prevalence rate of 100 children in 10,000 has been reported in the United Kingdom (Baron-Cohen et al., 2009). The prevalence of children with autism in Jordan 14 per 10,000 children indicates that the proportion of students with autism is considerably less than in other countries.

Teachers are charged with planning and implementing appropriate education programs for children in their classes regardless of their abilities. Historically, students with autism have been educated in alternative settings (e.g., special classrooms, special schools); in recent times students with autism have been educated in regular classrooms.

As research is gathered and refined about evidence-based practices for the education of individuals with autism, parents and educators are beginning to implement effective ways to educate these students in regular or mainstream classrooms (Simpson, 2003).

Providing educational programs for children with autism in inclusive classrooms can make substantial improvements in their academic, social, and behaviour skills (Kasari, Freeman, Bauminger, & Alkin, 1999). Creating an inclusive environment to develop and support social

and academic skills for children with autism is a challenge for all members of the education community, not just the classroom teacher. The variety and the importance of services offered for children with autism, however, is often influenced by policies and social attitudes (Winterman & Sapona, 2002).

Quality, inclusive practice. An inclusive approach to educating students with autism requires all members of the school community in beliefs and attitudes as well as quality classroom practice. Quality, inclusive practices aim to promote understanding of the needs of all students with and without disabilities. The quality inclusive practice provides concise information and guidelines for parents, professionals and staff working collaboratively in different education and training settings, home and community. It will also be of assistance to administrators and general staff. Whilst an inclusive approach to education cannot cover in detail all possible teaching and training situations, it can provide us with ideas for inclusive strategies that can be readily applied in a teaching environment. This outcome is critically important for teachers, community members, students with autism and their families (Alton-Lee, Rietveld, Klenner, Dalton, Diggins, & Town, 2000).

Collaboration and actions in community and schools will determine the importance of inclusive practice and will contribute to successful inclusive strategies in schools (Lynch & Irvine, 2009). The research provides an emerging set of evidence-based practices that can assist this collaboration through informing practices within schools and classrooms. Examples of evidence-based practices that teachers' can use in their classrooms include early intervention, individualised planning and supports, family involvement, supportive environments, differentiated instruction and functional approach to problem behaviour (Alton-Lee et al., 2000; Vakil, Welton, O'Connor, & Kline, 2008).

Previous research increasingly supports the value of early intervention as means of providing significant positive outcomes for children with autism, their family and the community. Yet, decision-making about the educational intervention in children with autism is often based on assumption and beliefs rather than empirical evidence. This can lead to ineffective provision of services and interventions, and can cause confusion and conflict between professionals and parents (Jones, 2006). Early intervention programs that provide a specific, structured approach to education for children with autism leads to improvements in most areas of difficulty for children with autism (i.e., social, communication, behaviour)

A multi-disciplinary collaborative approach to early intervention has been identified as best practice (Prior & Roberts, 2006). Typically professionals such as teachers, psychologists, speech pathologists, occupational therapists and physiotherapists may work together collaboratively with parents to identify goals and develop strategies for children with autism (Stoner & Angell, 2006). Most importantly, there is no one single program that will suit all children with autism and their families. Families should be guided by information offered by professionals about current research and best practice in the area of early intervention and autism and ultimately make choices based on the needs of a child with autism.

As families are the most stable and influential people in the child's environment, collaboration between parents and educators is considered an essential part of educational intervention (Simpson, de Boer-Ott, & Smith-Myles, 2003). Working collaboratively between families and agencies requires each party to share their expertise and respecting other ideas and contributions towards the development of a comprehensive intervention plan. It is essential for parents and professionals to understand that interventions do not always immediately lead to desired results. Subsequently, regular collaboration between parties will lead to modifications and/or creation of new effective strategies (Jones, 2006; Stoner & Angell, 2006).

Community members, families, non-disabled peers and teachers' attitudes towards students with disabilities are multivarious, sophisticated and key to ongoing success of the interventions. Early research by Anderson and Antonka (1992) and Schmelkin (1988) found that educators showed significant negative attitudes towards inclusion of students with disabilities in the mainstream. Attitudes of teachers toward inclusion were also adversely influenced when they were aware that the non-disabled students in the classroom noticed the differences between themselves and their disabled peers (McLeskey & Waldron, 2002). Shade and Stewart (2001) found that teachers were fearful and frustrated because they did not believe that they have the abilities to meet the needs of students with special needs in their classroom. Furthermore, UNESCO (2005) revealed that negative attitudes of teachers, parents and other family members could be barriers to inclusion; however, children with and without disabilities would be less likely to develop these prejudices if teachers and adults did not demonstrate them. It is these variables that will be the focus of the next section of this review of the literature. Specific focus will be given to the inclusion of students with autism in regular education classrooms.

Teacher preparation. The knowledge and the type of teachers' preparation for an inclusive classroom are essential to the successful inclusion of children with disabilities in regular classrooms (Jung, 2007; Simpson et al., 2003). According to Hobbs and Westling (1998) several factors including collaboration, teacher's beliefs, attitudes and preparation are essential elements to a successful, inclusive program. Similarly innovative special and general education teacher preparation programs that focus on inclusion, collaboration with paraprofessionals and other teachers were significant in changing teachers' perspectives and attitudes toward inclusion of students with disabilities in mainstream classes (Shade & Stewart, 2001; UNESCO, 2005). However, researchers argue that the inclusion of students with autism in regular classrooms could have a positive impact on their relationships with teachers and could increase the students' social lives at school and resulted in fewer behavioural problems (e.g., Moreno, Aguilera & Saldana, 2008; Simpson, 2005).

Shade and Stewart (2001) conducted a study of special and general education teachers who completed an introductory course on including students with disabilities. An examination was conducted of their attitudes toward the inclusion of students with disabilities before and after the teachers completed the course. They found this course had a positive impact on general and special education teachers' attitudes' towards inclusion. In reality, for inclusion to be successful,

specialised expertise is required at a number of levels in any education system (Scheuermann, Webber, Boutot, & Goodwin, 2003).

A great deal of research in the last decades has focused its attention and resources on how best to help the children with autism and their families. Schwartz, Sandall, McBride, & Boulware (2004) have ascertained that the development appropriate treatment for autism techniques such as "a high-quality early childhood environment, extended instructional time, social and technical support for families, collaboration and cooperation across services, and transition support" (p.156) are effective with children with autism. They also wanted everyone working with children with autism to have awareness and understanding of autism and how to teach and live with those children (Schwartz, Sandall, McBride, & Boulware, 2004).

Parental and peer attitudes. Neil (2008) argued that the relationships between parents and the community within the school are important for students learning outcomes. Kasari et al. (1999) cited that some parents of children with autism found inclusive programs not appropriate because, such programs did not meet their children's learning needs and because of the limitations of the child's ability. Furthermore, parents of students with autism and general education teachers seem to agree that support services are necessary for facilitating successful inclusion in general education settings.

Children with autism who are placed in the mainstream schools are more likely to have substantial difficulties with social interaction due to the absence of systematic intervention (Whitaker, Barratt, Joy, Potter, & Thomas, 1998). However, many researchers have been focused on the use of peer intervention strategies to develop communication and interaction and to enhance the social skills of children with autism. Nevertheless, the relationship between children with autism and their peers could hinder their successful experience in the classroom, for example, being bullied by other children (Neil, 2008).

Students with autism differ in a number of ways just like students without autism. Similarly, schools and classrooms have unique characteristics and attitudes. Accordingly, programs for facilitating social interaction between students without and with autism must accordingly vary with circumstances, situations, and needs. Educators must consider different options to stimulate interaction between these groups (Sawyer et al., 2005). For instance, peer tutoring may be more appropriate in some settings and with certain students than others. Similarly, some students will be more responsive to antecedent prompting than others. Selecting social interaction procedures based on individuals' needs and other salient variables increases the likelihood of success in inclusion (Jones, 2007).

A study conducted by Thompson, Whitney, and Smith (1994) interviewed 186 children from eight schools, 93 of the students with special education needs. The teachers who were responsible for special needs students were also interviewed. They suggested that much of the bullying among children with special needs is related to their character and lack of self-esteem. In addition, they found students with special needs being subjected to bullying because, they have fewer friends in comparison with their typical peers in an inclusive education. As a result

they are less well integrated socially into the mainstream group (Thompson, Whitney, & Smith, 1994). Students with autism have characteristics and behaviours about which general and special education teachers and peers without autism may not be knowledgeable. In order to facilitate interactions, students with and without autism and teachers should be provided opportunities to learn about autism. Promoting an understanding of autism and helping peers and teachers develop a positive attitude toward individuals with disabilities enhance social interaction programs.

Teacher attitudes and beliefs. Teachers' attitudes, beliefs and actions make a positive difference to the lives of their students, and their beliefs, knowledge and attitudes will serve as the central focus of this research study (Cook, Tankersley, Cook, & Landrum, 2000). In order for the inclusion of students with special needs to be effective, it is generally agreed that the teachers will be the most directly responsible person for its success (Cook et al., 2000). It has been documented that teacher-student interactions and the opportunity to learn are directly impacted by teachers' attitudes towards their students with disabilities. Shade and Stewart (2001) suggested that teachers' attitudes be assessed, and promoted through ongoing professional learning and collaboration with skilled and knowledgeable peers.

A study conducted by Robertson, Chamberlain and Kasari (2003) found that the relationship between general education teachers and paraprofessionals was successful when they both shared the responsibility for the education and behavioural management of the child with autism. General education teachers reported that the assistance they received from paraprofessionals helped them to develop relationships when including students with autism or other special education needs. Paraprofessionals and teachers in the above study had ongoing contact with the students' families and special educators who provided assistance and training. In conclusion, such factors helped paraprofessionals facilitate greater understanding of the students' needs and behaviours, enabling them to provide more effective assistance to help general education teachers (Robertson, Chamberlain & Kasari, 2003).

Previous researchers have concentrated on the education teachers' attitudes towards mainstreaming and their contribution to successful inclusion (Monahan et al., 1996; Monsen & Frederickson, 2003; Moore & Fine, 1978). However, we must not forget the attitudes of both parents and students without disabilities. Attention has focused on whether principals, paraprofessionals, parents, teachers and peers without disabilities have positive attitudes towards inclusion of students with disabilities (Logan, 2006; Whitaker et al., 1998). On the contrary, considerably less attention has been given to the issue of non-disabled peers within the classroom or even within the schools' environment. An important factor in the success of inclusion depends on the students with disabilities being able to interact and become a socialised person with their non-disable peers. Further, the skills of students without disabilities in being receptive of students with disabilities in an inclusive environment is an important aspect of an inclusive school setting (Sawyer et al., 2005). All these factors are very important for the success of inclusion.

The views and attitudes of parents are critical to the success of developing an inclusive education environment. A number of research studies have addressed and investigated parental views and attitudes towards inclusive educational provision for their child with special educational needs (Kasari et al., 1999; Stoner & Angell, 2006; Whitaker, 2007). This research indicates that parents are becoming more active in making decisions about educational programs and placement of their child in an inclusive environment (Stoner & Angell, 2006; Whitaker, 2007). Further, this research indicates that parents of students with and without a disability are more concerned about the context of instruction for their children (Winterman & Sapona, 2002). However, few studies have: focused specifically on students with autism and all have relied on samples of parents drawn from the membership of parents support organisations. These studies have revealed a high level of satisfaction with or preferences for specialist provision and have contributed to an impression of extensive and serious shortcomings in provision made within mainstream schools. (Whitaker, 2007, p. 176)

The beliefs, knowledge and attitudes that teachers, parents, administrators, students without disability and other school personnel hold towards inclusion and the learning of students with a disability may influence the availability of equitable educational opportunities for all students.

Research Questions

What are the differences in attitudes, beliefs and knowledge between primary special and general education teachers towards the inclusion of students with autism in the general classroom?

What are the differences in attitudes, beliefs and knowledge of male and female special education ands general education teachers towards the inclusion of students with autism in the general classroom?

What are the differences in attitudes, beliefs and knowledge of primary special and general education teachers in Irbid and Amman towards the inclusion of students with autism?

Methodology

The purpose of this study is to investigate the attitudes, beliefs and knowledge of special and general primary education schools teachers towards inclusion of students with autism in the general classroom in Jordan. This study will investigate whether different attitudes exist between both groups of teachers and identify those factors that influence these attitudes and beliefs. This chapter also outlines the framework of the research methodology including the variables involved in this study, development of research instruments, validity and reliability, translating and pre-testing the instrument, target population, budget, sample, sampling procedures and statistical methods of data gathering and data analysis procedures. This chapter will finish with a brief discussion on the limitations relevant to the methodology of this study.

Research Design

A cross-sectional quantitative method design was used to assist addressing the research questions for this study. A questionnaire with twenty-four questions was used. The sources of the data

consisted of teachers' responses to a beliefs, knowledge and attitudinal questionnaire which measured using a five point Likert scale (i.e., strongly agree, agree, neutral, disagree and strongly disagree). This design will focus on finding relationships between variables at a specific point in time (Menard, 1991; Neuman, 2006). This design will also allow for differences between the two groups of teachers (i.e., special education, general education) to be investigated, and characteristics such as experience to be examined.

Target Population

There are 102 schools in Jordan that cater for children with disabilities. Forty-five of these schools, or 44.1% of schools, are located in Amman, while 23 (22.6%) are located in Irbid. Amman is the capital of Hashemite Kingdom of Jordan, located in the north-west of Jordan. With a population of approximately two million people, the city offers a wide range of cultural, commercial and community activities. Irbid is located north of Amman with a population of 600,000 persons; it is the second largest city in Jordan and the capital and largest city of the Irbid Governorate. There are 5637 mainstream schools in Jordan. Amman has 1795 (31.8%) mainstream schools, while there are 1061 (18.8%) mainstream schools in Irbid.

The target population for this study were all special and general education teachers at primary schools in the two largest cities in Jordan (i.e., Amman, Irbid). Due to factors relating to cost, time and access to schools, participants in this study were not drawn from locations outside these two cities. While this constrains the extent to which results can be generalised, it permitted for a large cohort of participants to be included (i.e., 240 teachers).

Sample, Sampling Procedures and Settings

The sample of teachers included in this study was drawn from teachers who taught in the cities of Amman and Irbid, Jordan. The optimum strategy for selecting participants in a study of this nature is through random sampling (Creswell, 2009). With the cooperation of the Jordanian government administrative bodies, random selection of schools within the two cities was possible.

While random selection of schools was possible, it was necessary to undertake stratified sampling of schools to ensure equal representation of general and special education schools, and gender. Random selection of schools from a total pool of schools may have resulted in a disproportionate number of either school types; stratification permitted equal representation of this key variable, hence reducing the chance of sampling errors influencing the study findings (Rubin & Babbie, 2008).

The number of primary special and general education teachers planned to be part of this study was 240. One hundred and twenty participants were stratified equally across special and general education schools, and within each of these school types an equal sampling of male and female teachers. As a result of this stratification process, there were 60 participants in each cell: that is, 60 male and female teachers from special and mainstream schools. One limitation within this sampling process was availability of teachers across both cities. As a result of administrative

issues that emerged during the study, only general education teachers were able to be included from Irbid city.

The first stage of sampling was to access the list of primary special and general schools in the two cities (i.e., Irbid, Amman) from the Jordanian Ministry of Education and the Ministry of Social Development. The researcher contacted a senior person in the Ministry of Education and the Ministry of Social Development in Jordan to gain permission to contact schools to conduct the research (e.g., two copies of the letter in both languages Arabic and English). After obtaining the permission letter to contact schools the researcher commenced selection of schools.

Random selection of schools took place through obtaining a list of all available schools in the two cities. Random selection of schools was agreed upon with the relevant education authorities; in this study every tenth school on the list was chosen and invited to be part of the study. Twenty-four schools were randomly selected from the special and general primary school groups. Six schools were selected from males' schools, and six from females' schools in each type of school (i.e., special and general education).

Within each school participants were randomly selected. A total of ten teachers from each school were randomly selected under the guidance of the school principal. The names of teachers were placed in a bag, and ten participants were drawn. If a teacher selected did not wish to participate in the study another name was drawn until ten consenting participants in a school was achieved. The use of random sampling of schools and teachers will permit possible biases to be distributed equally across key variables within the study (e.g., type of school setting, gender, teaching experience) (Creswell, 2009).

Measure

Development of research instrument. The researcher constructed a two-part survey to establish the attitudes and beliefs of general and special education primary teachers towards the inclusion of children with autism. The first part of the survey was designed to gather participant background. Background information included gender, years of teaching experience, type of school, age, qualifications and professional learning experience background. This information was coded and entered into the data base; this was used in the final analysis as independent variables.

The second part of the survey included 24 items to examine the attitudes and beliefs of teachers towards the inclusion of students with autism in general education classrooms. This section was constructed in a statement format, and included a five point Likert-scale with format options from strongly agree (1), agree (2), neutral (3), disagree (4) and strongly disagree (5). The majority of the statements were positively worded, with some negatively worded to limit the influence of affirmative bias (Krajewski, Hyde, & O'Keefe, 2002). Higher response scores on the survey will represent more positive attitudes towards inclusion.

A Likert scale was chosen as it was cost effective, is known by teachers as it is used in research and professional learning environments and was relatively efficient in construction (Rubin &

Babbie, 2008). The use a five point scale was considered the best way of collecting data on attitudes and beliefs; it did not allow for the fine grained consideration of seven point scale, while not being as crude as a three or four point scale.

The use of a five point Likert scale permitted teachers to have a neutral position on a statement. While there is criticism of allowing for a neutral position (Neuman, 2006), it was felt in this study that this was necessary as a number of teachers in this study may not have a clear understanding of some issues. That is, they have some knowledge as part of ongoing professional learning activities, but this knowledge is continuing to develop.

Survey variables. This study planned to investigate the attitudes and beliefs held by primary general and special education teachers in Jordan towards the inclusion of children with autism in public education. A number of key variables or constructs were identified from the literature to form the basis of the survey developed. *Inclusion* is the context of practice where all students with disabilities have the right to spend most or all of their time with non-disable students in the general classroom setting. The *attitudes of parents* of children with disabilities towards the inclusion of their child in a general education setting is paramount to the success of the education program (Elkins, Kraayenoord, & Jobling, 2003). The *attitude and preparation of teachers* towards inclusion are determined by several factors, such as teachers training and perceived levels of efficacy (Jamieson, 2004; Sawyer et al., 2005; Wilkinson, 2008). The *attitudes of non-disabled peers* is when they accept the differences of other children regardless of their abilities (Jones, 2007; Owen-DeSchryver et al., 2008). The final variable, *evidence-based practice*, highlights regulations and policies towards inclusion, materials, resources, support services and effective cooperation and collaboration that are important to the success of inclusion (Moss, 1995; UNESCO, 2005).

Translation and pre-testing of the study instrument. The survey was piloted with a group of students taking a postgraduate class in special education in the Faculty of Education and Social Work at the University of Sydney. The aim of this pilot was to obtain feedback and comments on a number of issues surrounding the survey. First, participants were asked to provide feedback on the layout of the survey, to ensure that this was efficient and did not lead to confusion. Second, participants in the pilot stage were asked to provide feedback on the wording of differing items. They were asked to complete the survey, and as they went through to write on the survey where they felt that there was confusion. Finally, the participants were asked to nominate areas about the inclusion of students with autism in regular classrooms that had not been covered or addressed by the survey. Based on this feedback, the survey was revised.

Prior to the survey being submitted to the University of Sydney Human Ethics Committee the survey was translated into Arabic language, the first language for those teachers participating in the study. Both the English and Arabic version of the survey required approval from the Ethics Committee.

Validity. Validity refers to the extent to which an instrument measures what it is intended to measure (Gay, 1996), or "the extent to which an empirical measure adequately reflects the real

meaning of the concept under consideration" (Rubin & Babbie, 2008, p.184). In this study the validity of the measures was considered in a number of ways. First, the construct validity of the measure was considered. Construct validity refers to the "way in which a measure relates to other variables within a system of theoretical relationships" (Rubin & Babbie, 2008, p.187). The constructs on which the survey was developed have been discussed, and the links to the literature established. To this extent the construct validity of the measure has been established.

The content validity of a measure refers to the extent to which the measure addresses the concepts addressed (i.e., attitudes and beliefs) (Rubin & Babbie, 2008). The researcher designed the survey, and then two experts in the area of special and inclusive education examined it. Their comments about the phrasing of statements was received by the researcher and discussed. Changes were made to statements based on this feedback.

Feedback was also received in terms of content that may have been omitted, or content that may have been over emphasized or included but not relevant as part of the piloting of the survey. Again, these comments were discussed and changes made.

The final domain of validity addressed was that relating to face validity. Face validity refers to whether the statements designed were worded in a manner that could be understood by teachers. This was particularly important in this study as content and construct validity were undertaken in English. The survey was then translated into Arabic, and it was in this format that the issue of face validity was undertaken. Teachers from an Arabic speaking school were asked to examine the survey, and provide feedback on the relevance of statements, and whether they provided an image that could be understood. Changes to the survey were made based on the feedback provided by these teachers.

Reliability. The reliability refers to the consistency or dependability of a measure. It is the extent to which a measuring device is consistent in measuring whatever it measures (Neuman, 2006). The alpha coefficient ensures that the instrument measures what it is intend to measure. The alpha coefficient for this study was calculated through SPSS to measure the reliability level.

Procedure

Once the development of the survey was completed, ethics approval was gained from the University of Sydney Human Ethic Committee, and permission to conduct research had been granted from the Jordanian Ministry of Education and the Ministry of Social Development, the researcher commenced data collection. The researcher delivered the survey to each of the schools selected to be part of the study. After dropping-off the survey to each school, school' principals took the responsibility to distribute the survey to each teacher so they could compete it at their convenience. Teachers who volunteered to complete the survey were asked to return the survey to the principal within two weeks of it being delivered to them. Two weeks after the researcher had delivered the survey, he returned to the school to collect the completed surveys.

Data Analysis

Data from surveys collected to be entered onto a SPSS data worksheet. Methods of data analysis employed in this research study will include: percentage, frequencies, Cronbachs' Alpha, Pearson correlation, standard deviation, mean, t test ANOVA and effect sizes. Percentage and frequencies will be used to describe the background of the characteristics of the sample teachers. Cronbachs' Alpha will be used to study reliability of the study, and the Person correlation coefficient to study the internal correlation between the items of the instrument. The standard deviation and the mean will be used to know the level and dispersion of the average attitudes of the respondent in order to know the differences between groups. The t test will be used to study the differences between the means of the group according to the variable of the study, with two levels at the significances level of 0.05. The effect sizes will also be computed to provide a mean for relative comparison of the factors as well as to get better insights on the impact of each one.

Conclusion

This chapter contains a description in depth of the procedures and methods which have been used in the study by defining the variables involved, defining the target accessible population, constructing the sampling instrument and in gathering and analysing the data in this research study. The following chapter will discuss the analysis of the data gathered.

Results

This research study planned to collect, analyse and evaluate data to examine Jordanian special and general education teachers' perceptions', beliefs, knowledge and attitudes towards the inclusion of students with autism in general education classroom settings. As part of this examination of data factors such as age, sex, teaching experience, speciality, and job location where examined to establish their impact on teachers' attitudes' and knowledge towards students with autism in an inclusive classroom.

Description of Sample

A total of 240 teachers participated in the study. The characteristics of the sample are shown in Table 1. The largest group of teachers was 94 teachers aged 20-29, with 13 participants aged 50 and over, 64 teachers aged between 30-39 and 69 in the 30-39 age groups. The greater number of participants were 104 teachers with less than or equal to five years of experience, 67 teachers greater than 15 years of experience, 47 at 6-10 and 22 at 11-15 years of experience. Of these, 140 have finished bachelor degrees, 67 have finished diploma certificates, 19 have completed a PhD and 14 had finished a Masters level degree.

Table 2 shows the means for each of the study independent variables. An examination of the means by variables not part of the main study research questions, shows some subtle trends. The mean score by qualification shows that the mean score increased gradually as number of years of study increased. While this increase is only minor, it shows that the level of qualification increase the level of attitude and beliefs decreased.

An examination of the total mean scores by number of years of experience shows also shows the attitudes and beliefs of teachers decreases with an increase in the number of years' experience until about 15 years of experience. Teacher's attitudes and beliefs appeared to increase slightly beyond 15 year of experience.

Table 1.

The Characteristics of the Sample Recruited into this Study

Independent Variable	Levels	Number	Percent
Job City	Irbid	162	67.5
	Amman	78	32.5
Age	20-29	94	39.2
	30-39	64	26.7
	40-49	69	28.8
	>50	13	5.4
Gender	Male	119	49.6
	Female	121	50.4
Job Setting	Special Education	120	50.0
	General Education	120	50.0
Specialty	Special Education	120	50.0
	General Education	120	50.0
Years of Experience	Greater than 15 years	67	27.9
	at 11 to 15	22	9.2
	at 6 to 10	47	19.6
	Less than or Equal to 5 years	104	43.3
Qualifications	Ph.D.	19	7.9
	Masters Degree	14	5.8
	Bachelor Degree	140	58.3
	Diploma Certificate	67	27.9
Have you ever worked with (professionals) as part of a team at school?	No	166	69.2
	Yes	74	30.8
Have you attended any seminars about students with autism?	No	133	55.4
	Yes	107	44.6
Have you ever had a student with autism included in your classroom?	No	148	61.7
	Yes	92	38.3
Have you ever used any special programs recommended by professionals?	No	153	63.8
	Yes	87	36.3

The final part of Table 2 reports the total mean scores on the basis of experiences by teachers. It appears that all teachers (i.e., general and special education) to have little experience with students autism. Approximately 25% of teachers reported having a student with autism in their

classroom, been part of team addressing the needs of student with autism, attended a seminar on teaching students with autism, or used a program for students with autism recommended by a professional.

Table 2.

Total Mean Score (and Standard Deviation) by Independent Variable

Independent Variable (IV)	Levels	N	Mean	Std. Dev.
Age	20-29	94	2.91	0.28
	30-39	64	3.00	0.27
	40-49	69	2.99	0.29
	>50	13	2.99	0.39
Gender	Male	119	2.96	0.26
	Female	121	2.96	0.31
Job Place	Special Education	120	2.98	0.26
	General Education	120	2.94	0.31
Specialty	Special Education	120	2.98	0.26
	General Education	120	2.94	0.31
Years of Experience	> 15 years	67	2.98	0.30
	11 to 15 years	22	3.06	0.26
	6 to 10 years	47	2.99	0.31
	≤ 5 years	104	2.91	0.26
Qualification	Ph.D.	19	2.89	0.41
	Masters Degree	14	2.96	0.33
	Bachelor Degree	140	2.95	0.27
	Diploma Certificate	67	3.00	0.26
Have you ever worked with (professionals) as part of a team at school?	No	166	2.95	0.29
	Yes	74	2.98	0.28
Have you attended any seminars about students with autism?	No	133	2.95	0.29
	Yes	107	2.98	0.28
Have you ever had a student with autism included in your classroom?	No	148	2.94	0.28
	Yes	92	2.99	0.29
Have you ever used any special programs recommended by professionals?	No	153	2.93	0.29
	Yes	87	3.02	0.27

General Attitudes of Teachers

The first research question examined the   differences in attitudes, beliefs and knowledge between primary special education and general education teachers towards the inclusion of students with autism in the general education classroom. The descriptive data for the total score on the survey and for individual constructs is shown in Table 2. These data are separated into scores for general education and special education teachers.

Table 3 shows a number of small differences and similarities. The total score on the survey shows that special education and general education teachers were similar in their attitudes and beliefs towards students with autism being included in the mainstream classroom. While the

mean score for special education teachers was slightly higher than that for general education teachers, this difference was negligible, and the variance around the means as shown by the standard deviations was similar.

The contribution of these variables to the general attitudes and beliefs will be discussed later in this chapter. This analysis will examine if these differences in combination contribute the overall attitudes and beliefs of teachers.

A statistical analysis was undertaken to establish if this small difference between the means for the total score was statistically significant ($p < .05$). Prior to conducting a test of differences between the means, a test of normality was undertaken on the total sample. A Kolmogorov-Smirnov test of normal distribution was conducted, and the results are shown in Table 3. These show that the total score responses by teachers were normally distributed. Therefore a t-test was conducted to examine differences in mean scores for general and special education teachers. This difference was found to be statistically non-significant ($t = 0.86$, $p > .05$).

An examination of the means and standard deviation for the constructs within the survey was undertaken. These results, shown in Table 2, indicate little difference between the means for each group on each of the constructs. Overall special education teachers hold a slightly more positive attitude towards teaching students with autism in the general classroom than general education teachers. The variance of responses, established through examining the standard deviations in Table 2, show that responses by special education teachers varied less than those for general education teachers. The one exception was for the construct inclusion where responses by special education teachers varied more than for general education teachers.

The results in Table 2 also show that the mean score for the construct of teachers' preparation according to the special education teachers group was ranked the lowest and second lowest for general education teachers. That is, respondents felt teachers were not well prepared to cater for students with autism in the general education classroom. The lowest ranked construct for special education teachers was in regards to preparation of teachers to cater for students with autism in the general education classroom. In this study, special education teachers did not think that teachers were prepared to cater for students with autism in the general education classroom.

In contrast, general education teachers ranked the construct of teachers' attitudes the lowest. General education teachers surveyed in this study reported that teachers' attitudes towards the education of students with autism in general education classroom was not positive. Implications of this outcome will be further addressed in the Discussion chapter.

Table 2.

Means and Standards Deviations from the Perspective of General and Special Education Teachers

	Special Education		General Education	
	Mean	Std. Dev.	Mean	Std. Dev.
Inclusion	2.67	0.65	2.76	0.62
Teachers' Attitudes	2.74	0.49	2.64	0.55
Teachers' Preparation	2.58	0.36	2.68	0.45
Students with Autism	3.77	0.84	3.55	0.85
Attitudes of Peers	3.31	0.69	3.21	0.71
Attitudes of Parents	3.18	0.42	3.18	0.52
Best Practice	3.26	0.38	3.13	0.47
Total Score	2.98	0.26	2.94	0.31

The responses for special and general education teachers for each construct were examined to establish if there was a statistically significance difference. First, a test for normal distribution of responses was undertaken; results are shown in Table 3. It was found that for all constructs responses were not normally distributed. Therefore, a series of non-parametric tests were undertaken to establish the difference between means.

The scores for special and general education teachers for each construct were examined using the Kolmogorov Smirnov Z test. This test makes no assumptions about the distribution of the data. The results of this test in Table 4 show that there were no statistical differences between the two sets of responses, that is, there were no statistically significant differences between the responses by the special and general education teachers across all constructs.

Table 3.

Test of Normality for Survey Constructs and Total Score

Constructs of Survey	Normality Test (Kolmogorov-Smirnov)		
	Statistic	df	Sig.
Inclusion	0.107	240	0.000
Teachers' Attitudes	0.103	240	0.000
Teachers' Preparation	0.150	240	0.000
Students with Autism	0.217	240	0.000
Attitudes of Peers	0.135	240	0.000
Attitudes of Parents	0.196	240	0.000
Best Practice	0.237	240	0.000
Total Score	0.049	240	0.200

Table 4.

Results of Kolmogorov Smirnov Test Examining Difference in Means between Special and

General Education Teachers' Attitudes Towards Inclusion

	Special Edcuation		General Education			
	Mean	SD	Mean	SD	Kolmogorov Smirnov Z	p
Inclusion	2.67	0.65	2.76	0.62	1.03	0.236
Teachers' Attit.	2.74	0.49	2.64	0.55	0.97	0.306
Teacher Prep.	2.58	0.36	2.68	0.45	1.03	0.236
Students w Aut	3.77	0.84	3.55	0.85	0.71	0.694
Attit. of Peers	3.31	0.69	3.21	0.71	0.65	0.799
Attit. of Parents	3.18	0.42	3.18	0.52	0.39	0.988
Best Practice	3.26	0.38	3.13	0.47	0.90	0.388

To answer research question 2 (i.e., What are the differences in attitudes, beliefs and knowledge of males and females special and general education teachers' towards the inclusion of students with autism in the general classroom?) means and standard deviations for the total score were calculated. In addition, the perspectives of male and female special and general education teachers on each of the constructs in the study were reported. These results are shown in Table 5.

Again the results in Table 5 showed a number of small differences and similarities between female and male special and general education teachers. The total score on the survey shows that female and male special and general education teachers were similar in their attitudes and beliefs towards students with autism being included in the mainstream classroom. Based on the five-point scale (1 to 5, with 3 being a neutral comment), female and male special and general education teacher' attitudes' and beliefs were neutral in their responses. While the mean score for special education male teachers were slightly higher than that for general education male teachers but the mean score for special education female teachers were slightly lower than that for general education female teachers. This difference is negligible, and the variance around the means as shown by the standard deviation was similar.

Table 5.

Means and Standard Deviations for Special and General Education Male and Female Teachers

Constructs of Survey	Special Education				General Education			
	Male		Female		Male		Female	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Inclusion	2.78	0.61	2.55	0.69	2.72	0.62	2.80	0.63
Teacher Attitudes'	2.80	0.49	2.66	0.47	2.60	0.56	2.66	0.54
Teachers' Perceptions	2.58	0.36	2.60	0.37	2.64	0.43	2.72	0.47
Students with Autism	3.84	0.71	3.70	0.97	3.58	0.69	3.53	0.97
Attitudes of Peers	3.19	0.57	3.44	0.80	3.18	0.71	3.23	0.71
Attitudes of Parents	3.16	0.41	3.19	0.44	3.13	0.61	3.22	0.42
Best Practice	3.28	0.38	3.22	0.39	3.11	0.46	3.13	0.49
Total Score	3.00	0.23	2.95	0.29	2.9	0.28	2.97	0.34

The examination of the means and standard deviation for the constructs within the survey was undertaken. These results, shown in Table 5, indicate little difference between the means for special education female teachers and general education female teachers as well as the mean for male teachers in each group on each of the constructs. Overall special education males and females' teachers hold a slightly more positive attitude toward teaching student with autism in the general classroom than general education males and females' teachers.

An examination Table 5 also shows that the standard deviations for each construct in the research study for special education males' teachers were smaller than for general education male teachers except, for the construct of students with autism. This shows that male special education teachers were generally more in agreement in terms of their attitudes. In

contrast, the variance in data for special education female teachers was greater than for general education females' teachers on most constructs.

Rank order for each construct between special education males and female teachers was different. The results showed that the construct of students with autism in the special and general education male and female groups came first and the construct of teachers' preparation were last according to the special education males' group and inclusion came last according to the special education female group. However, according to the general education male and female group the construct of teachers' attitudes came last.

Research question 3 asked, What are the differences in attitudes, beliefs and knowledge of primary special and general education teachers in Irbid and Amman towards the inclusion of students with autism? The means and standard deviations were calculated in relation to each the city, from the perspective of male and female special and general education teachers. This information is shown in Table 6.

The total score on the survey shows that female and male special and general education teachers in both cities (Irbid and Amman) were similar in their attitudes and beliefs towards students with autism being included in the mainstream classroom. Based on the five-point scale (1 to 5, with 3 being a neutral comment), females and males of special and general education teacher' attitudes and beliefs were neutral in their responses in both cities. While The mean score for special education males' teachers in Irbid were slightly higher than that for special education male teachers in Amman. While the mean score for special education female teachers in Irbid were slightly lower than that for special education female teachers in Amman. This difference is negligible, and the variance around the means as shown in the above table by the standard deviation was similar. In addition, the mean score for general education male and female teachers in Irbid city were very similar.

According to Table 6 that the standard deviation for special education males and female teachers in Irbid city were smaller than that for special education male and female teachers in Amman city. While the standard deviation for general education male teachers in Irbid city were lower than for general education female teachers.

The result showed that the ranking for special education male teachers in both cities were the construct of students with autism which came first and teachers' preparation came last and the rest of the constructs were different in its ranking except for the construct of best practice which came second. The highest ranking construct for special education female teachers in both cities was students with autism while the construct of inclusion was rated lowest by female teachers in Irbid city, and teachers' preparation ranked lowest according to females' teachers in Amman. On the other hand, the ranking of the constructs of general education males and females' teachers in Irbid city were similar; the construct of students with autism ranked highest while teachers' attitudes lowest.

Table 6

Means and Standard Deviations for Male and Female Special Education Teacher Amman and Irbid

Constructs of Survey	Male				Female			
	Irbid		Amman		Irbid		Amman	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Inclusion	2.69	0.52	2.83	0.67	2.39	0.70	2.61	0.68
Teacher Attitudes'	2.88	0.44	2.75	0.52	2.55	0.42	2.70	0.49
Teachers' Perceptions	2.56	0.36	2.59	0.36	2.60	0.44	2.60	0.34
Students with Autism	3.17	0.54	3.86	0.78	3.63	1.27	3.72	0.84
Attitudes of Peers	3.17	0.54	3.21	0.61	3.56	0.79	3.39	0.81
Attitudes of Parents	3.24	0.40	3.11	0.41	3.27	0.46	3.15	0.44
Best Practice	3.28	0.28	3.28	0.44	3.21	0.44	3.11	0.46
Total Score	3.00	0.19	23.00	0.23	2.96	0.29	2.91	0.28

A t-test was also computed to verify if there exist differences between special and general schools teachers' attitudes towards inclusion. The result, as shown in table 2, indicates there were significant differences between the two groups on some constructs. It is therefore possible to determine the reason or which constructs have the highest level of impact on teachers' attitudes' towards inclusion.

Teaching Experience and Variables

The attitude and beliefs of teachers towards the inclusion of students with autism in the general education classroom is influenced by a number of variables. In completing the survey in this study teachers responded to a number questions about their background (e.g., age, years of experience, qualifications). These data can be used to establish what variables contribute to the level of attitudes and beliefs of teachers towards the inclusion of students with autism in the general education classroom.

A regression analysis was conducted to establish which variables contributed most to the total attitudes and beliefs score. The dependent variable was the total score, while the independent variables included age, qualifications, place of employment, gender, specialty, and experience. The independent variables were all entered into the regression analysis. Examination of the regression analysis was undertaken, and variables were dropped from the analysis until a set of variables that made a statistically significant contribution to the variance in the total attitudes and beliefs score was identified.

The final analysis found that two variables made a statistically significant contribution to the total attitudes and beliefs score. The age of the teacher, and their specialty (i.e., general education, special education) made statistically significant contribution to the total score, and accounted for 20.3% of the variance in the total score.

Conclusion

The analysis data indicates that teachers generally reported a slightly positive attitude towards the inclusion of students with autism into general education classrooms. The difference between special and general education teachers was not statistically significant, as were the total scores between teachers from Irbid and Amman, and score between male and females' teachers. These differences will be discussed in the following chapter, and analysed in regards to existing research.

Discussion

The purpose of this research study was to investigate the attitudes, knowledge and beliefs of special and general education school teachers in Jordan toward inclusion of students with autism in the mainstream classroom. Data for this research study were obtained through a survey questionnaire developed specifically for this study. The first part of the survey included questions regarding personal details relevant to the independent variables to the research study. The second section includes 24 items relevant to attitudes, beliefs and knowledge towards the education of a child with autism in the general classroom.

This research study was based on a cross-sectional sample of 240 questionnaires. A total of 240 questionnaires were distributed, with a 100% returned and able to be used as part of the study. One hundred and twenty male teachers and 120 female teachers completed the surveys.

General and Special Education Teacher Attitudes

The first research question in this research study was examined if the attitudes, beliefs and knowledge towards the inclusion of students with autism in general education classrooms differed between special and general education schools teachers. A t-test of responses showed no significant differences ($p > .05$) in attitudes existed between special and general education teachers.

A closer look at responses by general and special education teachers showed no statistical difference on the means of each construct within the survey (i.e., inclusion, teachers' attitudes, teachers' preparation, student with autism, attitudes of peers, attitudes of parents and best practice). Special and general education teachers' attitudes towards the inclusion of students with autism slightly positive, it was ranked the second most positive construct of the seven in the questionnaire.

In contrast, the attitudes of special education teachers towards students with autism in a regular classroom were ranked the most negative. The mean scores for general education teachers (3.55) and special education teachers (3.77) indicated that while they held slightly positive views

towards inclusion, the presence of students with autism in a regular classroom did not elicit the same slightly positive response. The slightly more negative response by special education teachers indicated they may have been more sceptical than their general education colleagues in regards to the inclusion of students with autism in the general education class.

The reasons for this differential response between the general concept of inclusion, and the inclusion of students with autism in the general education classroom are not clear. One reason may have been due to the specialist knowledge of special education teachers and their professional belief that general education teachers were not prepared to provide appropriate education programs for these students. This is possibly supported in the construct of "teacher preparation" where special education teachers were slightly less in agreement than their general education colleagues. Another reason may be that general education teacher's attitudes towards educating students with autism in the general education classroom were more positive, with the notion of inclusion being a broader understanding of the concept (e.g., diversity).

Difference in Attitudes by Gender

The second general question in this study addressed whether there were any differences in attitudes between female and male special and general education teachers towards the inclusion of students with autism. The group of male and female special and general education teachers showed similar neutral attitudes towards the inclusion of students with autism in the general classroom. The difference in means while only slight indicated that male special education teachers held slightly lower attitudes than their female colleagues, while the general education male counterparts were slightly lower than their female colleagues. The variances around the means in each group on all constructs were not significant.

The study found that male and female teachers held positive attitudes towards the inclusion of students with disabilities in the general classroom. However, both groups of teachers held more negative attitudes towards the inclusion of students with autism in the general classroom.

Male and female special education teachers held similar attitudes towards the evidence-based practices for students with autism. These attitudes were slightly higher than their general education colleagues. There appears to be doubt that the successful implementation of evidence-based practice will best be made by the local teachers, professionals and parents who are the most aware of individual students (Simpson, 2005). Positive outcomes will occur when knowledgeable skills are applied and teachers, professionals and parents collaborate to use such methods to meet students with autism needs (Simpson, 2005).

Differences in Attitudes by City

The third research question examined if there were any differences in attitudes, beliefs and knowledge of special and general education teachers in the cities of Irbid and Amman towards the inclusion of students with autism in the general classroom. These results suggested that the variances between the total means score of special and general education school teachers in Irbid and Amman cities were not significant and the total score of the questionnaire were similar

between the two groups of teachers in both cities. In addition, the results suggested that the attitudes of both groups of teachers in both cities held positive attitudes towards the inclusion of students with disabilities, while their attitudes towards the inclusion of students with autism in the general classroom was ranked lowest. However, the negative attitudes and the differences were not significant between the two groups of teachers in each city.

Overall, both groups of teachers were neutral in their answers, the sample of Jordanian special education teachers held slightly more positive attitudes towards the inclusion of students with autism in the general classroom than general education teachers. The implication of this research question showed that special and general education teachers support the education of students with autism in a general education setting but they felt unprepared to teach such students in an inclusive setting. On the contrary, general education teachers' attitudes towards inclusion students with autism were more slightly positive than their special education colleagues.

This research study found that special and general education schools' teachers in Jordan hold generally slightly positive attitudes towards the inclusion of students with autism**.** The results of this study are inconsistent with other research studies (Anderson & Antonka, 1992; Mcleskey & Waldron, 2002; Shade & Stewart, 2001).

Therefore, it is possible that the Jordanian disability reforms that took place in 1996 with the implementation of supportive legislations may have increased public awareness of the needs and rights of people with disabilities in general and autism in particular (Directorate of Educational Studies and Research, 1996), but they might not have yet influenced yet teachers' attitudes towards inclusion, since the formation of attitudes are influenced by many factors (Avramidis et al., 2000).

This claim could be further supported by the finding that teachers held overall neutral attitudes towards inclusion irrespective of their experience and preparation about inclusive education for students with autism in the general classroom. Since in Jordan special needs training was just recently introduced in some universities (The Ministry of Education, 1996), it is likely that teachers with limited experience and preparation of inclusive education did not have the chance to benefit from proper training, which could make them less resistant to inclusive practices (Shade & Stewart, 2001).

Moreover, the present study showed that some special and general education teachers with some experience in working with students with autism held more positive attitudes towards inclusion than their colleagues without relevant experience. This finding has been supported by a study conducted by Al-Zyoud (2006) who stated that the main issues that influence Jordanian teachers' attitudes towards inclusion students with disabilities were the severity of the students' disability and the length of the teachers' experience and training. This suggests that the preparation and the experience of teachers with inclusion could affect the teachers' level of confidence towards inclusion and show negative attitudes rather than positive attitudes. (Kalaian & Freeman, 1994) stated that the confidence levels of teachers are significant to implicate on other aspect of teaching.

Future research

The attitudes of special and general education teachers towards inclusion of students with autism in Jordan could be expressed by the negative attitudes towards classroom practices, which might be explained by the lack of support and resources in the classroom and the school system or level (Center & Ward, 1987). The absence of such related factors has been associated with negative attitudes towards inclusion in some other studies (e.g., (Jull & Minnes, 2007). Financial and other supports from the department of education could stand behind such factors, and may need to be improved to sustain inclusive education. Some special and general education teachers with some experience showed positive attitudes towards inclusion student with autism than teachers without probably because they were forced to work with children with disability in an inclusive setting in the past. Further, it could be the type of culture, since some parents deny their child's learning disability or may behave as if everything is okay and ignore the child learning problems, and some of them may hide their disables child because of rejection by other members of the society. In addition, typical peers may consider that children with disabilities are different to them and they should not be included in the same classroom. It is likely that parent attitudes and typical peers attitudes might be issues associated with teachers' negative attitudes towards inclusion students with autism in the general classroom in Jordan (Mcleskey & Waldron, 2002; Neil, 2008; UNESCO, 2005)

Special and general education teachers held slightly negative attitudes towards inclusion of students with autism. The belief that children with autism have the right to be educated with their typically developing peers in an inclusive setting, and inclusion were considered key constructs for educating all children regardless their abilities. However, the type of academic preparation teachers receive as well as the extent of experience and preparation can lead to expression of negative attitudes. Teacher without specific training in the management and instructional skills for students with autism were less positive than teachers with more training (Hobbs & Westling, 1998).

As far as expected outcomes of inclusion are concerned, special and general education teachers held an overall neutral attitude towards inclusion of children with autism, probably because inclusion of students with mental disability started being implemented in Jordan 1993 (The ministry of education, 2008) and teachers did not know what to expect and what would be the outcomes (Westwood & Graham, 2003).

Limitations

Despite the utility of this study which was the first one in Jordan comparing special and general primary schools teachers attitudes towards inclusion of students with autism into regular classroom, it should be stressed that it has a number of limitations. The sample was not representative of the whole population of special and general primary schools' teachers in Jordan, since only teachers from primary schools in Irbid and Amman were surveyed. Further, only general education teachers were surveyed from Irbid city because of time limits. The design of this study was not longitudinal and therefore it is not possible to detect trends in attitudes

towards inclusion using the same measure. In addition, data collected was generally surface level, and could be enhanced through collecting interview data that probed teacher attitudes and beliefs about the education of students with autism in the general education classroom.

There were no data linking attitudinal scores to either teaching effectiveness or to student with autism outcomes. These data would allow discussion of the educational practices in general education classrooms; these data would also allow these practices to be compared with those that the literature has highlighted as effective in meeting the need of students with autism.

Conclusion

Given the fact that the implemented changes in Jordan have reinforced positive attitudes towards inclusive education, it also might be recommended to revising the training programs at universities as well as educational programs for children with autism.

References

Al-hindi, E. (2010). Effet AL-Hindi Centre Electronic-Guidance- Information Center from http://www.ehcconline.org/information_center/wmview.php?ArtID=1039

Al-Zyoud, M. (2006). Teachers' Atitudes Towards Inclusive Education in Jordanian Schools. *International Journal of Special Education, 21*(2), 55-67.

Al Hendawy, T. (1992). The Educational policy and reform in the Hashemite Kingdom of Jordan. Risalat Almualim (Ministry of Education, Amman – Jordan). *33*(1), 9-34.

Alahbabi, A. (2009). K-12 Special And General Education Teachers' Attitudes Toward The Inclusion Of Students With Special Needs In General Education Classes In The United Arab Emirates (UAE). *International Journal of Special Education, 24*(2), 42-54.

Alton-Lee, A., Rietveld, C., Klenner, L., Dalton, N., Diggins, C., & Town, S. (2000). Inclusive practice within the lived cultures of school communities: research case studies in teaching, learning and inclusion *international Journal of Inclusive Education, 4*(3), 179-210.

American Association on Mental Retardation. (2000). *Diagnostic and statistical manual of mental disorders*. Washington, DC: Author.

Anderson, R. J., & Antonka, F. R. (1992). The influence of attitudes and contact on reactions to persons with physical and speech disabilities. *Rehabilitation Counseling Buulletin, 34*, 240-247.

Artiles, A. J., Harris-Murri, N., & Rostenberg, D. (2006). Inclusion as social justice: Critical notes on discourses, assumptios and the road ahead. *Theory Into Practice, 45*(3), 260-268.

Avramidis, E., Bayliss, P. D., & Burden, R. L. (2000). Inclusion in action: an in-depth case study of an effective secondary school in the south west of England. *International Journal of Inclusive Education, 6*(2), 143-163.

Avramidis, E., & Norwich, B. (2002). Mainstream teachers' attitudes towards inclusion/integration: A review of the literature. *European Journal of Special Needs Education, 17*(2), 129-147.

Baker, E. T., Wang, M. C., & Walberg, H. J. (Dec 1994/Jan 1995). The Effects of Inclusion on Learning. *Educational Leadership, 52*(4), 33-35.

Bang, M.-Y., & Lamb, P. (1996). *The Impact of Inclusion of Students with Challenging Needs* (Reports - Research Speeches/Meeting Papers No. H0023R20010).

Baron-Cohen, S., Scott, F. J., Allison, C., Williams, J., Bolton, P., Matthews, F. E., & Brayne, C. (2009). Prevalence of Autism-Spectrum Conditions: UK School-Based Population Study. The British Journal of Psychiatry.

Brownell, M., T, & Walter-Thomas, C. (2001). Steven Shore: Understanding the autism spectrum--what teachers need to know. *Intervention in School and Clinic, 36*(5), 293-299.

Center, Y., & Ward, J. (1987). Teachers' Attitudes Towards the Integration of Disabled Children into Regular Schools. *International Journal of Disability, Development and Education, 34*(1), 41-56.

Chamberlain, B., Kasari, C., & Rotheram-Fuller, E. (2007). Involvement or Isolation? The Social Networks of Children with Autism in Regular Classrooms. Journal of Autism and Developmental Disorders, 37(2), 230-242.

Cook, B. G. (2001). A comparison of teachers' attitudes toward their included students with mild and severe disabilities. *The Journal of Special Education, 34*(4), 203-213.

Cook, B. G., Tankersley, M., Cook, L., & Landrum, T. J. (2000). Teachers' Attitudes toward Their Included Students with Disabilities. *Exceptional Children, 67*(1), 115-135.

Creswell, J. (2009). *Research design: Qualitative, quantitative and mixed methods approaches* (3rd ed): Thousand Oaks, CA: Sage.

Dempsey, I., Foreman, P., & Jenkinson, J. (2002). Educational enrolment of students with a disability in New South Wales and Victoria. *International Journal of Disability, Development and Education, 49*(1), 31-46.

Department of Employment Education Training and Youth Affairs. (1997). *Discussion paper: Disability Discrimination Act, Disability Standards in Education*: Canberra: Author.

Dybvik, A. C. (2004). Autism and the inclusion mandate. What happens when children with severe disabilities like autism are taught in regular classrooms? Daniel knows. *Education Next*, 43-49.

Elkins, J., Kraayenoord, C. E. v., & Jobling, A. (2003). Parents' attitudes to inclusion of their children with special needs. *Journal of Research in Special Educational Needs, 3*(2), 122-129.

Foreman, P., & Arthur-Kelly, M. (2008). Social justice principles, the law and research, as bases for inclusion. *Australasian Journal of Special Education, 32*(1), 109-124.

Foreman, P., Bourke, S., Mishra, G., & Frost, R. (2001). Assessing the support needs of children with a disability in regular classes. *International Journal of Disability, Development and Education, 48*(3), 240-252.

Forlin, C. (2004). Promoting inclusive in Western Australia schools. *International Journal of Inclusive Education, 8*(2), 185-202.

Fonbonne, E. (2009). *Epidemiology, causes and diagnosis: Latest developments and issues for practitioners*. Paper presented at the 2009 Asian Pacific Autism Conference, Sydney.

Gay, L. R. (1996). *Educational Research: Competencies for analysis and application* (5th ed.). Upper Saddle River, NJ: Prentice-Hall.

Hobbs, T., & Westling, D. L. (1998). Promoting successful inclusion through collaborative problem solving. *Teaching Exceptional Children, 31*(2), 12-19.

Hwang, Y., & Evans, D. (in press). Attitudes towards inclusion: Gaps between belief and practice. *Journal of International Special Needs Education*.

Jamieson, S. (2004). Creating an Educational Program for Young Children Who Are Blind and Who Have Autism. *RE.View, 35*(4), 165-177.

Johnson, G. M., & Howell, A. J. (2009). Change In Pre-Service Teacher Attitudes Towards Contemporary Issues In Education. *International Journal of Special Education, 24*(2), 35-41.

Jones, G. (2006). Department for Education and Skills/Department of Health Good Practice Guidance on the education of children with autistic spectrum disorder. *Child: Care, Health and Development, 32*(5), 543-552.

Jones, V. (2007). "I Felt like I Did Something Good"--The Impact on Mainstream Pupils of a Peer Tutoring Programme for Children with Autism. *British Journal of Special Education, 34*(1), 3-9.

Jordan Department of Statistics. (2008). The Hashemite Kingdom of Jordan Department of Statistics. http://www.dos.gov.jo/sdb_pop/sdb_pop_a/index3_o.htm.

Jull, S., & Minnes, P. (2007). The Impact of Perceived Support on Attitudes Towards Inclusion. *Jornal on Developmental Disabilities, 13*(1), 179-184.

Jung, W. S. (2007). Preservice Teacher Training for Successful Inclusion. *Education, 128*(1), 106-113.

Kalaian, H. A., & Freeman, D. J. (1994). Gender Differences in Self-Confidence and Educational Beliefs among Secondary Teacher Candidates. *Teaching and Teacher Education, 10*(6), 647-658.

Kasari, C., Freeman, S. F. N., Bauminger, N., & Alkin, M. C. (1999). Parental Perspectives on Inclusion: Effects of Autism and Down Syndrome. *Journal of Autism and Developmental Disorders, 29*(4), 297-305.

Krajewski, J., Hyde, M., & O'Keefe, M. (2002). Teen attitudes towards individuals with mental retardation from 1987-1998: Impact of respondent gender and school variables. *Education and Training in Mental Retardation Developmental Disabilities, 37*(1), 27-39.

Lamers, K., & Hall, L. J. (2003). The Response of Children with Autism to Preferred Prosody During Instruction *Focus on Autism and Other Developmental Disabilities, 18*(2), 95-104.

Lanier, N. J., & Lanier, W. L. (1996). The effects of experience on teachers' attitudes toward incorporating special students into the regular classroom. *Education, 117*(2), 234-240.

Lipsky, D., K, & Gartner, A. (1994). Inclusion: What it is, what its not and why it matter. *Exceptional Parent, September*, 36-38.

Logan, A. (2006). The Role of the Special Needs Assistant Supporting Pupils with Special Educational Needs in Irish Mainstream Primary Schools. *Support for Learning, 21*(2), 92-99.

Lynch, S. L., & Irvine, A. N. (2009). Inclusive education and best practice for children with autism spectrum disorder: an integrated approach. *International Journal of Inclusive Education, 13*(8), 845-859.

Main, S., & Hammond, L. (2008). Best Practice or Most Practiced? Pre-service Teachers' Beliefs about Effective Behaviour Management Strategies and Reported Selfefficacy. Australian Journal of Teacher Education, 33(4), 28-39.

McGregor, G., & Vogelsberg, R. T. (1998). *Inclusive schooling practice: Pedagogical and research foundations*: Allegheny University of Health Sciences.

Mcleskey, J., & Waldron, N. L. (2002). School change and inclusive schools: Lessons learned from practice. *Phi Delta Kappan, 84*(1), Retrieved September 18, 2002 from: http://web2014.epnet.com/citation.asp.

Menard, S. (1991). Longitudinal Research: California: Sage Publications. Ministry of Education. (1988). The First National Conference for Educational Development. Risalat Almualim. Amman, Jordan.*, 29*(2 & 3: Special Issue).

Ministry of Education. (1995b). General Plan of Educational Training. General Directorate of Educational Training, Amman-Jordan.

Ministry of Education. (1996). National Report: The Development of Education in the Hashemite Kingdom of Jordan, (presented to the International Conference on Education, Geneva 30/9-5/10/1996). The General Directorate of Educational Research and Studies. Amman – Jordan.

Ministry of Education. (2004). The Development of Education: National report of the Hashemite Kingdom of Jordan: presented to the 47th session of the International Conference on Education Geneva (8-11 September 2004). Geneva. Government report.

Ministry of Education Department of Educational Documentation. (1980). History of Education in Jordan (1921- 1970). Ministry of Education, Amman, Jordan.

Ministry of Social Development Jordan. (Sep/2009). The Ministry of Social Development, The Hashemite Kingdom Of Jordan. http://www.mosd.gov.jo/index.php.

Monahan, R. G., Marino, S. B., & Miller, R. (1996). Teacher attitudes towards inclusion: Implications for teacher education in schools 2000. *Education, 117*(2), 316-320.

Monsen, J. J., & Frederickson, N. (2003). Teachers' Attitudes Twards Mainstreaming And Their Pupils' Perceptions Of Their Classroom Learning Enviroment. *Learning Environments Research, 7*(129-142).

Moore, J., & Fine, M. J. (1978). Regular and Special Class Teachers' Perceptions of Normal and Exceptional Children and Their Attitudes Toward Mainstreaming. *Psychology in the Schools. 15, 2, 253-9, Apr 78*.

Moreno, J., Aguilera, A., & Saldana, D. (2008). Do Spanish Parents Prefer Special Schools for Their Children with Autism? Education and Training in Developmental Disabilities, 43(2), 162-173.

Moss, L. (1995). *Autism: knowledge, perceptions and practices: an investigation of the knowledge and perceptions of rural early childhood teachers about children with autism and some of the practices they use for successful educational inclusion*.

Neil, H. (2008). Including pupils with autistic spectrum disorders in mainstream schools. *Support for Learning, 23*(1), 41-47.

Neuman, W. L. (2006). *Social Research Methods: Qualitative and Quantitative Approaches* (6th ed.). New York: Allyn & Bacon.

Nirje, B. (1992). *The normalisation principle papers. Uppsala Sweden: Center for Handicapped Research, Uppsala University; 1992*.

Owen-DeSchryver, J. S., Carr, E. J., Cale, S. I., & Blakeley-Smith, A. (2008). Promoting Social Interactions between Students with Autism Spectrum Disorders and Their Peers in Inclusive School Settings. *Focus on Autism and Other Developmental Disabilities, 23*(1), 15-28.

Prior, M., & Roberts, J. (2006). Early Intervention for Children With Autism Spectrum Disorders: Guidelines for Best Practice: Australia. from www.health.gov.au.

Renzaglia, A., Karvonen, M., Drasgow, E., & Stoxen, C. C. (2003). Promoting a Lifetime of Inclusion. *Focus on Autism and Other Developmental Disabilities, 18*(3), 140-149.

Robertson, K., Chamberlain, B., & Kasari, C. (2003). General Education Teachers' Relationships with Included Students with Autism. *Journal of Autism and Developmental Disorders, 33*(2), 123-130.

Rubin, A., & Babbie, E. (2008). *Research methods for social work* (6th ed ed.): Belmont, CA: Thomson Brooks/Cole.

Ryndak, D. L., Morrison, A. P., & Sommerstein, L. (1999). Literacy before and after inclusion in general education settings: A case study *Journal of the Association for Persons with Severe Handicaps, 24*, 5-22.

Sawyer, L. M., Luiselli, J. K., Ricciardi, J. N., & Gower, J. L. (2005). Teaching A Child with Autism to Share Among Peers in an Integrated Preschool Classroom: Acquisition, Maintenance, and Social Validation. *Education and Treatment of Children, 28*(1), 1-10.

Scheuermann, B., Webber, J., Boutot, E. A., & Goodwin, M. (2003). Problems with Personnel Preparation in Autism Spectrum Disorders. Focus on Autism and Other Developmental Disabilities, 18(3), 197-206.

Schmelkin, L. P. (1988). Multidimensional perspective in the perception of disabilities. (In H. E Yuker ed.). New York: Springer.

Schwartz, I. S., Sandall, S. R., McBride, B. J., & Boulware, G.-L. (2004). Project DATA (Developmentally Appropriate Treatment for Autism): An Inclusive School-Based Approach to Educating Young Children with Autism. *Topics in Early Childhood Special Education, 24*(3), 156-168.

Shade, R., A, & Stewart, R. (2001). General Education and Special Education Preservice Teachers' Attitudes Towards' Inclusion. *Preventing School Failure, 46*(1), 37-41.

Shaddock, A. (2007). *Improving learning outcomes for all students: Strategies for teachers who don't claim to be super heroes*. Presentation at Successful Learning Conference, Harold Park Raceway Function Centre.

Simpson, R. L., de Boer-Ott, S. R., & Smith-Myles, B. (2003). Inclusion of Learners with Autism Spectrum Disorders in General Education Settings. Topics in Language Disorders, 23(2), 116-133.

Simpson, R. L. (2003). Policy-related research issues and perspectives. *Focus on autism & other developmental disabilities, 18*(3), 192-197.

Simpson, R. L. (2005). Evidence-Based Practices and Students with Autism Spectrum Disorders. *Focus on Autism and Other Developmental Disabilities, 20*(3), 140-149.

Stoner, J. B., & Angell, M. E. (2006). Parent Perspectives on Role Engagement: An Investigation of Parents of Children with ASD and Their Self-Reported Roles with Education Professionals. *Focus on Autism and Other Developmental Disabilities, 21*(3), 177-189.

Terpstra, J. E., Higgins, K., & Pierce, T. (2002). Can I Play?Classroom-Based Interventions for Teaching Play. *Focus on Autism and Other Developmental Disabilities, 17*(2), 119-128.

The Individuals with Disabilities Education Act IDEA. (2004). *Individuals with Disabilities Education Improvment Act*. 20 USC 1400 note.

The Ministry of education. (1996). *The Development of Education in the Hashemite Kingdome of Jordan*. National Report Presented to the 45th session of the International Conference on Education, Geneva.

The ministry of education. (2008). *The Development of Education National Report of The Hashemite Kingdome of Jordan (Inclusive Education: The Way of the Future)*. The 48th Session of Education, Geneva.

Thompson, D., Whitney, I., & Smith, P., K. (1994). Bullying children with special needs in mainstream schools. *Support for Learning, 9*(3), 103-106.

Towbn, K. E., Mauk, J. E., & Batshaw, M. L. (2001). *Pervasive developmental disorder. In M. L. Batshaw (Ed.), Children with disabilities* (5th ed.): Baltimore: Paul H. Brooks.

UNESCO. (1994). *Salamanca statment on principles, policy and practice in special needs education*. Paris: Author.

UNESCO. (1996). *Education for All*. Paris: Author.

UNESCO. (2005). *Guidelines for inclusion: Ensuring Access to Education for All*. Paris: Author.

UNESCO. (2008). Special Needs Education Mission Statment. from http://www.unesco.org/ar/

UNESCWA. (2005, 4 April 2005). United Nations, Economic and Social Commission for Western Asia. *UN-ESCWA*.

United Nation Disability Convention. (2008). Hear our voices. Priority Issue for people with Intellectual Disabilities and their Families in the Implementation of the United Nations Convention on the Rights of People with Disabilities. from www.inclusion-international.org

US Department of Education. (2010). *Building the legacy: IDEA 2004. Retrieved January 12, 2010, from*.

Vakil, S., Welton, E., O'Connor, B., & Kline. S. L. (2008). Inclusion Means Everyone! The Role of the Early Childhood Educator when Including Young Children with Autism in the Classroom *Early Childhood Education Journal, 36*(4), 321-326.

Wertheimer, A. (1997). *Inclusive Education: A Framework for Change. National and International Perspectives*.

Westwood, P., & Graham, L. (2003). Inclusion of students with special needs : benefits and obstacles perceived by teachers in New South Wales and South Australia. *Australian Journal of Learning Disabilities, 8*(1), 3-15.

Whitaker, P. (2007). Provision for Youngsters with Autistic Spectrum Disorders in Mainstream Schools: What Parents Say--and What Parents Want. *British Journal of Special Education, 34*(3), 170-178.

Whitaker, P., Barratt, P., Joy, H., Potter, M., & Thomas, G. (1998). Children with Autism and Peer Group Support: "Using Circles of Friends". *British Journal of Special Education, 25*(2), 60-64.

Wilkinson, L. A. (2008). Self-Management for Children with High-Functioning Autism Spectrum Disorders. *Intervention in School and Clinic, 43*(3), 150-157.

Williams, K., MacDermott, S., Ridley, G., Glasson, E., & Wray, J. (2008) The prevalence of autism in Australia: Can it be established from existing data? *Journal of Paediatrics and Child Health, 44* (9), 504.510.

Winterman, K. G., & Sapona, R. H. (2002). Everyone's Included: Supporting Young Children with Autism Spectrum Disorders in a Responsive Classroom Learning Environment. *Teaching Exceptional Children, 35*(1), 30-35.

Wing. L., & Gould, J. (1979). Severe impairments of social interaction and associated abnormalities in children: Epidemiology and classification. *Journal of Autism and Developmental Disorders*, *9*, 11-29.