

SAUDI ARABIAN FEMALE TEACHERS' ATTITUDES TOWARDS
THE INCLUSION OF CHILDREN WITH AUTISM
INTO MAINSTREAM CLASSROOMS

By

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Dedication

I dedicate this work to my mother (Mrs. Sara Alshawi), father (Mr. Saleh Alhedaithy), grandmother (Mrs. Ayesha Alfuraih), aunt (Lulu Alshawi) siblings (Azzam, Noura, Mohammed, Abdulaziz, Maram, Rund and Sulaiman), my precious sons (Saud and Mohammed), and, finally, my dear husband (Zyad Al-Omani).

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I am filled with gratitude for my mother, husband and family who placed a particular emphasis on education, and instilled in me their work ethic and determination for success; their tireless patience, support and encouragement over the difficult years (and across the miles) while I completed this challenging study in the United Kingdom has been invaluable. I am truly grateful for their endless love.

Finally, I wish to dedicate this thesis to my father. It is because of you I am the woman I am today. Your endless support and unwavering (and at times undeserved) pride and faith in me have sustained my efforts over the years. Despite our time difference, you were only ever a phone call away, whether during the day or the middle of night. I am indebted to you for every single sacrifice you have made for me as a little girl, and now as an adult. You are the ultimate role model, one I can only hope to emulate for my own children. You will always be my life's brightest star. I love you from the bottom of my heart.

Abstract

The purpose of this study was to determine the attitudes of the Kingdom of Saudi Arabia (KSA), female elementary schools' and autism special institutes' teachers towards inclusion of children with autism into mainstream classrooms in KSA. Autism Spectrum Disorder (ASD) is characterised by a range of complex neuro-development disorders such as social impairments, communication difficulties, and restricted, repetitive and stereotyped patterns of behaviour. Occurrence is estimated at 1 in 88 birth, and it is three to four times more common in boys than girls. Modifications of Reasoned Action and Planned Behaviour theories were used as a framework to analyse the reason and the importance behind teachers' attitudes and behaviours towards inclusion of children with autism.

To examine teachers' attitudes and to answer the research main questions mixed type of quantitative and qualitative research approaches were designed. A Likert type questionnaire was adapted and developed from the Opinions Relative to Mainstreaming (ORM) of Antonak and Larrivee (1995). It was then translated to Arabic language and checked for validity and reliability. Questionnaires were mainly used for measuring the teachers' attitudes towards inclusion. Teachers' responses to open-ended questions and interviews were also part of the research. Six hundred teachers were surveyed; 497 (83%) useful questionnaires were returned and used for data analyses, and 12 teachers were interviewed. For the study data analysis, different descriptive statistical measures were used through SPSS system.

The results were grouped in five themes, and revealed that teachers were supportive and have positive attitudes toward inclusion of children with autism in mainstream classrooms. Private special institutes' teachers however, held more positive attitudes toward the inclusion than those of governmental public mainstream elementary school teachers. The qualitative analysis of the open-ended written responses and the interviews revealed that all teachers appeared unsupportive of the general concept of inclusion as, if it is to be applied now. They believe that the mainstream classrooms are not appropriate, setting for children with autism nor the teachers were qualified. They need further preparation and training. Based on the results, implications and recommendations for future practice are provided.

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Abbreviations

| | |
|-------|--|
| ABA | Applied Behaviour Analysis |
| ADA | Americans with Disabilities Act |
| APA | American Psychiatric Association |
| AS | Asperger's Syndrome |
| ASD | Autism Spectrum Disorder |
| CEDAW | Convention on the Elimination of all forms of Discrimination Against Women |
| CSIE | Centre for Studies on Inclusive Educatio |
| DSM | Diagnostic and Statistical Manual |
| DSM-5 | The Diagnostic and Statistical Manual of Mental Disorders |
| EFA | Education For All |
| GSSE | General Secretariat of Special Education |
| IDD | Intellectual and Developmental Disabilities |
| IDEA | Individuals with Disabilities Education Act |
| KAUST | King Abdullah University of Science and Technology |
| KSA | Kingdom of Saudi Arabia |
| KSCDR | King Salman Centre for Disability Research |
| LD | Learning Disabelity |
| MOE | Ministry of Education |
| MOEP | Ministry of Educational Planing |
| MOHE | Ministry of Higher Education |
| MOH | Ministry of Helth |
| MOI | Ministry of Interior |
| MOSA | Ministry of Social Affairs |
| MOP | Ministry of Planing |
| NCLB | No Child Left Behind Act of 2004 (USA) |
| NINDS | National Institute of Neurological Disorders and Str |
| ORI | Opinions Relative to Integration |
| ORM | Opinions Relative to Mainstreaming |
| PDD | Pervasive Developmental Disorders |
| UPN | Rahman University Princess Nora bint Abdu |
| SA | Saudi Arabia |

| | |
|--------------|--|
| SAMA | Saudi Arabia Monetary Agency |
| SEN | Special Educational Needs |
| SLD | Specific Learning Disability |
| SPSS | Statistical Package for the Social Sciences |
| SSI | Semi-Structured Interview |
| T: 1,2,3,4,5 | Themes that group the results together |
| UN | United Nations |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| WHO | World Health Organisation |
| LRE | Least Restrictive Environment |
| IEP | Individual Educational Plan |

Chapter 1: Introduction

1.1 Introduction

This introductory chapter provides the framework of the study (section 1.2), the aim of the study (section 1.3), a statement of the problem (section 1.4), the significance of the study (section 1.5), and the research questions for this study (section 1.6). The definitions of inclusion, attitude and autism as they used in this study are briefly outlined (section 1.7) and the chapter ends with the thesis overview (section 1.8).

1.2. Framework and background of the study

This study examines teachers' attitudes towards the inclusion of children with autism in the Kingdom of Saudi Arabia (KSA) in relation to the UNESCO (1994) Salamanca Statement on inclusion. Ninety-two (92) countries signed the Salamanca Statement, including KSA, pledging to adopt the "principal of inclusive education, enrolling all children in regular schools unless there are compelling reasons for doing otherwise" (UNESCO 1994: P.44). The Disability Code of the KSA, as described by the King's decree in 2001 (King Salman Centre for Disability Research "PSCDR", 2010), calls for the creation of a coordinated process to utilize medical, social, psychological, educational, and professional services to enable disabled individuals to achieve the maximum functional degree of efficiency. The Disability Code of KSA includes the provision of necessary assistive devices for children and workers, financial assistance to the disabled, transportation assistance, accommodation, and public facilities to enable foster care for disabled individuals.

Sugden and Chambers (2005); Mittler (2002); Sebba and Ainscow (1996) assert that principles of inclusion in education have been recognised worldwide, in both developed and developing countries. However a significant amount of research on the subject of inclusion towards children with Special Education Needs (SEN) is focused primarily on Western countries, including the UK, Australia, and USA. Although Special Education Services were established in the KSA fifty years ago, and have improved over the last 10-15 years (Afeafe, 2000), inclusive education in KSA has been significantly understudied and needs further development; KSA is in need of more comprehensive research into implementing inclusion and developing inclusive education. This research should be focused on the attitude of teachers and stakeholders towards inclusion in education (Al-Quraini, 2011). It is vital to

study inclusion in education in developing countries such as KSA as while there has been minimal research into inclusive education in non-Western countries, there has been a growing awareness of inclusive education practices within mainstream schools for children with SEN in KSA.

An inclusive school environment can encourage all children to be aware of their potential and their abilities (Farrell and Ainscow, 2002) and remove barriers, which may be perceived as obstacles to children's development (Ainscow, 1999). The primary resources for implementing an inclusive school environment are teachers who undoubtedly are a central in supporting all aspects of each child's development. However, the legislation in KSA for the educational system is separated by gender; a gender base is mandated at all levels of education, from elementary age to university level (Al-Saloom, 1999). Much of the existing research in relation to inclusion in education and teachers' attitudes towards inclusion in KSA schools has dealt primarily with male subjects. The female teachers, as far as the researcher is aware, are often overlooked in research, despite the fact that 52% of teachers in KSA are female. As teachers' attitude regarding the inclusion of children into mainstream schools influences their teaching practices and plays a critical role in the success of any educational plan, the understudied population of female teachers provides significant contextual motivation for this study.

The term SEN is an umbrella term for a large body of needs; one of these is autism and, although there is growing awareness of the autism spectrum in KSA, according to Al-Faisal (2012) (Princess Samira Al-Faisal is the General Director of KSA Organization for children with autism families, "in Saudi Arabia autism has raised rapidly, but there is no specific percentage that indicates children with autism in the country" (Al-Faisal, 2012). The implication that there is no specific percentage highlighting the number of children with autism in KSA suggests that autism is a relatively understudied within the KSA educational context. This was confirmed through the researchers' personal experiences in education, and the review of research relating to this topic, where the researcher found that minimal studies were available in the field of autism in education in KSA. It is this gap in research that inspired the researcher to specifically select the inclusion of children with autism in KSA as a focus for this specialist study of inclusive education.

1.3. Aims of the study

In considering the critical involvement of teachers in promoting inclusion within the educational context, holding positive attitudes towards inclusion and to children with SEN in general is highly important as teachers' attitudes have a profound effect on inclusive education (e.g. Al-Quraini, 2011; Alghazo and Naggar Gaad, 2004; Alghazo, Dodeen and Algaryouti, 2003; Downs, 2003; Hammond, and Ingalls, 2003; Wilczenski, 1991 and others). The literature indicates that when teachers learn more about SEN and inclusion of children in education, children's attainment outcomes are enhanced (e.g. Prisner, 2003; Alghazo and Naggar Gaad, 2004; Pwer-defur and Orelove, 1997).

This present study investigated the attitudes of specifically female teachers who are teaching in KSA mainstream elementary schools, and others who are teaching in Institutes, towards inclusive education for children with autism within mainstream schools. The aim of this study is to obtain deeper understanding of teachers' attitudes towards implementing inclusion practices in mainstream schools in KSA. It is through gaining understanding of teachers' attitudes towards inclusion that we can begin to establish what teachers' perceive to be barriers and obstacles to the inclusion of children with SEN. It is only through identifying these barriers that we are able to suggest solutions and interventions to allow for inclusion to be fully and appropriately practised in KSA. The theoretical contribution of this study is to provide frameworks to demonstrate the factors that influence and dictate teachers' attitudes towards the inclusion of children with autism.

1.4. Significance of the study

The study of KSA female mainstream elementary school and institutes teachers' attitudes towards the inclusion of children with autism is significant because:

1. In KSA there is limited information on female teachers' attitudes and beliefs regarding the inclusion of children with autism into mainstream classrooms. Al-AbdulJabbar and Masoud (2002) indicated that, because their study included the opinions of only male principals and teachers towards inclusion programmes, a study should be conducted with female teachers attitudes' towards the inclusion of children with SEN.
2. In his study about the KSA experience of mainstreaming children with SEN, Al-Mosa (2010) reported "it is highly worth mentioning that the purpose of the evaluation

process of mainstreaming programs in the Kingdom is to improve special education services, not to judge the experience of mainstreaming as a success, or a failure" (p. 61). He added "we see mainstreaming as an inevitable necessity, as it provides us with a very flexible educational mechanism that enables us to fulfil the needs of all exceptional children in the Kingdom" (p. 61). This study contributes to the limited literature on the inclusion of children with autism in the KSA educational field.

3. This study will direct attention to KSA's inclusion of children with autism in mainstream classrooms and its educational implications. It will create a critical level of awareness, which will stimulate further research in the field of inclusion of children with autism.
4. Based on the information and the findings from this study, teachers' attitudes and opinions will inform the Ministry of Education (MOE) and help upgrade the quality of educational services for children with autism in mainstream classes, as well as improving schools for SEN children in general in KSA.
5. Knowing teachers' attitudes towards inclusion will improve special education in general and that of children with autism in particular, as mentioned in section 1.2

1.5. Research questions

The researcher is able to organise the study questions into four researchable areas:

- What are Saudi Arabian female teachers' attitudes towards the inclusion of children with autism into mainstream schools?
 - Female teachers in mainstream elementary schools and
 - Female teachers in special institutes for children with autism.
- Are there any differences between the attitudes of the Saudi female mainstream elementary school teachers' and those in autistic education institutes? If so, what are the differences?
- What is the effect of the following factors on teachers' attitudes towards the inclusion of children with autism in mainstream schools:
 - Nationality of teachers (Saudi vs. non Saudi).
 - Age of teachers (- 30, 31-40, 41-50, and 51+).
 - Major and level of education (special ed. vs. non SE. ed. and BS vs. Diplomas).
 - Experience (less than 1 year, 1-5 years, 6-10 years, more than 10 years).
 - Training in special education.

- Personal experiences of SEN/autism children.
- Professional experiences of SEN/autism.
- What are the teachers' own perceptions of factors (if any) that may have an effect on their attitudes towards the inclusion of children with autism in mainstream classrooms?

1.6 Definitions

The following subsection gives brief definitions to relevant terms as they are adopted and applied to this study. Detailed definitions are included in the subsequent chapters.

1.6.1. Inclusion, integration and mainstreaming

In KSA, Saudis state that they have 'Inclusion Systems': 'Damjj'. However, they use 'integration' and/or 'mainstreaming' as the common terms for any kind of schooling for children with SEN within regular schools. They describe integration and/or mainstreaming as when a student attends separate (segregated) classes within a regular school building. They may attend one or two classes with their typical developed peers, such as in art classes or during recess and so on. Consequently, the terms 'integration' and 'mainstreaming' in KSA may not be substituted for 'inclusion' as they do not lead to actual inclusive education practices where all students learn collaboratively. Inclusive education in this study refers to children with and without SEN learning together in the same classroom. This allows children with SEN full access to the social and educational opportunities offered to their developed peers (Connor, 2007).

The working definition of inclusion in education indicates that, in an inclusive environment, children with SEN are challenged to work to the best of their abilities and provided with additional support to be successful. In this study, the researcher uses the term inclusion to mean inclusive education that attempts to remove all exclusionary pressures and minimizes barriers to learning, to create proactive and flexible educational systems for all learners. It includes the social needs for children with autism within mainstream classrooms. The definitions of inclusive education in this study are fully and comprehensively discussed in chapter three.

1.6.2. Attitude

According to Webster's New Collection Dictionary (2000, p. 74), "attitude" is defined as: "The mental position with regard to fact or state, a feeling or emotion toward a fact or state". Fishbein and Ajzen (1997) defined attitude as a latent or underlying variable that is assumed to guide or influence behaviour. They further state that it is a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object. All human beings develop attitudes throughout their lifetime as a result of personal and professional interactions. Cook (2000) divides attitude into three elements: (1) cognition; a person's perception or beliefs about a subject, (2) affect; the perceptions beneath these beliefs as well as the positive or negative charge or feeling that a person has toward another, and (3) behaviour responses; a person's intention to behave in a certain way towards another.

This study uses Fishbein and Ajzen's Theory of Reasoned Action (1975) and Theory of Planned Behaviour (1991) to provide theoretical frameworks for defining attitude (see chapter 4). In relation to this study, attitude is conceptualised as the ways in which teachers perceive themselves as having to cope with the presence of children with autism, who have special needs or may require special services. Such services may in fact place a burden on teachers who are already challenged to address their responsibilities with a diverse student population (Praisner, 2003). This study seeks to develop and modify Fishbein and Ajzen's theoretical frameworks to construct a theoretical model that unpicks teachers' attitudes towards meeting the needs of children with autism in inclusive educational settings (chapter 10).

1.6.3. Autism

Autism Spectrum Disorder (ASD) is characterized as a range of complex neurodevelopmental disorders represented by social impairments, communication difficulties, and restricted, repetitive, and stereotyped patterns of behaviour (National Institute of Neurological Disorders and Stroke, (NINDS) 2009). The researcher has adapted this description as the operational term for 'autism' in this study. The diagnostic traits of autism are discussed further in chapter 5.

1.6.4. Elementary schools and their teachers

The term “Mainstream elementary school” in this study refers to classrooms that are in the public sector and that school the broad mass of children in the state under common and nationwide school curricula as part of the KSA educational system. It is the ‘first’ level (stages 1-6) in education, after Kindergarten, where children are between 6-12 years old. In KSA mainstream elementary schools, children of the same age stay in the same classroom for the full school day. The teachers usually move between classrooms, depending on their scheduled assignments for each class at a certain time. Usually in mainstream elementary schools, there are 6-7 class periods per day, starting at 7 a.m. and ending at about 1p.m., with 45 minutes for each period. Normally there are no fewer than 30 children in a classroom, but this may rise to 35-40 in many schools. There is only one teacher per classroom per period.

Several school subjects are taught within mainstream elementary school curriculum. The core courses for all children during the six years of elementary schooling are; Sciences, Maths, Islamic studies, Arabic language, Social Studies, Fine Arts and Sports activities. Mostly the teachers are Saudi nationals, mainly holding educational degrees of BSc or BA or undergraduate diplomas with a major and/or minor in the schools’ subject matters. Most of the schools’ buildings have been designed and built by the government for regular schooling; however a few are houses that have been leased short term as schools.

1.6.5. Institutes for children with autism

The terms ‘Institutes’ and ‘centres for children with autism’ are used interchangeably in KSA. In this study, the term ‘Institute’ is used to refer to institutes for children with autism; it is a private (commercial) segregated schools. Although the KSA government subsidises each institute, they charge and collect a large amount of money per student. Teachers of institutes are qualified to teach and work with children with autism. They generally hold a BSc or BA in Special Education. Some teachers may specialize with autism as a major or minor part of their degree. Usually in the institutes, unlike in mainstream elementary schools, the number of children per classroom is usually no more than five (5) for two teachers at the same time. The teaching strategies are mostly geared towards offering the children special benefits and assistance. The teachers in these institutes are mostly Saudi nationals.

The timetables and day schedules in special institutes are similar to elementary school, with some exceptions at some institutes, where children may stay longer, until 3 p.m. or 4 p.m. for training, rehabs, or care. Unfortunately most institute buildings have been designed and built as houses, flats, apartments or as commercial centres not built specifically for schooling.

1.7. The structure of the thesis

The thesis is divided into eleven chapters. Chapter 1, as above, is the introductory chapter of the study. It provides the framework and background of the study, identifying that the lack of research focusing on KSA female teachers' attitudes towards inclusion provides a viable contextual background which validates and makes this study critical and significant in order to identify the what KSA female teachers perceive to be barriers towards full inclusion of children with autism. Chapter 1 also begins to outline the definitions of inclusion, attitude, mainstream schools and institutes, as they will be used in the context of this research. Chapter 2 explores the KSA educational system. It includes the place and prominence of women's education in KSA and the nature of special education in KSA with emphasis on the policy and regulations of special education in the Kingdom. The chapter concludes with an overview of special education of children with autism. Chapter 3 presents various definitions and aspects of inclusion that pertinent to this study. The chapter traces the history and literature pertaining to inclusive education in KSA and the goals, rationale, principles and perceptions of inclusion in KSA, relating especially to how the curriculum caters for inclusive education. In order to discuss the concept of inclusion fully, the various strategies, which promote effective inclusive education as proposed by UNESCO and reinforced by alternative literature.

Chapter 4 reviews and discusses attitudes and beliefs as proposed by the literature and by evaluating Fishbein and Ajzen's theories of Planned Behaviour and Reasoned Action, which propose theoretical models of the factors which ultimately influence an individual's attitudes and beliefs. This chapter discusses the justification for using these theories for this study in relation to educational practice and provides discussion on how teachers' perceptions effect the formation of their beliefs and attitudes, and how these perceptions ultimately shape teachers' attitudes towards inclusion. Chapter 5 discusses why the researcher has chosen specifically to focus on the branch of autism in this study, highlighting why they are an important segment of SEN as a result of misconceptions about the condition. This chapter also highlights theories such as the causal developmental models for autism, which explains

the causes and diagnosis of this condition, as well as established literature surrounding the learning outcomes for the early intervention and inclusion of children with autism. Chapter 6 connects, attributes and engages the reader in the context of KSA, implementing a greater understanding of the rationale and significant of this study. The purpose of this chapter is to provide contextual information regarding the broader cultural, social and ideological framework of KSA from which emerge factors, which affect KSA teachers' attitudes towards inclusion of children with SEN/autism in mainstream schools. The chapter evaluates how teachers' age, level of education, field of teaching, teaching experience and having familial experiences with children with autism affects their outlooks and perceptions towards inclusion. This chapter is especially significant as it ultimately forms the basis of the discussion in Chapter 10.

Chapter 7 provides an overview of the methodology for this research and how the study has been designed and implemented. It shows how the study samples were chosen and the number of participants in from both mainstream schools and special institutes. The chapter provides a detailed timeline of the research activities and how the research instruments were constructed and pilot tested prior to the final research instruments being given. The chapter also discusses validity, reliability, ethical considerations, instruments distributions and collections and the data treatment and analysis methods tools utilised for both qualitative and quantitative data, as well as the advantages of the mixed method approach as used for this study. This chapter is important because it introduces how the themes for analysis are obtained.

Chapter 8 represents the demographic information and characteristics of the respondents as gathered from the participants' responses and their feedbacks. Chapter 9 details the results obtained from questionnaires and provides analysis of the results of teachers' attitudes towards the inclusion of children with autism in mainstream classrooms. The quantitative and numerical data obtained is summarised using inferential statistics to investigate relationships between teachers' characteristics and their attitudes towards inclusion in education. The qualitative results of the study are detailed through themes that emerge in the study.

Chapter 10 is the discussion chapter, which discusses the findings of the study. It is presented in relation to the research questions to ensure a comprehensive and detailed analysis of the research findings. The existing literature has been referred to as well. This

chapter examines the researcher's thematic model of teachers' attitudes towards inclusion and justifies the inter-link and modification of the theory of planned behaviour within the context of factors that influence teachers' attitudes towards the inclusion of children with autism. Finally, Chapter 11, the final chapter for this thesis provides strengths, limitations, implications and recommendations for future and further research based on the research outcomes stemming from this research. The chapter end by concluding with the researcher's thoughts and reflections on her PhD journey.

Chapter 2: Education in Saudi Arabia

2.1. Introduction

This chapter explains the present educational system in the KSA context and how inclusion practices within the classroom are changing as a result of increasing recognition of SEN in KSA. This study responds to these changes as the researcher believes that although inclusive practices are demonstrated in KSA classrooms, certain children, like those with autism, still experience exclusion. In recent times further reform of the educational system for females in particular is both a priority and challenge for the KSA government, which in turn also creates a greater need for qualified SEN female teachers in KSA.

This chapter is divided into several sections as follows; it begins with the context of the study site (section 2.2), followed by a description of education systems in the KSA (section 2.3) and then it briefly examines women's education in the KSA (section 2.4). Special education in the KSA (section 2.5) is also examined from its historical and policy perspectives. The chapter ends with a short summary (section 2.6).

2.2. Context of the study site

The study was carried out in KSA, which is located in the Arabian Peninsula in the Middle East, with an estimated population of 27.5 million (22.0 million of which are Saudis) who live in approximately 2,150,000 *Km*². It is a Monarchy with a Council of Ministers and Consultative Council {Ministry of Economy and Planning (MOEP, 2012)}.

The general education system in the KSA is highly centralised and is overseen by the Ministry of Education (MOE). Schools are single-sex and supervised by the MOE which provides services and resources, pays teachers' salaries and organizes training programs for all governmental schools across the country. The MOE supervises and partly finances private schools. However, it does not provide their resources or pay the teachers' salaries, excluding that of the head teachers (Al-Sallom, 1995).

There are four levels of general education (K-12) in KSA. First, there is kindergarten and the pre-school level for children between 2 to 6 years of age, which is a small sector of educational activity, and found mainly in key cities. Secondly, there is the elementary level with six stages (sometimes called primary), which is devoted to children of ages 6 to 12. Thirdly, there is the intermediate (junior high school) level with three stages. It is for young people between 12 and 15 years old. Finally, for young people of 15 to 18 years of age, there is the secondary school level (Al-Sallom, 1995).

The academic year is 40 weeks long, including exam periods, and is divided into two semesters. Arabic is the language for teaching all school subjects at all levels. Consequently, the study sample for this research is from the elementary schools and institutes focussing on children with autism taught by female teachers in Riyadh, the capital and largest city of KSA, with a population of over five million (MOI, 2012). The KSA educational system is discussed in the next section.

2.3. Education systems in the KSA

KSA's culture can be defined in religious terms. Saudi culture is primarily determined by the Islamic religion. Indeed, all aspects of social and cultural life are centred on the Muslim religion and Muslim religious identity. In fact, the religion of Islam covers all aspects of the people's lives and places with a particular emphasis on education.

Muslims believe in Allah (God) the creator of the universe. The KSA educational system is based on the religion of Islam, and emphasises the responsibilities of all males and females. All education policies are subject to government control (Al-AbdulJabbar, 1994; Al-Sallom, 1995; Al-Mosa, 2000; Overton, 2003). The KSA constitution is based on the Holy Quran (Koran) and Shariah Law. The King heads the government and the Council of Ministers, which are the executive and administrative bodies respectively.

Education is compulsory in KSA for all children between the ages of 6 and 15 years; it is legislated for the education system to be separated by gender, and a gender base is mandated at all levels of education beginning from elementary age. It is within this context that this study focuses uniquely on analysis of female teachers' attitudes towards the inclusion of children with autism in mainstream elementary schools, as well as the attitudes of teachers in institutes for children with autism.

Special Education teachers in the KSA are considered to be highly qualified; they are required to obtain a bachelor's degree or higher. Non-specialist teachers need to have a bachelor's degree in different subject matters or acquire a two-year diploma after high school. Education in the KSA is modelled for the most part upon the American system with respect to timetabling and the goal of providing a free and appropriate education for all children, including those with disabilities (UNESCO, 1994; Al-Quraini, 2011).

The regular education classroom in KSA is defined as one where all the children are of the same age, they stay in the same classroom for the full school day and where the teachers move between the classrooms depending on the schedule each class has at the time. For example the first session of Maths is 45 minutes, Arabic is second and so on, and the teacher moves from class to class. Saudi public schools usually start at 7:00 a.m. until 1:00 p.m. The special education institutes are more or less the same with some exceptions, where some institutes stay longer until 3.00 or 4.00 pm.

KSA has invested large amounts of money in public education. Educational reform in the country has focused for the past few years mainly on infrastructure changes, building schools, hiring a large number of teachers, and issuing a heavy curriculum [(MOEP, 2008), (Al-Munajjed, 2009)].

2.4. Women education in KSA

Education in KSA has four special characteristics: emphasis on Islam, a separate education for men and women, a centralized educational system, and state financial support (Ferguson and Lopez, 2002). Awareness of the importance of education in KSA developed in line with the development of the economy after the discovery of oil in 1935. The MOE was established in 1953 and public schools for boys opened the same year. The Ministry of Higher Education (MOHE) reports that girls' education was restricted to the house until early 1960s, when an important step was taken. The first real school for girls in KSA was built and established in 1960 (MOHE, 2011). The "General Administration for Girls' Education" was established independently from the MOE in 1960, and was put back under the administration of the Ministry in 2002 (Al-Shumrani, 2008). By mid-1970s, about half of all Saudi girls attended school. In the early 1980s, education was available to all Saudi girls, and young

women were already enrolled in and graduating from the universities (Al-Hamed, Al-Oteibi, Ziadeh & Mutawalli, 2007).

As Al-Munajjed (2009) stated, the Supreme Council of Education, appointed by the government aims to raise the standard of higher education and to improve the quality of Saudi education, including technical education for girls and greater vocational training to prepare them to enter the labour market. The government has accorded great importance to vocational training for women. Women become active members of society, where their roles are defined in terms of what they can offer their country's social and cultural development and economy. Currently, more than 300 higher education colleges exist for women. Women represent more than 56.6% of the total number of KSA university children and more than 20% of them benefit from King Abdullah overseas scholarship program (MOHE, 2010). Government statistics however, indicate that the total number of female children enrolled at the university level seeking a bachelor's degree more than tripled from 93,486 in 1995–96 to 340,857 in 2005–06 (SAMA, 2008 p. 379).

The number of vocational institutes for women reached 27 in 2004–05, enrolling more than 3,408 women children studying Home Economics (Al Hamed Al Oteibi, Ziadeh, & Mutawalli, 2007). At the same time the private sector opened a number of private schools and universities for girls and women, based on the efforts of individuals and private institutions under the supervision of the Ministry of Education. There are approximately 10 private colleges and universities for women spread throughout the major cities. The Saudi government provides opportunities to young Saudis to enrol at all levels of higher education, with encouragement in the form of allowances throughout their years of study (MOHE, 2010).

According to the MOHE (2010), the government of KSA is enhancing access to higher education for women in several ways. For example, in 2010 Princess Nora bint Abdul-Rahman University (PNU) for women was opened; it is currently the world's largest institution of higher education for women and the world's largest women-only university is presently being built in KSA. This campus covers eight (8) millions square meters, with housing for children and staff. It offers new educational opportunities for Saudi women to enter the labour market. It includes an academic area of 15 diverse subject colleges, and has the capacity to accommodate over 40,000 female children (MOHE, 2010). A library,

conference centres, laboratories, a 700-bed hospital and facilities for research into nanotechnology, biosciences and information technology are planned (MOHE, 2010).

The rise in female university enrolment was aided by King Abdullah University of Science and Technology (KAUST), which opened in September 2009. KAUST has attracted foreign academics and international students, which is the main reason behind the move to speed up higher education reform and boost the country's technological transformation (MOHE, 2010). Furthermore, Al-Munajjed (2009) indicates that the Saudi government has made considerable efforts to promote gender equality. In September 2000, KSA signed and ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) with some reservations. The term “discrimination against women” refers to “any distinction, exclusion, or restriction made on the basis of gender or femininity” (Al-Munajjed, 2009, P.4).

It is clear that there has been considerable improvement in gender equality among school children. For example, MOE (2008) statistics indicate increase in the number of female children at all school levels over a period of 30 years, from about 270,000 in 1974 to over two millions in 2004. Female children percentages at all school levels, increased from 33% in 1974 to 48% in 2004 (MOE, 2008, p. 374). Similarly, in 1974 there were about one thousand schools for female children (26 % of the total number of schools at all levels). Then after 30 years, the number of female schools increased to 24,500 (49 % of the total number of schools at all levels), (MOE, 2008, p. 374).

The government’s considerable interest in girls’ education is demonstrated by the financial assistance granted to female children in all areas and stages of education. Budget allocations for boys and girls were almost equal in 1999–2000, but the percentage allocation for girls’ education surpassed that for boys a few years later (MOE, Statistical Report, 2007/8, p. 252).

Until recently in KSA, women in the labour force have mainly worked in the education sector. The first group of women graduated from a law program in 2008. Women are not able to practice law, but the government has indicated that they are able to work in courts to assist female clients. This has not happened yet (The World Bank, 2009). Furthermore, women comprise 60% of Saudi Arabia's college students but only 21% of its labour force, 85% of employed Saudi women work in education, 6% in public health, and 95% in the public sector (Al Ahmed 2010).

During 2009, an expert on girls' education became the first woman minister in Saudi Arabia. Nora bint Abdullah al-Fayez, a US-educated former teacher, was made Deputy Education Minister in charge of a new department for female children (MOHE, 2010). In 2005, former King Abdullah implemented a government scholarship program to send young Saudi nationals to Western universities for undergraduate and postgraduate studies. In the United Kingdom alone, more than 15,000 Saudi children, 25% of whom are women, attend universities (MOHE, 2011). Through this program, thousands of women have earned various university degrees including masters and doctorates from Western universities. Presently there are 24 government universities in the Kingdom established in a short span of time. The universities consist of colleges and departments that offer diplomas, and bachelors, masters and PhD degrees in various scientific and humanities specializations. Some colleges and departments also provide distance learning. There are also private colleges, community colleges affiliated to universities and girls' colleges in addition to government agencies and institutions that provide specialist university-level education (MOHE, 2011).

This growing population of females in higher education and teacher training promotes a greater awareness of ideas of inclusion within the education context in KSA. The fact that a greater numbers of KSA females, as a result of scholarship programs, have access to Western universities ensures that a new generation of teachers have access to more advanced teacher training and a broader perspective of inclusion in the West; this ultimately produces a fast growing, well-qualified population of teachers who are more acutely aware of SEN and children with autism. In light of this context, this study is significant as it aims to identify why, despite a wider variety of resources for teacher training for females, issues with inclusive practices for children with autism are still rife within KSA mainstream classrooms.

2.5. Special education in the KSA

This section contains discusses historical perspectives, policy perspectives and special education schools and institutes for children with SEN and autism in KSA.

2.5.1. Historical perspective of special education in the KSA

Formal education in KSA began in 1932 and was inaccessible to all as it was predominantly in schools based in urban mosques; Islamic and literacy skills were taught in these mosques. The Kingdom now has a nationwide educational system that provides teaching to all people

in almost all subjects and specialties. Education is free and training is available to all citizens from primary school through to university.

The earliest recorded history of special education in KSA was in 1958 when an Iraqi man visiting Saudi Arabia taught Mr Al-Ghanem, a blind man, how to use the Braille system. Later on Mr Al-Ghanem introduced the Braille system to other blind men in KSA (Al-Mosa, 1999). The Ministry of Education assumed responsibility for providing education for children with disabilities who, prior to 1958, were generally educated at home by their parents. In 1958 the KSA began delivering services to children with visual impairments in schools known as Scientific Institutes.

In 1962 the Ministry of Education established the Department of Special Learning to target children experiencing difficulties due to visual or aural impairments and intellectual disability (Afeafe, 2000). In 1964 the Al-Noor (Institute for Blind Females) was established. The same year witnessed the founding of the first school for the Deaf, the Al Amal Institute, meaning the Hope Institute (in Arabic).

Despite the growing facilities available for those with disabilities, Saudi society's view of people with disabilities tends to be based on a relatively underdeveloped idea of disability involving helplessness, continued dependence, being homebound, a low quality of life, and a lack of productivity. Consequently, small-scale educational programs are provided by charitable organizations supported by the Ministry of Labour and Social Affairs (Al-Turaiki, 2000).

The KSA special education system has attempted to adopt the American policy of No Child Left behind (NCLB). The NCLB Act is over a thousand pages in length and the goal of this Act is to create the best educational opportunities for all children in the United States, including those with special needs (US department of Education, 2004). The overarching goal of NCLB appealed to Saudi Arabian policymakers in charge of the Kingdom's special education system. Both countries view children with disabilities as equal to typically developing children and the hope is to grant the same quality of provision for both, a tenet reflected in the foundation of NCLB. For KSA policymakers, NCLB may be attractive due to the values it holds and it was been accepted on the grounds that its principles do not conflict with Islamic culture (Al-Mosa, 2004).

It is officially documented, as Al-Mosa (2004) states, that Special Education in the KSA follows the Koran that constantly commands people to take responsibility for each other. Therefore, the MOE in the KSA has attempted to develop and spread education to give all citizens the opportunity to receive education. This commands the idea that children with SEN are similar to their typically developing peers, and that they are part of the society they live in.

2.5.2. Policy perspective for special education in KSA

The KSA's MOE recognises the importance of creating and implementing an educational policy that includes educating people with SEN to ensure Saudi's special education system incorporates a curriculum appropriate for children with SEN in order to maintain the religious values of Islam. The MOE has expanded its activities, working to establish legislative protections and guarantees for individuals with disabilities, ensuring equal educational access and rights for all Saudi school aged children. The MOE works with the government to create a Disability Code as well as regulations for Special Education Programs and Institutes (Al-Quraini, 2010).

The Education Policy in the government of KSA in 1990-1992 focused on the education of SEN children and initiating reforms with new special policies and principles for children with SEN. These included:

1. A ministerial instruction that no student may be dismissed from any level of education for repeated failure as long as they are still in the age range of that level;
2. The establishment of new units and facilities and modernization of existing ones to improve the care and services offered to children with disabilities;
3. The improvement of curricula for special education; and
4. The establishment of a program at King Saud University' (KSU), College of Education to prepare teachers specialized in teaching blind, deaf and SEN children (MOE, 1990).

In order for the KSA to cope with the worldwide changes in inclusive education, mainly in the two leading continents that mostly influence the Arabian Peninsula (Europe and North America), the special educational system in the KSA has undergone several significant modifications and developments. The Ministry of Education created a ten-year plan for the

period 2005-2015 (General Developmental for Planning, 2005). Recently, they are assessing and developing educational system amendments from 2005, including developing new curricula and other developmental changes. The MOE acknowledges the importance of a special education system in KSA and considers children with learning disabilities as children with special needs. KSA defines a person with a disability under Article 51 of the Labour and Workman Law, as “any person whose capacity to perform and maintain a suitable job has diminished as a result of a physical or mental infirmity” (Japan International Cooperation Agency [JICA], 2002, p.19). The General Secretariat of Special Education (GSSE), Al-Mosa (2004) asserted that “certainly the quantity and quality of special education programs and support services have crossed the boundaries of the impossible; integrate and start from what other successful countries have developed/left off for their children with disabilities into the Saudi system to better develop our education system for children with special needs.” (p. 22).

2.5.3. Schools and institutes for children with autism in the KSA

The development of special education in KSA has been a unique process. The government of the KSA supports the inclusion of children with SEN into regular schools as well as existing state run SEN institutions. Recently special education institutes and centres have been viewed as lucrative commercial opportunity for private owners, either as individuals or as a group of people. In the past regular schools did not welcome SEN children, partly due to limited experience, personnel, and resources; therefore private special institutes were developed. These institutes have grown and developed in a multidisciplinary manner, led by individual personal efforts to care and educate SEN children. The majority of teachers working in such private institutes have a BA, or BSc degree in special educational majors, and they are Saudi and non-Saudi nationals.

2.6. Summary

This chapter brings the central contextual issues to the fore by highlighting the KSA educational system and the place of Saudi women in education in KSA. Special education in the KSA context is examined from its historical and policy perspectives. The most significant ideas relating to the KSA education context is that the education system is separated by gender, and a gender base is mandated to all levels of education beginning from elementary age to university. This chapter provided a real perspective towards KSA female teachers' attitudes towards the inclusion of children with autism in mainstream elementary schools and institutes.

Chapter 3: Inclusion in Education

3.1. Introduction

This chapter reviews different interpretations of inclusive education and examines its goals and definitions. Section 3.2.1 looks at terminology, definitions and meanings of inclusive education; section 3.2.2 examines the goals, rationales and principles behind inclusion in education; section 3.3 details the curriculum for inclusive education; section 3.4.1 discusses perceptions of inclusive education and section 3.4.2 examines KSA's perspectives on inclusive education and looks at strategies for effective inclusive education; section 3.5 focuses on children with autism from the KSA perspective. Finally section 3.6 offers an examination of how the interpretations of inclusive education discussed in this chapter have informed the study questions and the study design.

3.2. Issues relating to inclusion in education

3.2.1. Vocabulary and definitions

There is a prevailing viewpoint that inclusive education in mainstream schools is the best possible option in order to facilitate the participation of disabled children in education. Huston (2013) argued, "Inclusion remains a controversial concept in education because it relates to educational and social values, as well as to our sense of individual worth." There has been a significant change in the field of special education regarding educating children with disabilities in the last three decades (Kunc, 1992). The term inclusive education came into use after the Salamanca Statement in 1994 (chapter 1). Consequently, internationally inclusive education is broadly viewed as a reform that supports and welcomes diversity (UNESCO, 2001; Gaad, 2011). Any discussion about inclusive education should address several important questions: Do we value all children equally? What do we mean by "inclusion"? Are there some children for whom "inclusion" is inappropriate?; Huston reiterates that "there are advocates on both sides of the issue" (Huston, 2013, p.3).

In order to discuss the concept of inclusive education, it is first necessary to have a common vocabulary. The Research Bulletin of Phi Delta Kappa by Rogers (1993) outlines the distinctions between mainstreaming and inclusive education. Mainstreaming has generally been used to refer to the selective placement of special education children in one or more

"regular" education classes. Proponents of mainstreaming generally assume that a student must "earn" his or her opportunity to be placed in regular classes by demonstrating an ability to "keep up" with the work assigned by the regular classroom teacher. This concept is closely linked to traditional forms of special education service delivery. However, inclusive education expresses commitment to educate each child in the school and classroom he or she attends. It involves bringing support services to the child (rather than moving the child to the services) and requires only that the child will benefit from being in the class (rather than having to keep up with the other children).

There are multiple definitions of inclusive education. In the US, inclusion has become a 'buzz word' since the passage of the Education for All Handicapped Children Act (Public Law 94-142) Mitchell (2005). There is no official definition for inclusion in the US; the country's official policy considers the concept to mean placing children with SEN in regular education settings. Mitchell (2005) argues that having a successful inclusive education in schools involves the school paying more attention to meetings, curriculum, assessment, pedagogy, support, and removing everything that hinders learning. Sasja Ras, (2008) proposes "inclusion is seen as the wider reform of the education system to create a more effective education system and society ... the inclusive education approach aims to create an education system that is responsive to learner diversity, to ensure that all learners have the best possible opportunities to learn" (p. 1). According to Friend and Bursuck (2002), inclusion stands for the philosophy that children with disabilities should be fully integrated into general education classrooms as long as they are making progress toward the achievement of individual educational program goals, even if they cannot meet classroom or content demands (p. 4). Similarly, Monahan, Marino and Miller (1996) defined inclusion as a "term used by the education reform movement to challenge schools to the philosophy that all children can learn, even those with disabilities" (p. 316).

Lindsay (2002) proposes two definitions and critical perspective of inclusive education. Basing the argument on the research evidence of two types of inclusive practices, Lindsay argues that, in general, there are two types of inclusive education – whilst some consider "true" inclusive education as having a SEN child within a mainstream classroom with their peers one hundred percent of the time, others propose a child with SEN does not remain in a mainstream classroom for all of the school day, so long as they are provided with the opportunity to socialize and interact with their typically developed peers; this allows for SEN children to experience inclusion, whilst also being facilitated by one to one extra support.

Lindsay proposes that this is a broader understanding and perspective towards inclusive education; if a SEN child is in a mainstream classroom he/she will be taken out for extra-curricular lessons and support.

UNESCO (2009) defines inclusive education as a process of strengthening the capacity of the education system to reach out to all learners and should guide all education policies and practices as education is a basic human right and is the foundation for a just and equal society (p. 8). Inclusive education is also defined as a procedure for educating children with SEN in general education classrooms, but it is recognised as different from integration and mainstreaming (Blecker and Boaker, 2010; Idol, 2006).

According to Ainscow (1995) the term inclusive education has an extensive meaning, which is not only about teaching children with SEN in regular classrooms but also about giving equal opportunities to school age children to attend classes. In other words restructuring schools is fundamental in order to respond to the needs of all children (p. 1). Indeed, Rose (2011) believes that “teacher preparedness can be identified as a critical factor in the movement towards inclusion” (p. 149); one of the primary considerations that must be accounted for when promoting inclusive practice in education is that “teachers need greater understanding of the conditions which must be created in order to enhance successful inclusion within mainstream schools” (p. 149).

As Norwich (1999, 2008) argues, inclusion is described as fundamentally being about participation, not just placement or location. Hodkinson and Vickerman (2009) signified that the term inclusion has become the common phrasing, which now permeates government policy within SEN. According to Hodkinson and Vickerman (2009), in the UK, the government defines inclusion as: “not only that pupils with SEN should wherever possible receive their education in mainstream schools, but also that they should join fully with their peers in the curriculum and the life of the schools. For example, we believe that children with SEN should generally take part in mainstream lessons rather than being isolated in separate units” (Hodkinson and Vickerman, 2009, p. 77).

Conversely according to O'Neil (1995), James Kauffman of the University of Virginia states that inclusion is a policy driven by an unrealistic expectation that money will be saved. He argues that trying to force all children into the inclusion mould is just as coercive and

discriminatory as trying to force all children into the mould of a special education class or residential institution. However there are those who believe that all children belong in a regular education classroom, and that "good" teachers are those who can meet the needs of all the children, regardless of what those needs may be.

Despite the variety of definitions offered by scholars, there are problems relating to defining inclusive education because there is a philosophical or conceptual distinction made between mainstreaming and inclusion. Mainstreaming proposes that a child with SEN first belongs in the special education environment and that the child must earn his/her way into the regular education environment. Inclusion suggests that the child should always begin in the regular environment and be removed only when appropriate services cannot be provided in the regular classroom (Rogers, 1993). UNESCO, however, describe inclusive education as a process of addressing and responding to the diversity of needs of all children, youth and adults through increasing participation in learning, cultures and communities, and reducing and eliminating exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision that covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children (UNESCO, 2009). This implies a radical reform of the school in terms of educational policy and curricular frameworks, including educational content, assessment, pedagogy and the systematic grouping of pupils within institutional and curricular structures (UNESCO, 2009).

3.2.2. Goals, rationale and principles of inclusion

3.2.2.1. Goals of inclusion

Inclusive education is based on a value system that welcomes and celebrates diversity arising from gender, nationality, race, language, social background, level of educational achievement, disability (UNESCO, 2009). UNESCO puts forwards a different set of goals for inclusive education is the process for establishing the competence of the education system for all learners, which form a key strategy to achieve Education for All (EFA). EFA is an international initiative that brings the benefits of education to every citizen in every society and, to achieve this aim worldwide, a broad association of governments, civil societies and development agencies such as UNESCO and the World Bank are committed to reaching six specific education goals (UNESCO, 2009, p. 28):

1. Expand and improve comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.
2. Guarantee that by 2015 all children, especially girls, those in difficult conditions, and those belonging to ethnic minorities, have access to and complete, free, and compulsory primary education of good quality.
3. Ensure that the learning needs of all young people and adults are met through reasonable access to appropriate learning and life-skills programs.
4. Reach a 50% improvement in adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.
5. Eliminate gender disparities in primary and secondary education; achieve gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality.
6. Improve all aspects of the quality of education and ensure the excellence of all so that all, especially in literacy, numeracy and essential life skills, achieves recognized and measurable learning outcomes.

The EFA movement is increasingly concerned with linking inclusive education with quality education. They stress that learning should be based on the clear understanding that children are individuals with diverse characteristics and backgrounds, and the strategies to improve quality should therefore draw on learners' knowledge and strength. From this perspective, they suggest five dimensions to influence the teaching and learning processes in order to understand, monitor and improve the quality of education (UNESCO, 2009): (1) learner characteristics; (2) contexts; (3) enabling inputs; (4) teaching and learning; and (5) outcomes. These dimensions are interrelated and interdependent and need to be addressed in an integrated manner. UNESCO emphasize, "giving children an early start in education lays the foundations for inclusion since, as cognitive neuroscience has shown, early childhood is a critical period for the acquisition of cognitive skills. The case for well-designed ECCE programs is therefore compelling, especially for the most disadvantaged. This can be reinforced through effective school health, hygiene and nutrition programs" (p. 29).

3.2.2.2. Rationales of inclusion

As UNESCO suggests, inclusive education involves changes and modifications to curriculum contents, teaching approaches, structures and strategies, with a common vision that covers all children of the appropriate age range and a conviction that it is the responsibility of the

regular system to educate all children. The following are three main principles for this. First, an educational rationalization; the requirement for inclusive schools to educate all children together means that they have to develop ways of teaching that respond to individual differences and that therefore benefit all children. Second, social rationale: inclusive schools are able to change attitudes toward diversity by educating all children together, and form the basis for a just and non-discriminatory society. Thirdly, an economic rationale: it is less costly to establish and maintain schools that educate all children together than to set up a complex system of different types of schools specializing in different groups of children. UNESCO set out central elements that need to be addressed in order to ensure all children have the right to access to education, the right to quality education and the right to respect in the learning environment (UNESCO, 2009, p. 27). The success of creating inclusive education as a key to establishing inclusive societies depends on agreement among all relevant partners regarding a common vision supported by a number of specific steps to be taken to put this vision into practice. The move towards inclusion is a gradual one that should be based on clearly articulated principles that address system-wide development and multi-sectorial approaches involving all levels of society (UNESCO, 2009).

3.2.2.3. Principal features of inclusion

Mitchell (2005, p. 4), indicated that there are two main principle features of inclusive education: access to appropriate aids and support services, individualised programmes, with appropriately differentiated curriculum and assessment practices and entitlement to full membership in regular, age-appropriate classes in their neighbourhood schools. However, Ainscow (2005, p. 15) identifies four principle features of inclusive education: firstly that inclusion involves a particular emphasis on those groups of learners who may be at risk of marginalization, exclusion or underachievement, secondly that inclusion is a process, thirdly that inclusion is about the presence, participation and achievement of all children and finally that inclusion is concerned with the identification and removal of barriers.

Mitchell (2005) and Ainscow's (2005) assertions depict that features of inclusive education have similar meanings to what can be understood to represent inclusion. The principle features of inclusive education identified by Mitchell (2005) and Ainscow (2005) coincide with the Salamanca Statement as an action taken to promote the ideology of inclusion in education. The major incentive for inclusive education was given at the World Conference on Special Needs Education: Access and Quality, held in Salamanca, Spain, June 1994

(UNESCO, 1994). More than 300 participants representing 92 governments and 25 international organizations considered the fundamental policy shifts required to promote the approach of inclusive education, thereby enabling schools to serve all children, particularly those with special educational needs (see chapter 1). The UN created this statement for the education of all disabled children. The framework of this statement was a guiding principle focussing on all schools accommodating every child, regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This implies that each disabled child has the right to attend any school and are therefore as granted the same privileges as if they were not disabled (Vislie, 2003 and Mitchell, 2005).

The Salamanca Statement demonstrated an international commitment to inclusive education. It included the following agreements (UNESCO, 1994, p. 27):

"Every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning. Every child has unique characteristics, interests, abilities and learning needs; those with special educational needs must have access to regular schools, which should accommodate them within a child-centred pedagogy capable of meeting these needs. Moreover, regular schools with the inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving an education for all. They provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system" (UNESCO, 1994, p.27).

Although the immediate focus of the Salamanca conference was on children with SEN, the conclusion was that special needs education - an issue of equal concern to all countries of the world - could not advance in tackling segregation unless it forms part of an overall educational strategy and of new social and economic policies. This calls for major reform of the ordinary school. UNESCO indicates that "regular schools with an inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover, they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system" (UNESCO, 2009, p. 8).

A potential issue that might weaken the achievement and accomplishments of inclusion that the Salamanca conference did not address is that of poor teacher attitudes. Pinpointing this omission, this research will be an important contribution in unpicking teachers' attitudes

towards the inclusion of children with autism into mainstream classrooms. Research and studies on teachers' attitudes towards inclusion, teacher acceptance and implementation of inclusive programs are critical in maintaining an effective education system and educating children with SEN in regular classrooms (Molto, 2003; Cook, 2001).

The Policy of the Ministry of Education of the KSA highlights that "inclusion" has been "implemented" in governmental schools. The researcher is identifying the attitudes of teachers in mainstream elementary schools toward the inclusion of children with autism, as well as teachers in SEN Institutes. Teachers' positive or negative attitudes towards the inclusion of children with autism in regular schools and classrooms is considered the major factor affecting the educational system, in conjunction with the curriculum being taught and the child's progress and acceptance. Consequently the need arises to uncover whether teachers' attitudes to inclusion are negative or positive; this is one of the goals of this study.

3.3. Curriculum for inclusive education

An inclusive curriculum should address the child's cognitive, emotional, social and creative development; "it is based on the four pillars of education for the twenty-first century – learning to know, to do, to be and to live together" (UNESCO, 2009 p.19). The inclusive nature of the curriculum has an instrumental role to play in fostering tolerance and promoting human rights, and is a powerful tool for transcending cultural, religious, gender and other differences as all of these factors are taken into consideration. As UNESCO (2009) suggests, an inclusive curriculum "involves breaking negative stereotypes not only in textbooks but also and more importantly, in teachers' attitudes and expectations" (P. 20). The teachers' attitudes are the main variable of the current study. An inclusive approach to curriculum policy has built-in flexibility and can be adjusted to different needs so that everyone benefits from a commonly accepted basic level of quality education. This ranges from varying the time that children devote to particular subjects, to giving teachers greater freedom to choose their working methods, and to allowing more time for guided classroom-based work (UNESCO, 2009).

The EFA Global Monitoring Report (2005) also propose that one method to move towards a relevant, balanced set of aims is to analyse the curriculum in terms of inclusion. An inclusive approach to curriculum policy recognizes that while each learner has multiple needs – even more so in situations of vulnerability and disadvantage – everyone should benefit from a

commonly accepted basic level of quality education. This underlines the need for a common core curriculum that is relevant for the learner who is being taught; accessible and flexible curricula, textbooks and learning materials can serve as the key to creating schools for all. Many curricula expect all pupils to learn the same things, at the same time and by the same means and methods, not accounting for the fact that pupils are different and have different abilities and needs. It is important that the curriculum be flexible enough to provide possibilities for adjustment to individual needs and to stimulate teachers to seek solutions that can be matched with the needs, abilities and learning styles of each and every pupil (UNESCO, 2009).

3.4. Saudi Arabian perceptions of inclusion

It is demonstrated in this study that the concept of inclusive education has shifted away from segregation towards inclusion, demonstrating a worldwide change (Pearson, 2009), particularly in Western society. Mitchell (2005) indicated that inclusive education is a complex and problematic concept because there does not appear to be a universally accepted definition of the concept of inclusion (Mitchell, 2005) since different countries define the concept from their individual social and cultural perspectives. Hodkinson and Vickerman (2009) affirm this view, asserting that defining inclusion has its own difficulties as inclusion does not have a single definition and does not have an acceptable definition that has been used universally (Pearson, 2005) and can be defined in a variety of ways (Ainscow, Booth, and Dyson, 2006).

In KSA, 'mainstream' is the common term used to describe inclusion of children with special needs into regular schools and classrooms. As Al-Mosa (2010) stated that the Saudis describe mainstream as when a student attends separate (segregated) classes within a regular school building, and they may attend one or two classes with their typical development peers, such as art, and/or a student who attends all day with their typically developing peers with some assistance if needed. It is the children's intellectual, emotional, physical, linguistic or other conditions, which decides the type of educational practice (Al-Mosa, 2010). As the official language in KSA is Arabic, English terms may be used interchangeably. Currently, Saudi Arabia has not clearly defined the terms 'integration' or 'mainstream', rather both terms are applied as analogous to inclusion. The Arabic term "Damjj" is utilised to mean all or any kind of inclusion, integration and mainstreaming. Therefore, Saudi teachers understand the definition of equal inclusion. In the Saudi educational system there are, to a

certain degree, almost all types of inclusion programs in public schools; either full inclusion (equal to full integration) or partial inclusion (partial integration and/or mainstreaming). Full integration (inclusion) means that all children (typically developed and SEN children) are in the same class, while partial integration (inclusion) means that SEN children are in separate classes within the regular school building.

UNESCO (2009) state that for inclusive education to be successful, all exclusionary pressures must be removed and governments must minimize barriers to learning and participation with respect to making proactive and flexible educational systems for all learners as “An inclusive education system can only be created if ordinary schools become more inclusive – in other words, if they become better at educating all children in their communities” (p.8). This is why, as part of this study, the researcher asked teachers to list the barriers and the opportunities they may face during inclusion.

However, as indicated in the literature (e.g., Al-Mosa, 2010) and through discussions with some KSA teachers “integration” is not even a partial inclusion. In KSA schools, teachers are directed to withdraw SEN children out of the general classes to an education program at the same school to receive special education services. For this study, the researcher investigated the attitudes of teachers towards inclusion in mainstream elementary schools and institutes for children with autism. The term "inclusion" is used in this study in its English version (see 3.2.2) while the Arabic term "Damjj" is used with the study individuals to mean the English term inclusion.

3.5. Strategies for effective inclusive education

It is suggested that a better inclusive education can be accomplished through active collaboration between policy-makers, education personnel and other stakeholders, including the active involvement of members of the local community, such as political and religious leaders, local education officials and the media. For example, Hodkinson (2010) examined the development of inclusion in the English educational system and barriers that can stall the development of this important educational and societal initiative. He discussed the journey towards inclusion from educational segregation to integration and describes the UK government's stance on the subject. He suggested that many of the barriers to effective inclusion are in practice located within the government and local authorities as well as in schools. Hodkinson (2010) concludes that it is time to develop a new vision for the education of children with SEN and disabilities that is supported by straightforward, co-ordinated and well-resourced policies and if educational policy is to achieve an inclusive awareness, it must ensure that the views of children, their families and educational professionals are listened to, and that inclusion is by the choice of the pupils and their parents and not by compulsion (Hodkinson, 2010).

UNESCO (2009, p. 30) states that several steps are needed to reduce the difficulties of inclusive education:

- “Carrying out local situation analyses on the scope of the issue, available resources and their utilization in support of inclusion and inclusive education;
- Mobilizing opinion on the right to education for everybody;
- Building consensus around the concepts of inclusive and quality education;
- Reforming legislation to support inclusive education in line with international conventions, declarations and recommendations;
- Supporting local capacity-building to promote development towards inclusive education;
- Developing ways to measure the impact of inclusive and quality education;
- Developing school- and community-based mechanisms to identify children not in school and find ways to help them enter school and remain there;
- Helping teachers to understand their role in education and that inclusion of diversity in the classroom are an opportunity, not a problem”.

A majority of studies have investigated the academic progress of children with SEN within mainstream schools. Manset and Semmel (1997) recommended that there is evidence that children can make appropriate progress in a mainstream setting if specific curriculum differentiation and teaching strategies are employed. Cross and Walker-Knight (1997) reviewed studies of inclusive provision for children with SEN. Successful methods for promoting inclusion involved planning for common tasks and small group learning requiring co-operative behaviour, individual accountability and responsibility. Fisher and Frey (2001) suggested that academic inclusion is facilitated by specific alterations to the delivery of the curriculum that are different and additional to the normal differentiation of the class, collaboration amongst the teaching team and involvement of peers.

Lindsay (2007) in his meta-analytic review found that evidence does not provide a clear endorsement for the positive effects of inclusion. There is a lack of evidence from appropriate studies and, where evidence does exist, the balance is only marginally positive. Mixed evidence is also found in a report from the European Agency for Development in Special Needs Education (2003), which suggested that inclusion generally works positively at the primary school level, but serious problems emerge at the secondary level. This was attributed to increased topic specialisation, the different organisation of secondary schools, and the increasing gap between the achievement of children with SEN and other children with age. Findings from studies also suggest that there are no adverse effects on children without special educational needs of including children with special needs in mainstream schools (Kalambouka et al. 2007). Although inclusion can be (relatively) effective academically, research literature suggests that children with SEN can experience rejection and bullying in mainstream schools (Ainscow et al., 2006). Therefore, to be considered successful, a programme to place a child with SEN in a mainstream school would need to enable both academic and social inclusion.

Furthermore, Lindsay (2007) concluded that inclusive education/mainstreaming is a key policy objective for the education of children and young people with special educational needs (SEN) and disabilities. Inclusive education has been driven by a belief that to include rather than segregate and exclude is the correct approach. The aim of Lindsay's paper was to review the literature on the effectiveness of inclusive education/mainstreaming. The focus was on evidence how children's outcomes were affected with an examination of evidence on processes that support effectiveness. He used a sample of 14 articles that cover a range of

SEN and mainstream school children from pre-school to the end of compulsory education. Lindsay (2007) wrote:

“Policies of various governments have pursued this line (e.g. Department of Education and Skills). The UK House of Commons Committee on Education and Skills, urge the Government to clarify its position on inclusion which its argues was confusing, with policy statements indicating an expectation of fewer special schools, whereas the Minister’s witness statement to the Committee stated that the Government would be ‘content’ if, as a result of local authority decisions, the current ‘roughly static portion of special schools’ continues” (Lindsay, 2007, p.1-24). He added that “The Committee was strident in its criticism: the government’s clear ideological stance to promote inclusion is leading to parental backlash based on fear, frustration and confusion. This duplicitous approach by the government undermines people’s confidence in its ability to deliver in the genuine interests of those children with SEN” (p. 1-24).

However although several educational psychologists may wish that evidence drives policy, the reality is that research evidence is only one of several taken into account by politicians. Nevertheless, it is important that researchers and practitioners continue to produce research evidence that may influence policy.

3.6 Definition of inclusion in this study

Inclusive education has been established as imperative within policy in relation to children who have SEN or disabilities; “it is championed to remove barriers, improve outcomes and remove discrimination” (Lindsay, 2002, p.3). However, as the policies and literature above suggest, definitions of inclusion are nuanced and flexible as a result of the multiple ways it is manifested in practice. Inclusion, then, is a problematic concept. There is a shared belief among experts; disability rights activist and concerned agencies that an inclusive environment in mainstream schools is the best possible option to facilitate the enrolment of SEN children in mainstream education.

The researcher is identifying the attitudes of teachers in mainstream elementary schools toward the inclusion of children with autism, as well as teachers in SEN institutes. Teachers’ positive or negative attitudes towards the inclusion of children with autism in regular schools

and classrooms is considered the major factor affecting the education system, in conjunction with the curriculum being taught and the child's progress and acceptance. Consequently the need arises to uncover whether teachers' attitudes to inclusion are negative or positive.

For the purpose of this study, and when asking participants in this study about their attitudes and beliefs towards inclusion, inclusion in the context of this study is defined when children with SEN are within the mainstream classroom for the entire duration of the school day, and socialise with their typically developed peers without any form of segregation. The term "inclusion" was used in this study in its English version while the Arabic term "Damjj" (see 3.2.2) was used in the research instruments to mean the English term inclusion as defined above.

3.7. Summary

The literature thus far raises the questions: what is inclusion in education all about? What is the history and the original concept of inclusion? What does inclusion mean to all children (SEN and Typically developed)? What kind of schools welcome SEN children? The literature review indicates that inclusive education is about how to develop and design schools, classrooms, programs and activities so that all children learn and participate together. How do we educate, prepare and train teachers for inclusive schooling? The literature displays how children with SEN have been received universally in recent decades through inclusion and clarifies to the researcher how and what the inclusion goals, rationalizations, curriculum, perceptions, and the principal features of its concept are.

The literature shows, as Lindsay (2007) highlighted, that the rationale behind inclusion is the concern that children should not be segregated from their peers and excluded from the mainstream curriculum and practice. Whether children with special needs will be able to develop well enough in mainstream education and how great the risk is that they will be referred to a form of special education depends on a number of different factors. The characteristics of the child, the teacher, the class and the school all play an important role. A critical task is to research the mediators and moderators that support the optimal education for children with SEN and disabilities more thoroughly and as a result, develop an evidence-based approach to the education of those children.

Since the inclusion of children with autism in education in KSA is the essential core of this study, this literature informs the researcher on how to structure the entire study. It sets the ground to ask the study sample, i.e., the elementary school female teachers, about their attitudes toward the inclusion of children with autism with typically developed peers in regular classes. Teachers were specifically chosen to form the sample of this study, as the literature presented in this chapter suggests that they are the main facilitators, primary implementers and the most significant and influential of all parties to the whole inclusion process. Teachers from regular schools with little experience of the inclusion of SEN children, as well as teachers from segregated autistic institutions for children with autism were asked to respond to closed questions, open-ended questions and interviews (Chapter 7). As well as defining the term “inclusion” in this chapter as it will be used for this particular study, further discussion of the literature which examines how attitudes and beliefs are formed and exercised, the causes and theories of autism and the factors effecting teachers’ attitude towards children with autism are presented in the next three upcoming chapters (4, 5 and 6) as these factors are equally important variables in this study.

Chapter 4: Attitude and Belief

4.1. Introduction

This chapter details two theories (section 4.2) describing the how the constructs of attitudes and beliefs will be conceptualised as terms of reference for this study; the theory of reasoned action (section 4.2.1) and the theory of planned behaviour (section 4.2.2). This chapter explains the ideas that shape teachers' attitudes within the classroom that manifests in their beliefs and behaviour towards educational practices as, ultimately; teachers' attitudes and beliefs will impact upon inclusion of children with autism within the classroom environment. Justifications for using the selected theories (section 4.2.3) for this study are reviewed and discussed and the definitions of attitudes (section 4.3.1) and beliefs (section 4.3.2) are presented and discussed with related literature. The perceptions of the formation of attitudes and beliefs (section 4.3.3) and the importance of teachers' attitudes towards inclusion and its significance to the study are also reviewed (section 4.4).

4.2. Theories on attitudes

Various theories describe how individuals develop attitudes and the relationship between attitudes in influencing behaviour and beliefs. In this section, the researcher discusses two different theories on attitudes that are relevant to this study as they offer constructs of attitudes and beliefs. The two theories are Reasoned Action and Planned Behaviour theories.

4.2.1. Theory of reasoned action

The theory of reasoned action by Fishbein and Ajzen (1975) relates to beliefs, attitudes and behaviours of somebody towards something; a decision to do or not to do is its manifestation (Figure 4.1).

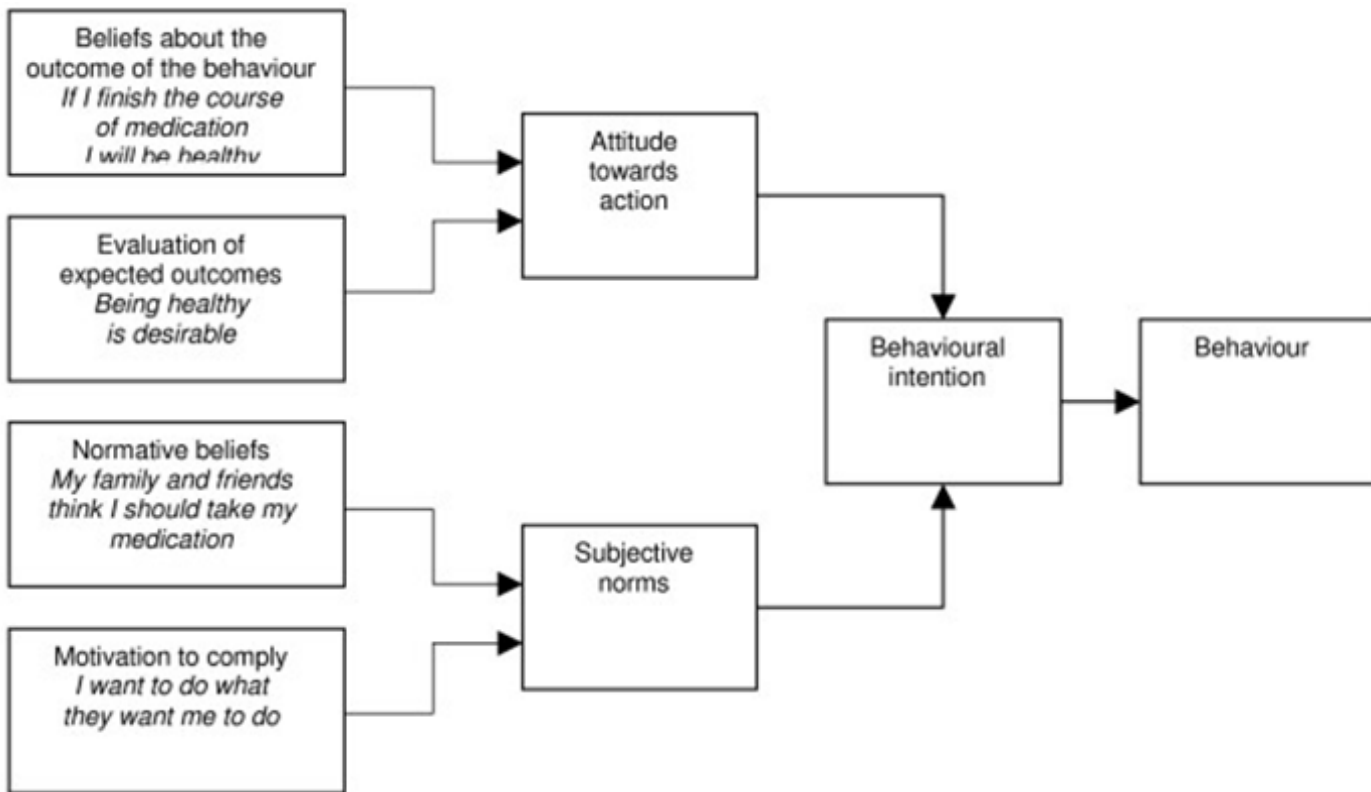


Figure 4.1: Theory of Reasoned Action (by Fishbein and Ajzen, 1975).

As in Figure 4.1, Fishbein and Ajzen (1975) indicated that the decision to engage in a particular behaviour results from a rational process that is goal-oriented and follows a logical sequence. Zimbardo and Leippe (1991) expanded on Fishbein and Ajzen's (1975) definition of intention and state that there are two main issues that are central to intention: attitudes toward the relevant behaviour, and subjective norms which encompasses society's attitudes towards the behaviour. Both Fishbein and Ajzen's (1975) and Zimbardo and Leippe (1991) observe a critical distinction between attitudes and behaviours based on beliefs, thoughts, emotional evaluations and intentions. They further suggest that an individual considers and evaluates a number of behavioural options. It is the outcomes from the rational thought processes that serve as the basis for a decision to act or not to act. This is in contrasted to the theory of reasoned action, which identifies that an individual displays behaviour that is in conformity with his or her beliefs. Zimbardo and Leippe (1991) argue that "on any given occasion attitude may or may not guide behaviour depending on whether the subjective norm favours or does not favour the behaviour and whether it is the norm or the attitude that is more important to the individual" (p. 189).

4.2.2. Theory of planned behaviour

The second theory is the theory of planned behaviour (Figure 4.2), proposed by Ajzen, 1988 (Ajzen, 1991), which is an extension of the theory of reasoned action.

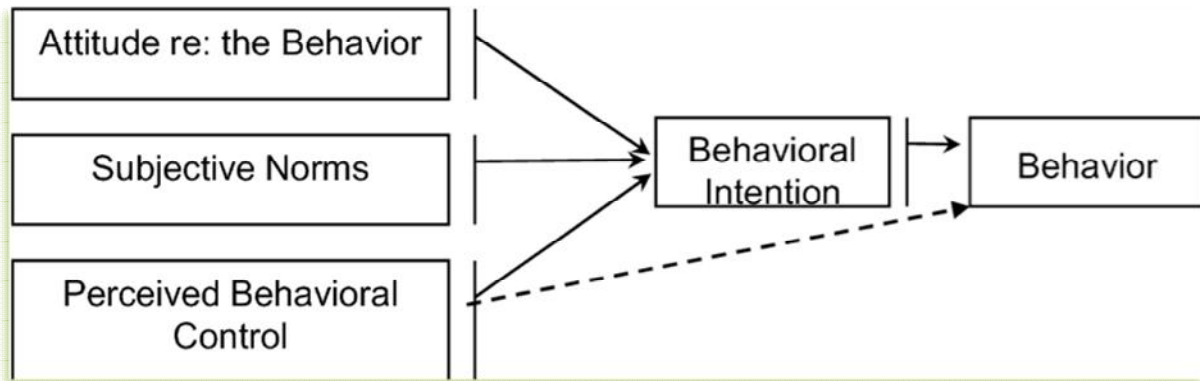


Figure 4.2: Theory of Planned Behaviour, proposed by Ajzen, (1991).

The theory of planned behaviour presents an explanation of how an individual's perception of the ease or difficulty of an action influences their choices of action. This theory can be related to teachers' attitudes towards inclusive education, which may explain why some teachers prefer to distance themselves from children with SEN and/or autism, believing instead that children with such issues require placement in special schools or classes. Teachers in mainstream education have said they do not possess the knowledge, skills or adequate resources to teach children with special educational needs; an environmental variable that has an impact on teachers' attitudes include class size, resources and the personnel support available to teachers.

The theory of planned behaviour is unlike the theory of reasoned action, where the individual has the ability to choose and control; according to the theory of planned behaviour, behaviour exhibited is a result of neither choice nor control. As Mushoriwa (2001) stated, large class sizes do not allow the teacher to provide individual attention to student, and teachers may need personnel support from parents, social workers, physiotherapists, speech and language therapists, psychologists and counsellors. If such resources are lacking, teachers may conclude that they cannot adequately teach SEN children and be resentful of requirements that expect them to do so.

The theory of planned behaviour suggests that an individual with highly perceived behavioural control is more likely to form an intention to perform challenging behaviours despite apparent obstacles and setbacks. Ajzen (1988) stated that behavioural control affects the relationship existing between intentions and behaviour in two different ways: firstly, the degree of belief in one's ability to perform a particular behaviour affects intentions regarding that behaviour, and secondly, the degree of actual behavioural control affects one's ability to behave as intended.

The theory of planned behaviour may imply that the type of environment teachers' work in is crucial to inclusive education. If the environment is supportive to each teacher's work, teachers are likely to show a positive attitude towards the inclusion of children with autism. Conversely, when there is a lack of support available for teachers, negative attitudes towards the inclusion of children with autism may arise. It is clear that teachers' training is vital as it promotes improvements in teachers' capability for managing cognitive education for children with autism and SEN.

4.2.3. Justification for using the selected theories

In deciding on the theories of reasoned action and planned behaviour, the researcher considered certain factors that may impinge on the researcher's evaluations of teachers' attitudes and beliefs towards inclusion and how such factors may affect teachers' attitudes towards the inclusion of children with autism. As the sample in this study lived in the socio-cultural environment of KSA, their previous experiences and knowledge about autism and inclusion are factors which may affect the way a teacher may respond to the idea of inclusion of children with autism will be affected by the cultural perceptions of KSA. The researcher believes that the reasoned action and planned behaviour theories provide an optimum avenue to consider such factors.

The researcher concludes from the above discussion that beliefs and attitudes affect our behaviours. Belief is theoretically defined as a simple proposition, a conscious or unconscious mental state that is inferred from what a person says or does. Beliefs vary in depth and context dependent as they are formed as a result of living in society; they are therefore environmental in origin rather than genetic. Attitude is defined as the way we evaluate any aspect of the social world, the extent to which we have favourable or unfavourable reactions to issues, ideas, persons, social groups, objects - any and every

element of the social world. Jones (2009) further noted knowledge, beliefs and opinion are inexplicably linked, as one cannot ensue without the other. Education and training should encourage the acquisition of knowledge that transforms taken-for-granted assumptions about the way we currently live.

By choosing such theoretical basis, the researcher is shaping how to prepare, investigate and analyse the study outcomes; defining the terms “attitude” and “beliefs” through using the theories of planned behaviour and reasoned actions provide a framework for this study. These theories provide specific indicators of what the KSA female teachers’ attitudes are towards inclusion and can be implemented within this study of teachers in KSA. The researcher modified and adapted the theories of planned behaviour and reasoned action to cultivate her own theoretical framework and outcomes in chapter 10.

Ultimately, for this research, the definitions of attitudes and beliefs have been constructed from the theories of planned behaviour and reasoned action, and sections 4.3 and 4.4 will illuminate this further with additions from literature.

4.3. Issues relating to attitudes and beliefs

4.3.1. Definitions on attitude

Attitudes are formed by a variety of factors including experience, education, religion, culture, tradition and other significant factors. This is an important reference point for this study of the attitudes of KSA female elementary school teachers' attitudes toward the inclusion of children with autism in regular elementary schools.

There are multiple definitions of attitude. Al-Husain (2010) asserted that "attitude plays an important part of teachers’ personality; it has a strength to the persons inside feeling, influenced by gained cultural, and effective environment that are around the teachers themselves, these kind of effects around the person and teachers are not the same, such attitude is usually different for each teacher, either strong or weak attitude depending on the teacher him/herself " (p. 56). Attitude was described by Aldamerdash (1994) as “the position that an individual person takes or the response that he shows towards something specific, a specific event, or specific case, either with acceptance or agreement, or with rejection and against something because of an experience that relates to that specific thing or act or case”

(p. 106). In the context of inclusion of special needs children in general education classrooms, attitudes may be the result of the ways in which teachers perceive themselves as having to cope with the presence of individuals who have special needs and require special services. Such services may place burdens on teachers who are already challenged to address their responsibilities with a diverse student population (Praisner, 2003).

4.3.2. Definitions of belief

Belief is an equally significant term and is used in this study as synonymous with opinion, representation attitude and embodies the existence of values. Teacher's thinking, according to Brantlinger (1996), can be shaped by their attitudes, values, judgments, axioms, opinions, ideology, perceptions, conceptions, conceptual systems, preconceptions, implicit theories, explicitly theories, personal theories, rules of practice, subconscious understanding, and self-understanding. Brantlinger (1996) expands that the above-mentioned listing only partially characterizes beliefs of personal knowledge that sit at the very heart of teaching. Beliefs may also be understood as "predilections that act as filters or intuitive screens when teachers are asked to develop a philosophy of teaching" (p. 18). Brantlinger (1996) identifies that whether one refers to the construct as an attitude, a belief, or an opinion, when one is discussing the inclusion of special needs children in general classrooms, one is invariably dealing not only with knowledge and facts, but also with emotions and at times even instinctive responses to a complex stimuli.

4.3.3. Perception of formation of beliefs and attitudes

The literature indicates a number of studies reporting how beliefs and attitudes affect inclusive practices (Molto, 2003; Avramidis and Norwich, 2002; Avramidis, Bayliss and Burden, 2000; Fang, 1996). Constructs of SEN are influenced largely by the knowledge, values, cultural norms and attitudes in society. As school is one of the primary agents of socialization in a country, teachers will be inevitably influenced by the beliefs and attitudes that a country has. Therefore if a society's attitudes and beliefs about people with a disability are positive, such attitudes will be ingrained within the school system and therefore will affect teachers' perceptions. Okyere's (2003) believes "many African countries are still plagued by traditional beliefs about individuals with disabilities and the negative attitudes that usually accompany such beliefs" (p. 47). Attitudes that emerge from within society determine how societies treat children with special educational needs (SEN) and the

provisions made for the training and education of these children and the teachers responsible for their education.

While initial teacher training is a context in which changes in attitudes may occur (Okyere, 2003), beliefs and values can and do change over time as attitudes and beliefs are continually constructed. Social attitudes may alter over time since values and knowledge gained by a teacher will affect how individuals relate to concepts of inclusion, teaching and learning. As Okyere (2003) stated, in most African societies many parents are reluctant for their children to learn alongside children that are identified as having SEN. This may lead teachers to harbour negative beliefs relating to the treatment of SEN children.

In KSA, according to cultural constructs, SEN and disabled people should be treated with decency as a consequence of Islamic beliefs and values; those with disabilities are viewed compassionately and accepted as members of society who have potentially substantial limitations and therefore worthy of dignified treatment (Al-Mosa, 2010). Despite this, the researcher has identified cases in the KSA where parents of a typical developing child would not like their child to learn alongside children that are identified as having SEN. At the same time many parents of SEN children, especially those who are extremely disabled, do not wish their children to learn alongside typical developing peers.

Much of the research and literature on this issue suggests that teachers' beliefs have an effect on their teaching practices (Booth & Ainscow, 1998; Jones, 2009). As Fishbein and Ajzen (1975) mentioned, the reactions and influences of society at large towards teachers' beliefs may contribute in improving and changing teachers' practices. In this study, teachers' attitudes towards the inclusion of children with autism will be influenced by the KSA society's cultural background which influences their perceptions of those with SEN as the Islamic beliefs in KSA require equal treatment of all, regardless of any disability. Beliefs can influence and shape knowledge and teachers' beliefs are closely connected with their pedagogical knowledge about teaching. Such beliefs can be difficult to change (Hall, 2005), despite teachers' personal beliefs on teaching and learning affecting their decision-making and behaviours (Fang, 1996).

Booth and Ainscow (1998) reveal that if the head of a school is committed to inclusive practice, it encourages other staff members to support it. Alghazo and Naggar Gaad (2004) maintain that for the education system change and for inclusion to be practical, 'teachers

attitudes need to change'. Such attitudes may be understood as representing dispositions that are either positive or negative (Campbell, Gilmore, and Cuskelly, 2003). Zimbardo and Leippe (1991) identified this attitude as "disposition", which "is a learned tendency to think about some object, person or issue in a particular way" (p. 31). Fishbein and Ajzen (1997, p.6) indicate that such attitudes with "learned predispositions respond in a consistently favourable or unfavourable manner with respect to a given object".

In selecting the term 'attitudes' and 'beliefs' for this study, the researcher chose to focus on the specific ways in which teachers demonstrate their feelings about the inclusion of special needs children within the educational context. For the purpose of this study, Baron and Byrne's (2000) theories defining attitude was selected. They conceptualised attitude as: "our evaluations of virtually any aspect of the social world, the extent to which we have favourable or unfavourable reactions to issues, ideas, persons, social groups, objects - any and every element of the social world" (p. 118). In deciding on this definition, the researcher proposes that an attitude is the outward and visible manifestation of responses by individuals to stimuli with which they are presented. Attitudes are formed by a variety of factors including one's knowledge, experiences, education, religion, culture, and tradition; such factors may affect the ways individuals evaluate and react to every element of their social world. Therefore, one might not expect that all people from the same or different cultural background respond in the same manner to an object.

Avramidis, Bayliss, and Burden (2000) in their study state that "Student teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school in the UK" indicated a model of attitude constituting three elements; cognition, effect, and behaviour. They reported that student teachers' attitudes were generally positive, although teachers perceived children with emotional and behavioural difficulties to be of more concern and stress. This study was notable in that it was conducted in an environment with established inclusion policies on SEN. For instance, there is an Index for Inclusion (2000), a SEN Code of Practice (DFES, 2001) and SEN toolkit (DFES, 2001) to guide inclusive practice. Among others, the Code establishes policies on such matters as the involvement of personnel in the field of medicine, counselling and social services, and how grievances can be redressed in SEN tribunals.

As a result of SEN policy requirements, the attitudes of some teachers towards inclusion have been reshaped. Studies indicate that in some instances, legal or regulatory mandates may not

make any differences in practice. For example, in a cross-cultural study, Zimbardo and Leippe (1991) indicated, “more cognitive responses result from systematic processing making the resulting attitude more well thought out and well connected to beliefs, values and knowledge” (p. 192). Thus, attitude change as a result of systematic message analysis tends to be more durable and persistent than that which emerges due to heuristic decision rules. Bowman (1986), studying fourteen nations, indicated that where there are laws requiring integration, teacher attitudes tend to be positive when rules are present and enforced, and negative where laws or rules on specific issues such as inclusion are absent. Gaad (2001) also stated that negative attitudes are underpinned by a set of cultural beliefs and values.

A vast body of literature presents an integrative overview describing the term “attitude”. In KSA, as well as many developing countries, even if there are laws and regulations promoting inclusion of children with autism in mainstream classrooms, they are not enforced. Literature evaluating attitudes demonstrates how value systems in various cultures and countries affect the use of inclusionary policies in schools. In this study, the terms ‘beliefs’, ‘attitudes’, and ‘opinions’ are relevant to this research topic, which examines teachers’ attitudes in relation to their practices of inclusion of children with autism into regular schools in KSA.

4.4. Importance of teachers’ attitude toward inclusion and its significance to the study

Teachers, school administrators, parents, and professionals need to work together for better and successful inclusion (UNESCO, 2005). Teachers’ attitudes toward the acceptance of children with autism into their regular classrooms are vital to consider. Avramidis, Bayliss, and Burden (2000) developed a new instrument for measuring student teachers’ attitudes toward inclusion based upon a specific theoretical principle, where the differences of opinions were evaluated for or against the attitude object. Their study measures aspects or attributes of teachers’ attitudes, and the key features of attitude according to the study were viewed as being complex and multi-dimensional.

Teachers who are expected to participate in inclusive education must, according to Florian and Rouse (2009), be properly educated, trained, and prepared to function effectively in such an environment. Teachers play an essential role in quality education and studies suggest that the quality of the teacher and teaching contribute more to learner achievement than any other factor including class size, class composition, or background (European Agency for

Development in Special Needs Education, 2010). Teacher training should prepare teachers for inclusion and to engage with learner diversity arising from a number of variables, including disability or special educational needs.

A study by Monsen and Frederickson (2003) used a two-pronged instrument driven research design. A sample of primary school teachers were categorized according to high/moderate/low scores on a scale measuring views on mainstreaming policies and practices. Pupils of these teachers completed a scale measuring perceptions of their classroom learning environments. A correlation of children with teacher attitudes revealed that children taught by teachers who adopted highly positive attitudes in mainstream classrooms were more satisfied than children whose teachers were less positive.

Monsen and Frederickson's (2003) study is beneficial to this one as it illustrates not only teacher attitudes, but reveals a correlation between teacher attitudes and the effects of teacher attitudes on children. This study is beneficial in illustrating the differences between the teachers' attitudes toward inclusion, especially between teachers with experience, with those who do not have experience. Attitudes that teachers have towards the inclusion of children with SEN and autism in inclusive education are important and can impact on the success of any educational plan and the success of inclusion and general education in the regular classroom and school. Therefore, it is essential to investigate accurately teachers' attitudes and opinions of inclusive education in the KSA as teachers' attitudes are a critical in maintaining an effective education system (Wilczenski, 1991; Alghazo, Dodeen & Algaryouti, 2003; Downs, 2003).

Al-Mosa et al (2008) contended that inclusion should be improved in the KSA at various levels including the educational system, which must be more committed to inclusive practice. The value systems in various cultures and countries affect the use of inclusionary policies in schools with autism and disability to support and accept children in the regular classrooms (p.331). Teachers who may then influence others who are related to children's inclusion may instigate such improvement. Alghazo and Naggar Gaad (2004) in their study on UAE maintained that for inclusion to be practical and for the education system to be changed "teachers attitudes need to change" (p. 97). This is as true in the case of the KSA as it is elsewhere.

Jones (2009) stated that the value of interaction between adult and child comes directly from the adult, proving that opinion, ideas and experiences of adults (teachers) promotes children with special needs being accepted and served in regular classrooms with their peers. This means that if teachers' attitudes are positive, it is easier for the achievement of policies that guarantee the child's right to be educated in regular classrooms (Alghazo and Naggar Gaad, 2004). It is the teachers' role to promote integration and collaboration between children with autism with typical developing peers. Indeed, Sugden and Chambers (2005) stated that there is an inseparable relationship between the education of children and the environment (which includes peer relationships) therefore any steps towards inclusion should consider this relationship.

Hammond and Ingalls (2003) investigated the attitudes of elementary school teachers towards inclusion within three rural school districts in a south- western area of the USA. Hammond and Ingalls (2003) stated that: "Since the mid-1980s, there has been a strong national movement to include all children in general education classrooms within their neighbourhood schools." This movement has met with much support; however, there are many challenges professionals encounter when implementing inclusionary programs. Although, the challenges and concerns teachers have as acknowledged, these issues continue to plague our educators. To rectify such problems, there is a need to specifically identify the teachers' concerns and then begin to establish methods to directly address the issues (p. 19).

4.5. Summary

Studies have shown the importance of teachers' attitudes toward inclusive education and how it is essential for the success of educational systems (Spandagou, Evans and Little, 2008; Wilkins and Nietfeld, 2004). Teachers' attitudes and beliefs have an effect on their teaching practices towards the inclusion of children with autism. The success of any educational plan depends on the involvement of teachers with their children in the classroom; this affects the success of inclusion in general education in the KSA. The topic of teachers' roles and factors is further discussed in Chapter 6.

Chapter 5: Autism

5.1. Introduction

A primary aim of this study is to obtain an understanding of KSA female teachers' attitudes towards the inclusion of children with autism within mainstream classrooms. As mentioned in chapter 2 although, in KSA, inclusion for SEN children in mainstream schools is common, children with autism are not part of mainstream classrooms (Al-Quraini, 2011). The researcher has chosen to study the inclusion of children with autism because such children are a significant group within SEN and, as the Salamanca principle for inclusive education suggested, they should be enrolled in mainstream schools unless there are convincing explanations for doing otherwise (UNESCO, 1994). Further, during the researcher's BA internship practice, the researcher observed that autism is a problematic area for teachers as teachers had misconceptions associated with autistic children as being aggressive, difficult to control and difficult to teach. As a result, this study focuses on teachers' attitudes towards children with autism. As teachers are generally unaware or misinformed regarding autism, it is essential for this study to include information about autism in order to highlight that children with autism are not a homogeneous group, but rather individual children with their own individual needs and personalities.

A vast selection of literature is available detailing the development of different strategies investigating children with autism and their inclusion; however research into the causes, diagnosis and strategies dealing with children with autism and how best to engineer inclusive practices is still evolving. This chapter begins with an overall background of autism, pertaining to how it is defined in the DSM-V, and the changes that have occurred in the diagnostic criteria from DSM-IV (section 5.2). Section 5.3 details cognitive and behavioural theories which explain autism, focusing especially on the theory of mind, executive functioning, the weak coherence theory and the empathizing-systemizing theory; section 5.4 focuses on the medical and biological explanations of autism, whilst section 5.5 uses Morton and Firth's (1995) proposed causal developmental models for autism which weaves together the cognitive, behavioural and biological explanations for a more complete picture of the autistic condition. Section 5.6 identifies research into autism in KSA, where this study takes place; section 5.7 presents the outcomes of early intervention for children with autism within the KSA educational context. Next, section 5.8 touches on the inclusion of children with

autism in the mainstream classroom, whilst section 5.9 identifies the changes that both teachers in the classroom and children with autism may face within the mainstream classroom context. Finally, section 5.10 presents a summary and conclusion of this chapter.

5.2. Background on children with autism in special education

Scheuerman and Webber (2002) noted that "special education for individuals with autism may have begun as early as 1700" (p. 1). Koegel and Koegel (2000) proposed that the history of autism began in 1943 with Leo Kanner. Kanner, a psychiatrist at Johns Hopkins University, is considered to have coined the label of "autism" in his description of 11 historic cases of children with these specific characteristics. Kanner noted considerable differences in these children compared to a child labelled with "childhood psychosis". Chapter 1, section 1.7.3 outlined how Autism Spectrum Disorder (ASD) in the 21st century is characterized as a range of complex neuro-developmental disorders represented by social impairments, communication difficulties, and restricted, repetitive, and stereotyped patterns of behaviour (National Institute of Neurological Disorders and Stroke (NINDS), 2009).

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) defined the characteristics of ASD. Those with ASD tend to have communication deficits, such as responding inappropriately in conversations, misreading nonverbal interactions, or having difficulty building friendships appropriate to their age. In addition, those with autism might be overly dependent on routines, highly sensitive to changes in their environment, or intensely focused on seemingly insignificant and inappropriate occurrences. The autism spectrum is comprised of disorders that involve impairment in communication, reciprocal social interaction and stereotyped repetitive behaviour with limited interest in humans (Gleberzon, 2006). (Chauhan, Chauhan, 2006). Some individuals will show mild symptoms and others having much more severe symptoms (DSM-V, 2013). This spectrum will allow clinicians to account for the variations in symptoms and behaviours from person to person. The researcher has adapted this description as the operational term for 'autism' in this study.

Other characteristics of ASD may include social impairments, communication difficulties and restricted, repetitive, and stereotyped patterns of behaviour (NINDS, 2009; Stahmer, 2007). Autistic disorder or classical ASD is the most severe form of ASD while other conditions along the spectrum include milder forms such as Asperger's syndrome (AS), Rett's syndrome which affects girls more than boys, childhood disintegrative disorder and PDD. While ASD

can and does vary significantly in character and severity, it occurs in all ethnicities and, while numbers of population affected is difficult to ascertain, according to NINDS (2009, p. 1) “326 children out of every 100,000 will have ASD” with males “four times more likely to have ASD than females.” ASD is not rare and Yates and Le Couteur (2008, p. 55) argue, “rates report estimates of 30 per 10,000 for core autism and up to 1 in 100 for ASD. The condition is three to four times more common in boys, with a male preponderance rising in the high functioning group.”

Hyman’s (2013) insightful article on new DSM-V draws on research from The American Psychiatric Association and outlines changes to autism criteria from DSM-IV. She notes that the diagnostic criteria for autism spectrum disorder has been modified based on research literature and clinical experience that has taken place since the DSM-IV was published in 1994. These changes include (Hyman, 2013: p. 2):

- “The diagnosis will be called Autism Spectrum Disorder (ASD), and there no longer will be sub-diagnoses (Autistic Disorder, Asperger Syndrome, Pervasive Developmental Disorder Not Otherwise Specified, Disintegrative Disorder).
- In DSM-IV, symptoms were divided into three areas (social reciprocity, communicative intent, restricted and repetitive behaviours). The new diagnostic criteria have been rearranged into two areas: 1) social communication/interaction, and 2) restricted and repetitive behaviours. The diagnosis will be based on symptoms, currently or by history, in these two areas.”

Hyman (2013) notes that although symptoms are noticeable in early childhood, it is often the case that they are not fully recognised until much later when social demands placed on individuals exceed capacity. She notes that there is overlap between DSM-V and DSM-IV in that the symptoms they set out cause functional impairment. These symptoms reflect persistent deficits and shortcomings in contexts of social communication/interaction but these symptoms are beyond those that might be explained by general developmental delays. Thus, the requirement of a delay in language development is no longer necessary for a diagnosis. Hyman (2013: p. 2) notes the following:

- “Problems reciprocating social or emotional interaction, including difficulty establishing or maintaining back-and-forth conversations and interactions, inability to

initiate an interaction, and problems with shared attention or sharing of emotions and interests with others.

- Severe problems maintaining relationships — ranges from lack of interest in other people to difficulties in pretend play and engaging in age-appropriate social activities, and problems adjusting to different social expectations.
- Nonverbal communication problems such as abnormal eye contact, posture, facial expressions, tone of voice and gestures, as well as an inability to understand these.”

The symptoms outlined above include marked impairments in gestures to regulate social interaction, failure to develop peer relationships appropriate to developmental level and a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g. by a lack of showing, bringing, or pointing out objects of interest to other people).

In order for an individual to be diagnosed as having such a disorder, two of the four symptoms related to restricted and repetitive behaviour have to be present. These four symptoms are (Hyman, 2013: p. 2):

- “Stereotyped or repetitive speech, motor movements or use of objects.
- Excessive adherence to routines, ritualized patterns of verbal or nonverbal behavior, or excessive resistance to change.
- Highly restricted interests that are abnormal in intensity or focus.
- Hyper or hypo reactivity to sensory input or unusual interest in sensory aspects of the environment.”

These symptoms detail restricted repetitive and stereotyped patterns of behaviour, interests and activities, including pre-occupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus, stereotyped and repetitive motor mannerisms (e.g. hand or finger flapping or twisting, or complex whole-body movements) and persistent preoccupation with parts of objects.

Hyman (2013: p. 2) notes “symptoms need to be functionally impairing and not better described by another DSM-5 diagnosis.” She defines the symptom severity for each of the two areas of diagnostic criteria and puts it in a context of (i) the level of support required for those symptoms and (ii) the level of impact from simultaneously occurring manifestations

such as intellectual disabilities, language impairment, medical diagnoses and other behavioural health diagnoses.

Hyman (2013: p. 2) cites DSM-5 insights on the Rett syndrome, observing that it as a discrete neurologic disorder and not a sub-diagnosis under ASD. Rett syndrome, childhood disintegrative disorder and pervasive socioeconomic groups affect every age group. DSM-5 does note though that patients with Rett syndrome may also have ASD. DSM-5 does not require re-diagnosis of children with DSM-IV confirmed autistic disorder or Asperger's syndrome. This is because almost all these children met the diagnostic criteria under DSM-5. Instead, a case-by-case approach is recommended and referral for reassessment should be based on clinical concern.

However, Hyman (2013) notes that children that had been given a PDD-NOS diagnosis and who had few DSM-IV symptoms of autism (or who were diagnosed as a "placeholder") might be taken forward for more specific diagnostic assessment. She notes that DSM-5 is flexible in allowing patients to continue to self-identify as having Asperger syndrome if they want to, though the DSM-5 diagnostic category that applies is ASD. DSM-5 makes further recommendations that clinicians should be mindful that children with ASD should be assessed for a speech and language diagnosis in addition to the ASD. In doing so, it enhances the chance of informing on the appropriate therapy for the child. Hyman (2013) suggests that the DSM-5 includes a new diagnostic category of social communication disorder. This category refers to children with social difficulty and pragmatic language differences that affect understanding, production and awareness in conversation that is not as a result of delayed cognition or other language delays.

The above changes are an important shift from DSM-IV criteria which was geared toward identifying school-aged children with autism-related disorders but which was found lacking in diagnoses among younger children. It is also important to note that qualitative impairments in communication as manifested by at least one of the following:

- Delay in or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
- In individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others.

- Stereotyped and repetitive use of language or idiosyncratic language.
- Lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level.

The coding and billing of these conditions has also been overhauled by DSM-5. The new DSM-5 criteria bring together all previous sub-diagnoses under one condition of ASD, though there may be an inconsistency between billing databases and DSM-5 diagnoses.

DSM-5 also emphasises the role of the relationship between paediatricians and parents and sets out that the former must consult with parents whose children have been diagnosed as being on the autism spectrum disorder using DSM-IV criteria and explain that it is not necessary for them to be re-evaluated for diagnosis under DSM-5. It is also the case that there is no change in educational or therapeutic schemes for children and other young people diagnosed with ASD.

Such guidelines assist in diagnosing and identifying children with autism; advances in diagnosis are important for the research and planning process, and in planning the collection and analysis of data. These guidelines can contribute in diagnosing and identifying children with autism for inclusion and therefore assisted the researcher during building the research instruments and through teachers' interviews.

5.3. Cognitive and Behavioural theories of autism

Wing and Gould (1979) first introduced the term “triad of impairments” identifying three primary impairments that they associated to describe children with autism:

1. Impairment of social interaction: Relationships and interactions with other people and concepts relating to sharing and turn taking.
2. Impairment of communication: All aspects of communication, both verbal and non-verbal cues and communication and level of comprehension of the modes of communication around them.
3. Impairment of imagination: Repetitive behaviours, lack of play skills, poor abstract thinking and craving consistency.

However Dodd (2005) argues that, since Wing and Gould proposed their theory in 1979, the picture of autism has changed drastically, more so in the last decade. She argues that the current focus of autism has moved “beyond the triad” and although current research explaining traits that children with autism have underpin those outlined above in the triad, current theories have expanded the triad to also encompass characteristics of children with autism that are non-observable. Dodd (2005) proposes that “the move today is away from looking simply at overt behaviours of individuals and towards determining the underlying issues of these behaviours and questioning why they occur” (p. 4). Current theories of autism emphasise and focus particularly on the learning and thinking styles of children with autism and move beyond the observable characteristics that are outlined in the triad. For example, according to Rogers and Pennington (1991) the primary cause of autism is the deficiency of learning skills caused by a lack of imitation abilities, which forms the basis for loss of cognitive abilities in older children. Similarly, Hobson’s theory of autism describes the lack cognitive abilities are a result of affective disorder. According to behavioural origins of autism, the absence of imitation in younger children is an important factor in the development of learning skills. The inability to imitate also affects social and interpersonal relations.

This section will outline four newer distinct cognitive and behavioural approaches that expand upon the triad whereby we may be able to define and understand both the observable and non-observable characteristics that may be present in children with autism. These approaches are: the theory of mind, executive functioning, central coherence theory and the Empathizing-Systemizing (E-S) theory.

5.3.1. Theory Of Mind and “Mind-blindness”

The theory of mind stems from the concept that a typically developed individual has the ability to interpret, infer and impute the intentions, feelings and thoughts of those around them, and how these relate to themselves. Baron-Cohen (2001) argues that children with autism have difficulty in processing and intentions of those around them and children with autism “as a group fail to employ a theory of mind” stemming from “an inability to represent mental states” (p.3). The capacity to infer what people believe, feel, desire and even imagine allows an individual to make predictions on how they will act; this is a critical component in the development of social skills. Theory of mind established “the importance of communication in social exchanges and relationships and put the spotlight on social cognition

as a possible primary deficit of autism” (Dodd, 2005, p. 41).

Baron-Cohen (2001) asserts, “difficulty in understanding other minds is a core cognitive feature of autism spectrum conditions [and] is part of the core feature of childhood autism” (p.3). He refers to this as “mind-blindness”, proposing that children with autism are in fact delayed in developing a theory of mind. After conducting a series of tests, Baron-Cohen found that other traits that demonstrate children with autism failing to employ theory of mind include. Below is a summary of Baron-Cohen (2001) key findings relating to the differences in the theory of mind in children with autism and typically developing children:

- Typically developing children understand that the brain has a range of cognitive functions such as dreaming, wanting, thinking, keeping secrets and pretending, and can separate these mental states from physical actions. By contrast, children with autism (despite having a similar mental age to typically developing children in the test) had sound understanding about the physical functions of the body, but failed to demonstrate knowledge relating to any mental functions of the brain. For example when children with autism were presented with a candle that was shaped like an apple, they could not “capture the object’s dual identity” in their descriptions, but rather claimed the object was either a candle or an apple. This highlights that children with autism have difficulty in subjective thinking, highlighting a “deficit in the development of a theory of mind” (Baron-Cohen, 2001, P. 4).
- At age 4, typically developing children can identify words from a list to describe mental states, for example to think, know, dream, hope, pretend and imagine. They are able to distinguish such actions from non-mental verbs such as to jump, eat or move. Children with autism have difficulty in making such judgments, being able to pick out and identify physical action rather than mental processes.
- Children with autism are less likely to associate mental and physical states as causing an emotional response.
- Typically developing children understand that different people have difference perceptions and thoughts about the world and view situations differently. Children with autism demonstrate difficulties in altering their perspectives to understand alternative or multiple points of view, choosing instead to report only their own perspectives.
- Children with autism fail to understand the “seeing-leads-to-knowing” principle, whilst typically developing children have difficulty in inferring and associating that physically seeing an event occur can lead to knowledge and understanding about that

specific event.

- Children with autism are less likely to engage in pretend and imaginative play, suggesting a deficit in the ability to use imagination and creativity.
- Typically developing children can deduce when someone is thinking about something by making inferences about gaze-direction. Children with autism tend to have more literal interpretations of gaze-direction, they can answer the question “What is X looking at?”, interpreting someone’s gaze does not come naturally to them.
- Children with autism have difficulties in distinguishing and understanding the difference between action and intention, and how there is sometimes a discontinuation between an individual’s action and their intent. They focus instead on the actual outcome of an action, and not why the action took place.
- When studies under experimental conditions, children with autism had difficulty understanding the concept of deceptions. They had difficulties in understanding when they were being deceived, and also deceiving others.
- Figurative speech, through sarcasm, irony, joking or metaphor, requires an understanding of the speaker’s intentions, and being able to grasp non-literal thinking. Results suggest that children with high-functioning autism have difficulties understanding the speaker’s intentions, and tend to take the speaker literally as they fail to comprehend the intentions of the speaker.
- The use of imagination is pertinent to the theory of mind as it involves a world existing purely in the mind as a virtual world. A study of children with autism found that they were unable or reluctant to produce imaginative drawings.

5.3.2. Executive Functioning

Executive functioning refers to skills such as planning, organization, being able to sustain attention for periods of time and restraining inappropriate responses. Pellicano (2012) suggests that difficulties in executive functioning play a “significant part in the real-life outcomes of individuals with autism, including their social competence, everyday adaptive behavior, and academic achievement” (p. 1, 2012). Alvarez and Emory et al (2006) assert that high level executive functioning focuses on cognitive functions including flexibility in thinking, creativity, controlling impulses and inhibition. In children, difficulties in executive function can play a substantial role in children’s developmental outcomes as they exhibit an executive dysfunction where there is a failure to regulate and control cognitive processes

which in turn impact their exhibited behavior.

Children with autism may have difficulties in executive functioning that can be apparent in multiple ways. Some individuals may be unable to hold a single train of thought, causing a failure in maintaining attention for periods of time. Self-regulation and planning, skills related to executive functioning, may prove difficult for children with autism, leading to poor organization due to an inability to sequence and prioritize tasks.

Low levels of executive functioning may explain the “inherent rigidity and invariance of autistic behaviors” may be a result of “impairment in executive control” (Pellicano, p.4, 2012). This may manifest in behaviors such as perform the same action repeatedly as a result of difficulties in switching flexibly between sets of responses due to being unable to regulate behavior and adapt flexibly to changes (Pellicano, 2012).

5.3.3. Central Coherence Theory

Central coherence is defined as the ability to focus on both details and wholes, or a bigger picture in relation to details; to derive and interpret an overall meaning from a large body of detail. In 1989, Firth, (1989) =proposed the “Weak Central Coherence Theory” of autism to explain that those with autism are excessively detail orientated, focusing instead on details rather than the bigger picture due to sensitive sensory perception. Weak central coherence means that individuals, by paying attention to detail, may have difficulty in coherently forming thoughts to understand how such details shape a bigger picture. Firth terms this as a “detail-focused cognitive style”.

Firth identified that other theories of autism (such as theory of mind and executive functioning) do not account for the strengths of those with autism, instead focusing on their deficits. A weak central coherence and a remarkable attention to detail may mean that some individuals with autism have remarkable skills in areas such as in memory and recollection, calculations and music which require a focus on extreme detail. As such, ideas surrounding a weak central coherence may explain both the deficits and strengths of those with autism.

5.3.4. Empathizing-Systemizing Theory

Baron-Cohen (2009) outlines the more recent two-factor Empathizing-Systemizing theory as a way to explain “the social and communication difficulties in autism by reference to delays and deficits in empathy, while explaining the areas of strength and reference to intact or even superior skills in systemizing” (Baron-Cohen, 2009, p. 71). According to this theory, children with autism display below average ability to empathize, defined as both recognizing expressions of emotion, and also having an appropriate response to another individual’s thoughts and feelings. However, although their ability to empathize is underdeveloped, children with autism display above average skills in systemizing, which is defined as the “drive to analyze and construct systems...to identify rules that govern the system” Examples of such systems include mechanical systems (e.g. video recorder), numerical systems (e.g. a train timetable) and social systems (e.g. management hierarchy) (Baron-Cohen, 2009, p.71). Essentially, children with autism display superior skills when noting regularities, structures and rules, arguably partly due to an extreme attention to detail.

The Empathizing-Systemizing Theory is a method whereby we can explain social and non-social traits that children with autism possess. For example, below average empathy may explain why children with autism have difficulties socializing and communicating, whilst strong systemizing skills explain why children with autism will engage in repetitive behavior, and resist change, whilst preferring consistency. In this way, strong systemizing skills functions as a way to make the world more predictable for children with autism; such skills are highly purposeful for children with autism, as they are able to “achieve ultimate understanding of a system” (Baron-Cohen, 2009, p.74). In doing so, children with autism are special are they are able to find patterns in data that those without autism may overlook due to average or below average systemizing skills.

5.4. Medical background of autism

Although the theories outlined in the previous section highlight the cognitive, psychological and behavioural traits present in those with autism, the theories fail to recognise or pinpoint the biological and medical traits of autism. Yeargin-Allsopp, Rice, and Karapurkar et al., (2003) suggested that the incidence of autism has increased over the last several decades partly because of broadening diagnostic criteria and greater awareness among health professionals, however it is difficult to ascertain to what degree these factors account for the

increase. Prevalence studies in the USA, the UK, Europe, and Asia estimated that 3.4 of every 10,000 children between 3-10 years old have autism (Yeargin-Allsopp et al., 2003).

From a medical perspective, Bauman and Kemper (2005) indicated that autism is considered a definable systemic disorder resulting in a number of diverse alterations that may affect the brain's development and functions both pre and post-natally. Causes and contributing factors for autism are poorly understood as many studies suggest conflicting cause and diagnosis for autism. Autism is a complex disorder that appears in the early years of childhood and is considered a neurodevelopmental disorder with degenerative actions. Evidence suggests that prevalence is rising, but the extent to which diagnostic changes and improvement in ascertaining autism contribute to this increase is unclear. Indeed, genetic factors are not believed to solely contribute to causing autism as both genetic and environmental factors are likely to contribute etiologically; geographical clustering of autism has been noted and links to broad environmental risk factors (MacFabe 2007). Autism is the most common form of PDDs and it affects boys more than girls by a ratio of 4:1 (Gleberzon, 2006).

Several biochemical, anatomical and neuro-radiographical studies have suggested a disturbance in energy metabolism in the brains of autistic children with marked increase in the size especially in areas related to social cognitive processes (Rojas, Bawn, Benkers, Reite, & Rogers 2002). This enlargement decreases by late adolescence. This was confirmed by using meta-analysis of reports examining head circumference, MRI studies and medical inspection to brain weights (Redcay, 2005). Investigators are addressing the concept of autism as a general metabolic disorder involving environmental factors such a greater likelihood of sensitivity to compound metals (lead, Mercury and Cadmium). It is also thought that autism may result from the interaction between genetic and environmental factors with oxidative stress as a potential linking the two (Ming, Stein, and Brimacombe et al., 2005).

5.5. Causal developmental models for autism

The previous sections have focused on the cognitive, behavioural and biological theories of the causes and symptoms of autism separately. However, developmental and neurological disorders such as autism can also be explained using causal modelling theories that are essential in understanding developmental disorders further as they combine the biological, behavioural and cognitive origins of autism to weave a more complete picture in explaining

both the cause and effects of autism. The causal models theories of development by Frith, Morton and Leslie (1991) outlined in this section have been viewed and described in relation to this study. Frith et al (1991) proposed two causal models of autism linking biological and behavioural origins of autism, and then proposed a third level of study including research into the cognitive aspects to forge better connections between the levels established in Morton's model for autism. Separately, biological, cognitive and behavioural principles are recognised as descriptive models and form the background of the causal model. Descriptive models are dealt at singular levels, however causal models combine the distinct descriptive models as multi-level concepts (Meher, Morton, & Jusczyk, 1984) by forming links between the biological and psychopathological theories comprising reactions and relationships and their association with developmental concepts. All three causal models will be explained in the following section.

Morton's and Frith (1995) causal model (Figure 5.1) begins with the biological source of the syndrome. According to Gillberg (1989) the biological origins of autism are attributed to various physiological and medical perspectives. The next aspect is the possible diagnosis of an abnormality in the brain shown by diagnostic imaging techniques (Gilberg, 1992).

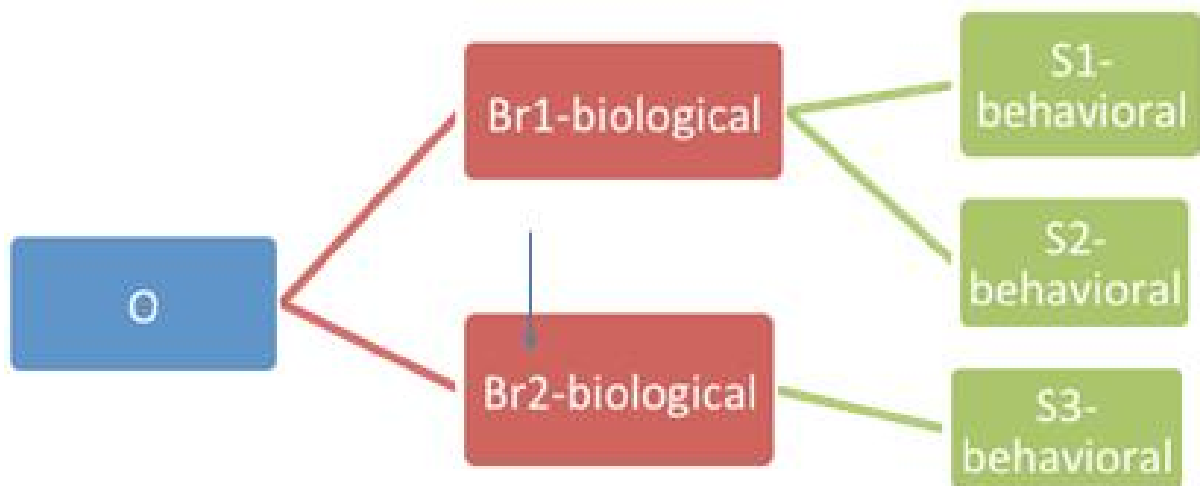


Figure 5.1 Hypothetical relationships between biological and behavioural aspects of causal model of autism. (S_n - symptoms; Br_n -biological origin of syndrome.)
(Source: Morton and Frith, 1995)

The biological source is then developed to explain behaviour, detail the manifestation of symptoms and distinguish then from other common ailments and interrelated with the actual syndrome (Figure 5.1) through associating behavioural abnormalities like mental disabilities

with the brain anomalies or injuries. The resultant syndrome is autism characterized by lowered intellect and impaired brain function (Smalley, Asornow and Spence, 1989).

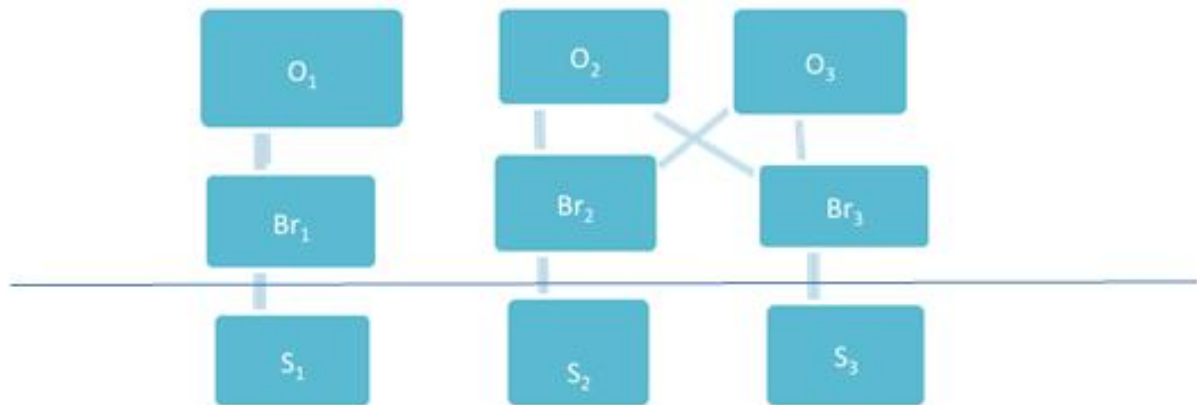


Figure 5.2 Hypothetical relationships between brain function and behavioural symptoms. (On- biological origins, Br- abnormal brain conditions, S- behavioural signs.)

(Source: Morton and Frith, 1995)

Figure 5.2 also illustrates a causal model that outlines the relationship between biological and behavioural symptoms to form a complete account of all the basic characteristics and related features that are manifested in related environments that may lead to autism. Though it is imperative that the biological origins relate to brain dysfunction, behavioural abnormalities are more complex and caused due to several factors.

The behavioural perspective of autism in this instance includes the two main aspects: the hindrance in social interactions of the individual, communication disabilities (including linguistic and oral communications) and learning disabilities. The three symptoms are inter-linked and often found associated in a single individual and termed “autistic spectrum”. The causal nature of autism spectrum must be dealt with at various stages such as biological, cognitive and behavioural planes to have a complete understanding of the syndrome and its specifications that is essential for the identification of the cause. It has been proven by most researchers that the basic cause of autism lays in its biological origin, which is further affected by cognitive and behavioural factors.

Morton and Firth (1995) propose a third level in the causal model for autism, as illustrated in Figure 5.3. The multi-level theory identifies that any injury or harmful effects to cognitive abilities in the biological component affects the behavioural function, however psychoanalytical theories are not accounted for in this model (Tinerberg and Tinerberg, 1983). Cognitive effects will include those outlined in section 5.3.



Figure 5.3 Essential components for causal model for autism.
(Source: Based on Morton and Frith, 1995)

In summary, there are several theories detailing the causes of autism. Morton (1998) and others proposed causal developmental models for autism that covers biological, cognitive and behavioural traits. Morton stated that "biology and the behaviour can be observed, but there is nothing to observe directly at the cognitive level" (Morton, 1998, p.45) which renders studying biology and behaviour essential. As Morton's model proposes a theory on the sources causing autism, any developmental disorder can be said to have three levels of description; biological, cognitive and behavioural. The biological includes genetic differences; cognition refers to the low general ability and theory of mind deficit, which is lack of imagination, function of language not learned and social convention not learned and behavioural dimensions include socially strange behaviour, a lack of imaginative play and delay in language acquisition and a low IQ (Morton, 1998).

5.6. Research on autism in KSA

Halwani (2008) in his research on KSA children described autism as a complex developmental disability that typically appears during the first three years of life. He added, "the result of a neurological disorder that affects the functioning of the brain, autism and its associated behaviours has been estimated to occur in as many as 6 to 32 in 1,000 SA individuals" (p.23). Halwani (2008) identified that autism has no racial or social associations; and psychological and social specialists help families create a plan for care, with heavy emphasis on diet and nutrition. Al-Wazna (2008) reveals that there are more than 100,000 autistic children in KSA and the ratio is 6:1000 who are at school age (Al-Wazna, 2008), Al-Wazna concluded, "autism should not be regarded as a disease, but a developmental disorder of brain functions" (p.35). He adds people with classical autism show three types of symptoms: impaired social interaction, problems with verbal and nonverbal communication, and unusually severely limited activities and interests.

Ghaziuddin and Al-Owain (2013) studied autism spectrum disorders and inborn errors of metabolism, reporting that Autism spectrum disorder are characterized by social and communicative deficits occurring in about 1% of the population. Although the exact cause is not known, several factors have been implicated in its etiology, including inborn errors of metabolism. While relatively uncommon, these disorders frequently occur in countries with high rates of consanguinity and are often associated with behavioural problems, such as hyperactivity and aggression (Ghaziuddin and Al-Owain 2013). Ghaziuddin and Al-Owain (2013) reviewed the association of autism with these conditions. They performed a computer-assisted search to identify the most common inborn errors of metabolism associated with autism. Several disorders were identified, concluding that the risk of autistic features is increased in children with inborn errors of metabolism, especially in the presence of cognitive and behavioural deficits. They propose that affected children should be screened for autism.

5.7. Early intervention

While the causes of autism can be explained according to multiple theories as outlined in sections 5.3-5, the benefits of early intervention have been shown to reduce disruptive behaviours and teach the child skills that will lead to greater independence, as he or she gets older. NRC (2001) identified intervention at an early age as a key component in successful approaches for children with autism. The following features were key to the education of children with autism across pre-school programs: a) Early intervention, b) active engagement in intensive instructional programming; a minimum of a full school day, at least five days (25 hours) per week for a full year, c) repeated teaching organized around short intervals with one-to-one and very small group instructions, d) inclusion of a family component, and e) mechanism for ongoing evaluation of program and children' progress, with adjustments made accordingly. NRC reported that goals for educating children with autism are the same as goals for educating other children, including personal independence and social responsibility.

In addition, NRC found that the IEP for children with autism should include educational objectives that are observable and measurable, accomplishable within a year, and affective in a child's education, community, and family life. NCR (2001) indicate that educational objectives should include the development of:

- a) Social skills;

- b) Expressive verbal language, receptive language, non-verbal communications skills;
- c) A functional symbolic communication system;
- d) Engagement and flexibility in developmentally appropriate tasks and play;
- e) Fine and gross motor skills;
- f) Cognitive skills (symbolic play and academic skills);
- g) Conventional (appropriate behaviours), and
- h) Independent organizational skills and skills for success in a regular classroom (NCR 2001).

Blayne and Borden (2008) used a case report format to describe the benefits of early intervention for children with ASD. They observed there is no doubt a child with autism undergoing intensive intervention; whether behavioural or developmental, perform better than children who do not. These researchers indicate that there is no hard data supporting the efficacy of specific interventions, at least not with a sufficient sample size to determine comparative efficacy. What is evident is that individualized case management and treatment intervention (pharmaceutical, behavioural, and cognitive) is a desirable approach to addressing the various needs of the child with ASD. Blayne and Borden (2008) contend that outcomes depend upon both the kind of intervention provided and the student. As each individual student has his own profile, abilities, and challenges, each student will have his own outcomes. However even a little progress is far better than none, especially when that progress comes in the form of new communication skills that allow a student to express his desires and needs.

As Sugden indicated, for children with autism there is a subtle difference between 'remediating' deficits and changing contexts and teaching skills (Sugden, 2011). It is better to teach children skills to do with fine or gross motor skills (throwing a ball, writing, etc.) as well as to replace the undesirable behaviour. If you do not teach the student with autism something to replace the undesirable, the student will probably replace it with something else that is not so appropriate.

Applied Behaviour Analysis (ABA) is suited to some children with autism more than others as is a method to replace a repetitive behaviour. ABA is based on operant conditioning and involves intensive one-on-one training designed to increase the child's positive behaviour while eliminating negative behaviour (Lovass, 1987). Lovass (1987) suggested that ABA offers a path towards recovery; however others assert that ABA produces prompt dependent

children (Brunner and Seung, 2009). Despite the controversy surrounding ABA, a summary of the research does show that ABA is an effective intervention for both adaptive behaviour and broadly defined language (Brunner and Seung, 2009). Sugden (2011) identifies: “I have never met a child who is unable to learn or can’t learn and who can’t improve”, however he added that he has met children who refuse to learn.

5.8. Autism and ASD inclusion in the mainstream classroom

On a global level, it is only recently that children with autism have been regarded as appropriately served in inclusive school settings. Frederickson and Cline (2002) pointed out that in most countries there is a decided shift toward the incorporation or inclusion of all children with special education needs (SENs) in general education classrooms, a trend that is based upon recognition that many of the stereotypes regarding the difficulties of teaching such children are being eliminated.

Earlier studies have highlighted delays or abnormal functioning in at least one of the following areas, prior to age three years: - social interaction; language as used in social communication; symbolic or imaginative play etc. However Jordan (2008) stated that children with autism or ASD present substantial differences in terms of their capacity to respond to inclusive environments and their need for different levels of specialist support. Intervention programs for children with autism must concentrate on communication, behaviour modification, social interaction, and supportive teaching environments. Children provided with inclusive settings self-report that segregated settings cause feelings of isolation and dissatisfaction in comparison to settings where the only interactions are with other children with disabilities. Parents reported less resistant behaviour on the part of their child with autism after they were placed in the typical classroom setting. In mainstream classrooms, as Koegel and Koegel stated, autistic children demonstrated greater interest in imitating behaviours of children in the non-segregated classroom as well as increasing in cooperation and efforts at learning (Koegel and Koegel, 2006).

Adams, Edelson, Grandin, and Rimland (2004) identified that the following are general agreements on how to deal with young children with autism at school and at home: a) behavioural interventions involving one-on-one interactions are usually beneficial, sometimes with very positive results, b) the interventions are most beneficial with the youngest children, but older children can benefit as well, c) the intervention should involve a substantial amount

of time each week, between 20 to 40 hours, depending on whether the child is in school or at home, d) prompting as much as necessary to achieve a high level of success, with a gradual fading of prompts, e) proper training of therapists and ongoing supervision and f) keeping the sessions entertaining for the children to maintain interest and motivation. Peers can help autistic children to fit in better, which in turn facilitates acceptance by peers as well as friendship.

Accurate assessment and diagnosis, appropriate teacher training, positive teacher attitudes, family support for inclusion, the availability of necessary supplementary special education services, and the capacity of the special needs child to respond to inclusion are among those variables that are needed for the programme to succeed. Barnard, Prior, and Potter (2000) indicated that the inclusion of children with autism and children with ASD in schools in the United Kingdom and elsewhere have proven to be largely successful. The researcher believes that investigating teachers' attitudes toward the inclusion of children with autism into regular classroom will be a step forward for the improvement of inclusive education in the KSA system.

5.9. Challenges for teachers and children with autism in the mainstream classroom

Section 5.3 outlines various theories that explain how problems with theory of mind may directly affect critical functions in children with autism; such deficiencies may prove to be challenging for teachers and children with autism as well as typically developing children in the mainstream classroom. In the West, children with autism are increasingly being placed in mainstream classrooms, however little is known about the challenges that teachers encounter when including them as full participants within the classroom (Lindsay, Proulx, Thomson and Scott, 2013). The most frequently reported challenges of the inclusion of children with autism in the mainstream classroom centre around teachers understanding and managing behavior, social barriers both inside and outside the classroom, and creating an inclusive environment in the face of a lack of understanding on behalf of both students and parents regarding autism.

Behavior management is a challenge for teachers when fully including children with autism, who may display inappropriate behavior or outbursts resulting from misunderstanding or frustrations on the part of the child as they have difficulty understanding and practicing typical social behaviors, including impulse control. This is especially challenging for

teachers who are not adequately informed about how to deal with and manage the behavior of children with autism. Children with autism may exhibit difficulty in responding to environmental sounds, experiencing adverse reactions to auditory stimuli that may generate sudden changes in behavior and teachers may not have the training and supporting teachers available to them (Lindsay et al, 2013).

Teachers may have difficulty in managing unstructured routines within the classroom, for instance during field trips or outdoor play time (Lindsay et al, 2013) as a lack of structure may mean that children with autism become disorientated and panicked as they deviate from routine and have difficulty coping with change. Teachers may be unable to display spontaneity and have to ensure that their lessons and activities are scheduled, and any unscheduled days include alternative arrangements for children with autism (Grbich, 2007). With multiple children to cater for, this may be difficult for teachers to manage (Wilmhurst and Brue, 2010). Teachers may also find dealing with issues such as homework challenging when dealing with children with autism; completing class work at home may appear illogical to children with autism (Grbich, 2007).

It may be time consuming and frustrating for teachers to always ensure that their lessons and daily activities include direct instructions, structured lessons, tactile stimuli and detailed summaries for children with autism. Teachers may feel overwhelmed by the lack of resources, equipment and teaching materials available for them in order to provide children with autism with such provision (Allen and Cowdery, 2005). Tailoring engaging lessons with minimal resources and minimal experience to adhere to the learning styles of children with autism may be challenging and different children exhibit a variety of traits associated with autism. Certain academic subjects may be difficult for children with autism who have underdeveloped theory of mind for examples reading comprehension or story writing skills as this may require an understanding of expressive and abstract behavior; such activities may be confusing and threatening for children with autism. As some children with autism may have over-developed systemizing skills, they may find certain lessons that require creative and imagination as being tedious, and refuse to engage or partake in the activities.

Children with autism could find difficulty in coping with stressful situations and may find themselves stressed out by distractions, which in turn may cause problems in being able to regulate their emotions and behavior. Teachers will need to provide a safe space for children with autism to compose him/herself. This may be difficult in a noisy, over-stimulating school environment. Such deficiencies in theory of mind in children with autism may also result in

failure to develop confidence and motivation to learn due to disengagement with the traditional classroom dynamic.

As children with autism display problems with understanding figurative language, they may be a misunderstanding in how they receive and understanding messages. This means that teachers will have to ensure they are clear and concise. In addition, this may present disruptive peer relationships due to a lack of understanding between children with autism and their peers (Maich and Belcher, 2012). It may be difficult to foster a sense of understanding in typically developing children and encourage them to include children with autism into their social groups and interaction as children with autism traditionally have underdeveloped social skills and, as Baron-Cohen cites, have lower than average empathizing skills.

Teachers may also be unaware of “how to promote peer interaction for children with social, communication and behavioural impairments” (Lindsay et al, 2013), and may be unaware of strategies and techniques necessary to give children with autism the opportunities to participate in and observe acceptable social interactions. This is especially difficult in an atmosphere where children are ostracized and do not have a circle of friends due to a lack of acceptance from peers. The lack of turn-taking and sharing skills indicating a poor theory of mind may impact the social experiences of children with autism as they may fail to internalize and recognize normative social behavior which may further exclude them from their peers. Such isolation may prove challenging for children with autism, as they are unable to develop social relationships with peers, resulting in a feeling of confusion and emotional distress.

The above examples only outline briefly the challenges that teachers, children with autism and typically developing children may encounter as a result of the inclusion of children with autism in the mainstream classroom as a result of poor theory of mind, strong systemizing yet weak empathizing skills and a detail focused internal coherence as outlined in section 5.3. This results in teachers being required to explicitly implement teaching strategies that remind children with autism about the variety of emotional states and facilitate children with autism to understand appropriate behaviors within the mainstream classroom context. Such educational practices “follow the lead of research and scientific theories into the causes and diagnosis of autism” (Dodd, 2005) that have been outlined in this chapter, which ultimately affect teaching practices in order for teachers to incorporate unique learning styles to teaching children with autism functional skills. Dodd (2005) asserts that it is imperative for teachers to understand the particular thinking and learning styles of children with autism and to cater to and accommodate their individual needs.

5.10. Summary

The literature on ASD is both broad and deep, encompassing varied issues ranging from causal antecedents, etiologic, prevalence, assessment and identification of the condition, symptoms and criteria for diagnosis, prevention and intervention, and roles of various caretakers including teachers (Birkin, Anderson, Seymour, et al, 2008). These focuses on ASD manifested among children from birth through to age five and a description of the cognitive, social-emotional and language deficits commonly found among children diagnosed with ASD has been presented.

This chapter has also presented a range of theories that explain and outline the various theories detailing the causes and symptoms of autism. Psychologists and cognitive behavioural theorists have detailed the behavioural and cognitive aspects of the disorder such as the theory of mind and the weak coherence theory. Whilst these theories are comprehensive in detailing the effects of autism, they fail to address the biological relationship to cognitive and behavioural outcomes. Firth and Morton (1995) have identified the casual model of development and diagnostic practices are based on two models; the variant A-Type model and the arch-type V-type model that relate biological, behavioural origins of autism, whilst a third level introduces their link to cognitive factors. The future prospects of causal modelling are considered with respect to variability, co-morbidity and diagnosis.

The variety of literature detailing the theories, diagnosis, differences in diagnosis, and the variety of treatments offered for autism renders autism a problematic area for teachers working with children with autism within the educational context. The complexities and challenges associated with autism means that autism is a prime for study when observed through the lens of teachers' attitudes and experiences towards the inclusion of children with autism within mainstream classrooms. Educational attitudes are based on the idea of including children with autism in regular classrooms according to their abilities to work with other children so children with autism can learn various skills from their peers. It should be stressed that placement in a mainstream classroom provides an opportunity for other children to learn how to deal with children with autism and how to assist them. Schools should be responsible for providing necessary services to enable the child to attend mainstream schools and learn. Mainstream schools are required to prepare and carry out a set of specific instructional goals for every child in the special education program and teachers' attitudes are

important towards the inclusion of children with autism; demographic and background variables are found to have various effects on these attitudes. The next chapter discusses the factors that affect teachers' attitudes on inclusive education.

Chapter 6: Factors Affecting Teachers' Attitudes Toward Inclusion of Children with Autism

6.1 Introduction

This chapter synthesises the literature to date that suggests factors affecting KSA teachers' attitudes towards inclusion of children with SEN/ autism in regular schools. The factors evaluated in this chapter are teachers' age (section 6.2); level of education (section 6.3); teaching field of speciality (special education vs general education) (section 6.4); effect of training and experience in teaching (section 6.5); teaching experience (section 6.5.1); training (section 6.5.2); having relatives with SEN/autism (section 6.6); having children with SEN/autism in classroom (section 6.7) and other factors (section 6.8). The chapter ends with a summary, which recaps these factors with a view to identify how these factors ultimately influence this study (section 6.9).

The factors discussed in the chapter have been obtained from literature as most pertinent in influencing teachers' attitudes towards inclusion and have been thematically organised into the mentioned categories. These themes will later influence the demographic aspect and design of the study as the researcher uses these themes as a framework for analysis in Chapter 10; the researcher turned to literature to identify factors affecting teachers' attitudes towards inclusion with the intention to inform the analytical framework of this study.

6.2 Effects of teachers' age on attitude

It is unclear whether teachers' age affects their attitudes towards the inclusion of children with autism into regular classrooms. However studies have indicated that younger teachers have more positive attitudes towards the inclusion of children with SEN. Clough and Lindsay (1991) found that generally younger teachers present more positive attitudes toward integration. Similarly Avramidis et al (2000) concluded that younger teachers hold positive attitudes to inclusion. By contrast, Carroll, Forlin and Jobling's (2003) study in Australia showed that age has no effect on teachers' attitudes to inclusion. They found no differences in attitudes between younger and older teachers in their level of discomfort regarding inclusion.

This lack of consensus in literature about the effects of teachers' age as a factor in inclusion of children with autism presents a need to identify whether age variations affect the attitudes of KSA special institute and elementary school female teachers towards inclusion of children with autism into regular classrooms. This chapter explores whether teachers' attitudes correlate with their age profile.

6.3. Effects of teachers' educational level on attitude

Teachers hold more favourable attitudes to the inclusion of children with autism when they are well prepared in their professional training prior to teaching. Parasuram (2006) and Wilczenski (1991) found that teachers' attitudes to children with SEN are related to the amount and level of preparation in relation to their academic level and qualification, suggesting that preparation obtained from a high level of education determines teachers' attitudes to inclusion. However as mentioned in chapter 3, these studies were undertaken in western countries where generally individuals must be highly qualified at postgraduate level in order to teach.

With regard to teachers' perspectives of inclusion of children with severe disabilities based on teachers' level of education, Parasuram (2006) identified that teachers in India who hold a master's degree have more positive perspectives on inclusion of children with disabilities than those with bachelor's degrees. Alternative research indicates that the higher the level of education, the more positive the teachers' perspective on inclusion of children with disabilities (Anotank et al., 1995). Errol et al. (2005) examined the perspectives of 364 teachers regarding inclusive education; findings suggested that teachers' level of education affected their perspectives regarding inclusive education. More specifically, teachers who had graduate degrees (Master or Doctoral) had more positive perspectives regarding inclusive education than those with bachelor's degrees.

Although considerable research indicates that teachers with a higher level of education have more positive perspectives on inclusive education of children with disabilities, other studies report that some teachers have negative perspectives on inclusion for children with disabilities despite having higher levels of education (Taylor et al., 1997). Under most circumstances, however, it is believed that teachers develop more positive attitudes toward children with autism regardless of their level of education if they are properly prepared in dealing with SEN and able to understand the needs of SEN children. As one of the goals of

this study is to investigate whether level of education correlating attitudes towards inclusion of children with autism/SEN is also applicable to teachers in KSA, such literature is worthy of consideration.

6.4. Effect of teacher's specialism on attitude

Teachers' professional specialism either in general education or special education is closely associated with teachers' perceptions regarding inclusive education. Elhoweris and Alsheikh (2006), and Tisdall (2007) implied that there is some indication that special education teachers have more positive perspectives on full inclusion in comparison to general education teachers. Richard and Roger (2001) reported that special education teachers have more positive perceptions of the inclusion of children with severe disabilities compared to general education teachers. Al-Hamad (2006) indicated that in the US special education teachers have more positive perceptions regarding inclusive education for children with emotional and behavioural disabilities than general education teachers. Scruggs and Mastropieri (1996) compiled literature between 1958 and 1995 relating to teachers' perspectives of inclusive education. They found that special education teachers have more positive perspectives on inclusion education for children with SEN than general education teachers. However, their research indicated that 66.6% of special education teachers had a negative view of inclusive education.

Other studies pointed out that whether teachers specialise in general or special education is not associated with the teachers' perspectives regarding inclusive education. Davis (2010) examined the relationship between the perspectives of 113 special education and general education teachers regarding the inclusive education of children with severe disabilities in the U.S. Their study indicated no difference in the perspectives between teachers regarding the inclusion of children with severe disabilities. Similarly, Al-Ahmadi (2009) examined the perspectives of special education teachers and general education teachers in KSA regarding inclusion of children with learning disabilities. Her study indicated that there were no differences between general education teachers and special education teachers regarding the inclusion of children with learning disabilities in KSA.

As the literature fails to have a clear consensus on this issue, it is essential to investigate samples from the educational field and examine if and how specialization affects teachers' attitudes toward the inclusion of children with SEN/autism. Therefore this study considers

female elementary schools teachers' attitudes toward inclusion of children with autism into regular schools according to their area of expertise (general education vs. special education) in the KSA context. The study does this by using a sample of female teachers from mainstream elementary schools and compares it to those from institutes for children with autism.

6.5. Effects of experience and training on teachers' attitudes

There seems to be a link between teachers' experience in teaching children with SEN/autism and training in relation to their attitudes towards inclusion. Studies have identified that teachers with more experience and/or training have more positive attitudes than teachers with little or no experience and/or training. Numerous studies (for example Florian and Rouse (2009); Algazo and Naggar Gaad (2004); Monsen and Frederickson (2003) and Dickens-Smith (1995)) have confirmed that teachers' attitudes towards the inclusion of children with SEN is related to the extent of their experience in teaching children with SEN/autism, as well as the training and preparation they receive. These areas are investigated in this study to further understand the implication of experience and training on teachers' attitudes towards inclusion.

6.5.1 Effects of training on teachers' attitudes

There is substantial evidence that both pre-service and in-service training are important factors in improving teachers' attitudes towards inclusion and consequently on developing inclusive education. For example, Leyser et al. (1994) found that teachers with substantial training in special education had significantly higher positive attitudes than those with little or no training on inclusion. Avramidis and Kalyva (2007) review of empirical studies concluded that Greek teachers saw successful implementation of inclusion in schools when dependent on sufficient resources and supported by professional development for mainstream teachers, combined with accessible specialist support. They studied the influence of teaching experience and professional development on Greek teachers' attitudes towards inclusion and found that training plays an important role in forming teachers' positive attitudes to inclusion. Their study revealed that teachers with further training in SEN and inclusion hold significantly more positive attitudes than those with little or no training concerning inclusion. These results are supported by several attitudinal studies in the literature confirming the

influence of training on the formation of positive attitudes towards inclusion (Hassanein, 2010).

In-service training for teachers was found to influence teachers' attitudes toward inclusion. Research by Dickens-Smith, (1995) indicated that teachers who had training to teach children with SEN exhibited more positive attitudes toward inclusion compared to those who had not trained. Dickens-Smith (1995) studied the attitudes of general and special educators toward inclusion of all children, regardless of the disability. Two hundred (200) teachers in the study were given an attitude survey before and after their participation in professional development. The results indicated that both groups of teachers exhibited more positive attitudes toward inclusion after the in-service training than they did before.

Hammond and Ingalls (2003) addressed the teachers' concerns for implementing effective and successful inclusionary programs and recommended that:

"Educators need opportunities to collaborate on inclusive programs in their schools. Teachers need adequate training from preservice and in-service programs that will help them develop skills for effective collaboration and for implementing inclusive services. They need initial and ongoing support from administrators and fellow teachers in order to successfully implement these services. Last, and possibly most important, all educators need to be involved in the planning and implementation of an inclusionary program. Without careful and systematic planning and coordination from all involved personnel, inclusion is sure to fail" (p. 26).

Thirty years ago, Winzer (1985) suggested that good pre-service education in SEN results in more positive attitudes towards inclusion and heightened confidence in meeting the needs of the children. More recently, Forlin and Chambers (2011) have drawn attention to general education teachers' perceptions about not being fully ready for inclusion even following training since the training did not include discussion of concerns about managing the classroom with SEN learners. They added that understanding of and contact with children with SEN lessens regarding dealing with children with SEN fears about them and enables teachers to know what they need to do in the classroom.

Teacher training has been shown to promote positive attitudes towards children with SEN/autism. Teachers' positive attitudes have been shown to influence inclusion. The

current study examines the extent to which teacher training that includes the subject of autism affects attitudes to inclusion in the context of KSA.

6.5.2 Effects of experience on teachers' attitudes

A large number of studies have been conducted into effects of teachers' previous experiences in inclusive schooling. Avramidis et al. (2000) examined the opinions of elementary and secondary schools' teachers in England regarding inclusive education for children with SEN based on their teaching experience. They found that teachers with teaching experience in inclusive settings had more positive perceptions regarding inclusive education. Using a qualitative approach, Buysse et al. (2001) concluded that teachers with previous teaching experience in inclusive settings reported positive perspectives toward placement in an inclusive setting for children with disabilities in early childhood programs.

Likewise, Vaughn, Schumm, Jallad, Slusher, and Saumell (1996) examined teachers' perspectives of inclusive education based on their previous teaching experience in inclusive education settings using a qualitative approach. The study found that teachers with more years' experience working in inclusive education had more positive perspectives regarding inclusion of children with SEN than those with less experience or those with none. Because of the changes that inclusion of children with SEN requires in classrooms, some researchers have attributed teachers' negative responses to inclusion to teachers' lack of positive experience with well-designed inclusive programs (McLeskey Waldron, So, Swanson, & Loveland, 2001). As most of the prior research was conducted with teachers who were not teaching in inclusive programs, McLeskey et al. (2001), sought to compare the perspectives of teachers who were, at the time of the investigation, not working in inclusive settings with those who were working in well-designed, inclusion programs. The results indicated that teachers in well-designed inclusive programs had significantly more positive perspectives on inclusion compared to teachers who lacked this experience.

Furthermore, Cook, Tankersley, Cook, and Landrum (2000) found that teachers with seven or more years of teaching children with disabilities in inclusive classrooms felt that they could meet the needs of more children with disabilities in their classrooms than teachers with fewer years of inclusive experience. It has been documented that experienced teachers provide children with SEN in inclusive settings with more teacher praise, support to do their best,

opportunities to respond to issues, and more wisely supervising their performance (Cook et al., 2000).

Conversely, significant research does not support the proposition that teachers' experience is essential. Forline (1995) reported that the acceptance of a student with physical disability and intellectual disability was higher for teachers with less than six years' teaching than those with more years of teaching. Teachers who had taught for several years were less supportive of inclusion of children with SEN.

As the above studies were mainly conducted in developed countries, it is suggested that more training is required for teachers to have favourable attitudes to inclusion. Informed by these findings, this research examines how experience and/or training affect the KSA teachers' attitudes towards inclusion of children with autism. This study considers the perceptions of KSA teachers who may or may not have training and years of experience during the course of their careers as factors, which may influence their attitudes towards inclusion

6.6 Effects of having a relative with SEN/autism on teachers' attitudes

Several studies have examined whether or not having a family member with a disability might relate to teachers' perspectives on the inclusion of children with SEN. When a teacher has an extended or close relative with SEN/autism, it may significantly impact his/her attitudes to inclusion. Subban and Sharma (2006) indicated:

“Participants with a family member with a disability, and those who possessed some knowledge of the Disability Discrimination Act (1992) exhibited more positive attitudes toward including children with disabilities, while participants with a close friend with a disability and those who felt more confident about their roles as inclusive educators, experienced fewer concerns about implementing inclusive education” (p. 42).

In the KSA, Al-Ahmadi (2009) investigated teachers' perspectives regarding the integration of children with learning disabilities. She concluded that there is no difference between the perspectives of teachers in KSA toward the integration of children with learning disabilities whether or not the teacher has a family member with a disability. Similarly, a study by Parasuram (2006) indicated that there are no differences regarding attitudes towards inclusion

between the Indian teachers' attitudes whether they had a family member with a disability or not.

However, Subban and Sharma (2006) found a difference in teacher's attitudes towards inclusion depending on whether or not they have a family member with a disability. This study considers the perception of KSA teachers who have a relative with SEN/autism as a factor that may influence their attitudes to inclusion.

6.7 Effect of student with SEN/autism in class on teachers' attitudes

The influence of having a student with autism/SEN within the classroom on teacher's attitude was found to be a positive variable. Gaad and Khan (2007) investigated the inclusion of children with SEN in the classroom and teachers' perception of working with children with SEN. They found that teachers hold a positive attitude when they have children already in their classroom, but it varied depending on the children's needs. The findings revealed that all mainstream teachers surveyed held the opinion that children with SEN were disruptive to other children in the class, resulting in negative attitudes to the inclusion of children with a hearing impairment, communication disorders, intellectual challenges and PMLD (Profound and Multiple Learning Disabilities). The majority of mainstream teachers also felt that children with SEN lacked the skills needed to master the regular classroom course content. Gaad and Khan (2007) reported that all the teachers surveyed indicated that mainstream teachers would be overloaded with work if children with SEN had to be included. Thousand, Meyers, and Nevin (1998) also examined the perceptions of special and general education teachers who taught children with disabilities in inclusive settings. Those teachers who reported having children with SEN in their classroom have positively improved their perspectives regarding inclusion.

It is believed that teachers develop more positive attitudes toward children with autism if they have had prior practice with SEN children. This study evaluates how this concern may affect the KSA teachers' attitudes to inclusion. It is important to improve teachers' practice in the area of inclusion with SEN children by including a very limited number of SEN children within the regular teacher's class with the help of a special education teacher.

6.8 Other factors affecting teachers' attitudes

There are other related issues of interest and importance to this study in relation to factors affecting teachers' attitudes towards inclusion that appear frequently in the literature and are worth reviewing. They are: types and extent of disability; parental involvement; school physical and human services; student numbers in the classroom; classroom time; and some learning environments.

Scruggs and Mastropieri (1996) conducted research synthesis on twenty-eight studies in which general education teachers were surveyed regarding their perceptions of including children with disabilities in their classes. They noted that the highest level of support was given to the inclusion of children with mild disabilities who require the least amount of modification in curriculum and instruction. Scruggs and Mastropieri (1996) indicated that the severity level of student disability and the amount of additional teacher responsibility required were the two factors that appeared to influence teachers' views on inclusion. These two factors emerged as related to the belief that including children with special needs would have a negative effect on the general education classroom. Children with intellectual disabilities and children with emotional and behavioural problems have typically been rated less positively in relation to attitudes about inclusion (Soodak, Podell & Lehman, 1998; Stoiber, Gettinger & Goetz 1998).

Parental involvement in their children's learning through specific programmes has been strongly promoted by head teachers who found that such involvement contributed to enhancing the schools' ethos (Desforges & Abouchaar, 2003). At the same time, as the literature indicates, there is a wide range of opinion amongst parents related to inclusion. Some parents prefer and advocate for inclusive placement, while others favour separate placement (Elkins Van Kraayenoord, & Jobling, 2003; Grove & Fisher 1999).

El-Zein (2009) proposed that for philosophical approval of inclusion to be converted into enthusiastic acceptance of inclusion in practice, parents needed more information to reach greater understanding. Variations in findings may be explained by differences in survey instruments, country, cultures and dissimilarities in education systems. However, parents' socio-economic levels, together with the type and extent of a child's disability, have consistently been shown to affect attitudes (De Boer, Pijl, and Minnaert, 2011).

Human and physical support can be seen as important factors in generating positive attitudes among mainstream teachers to the inclusion of children with SEN. Avramidis and Norwich (2002) indicated that regular teachers believe that implementing inclusive education programs would involve a considerable workload on their part as a result of increased planning for meeting the needs of a very diverse population.

There is also considerable evidence in the literature that providing schools with adequate and appropriate resources and materials and adapting teaching materials are instrumental in the development of teachers' positive attitudes and in enhancing inclusive education (Koutrouba Malvina, and Marina, 2006). Research also indicates that teachers are positive and more likely to be actively involved when they have sufficient support and adequate resources (Avramidis and Norwich, 2002) as well as information before and during the implementation phase (Florian and Rouse, 2009).

The effect of student numbers in a classroom on teachers' attitudes is another factor. The classroom size is a major factor that facilitates inclusion efforts. According to AlMusudi (2008) the average class size in KSA is "over 35 children while the average class size in the USA is 15 children; France is 14 children, while both Japan and Germany are 16 children" (p.61). Studies indicate that teachers' perspectives regarding inclusive education are related to the number of children in a classroom. For instance, general education teachers reported that a decrease in the number of children in the classroom to 20 children facilitates the determination for inclusion (Scruggs and Mastropiere, 1996). Other studies conclude that when general education classrooms have a large number of children, teachers may possess more negative perspectives regarding the inclusion of children with disabilities (Buysse, Wesley and Keyes, 1998; Wesley, Buysse and Tyndall, 1997). To summarize, the number of children either with or without disabilities in a classroom may correlate with teachers' perspectives and acceptance of inclusive education for children with severe disabilities.

Insufficient classroom time availability for teachers in inclusive classrooms was another concern for teachers. Scruggs and Mastropieri (1996) indicated that only about one quarter of the teachers believed that they had sufficient classroom time for inclusion efforts. Similarly, Downing Eichinger, and Williams (1997) indicated that teachers were concerned about the classroom time required to support children with special needs that might limit their ability to provide an appropriate education for general education children in the inclusive classroom.

Batu (2010) stressed the importance of a learning environment that encouraged the development of social skills and self-confidence in order to assist acceptance of inclusion by regular pupils. He recognized that resources, including human resources, extended to the role of the school administration in ensuring smooth implementation at all levels. He further acknowledged the role of regular pupils in making inclusion work; they are a potentially important contribution to helping children with SEN to develop social skills.

In a study by Al-AbdulJabbar and Masoud (2000), the attitudes of KSA head teachers, regular teachers and special education teachers towards inclusive education were explored. The results showed significant differences of opinions of inclusion programmes; these differences being attributed to positions held, education level, type of disability and inclusion programme. The type of disability was seen to affect attitudes, with teachers showing uncertainties about the inclusion of children with LD and behavioural disorders. Positive attitudes to inclusion programmes were associated with specialist training and qualifications related to SEN. Batu (2010) listed key factors that shape teacher's attitudes towards inclusion: teachers in different aspects, school administration, children with and without SEN, parents of children with and without SEN, support services such as professionals and the physical environment (Batu, 2010).

6.9 Summary

The factors affecting inclusion as well as affecting teachers' attitudes to inclusion has been widely researched in many countries, however evidence from KSA is limited; this renders this present study as highly significant in order to explore teachers' attitudes towards inclusion from an alternative cultural standpoint.

In many countries, including KSA, it is only relatively recently that classroom teachers have begun to work in general education classroom with SEN children. It is the researcher's belief that teacher's attitudes and beliefs affects the KSA governmental ideas on inclusive education. Therefore, investigating teachers' attitudes toward inclusion and looking for the influence, motives and reasons behind their attitudes and beliefs are a major aspect of this research. It is worth studying how the teachers' attitudes vary and the reason behind it. The factors considered in this study are: teachers' age; level of education; field of teaching (special education vs general education); experience of teaching SEN children; teacher's training on

special education; teachers having relatives with SEN/autism; teachers having children with SEN/autism in classroom. Other issues that arise may include a limited knowledge of how to deal with children with autism in regular classrooms, associated with the shortcomings of teacher training and a general lack of teaching experience among others. These factors may affect teachers' attitudes toward inclusion either negatively or positively.

Investigating variables related to the formation of teachers' attitudes to including children with SEN/autism in the classroom and the teachers' attitudes and perceptions of working with them are an important part of this study. Such concerns, if applicable, may raise questions about the competences and skills needed by in-service regular and special education teachers to teach effectively in inclusive classrooms. It may also raise issues about pre-service preparation in teacher education programs at university level and how these programs affect pre-service teachers' perspectives of inclusion.

As the literature confirms, interactions and interplaying of teachers' age, level of experiences with SEN, level of education and training and having a family member with disabilities are all, to some degree, factors that affect teachers' attitudes to inclusion implementation. These factors have been obtained and thematically organised from relevant literatures and inform the analytical framework for this study and have been investigated for their effects on teachers' attitudes to inclusion of children with autism in regular classrooms in KSA. As the teachers are the main components of the inclusion process, it is essential to identify what encourages, inspires, stimulates and motivates teachers' attitudes to inclusion in order to prepare and improve the environment to meet the conditions of inclusion. Further examination and discussion of the factors as related to the KSA teachers are presented in chapter 10 of this study. The next chapter (Chapter 7) represents the methodology and procedures for this research.

Chapter 7: The Research Design and Methodology

7.1 Introduction

This chapter describes the research procedures and methodology used to determine the attitudes of KSA female teachers towards the inclusion of children with autism in mainstream classrooms. The chapter describes how the study was planned, arranged and structured as well as a rationalization of each phase. Section 7.2 outlines the research design, including the main topics of how the study was proposed and intended; section 7.3 explains the study sample, outlining why and how the population and the sample have been chosen; section 7.4 detailed the research instrument structure and arrangement and the rationale behind using the mixed methods approach; section 7.5 describes the instruments' piloting; section 7.6 the instruments test for validity; section 7.7 the instrument test of reliability; section 7.8 the ethical consideration for this study; section 7.9 the procedures for the instruments distribution and collection; section 7.10 and 7.11 are the initial treatments and analysis of collected responses to questionnaires and interviews respectively, as well as justifying the use of parametric tests for this study; section 7.12 the procedures and methods of data analysis; section 7.13 discusses how the results were organised around themes and how themes emerged from the instruments, and finally section 7.14 is the summary of the chapter.

7.2 Research design

This section outlines how and why the study was planned, arranged and structured. A mixed method has been adopted in order to collect survey and interview data and employ quantitative and qualitative analysis techniques. Applying these techniques provide an opportunity to obtain information about the teachers' knowledge, beliefs, perceptions and attitudes towards the inclusion of children with autism within mainstream schools. (More on the mixed methods approach is provided in section 7.4).

Three tools of data collection were chosen for this study: questionnaires with four type Likert scale, open-ended type questions and interviews to give data for numerical and qualitative analysis. These tools helped determine the attitudes, concerns, and perceptions of the participants in the study (Perry, Ivy, Conner & Shelar, 2008). For this type of study, surveys and questionnaires are appropriate for capturing the attitudes and a representational sample of

opinion. As Avramidis, Bayliss and Burden (2000) indicated, surveys are best for measuring aspects or attributes of the attitudes as they use a Likert type scale to measure the developed beliefs, which relate to inclusion as well, (For further details see also Appendix 13).

The survey approach was selected because it has the ability to reach a large body and a variety of respondents. In this study, the schools and institutes were located all over Riyadh city; as such these primary research methods were excellent for reaching such a widely distributed sample of respondents. The researcher combined questionnaires with open-ended questions, followed by interviews in order to deal with any potential untrustworthy results produced by questionnaires.

As Babbie (2004), Denscombe (2010), and Robson (2011) contend; respondents may not be completely truthful or committed in their responses to questionnaires. Reliability and validity for the instruments are discussed in section 7.5 and 7.6. Interviews, as Crotty (1998), Cohen Manion and Morrison (2000) and Denzin (1989) indicated, come with some weaknesses as well. Interviews tend to be a more costly approach in terms of time and incur greater expense on the part of the researcher.

Johnson and Onwueguzie (2004) describe the research strategy of combining questionnaires and interviews as far more sophisticated than relying on either an interview or a questionnaire alone. The mixed method approach is better suited to explore complex phenomena and the relationships between such phenomena such as teachers' attitudes toward inclusion of children with autism, as is the case in this study. This permits the participants to express themselves in both written and verbal form, catering to both comfort preferences so as to obtain quality information.

This allowed for the broadest scope of perspectives and explanations to be given regarding the teachers' attitudes towards the inclusion of children with autism in the classroom and the teachers' views of issues preventing full inclusion of children with autism. Overall, using mixed methods eradicated the shortfalls of each method, making up for the data that each method could not provide; for example, although interviews provided in-depth information, they did not provide statistical analysis, which the questionnaires did, despite not being able to reveal in depth data.

7.3 The study sample

The study samples comprised of two groups: female teachers in mainstream elementary schools and female teachers in special institutes for young children with autism. The first population were those teachers in mainstream elementary schools, which had implemented a strategy referred to in KSA as “integration” (none in Riyadh make provision for the integration of children with autism, refer to chapter 2). The other population were teachers working in segregated special education institutes for children with autism. Geographically all of these schools and institutes are scattered all over Riyadh city, KSA.

Teachers working in mainstream elementary schools that had implemented a strategy of integration were selected for the study on the basis that they support children with Intellectual and Developmental Disabilities (IDD). The criterion for these schools was selected on the basis of their insight and understandings of IDD. It is expected that teachers from these schools would be more knowledgeable and familiar with children with diverse needs than teachers from regular public schools without any integration practices. Therefore, their opinions and perceptions were deemed to be a valuable contribution to the study.

The teachers working in segregated special education institutes for children with autism were also selected for this study on the basis that they work with children with autism, and are supposedly well informed about the characteristics and educational needs of children with autism. A further benefit of preferring such representative two-targeted samples was that, as far as the researcher is aware, they had not been previously interviewed or questioned for a similar type of study heretofore. Table 7.1 represents teachers of female elementary schools with general integration and those of institutes for children with SEN/autism in Riyadh, KSA.

Table 7.1 Number of elementary schools, institutes for children with SEN/autism and number of teachers in each group in Riyadh, KSA

| | |
|----------------|--|
| Public (1) | 486 Female Elementary Schools (12,430 Teachers) |
| | 123 Female Elementary Schools with Generic Integration (3,152 teachers) |
| | 14 Female Elementary Schools with Integration of IDD children (excluding autism) 364 Teachers (average of 26 teachers in each school) |
| Private (2) | 26 Institutes for female children with different SEN |
| | 15 Institutes for female children with Autism/ SEN 349 Teachers (average of 23 teachers in each institute) |

(1) Ministry of Education (2012)

(2) Ministry of Social Affairs (2012)

Table 7.1 sets out how many elementary schools, institutes and teachers were in public and private special education institutes in Riyadh city. There were 486 female public elementary schools, with 12,430 female teachers (Ministry of Education, 2012). Of these, it was estimated that there were 123 female elementary schools with 3,152 female teachers involved in some form of integration. These 123 schools promote integration for SEN children, but none make provision for children specifically with autism. A total population of 364 teachers from fourteen (14) elementary schools with integration of IDD were selected for this study in a purposive sampling process; schools with IDD were specifically selected in order to conform with the purpose of this study and the research aims. Three hundred (300) teachers were available and selected as the study sample for elementary schools.

As shown at the bottom of Table 7.1, the other research population consisted of teachers of special education institutes. There were twenty-six (26) institutes for young children with SEN in Riyadh city (Ministry of Social Affairs, 2012). Fifteen (15) institutes accommodate and educate children with autism, thirteen of which are private and only two are government run. There are 349 teachers in these fifteen (15) institutes. For this study sample, three hundred (300) teachers were available and selected in a purposive sampling process as the teacher sample in the institutes. The distribution of instruments to the study samples is discussed in section 7.9.

7.4 Research instruments

The main primary research tool or instrument was the questionnaires (Appendix 3). It is of three sub-parts: first it asked for the demographic information of the respondents; second are the main statements; and third are the open-ended questions. The other additional research tool was an interview. The demographic background in this study refers to factors such as the teachers' age, nationality, education levels, subjects they teach, teaching experiences, their level of training and whether they have a person with autism and personal and professional experience with children with autism (the demographic background is presented and discussed in chapter 8). The questionnaires and the demographic were intended to help to answer the first three research questions of the study. The questionnaire was chosen as a research instrument because it can reach and produces data from a high number of participants with minimal time constraints. A questionnaire was chosen because it is widely used to represent numerical data, whilst also producing qualitative data (Cohen, et al, 2007). The interview was based on the questions given in the questionnaire, however with more

open-ended questions. The open-ended type questions and interviews were intended as follow up data collection tools.

7.4.1 The questionnaire

In order to gather numerical data the researcher adapted, modified and then customised the Opinions Relative to Mainstreaming (ORM) scale (Antonak and Larrivee, 1995), in order to measure teachers' attitudes to the inclusion of special needs children in mainstream education (see Appendix 13 for how the related literature reviewed other scales). This scale was selected because it is the most widely and frequently used tool in measuring attitudes. It has been very well tested, used in particular by alternative studies when measuring teachers' attitudes and beliefs about the inclusion of special need children in mainstream education in different countries. The main difference between the original instrument and the instrument modified for this study is that the original contained five-point Likert scale items; however for this study, a four-point Likert scale has been utilised to concentrate on children with autism. The four-point scale rather than the traditional five-point was used to remove the "undecided" option from questionnaires. The rationale behind this was based on recommendations from studies conducted in KSA and from research professors at King Saud University all of whom suggest that, within the culture and population of KSA, participants are more inclined to select an "undecided" option rather than paying attention to the questions being asked and thinking truthfully about their answers. The researcher wanted to eliminate such concerns and therefore adapted the Likert scale to suit the needs for this study within the KSA context.

The adapted items (originally 25 statements) were modified by the researcher with additions and omissions to fit this study based on the literature and the needs of this study. This brings the total items of the study questionnaire to 28 statements. The researcher adapted the ORM in order to make the statements more specific to this study, and as such more teacher-friendly; for example the original statement "integration of children with learning disabilities will not promote his/her social independence" was adapted for this study, as "inclusion of children with autism will not promote his/her social independence". The change from "integration" to "inclusion" was more in line with the KSA context where "inclusion" would be a more readily understood term. Similarly, "disability" was modified to "autism" as the study focuses specifically on teachers' attitudes towards the inclusion of children with autism within the classroom. Teachers were asked to respond on the scale with strongly agree (4),

agree (3), disagree (2) and strongly disagree (1). After the teachers responded, the 28 items were sub-divided into five themes for analysis (as seen in section 7.12). The researcher gave the adapted and modified ORM to a panel of 13 professors and experts at King Saud University (Appendix 14) in order to obtain their judgment and recommendations on the validity and reliability of the modified ORM.

As mentioned the final English version of the instrument (Appendix 3) consisted of three major aspects; part 1: the respondent's background (demographics), part 2: the main 28 statements and part 3: the open-ended type questions. A covering letter and a document explaining the ethics were part of the survey package. Based on suggestions by Parasuram (2006), in the covering letter there was a short explanation of the purpose of the survey and a description of the terms used, such as autism and inclusion.

Since the study sample involves Arabic speaking teachers, the English version of the questionnaire was translated to Arabic. The validity and reliability of the English and the Arabic versions of the instruments were tested and are shown in section 7.4. Both the Arabic version of the questionnaire and the English version were similar (Appendix 9 is the Arabic version of the instrument).

7.4.2 The open-ended questions and the interview

The open-ended questions and teachers' interview were developed to generate data for qualitative analysis. A variety of statements in the survey instruments were incorporated with open-ended response type questions and interviews, which are, as a general rule, highly subjective. The open-ended responses and interviews provide the researcher with the ability to explore specific issues in depth, focusing more narrowly on the ideas that were explored within the survey (Oppenheim, 1992). The researcher developed two major open-ended questions to be answered by the teachers that were incorporated in the questionnaires (Appendix 3). In order to obtain qualitative data, a semi-structured interview (Appendix 6) was used along with the open-ended questions. The semi-structured interview instrument developed was likewise translated to the Arabic version (Appendix 11). The validity and reliability of the instruments were tested and are reported on in sections 7.5 and 7.6.

7.5 Instruments' piloting

The study instruments were pilot tested to check the survey feasibility, weaknesses, efficacy and its validity and reliability. Pilot testing included the questionnaire and survey instrument followed by the semi-structured interview instrument for both the English and the Arabic version. This was conducted to determine whether the translations of the ORI scale (the Opinion Relative to Integration of Children with Disabilities) into Arabic and back into English was appropriate for the culture in question. Modifications were made to some parts of the instruments when deemed necessary.

The researcher's advisors at the University of Leeds, UK, tested the English version of the questionnaire. It was then given to a number of Saudi teachers who were studying in the UK and others in the KSA. The translation of the survey into Arabic was performed after the English questionnaire was pilot tested. The validity process of the Arabic and English versions of the questionnaire and the interview were carried out by a panel of King Saud University professionals. By using the Alpha Cronbach reliability test, the internal consistency and reliability of the Arabic version of the questionnaire was identified. The Arabic version was also further pre-tested for validity and is shown in the following sections.

7.5.1 The questionnaires

The English version of the questionnaire was pre-tested in January 2012 with a number of Saudi teachers who were studying in the UK. The instruments were given to nine children: two MD children, six ED children and one PhD student specializing in SEN. They were asked to complete and comment on the questionnaire.

For the initial exploration of the feasibility of the questionnaire to determine the accuracy of the translation of the survey into Arabic, check its readiness, length and the appropriateness of the ORI survey, twelve special and general elementary level teachers in the KSA were asked to answer and review the Arabic version of the questionnaire. Nine teachers completed it very well, while three of the questionnaires were incomplete. Their answers, concerns, comments and remarks were examined and taken into consideration. Some statements were revised to clarify ambiguities and inadequacies. Such piloting helped define what the final instrument would entail, as well as methods of analysis on completion. Further judgements and approval are followed in the validity and reliability sections.

7.5.2 The interviews

The pilot test for interviews in this study was to assess whether the interview protocol was realistic, effective and identify unforeseen problems that might occur. The Arabic interview version was pilot-tested. The researcher interviewed three Saudi female teachers who were students at the University of Leeds at the time. They were teachers working in public elementary schools in the KSA.

First, their permission was obtained to do an interview and the best time for them was established; they were contacted one by one. Interviewee No.1 was phoned to arrange the interview. Interviewee No.2 was the researcher's sister Norah (K-school teacher). The first two interviews took place at the University of Leeds on 15th of January 2012, while No.3 was at Leeds city centre on January 19th. Each interview took between 20-30 minutes.

To ensure the accuracy and correctness of the interview, the interviews were re-written as questions and answers in a table. The question was written, followed by the responses of the interviewees. The summary was emailed to the interviewees, asking them if it was a true reflection of that had been talked about. They agreed that it was what they had in mind.

The pilot testing of the interview gave an indication that the interviewees wanted to speak rather than write or just tick. They spoke about the advantages and limits of inclusion rather than writing about it or ticking the answers. It was evident that occasionally the question had to be repeated, and other times, the interviewees wanted to read the questions. As a result, the option of giving the interviewees a written copy of the interview questions was made available to allow them to read and think about their responses.

7.6 Instrument validity

Validity is defined as “the appropriateness of the interpretations, inferences and actions that we make based on test scores” (Johnson and Christensen, 2004). Bailey (1990) indicated that in discussing the validity of an instrument, certain questions must be asked about any instrument designed to measure something. The Arabic version of the questionnaire was given to 13 professors at the College of Education, King Saud University, Riyadh, KSA, (Appendix 14), 12 of who specialised in special education. They were asked to review the

survey for its accuracy and clarity of the translated statements, i.e. if it measured what it intended to measure. They were also asked to write any corrections they thought were necessary.

At the same time, two professors, both with an English background who specialise in teaching English as a Second Language and Special Education respectively, were asked to review the correctness and the accuracy of the translation of the questionnaire. This was performed through comparing and matching the English and Arabic versions. Helpful feedback notes, suggestions and clarifications of changes were provided, most of which were addressed through the re-writing of the final survey (Appendix 14). Zigmund (1997) highlights that validity is concerned with the ability of a test to accurately measure the characteristic intended for measurements.

In the present study, constructive validity as well as criterion validity is employed. Therefore, validity in obtaining numerical data refers whether the instrument measures what it intends to measure (Cohen, et al., 2000), while validity in qualitative research is about the trustworthiness of research (Creswell, 2007).

7.7 Instrument reliability

Reliability “refers to the consistency or stability of the test scores” (Johnson & Christensen, 2004; Hair, Black, Anderson & Tatham, 2005; Gay Mills, & Airasian, 2009). Since this study is towards a degree in an English speaking university, and the research population and samples are from Arabic speakers, the researcher wrote two duplicate versions of the questionnaires and the interviews, one in English and the other in Arabic. Through the pilot testing and toward validity procedures, the researcher has ensured that the items are further refined to meet the intended purpose. As Cohen et al. (2000) indicated if the research instrument provides similar data from a group over time, then the research is reliable. Thus, the Alpha Cronbach coefficient reliability test was used to estimate the internal consistency reliability of the Arabic version of the questionnaire. The Cronbach’s alpha proposes a correlation coefficient extending in value between 0 and 1. The closer the reliability coefficient value is to 1, the greater reliability of a test, and closer the value to 0, the less reliable the test (Gay et al., 2009). The reliability coefficient of the questionnaire in this study was computed to be 0.827; this indicated strong reliability of the instrument according to Cronbach’s alpha (Cohen et al. 2000).

7.8 Ethical considerations

To do research in KSA, consent letters from both the Ministry of Education and the Ministry of Social Affairs had to be obtained. The researcher obtained a letter from her advisors (Appendix 15), a permission letter from ministry of education to the Saudi Arabian cultural mission at the UK and bureau of London (Appendix 17), the final form of the survey (Appendix 7) and a letter from King Saud University (Appendix 18), all asking the Ministry of Education and the Ministry of Social Affairs for permission to do the research with the intended teachers at the intended schools in Riyadh city, KSA. After several days, permission was granted (Appendix 20).

The letter from the Ministry of Education to teachers of elementary schools, and the one from the Ministry of Special Affairs to teachers of the institutes indicating agreement to do the study and asking for their cooperation were attached to each questionnaire as part of the survey package. Another covering letter by the researcher was also included, explaining the study purpose, informing subjects that they were participating voluntarily, and ensuring anonymity by eliminating any personally identifying information from the survey (name, address, personal phone number) or identifiable responses from any individual, thus assuring confidentiality and promising anonymity. Codes were used to indicate which group of subjects was involved and the numbering of responses ensured anonymity.

The respondents were assured that they had the right to withdraw from the study if they wished to do so, or if they were unable to complete the questionnaire. For the researcher, ethics are an essential part of the study. During the pilot study and the actual interviews and questionnaires, a consent form was given to each teacher to sign for ethical reasons. This ensured confidentiality and informed them about the purpose of the study. It is best in both the survey and interview situation to secure the informed consent of the subject; this is particularly important in an interview where the researchers are likely to be taping or video recording the interview process. In this study neither video nor voice was recorded. This is because the study was conducted in KSA, where the culture does not accept being voice or video recorded. However, the researcher asked the interviewees' permission to take notes during the interview; all interviewees' agreed to the researcher taking notes.

After the data were collected, it was carefully analysed (see chapter 9), revealing all information vital to the study outcomes comprehensively, while maintaining confidentiality. The materials were securely maintained and locked away and not shared. Even committee members in academic institutions, as Bailey (1990) said, do not have the right to access any form of taped interviews. In this study, for both the questionnaires and the interviews, the researcher ensured that privacy was respected and that certain types of questions were not asked unless they were directly relevant to the research topic. This is to ensure that the researcher is aware of the cultural perspective and norms of KSA. Additionally, from the questionnaire and interviews, individual comments are not revealed without participants' approval.

In the present study, it is important to maintain a focus on the attitudes of teachers to the academic inclusion of children with autism and the outcomes that may result from such inclusionary action. The research must not and did not seek to determine the attitudes of teachers towards children with special needs as individuals. Using ethical questions and reporting accurately on findings eliminated any possibility of unethical activity in the research study. Permission and the subjects' informed consent on the ethical review form was obtained. Detailed information with regard to the ethical aspects of this research was recorded on the University of Leeds Ethical Review Form.

7.9 Instrument distribution and collection procedures

During the first half of 2012, the researcher made the field trip to KSA, to gather the required data necessary to this study. As shown in Figure 7.1 and Table 7.2 the fieldwork period took approximately five months between February to June 2012. Figure 7.1 represent the study main phases during the field trip, while Table 7.2 represents the timeline of the research field trip activities (data collection-in Riyadh, KSA).

| | |
|---|---|
| 1 st Phase of the Research ----> | Questionnaire (35 minutes)+Open ended answers |
| 2 nd Phase of the Research ----> | A semi-structured interview (20 minutes) |

Figure 7.1: The study main phases during the fieldwork

As in Figure 7.1, the first phase of the research was that the researcher asked teachers in mainstream elementary schools and institutes for children with autism to answer the survey major questionnaire, and the open ended questions. Likewise, as in Figure 7.1 the second phase of the research, and for the purposes of this study, beyond the questionnaires, qualitative data have been derived through some interviews with teachers as well.

Table 7.2: Timeline of the research field trip activities

| Activities * | Time frame |
|--|-------------------------------|
| <ul style="list-style-type: none"> • Arriving Riyadh, KSA • Translations of the Questionnaire parts from English to Arabic* • Finalizing instruments' writing for Pre-testing | Late January 2012 to February |
| <ul style="list-style-type: none"> • Reliability and Validity tested of the Arabic version | February |
| <ul style="list-style-type: none"> • Getting permission from ministries* • Making phone calls to arrange visits to schools & institutes* | February |
| <ul style="list-style-type: none"> • Visit schools'*: • Meet the school principals and explain my study and position. • Hand the questionnaires to teachers and explaining my study interests and position. | March & April |
| <ul style="list-style-type: none"> • Visit institutes*: • Meet the institute principals and explain my study and position. • Hand the questionnaire to teachers and explaining my study interests position. | March & April |
| <ul style="list-style-type: none"> • Collecting questionnaire from schools | Mid April to end of May |
| <ul style="list-style-type: none"> • Collecting questionnaire from institutes | Mid April to end of May |
| <ul style="list-style-type: none"> • Make sure all questionnaires returned | End of May |
| <ul style="list-style-type: none"> • Interview mainstream elementary schools' teachers*. • Put notes same day of the interview. | May to mid-May |
| <ul style="list-style-type: none"> • Interviews private institute teachers*. • Put notes same day of the interview. | Mid April-late May |
| <ul style="list-style-type: none"> • Make sure all questionnaires are in and no missing. | Mid April to end May |
| <ul style="list-style-type: none"> • Translations most parts from Arabic to English • Start coding • Clear picture of data. | Late May to mid-June |

| | |
|---|----------------------|
| <ul style="list-style-type: none"> • Transcription of Interviews and open-ended questions • Read about SPSS • Participants coded and entered into statistical package for social science (SPSS). | Early June thru July |
|---|----------------------|

* Activities were mostly undertaken more than once.

Table 7.2 represent the timeline of the research field trip activities and data collection from mainstream elementary school teachers and from teachers of institutes for children with autism in Riyadh, KSA.

With different letters in hand as reported earlier; one letter by the researcher herself, one from the Ethics committee of the University of Leeds, two permission letters from the authority to the study representative schools; one from MOE and the other from MOSA. The procedures are further discussed in section 7.9.1 and section 7.9.2 below.

7.9.1 Questionnaire distribution and collection

After telephoning schools to arrange visits, the researcher began the first phase of the fieldwork by attending the schools and institutes to distribute and collect the questionnaires between February and May 2012 (Figure 7.1). Each day, the researcher visited the schools and institutes to distribute and collect the questionnaires, which were accompanied by, consent letters from the Ministry of Education and the Ministry of Social Affairs.

To serve the purpose of the study, each elementary school and institute in the sample received as many questionnaires as the number of teachers in the school. Thus the researcher distributed the questionnaires to the whole population of the teachers in the two main schools and institutions; 300 teachers in each population completed the questionnaires.

The researcher herself distributed and collected the questionnaires to and from the intended public elementary schools. In a separate letter (Appendix 1), the researcher explained the research and its intended objectives to the school principals (head teachers) who assisted in distributing the questionnaires to the schoolteachers. The researcher then distributed the questionnaires and collected them back, as well as performing the interviews.

7.9.2 Interview performance

The interviewee sample was recruited through the teachers' voluntary consent. The researcher included a note at the end of the questionnaire, with her contact details (e-mail and telephone number) for anyone volunteering to contact her. When a teacher completed the survey and was willing to be interviewed, the researcher called and planned a time that suited her to conduct the interview. The researcher herself performed the interviews.

The researcher interviewed 12 teachers without prior knowledge of their questionnaire responses. All interviews took place in late May 2012 at the teachers' schools, usually during the break. Just before starting the interview, the researcher gave the interviewee a copy of the semi-structured interview to look at. Each interviewee was informed about the researcher's position, experience, the University she belonged to, where she came from and personal connections. Some of this information had already been submitted within the questionnaire items.

These clarifications at the beginning of the interview helped the interviewee to feel comfortable about talking and expressing themselves and showing their understanding. The researcher attempted to write (as recording was not allowed) the entire response of the interviewee. Each interview took between 20 to 30 minutes.

7.10 Initial treatment and analysis of collected questionnaires

Figure 7.2 provides an overview of the initial treatment and analysis of questionnaires. This section provides a detailed description of each step. Of the 600 questionnaires distributed, a total of 497 (83%) were returned and found to have valid responses. Only 103(17%) forms were missing or not good for further analysis. This confirmed the representative sample of female teachers who participated in this study, showing a confident and encouraging level of participation. The high number of participants taking part in the study was to minimise bias in the results obtained and that these results are broadly consistent with the prevailing reality as it pertains to the research matters, issues, topics in schools and in educational environments in KSA.

Data collected from these valid responses of the research were given serial numbers in accordance with the Statistical Package for Social Sciences (SPSS) (Figure 7.2). Serial

numbers started from 1- 497. Numbers 1- 267(267) were given for teachers of elementary schools, and 268-497 (230) for special institute teachers. All the survey items in the questionnaire were coded and given numbers. For instance, the first item was the school that they belonged to and was coded as one or two, (one representing elementary school teachers and two representing institute teachers). Items on the four point Likert scale were also scored as one (1) for strongly disagree, two (2) for disagree, three (3) for agree and four (4) for strongly agree.

As the Likert scale used for questionnaires provides interval data, parametric tests (rather than non-parametric tests) were used to analyse the data obtained from the research instrument. The parametric tests used were the T-test and the one-way ANOVA. SPSS was used to aid calculations, tabulations, and arrangements of the raw data for further analysis, to support the calculation of the frequencies, percentages, means and standard deviations of the returned responses for the demographic information (see Chapter 8 for demographic information). The researcher deemed parametric tests as the most efficient method of data analysis for normally distributed interval data such as in the context of this study. Parametric tests (Geisser and Johnson, 2006) are more useful when dealing with larger sample sizes, and also yields data with greater statistical power which in turn aids in drawing patterns and establishing significant effects of data if they exist. Consequently, the results produced with parametric tests are more accurate, precise and arguably more statistical and conclusive as a wider range of mean results can be obtained and identified, as opposed to a narrow range of averages that can be obtained with non-parametric tests. Such advantages render parametric data as more powerful when compared with non-parametric data.

The researcher is aware of the types of data that is obtained from using non-parametric tests such as the Mann-Whitney-Wilcoxon (Mann and Whitney, 1947) tests that represents median data obtained from ordinal data to determine statistical differences. Non-parametric data is better suited to data that uses smaller sample sizes and also it may be arguably more statistically robust, it is difficult to obtain and identify significant differences and significant relationships and patterns from the data analysis. As a result, the researcher carefully researched, considered and reviewed existing research focusing on the inclusion of children with autism into mainstream classrooms before selecting parametric tests as the most suited method to this particular study. Examples of research which influenced the researcher's decision included Dedrick, Marfo and Harris (2007) who used the 5 point Likert scale to identify how teachers' attitudes, beliefs and perceptions towards children with autism affect

the way the wording which they use to label children with autism. Larrivee and Cook's (1979) study also influenced the researcher's decision as the study used mean scores obtained from parametric tests to form an attitude scale to identify the effects of classroom size, type of school and school size effects teacher's attitudes and consequently found from the mean data that teacher's perceptions of success and level of support significantly impacts their attitudes.

Parasuram's (2006) study was equally influential in the researcher's choice to use parametric data as her study focusing on variables that effect teachers' attitudes towards disability in Mumbai, India and whether variables such as age, gender, income level, level of educational study effected teachers' attitudes, however the mean analysis obtained from parametric data found that the most important variable effecting teachers' attitudes towards inclusion of children with autism was prior acquaintance with disability. Finally, a study by Molto (2003) focusing on teachers' acceptance of children with autism in mainstream schools in Spain used parametric tests to identify teachers' perceptions; parametric data results indicated that there was significant statistical differences between grades and teachers' attitudes, and allowed for recommendation to alter the curriculum to be more suited to children with autism. Such patterns may not have been detected if non-parametric data was used, and Molto (2003) may have been unable to propose recommendations to alter professional practice.

Based on the successes of the research outlined above and the fact that such studies have taken place in varying places around the world (Spain, Mumbai and the UK) which implies that parametric tests and more globally flexible regardless of the context and culture of the study; this is especially pertinent as the context of this study is the KSA. The researcher deemed that parametric tests are more conclusive in producing data that can be analysed more closely, allowing patterns to be drawn due to a greater statistical advantage of parametric tests. The researcher believes that parametric tests would be most viable in allowing recommendations for change to be proposed based on the data that is obtained.

The researcher probed the themes of the research questions via a numerical and qualitative data analysis, obtained by questionnaires and open-ended responses and interviews respectively. For the purpose of this study, results were gathered from teachers in regular elementary schools (schools with some form of SEN integration/ but no autism), and from special institutes committed to teaching children with autism/SEN. The results were gathered

via closed questions set out in the form of survey statements (Appendix 3) and from teachers' responses to the open-ended questions and interviews.

The responses of the study sample to the questionnaire statements were grouped, showing frequency, percentages and means. These were organized in three similar major tables. Table 9.2 sets out the results from all respondents - both teachers in mainstream elementary schools and in special institutes – and ranks these responses in accordance with the weighting of responses.

The preliminary analysis of the results was carried out and they were regrouped as they are related to each other according to an initial view on the key themes that come through from the primary data (grouping justification is further discussed in sections 7.12 & 7.13). These themes provide an integrated interpretation and understanding of the study questions; a justification for these themes and how they were grouped from the main instruments is provided in section 7.13.

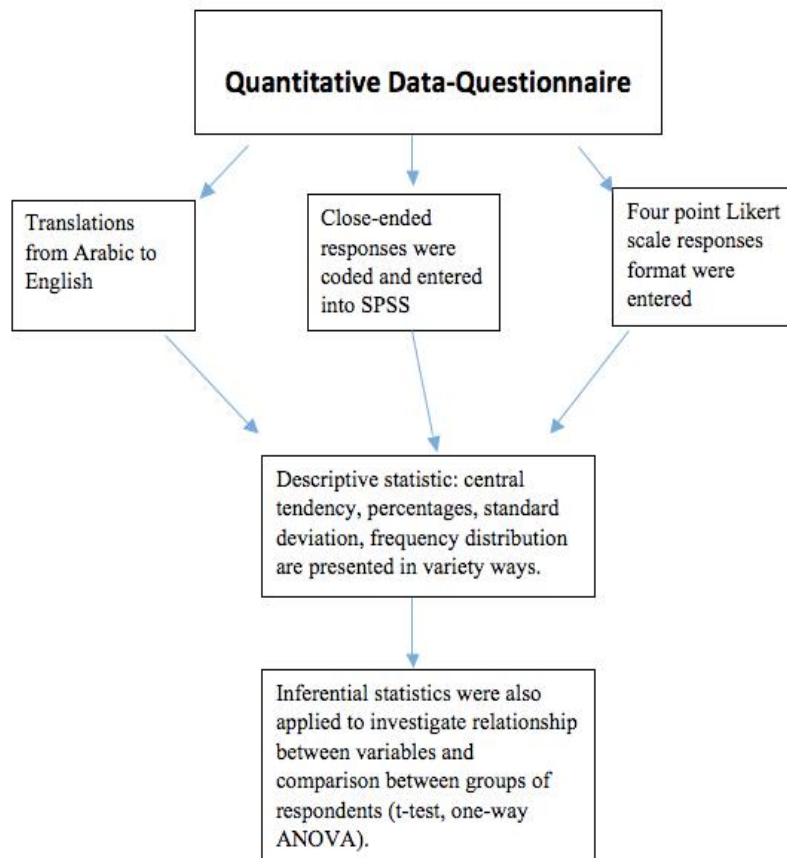


Figure 7.2 Overview of initial treatment and analysis of questionnaires

7.11 Initial treatment and analysis of the interview

Figure 7.3 provides an overview of the initial treatment and analysis of the interview. This section provides a detailed description of each step. Each interviewee was coded by numbering each interviewee according to the place they belonged to, 1 to 6 for teachers from elementary schools and 7-12 for teachers from institutes. Interview responses according to themes, were put into groups together, which related and linked to open ended questions and questionnaire groups.

A set of key themes were categorised as they relate to each other according to the initial instrument of the study (see section 7.13 for detailed analysis of how themes emerged from the data). These themes are obtained from analysis of the initial primary data, from the teachers' comments on the open ended responses and responses to the interviews. Interviews were based on the open-ended questions as indicated in section 7.4.2.

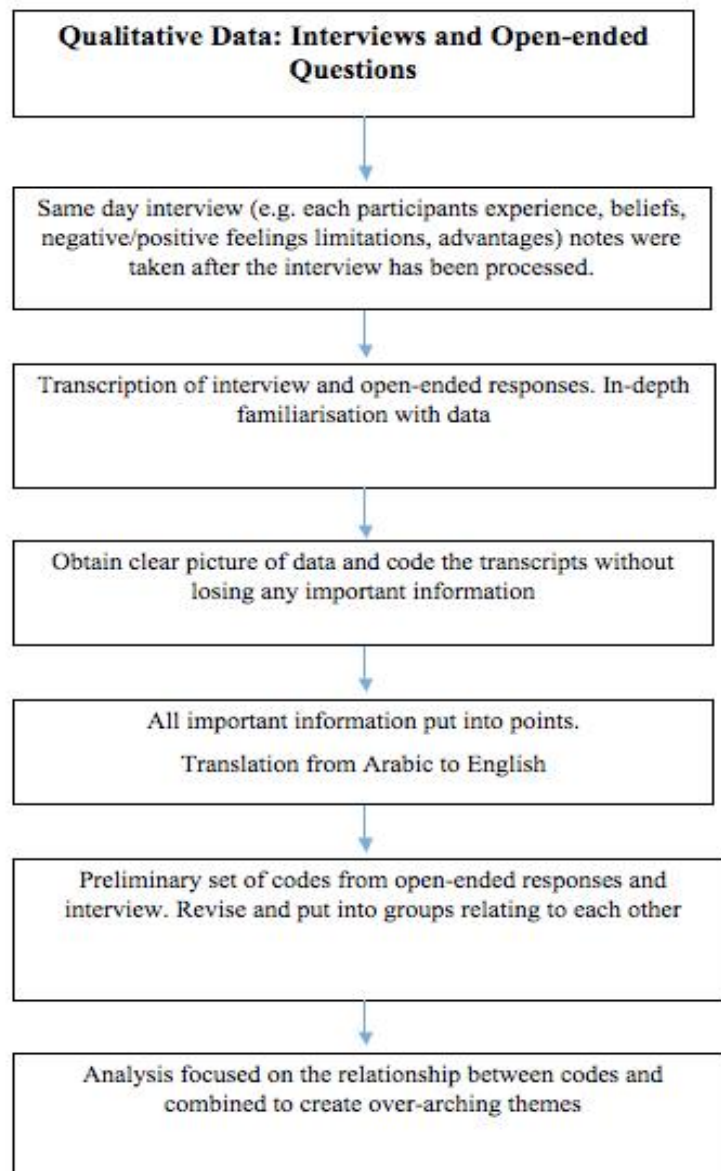


Figure 7.3 Overview of initial treatment and analysis of interviews.

7.12 Procedures and methods for data analysis

The researcher has determined themes for this study by grouping the statements together. Themes were categorised as they related to each other according to the initial treatment of the study instrument, as well as from the analysis of the teachers' comments on the open ended responses and responses to the interviews (see section 7.13 for detailed analysis of how themes emerged from the data). The first three themes are mainly answer partially the first and second research questions, while the last two themes answer the first and fourth research questions. The third question answered mainly through the demographic data (chapter 8).

To answer the research four questions, the researcher has grouped the sample replies to the 28 statements of the survey, their reactions to the open ended questions, as well as the interview outcomes into five different, yet related themes. In order to sustain the study's main purpose of analysing KSA female teachers' attitudes towards the inclusion of children with autism within mainstream schools in KSA, analysis across the questionnaire statements, open-ended responses and the interviews reactions and subsequently through data and links that appear between the themes. Thus the themes pull together an interpretation of the study's main questions. For ease and simplicity of dealing with data analysis and discussion, the research sampled knowledge about children with autism, attitudes, and feelings concerning inclusion, expectations of inclusion. The benefits and limitations of inclusion were the main issues and topics for the themes. Further justifications appear in section 7.13, and the detailed data analysis and discussion of the results are presented in Chapter 9 and 10 respectively.

The teachers' attitudes towards inclusion were observed according to the frequencies and percentages of the respondents' answers to each statement and the total percentage of statements for each theme. When respondents' reactions to any statement (or group statements) is over 75% "strongly agree"; the attitude of the female teachers is said to be highly positive to inclusion of children with autism into the KSA mainstream schools; whereas when the agreement is between 50% and 75%, a moderately positive attitude is revealed; and when the response is between 25% and 50% it is considered negative; and finally when respondents' reactions to any statement (or group statements) is less than 25% of agreement, their attitude to the inclusion of children with autism into the KSA mainstream schools is considered strongly negative.

As the Opinions Relative to Mainstreaming (ORM) scale (Antonak and Larrivee, 1995), were used in order to measure teachers' attitudes to the inclusion of special needs children in mainstream education, the attitude of the female teachers to the inclusion of children with autism into the KSA mainstream schools is said to be "strongly positive" when the average respondents' agreements of their reactions to the statements is between 4.0-3.0; while attitudes are thought to be "positive" when the mean is less than 3.0 - 2.0. However, when the mean is less than 2.0-1.0, the attitude is said to be "negative" and "strongly negative" when the mean is less than 1.0.

7.13 The Themes

The themes used for analysis in this study are outlined below and emerged from the surveying instrument and from the interview. As such the themes were obtained from a mixed method research instrument; firstly from the items in the questionnaire and then from the interview. The data obtained after the research instruments were grouped thematically upon analysing and categorising the data (Table 7.3).

Table 7.3 Themes used for analysis as obtained from the research instruments

| Themes | Issues Obtained From Research Instruments |
|--|--|
| <p>Theme 1 Is positioned around a key issue that has emerged from the data, which is the perception that teachers in KSA have of inclusion. This is essential in order to understand and obtain clearer insight into their views on the inclusion of children with autism into mainstream schools.</p> <p>This theme is broadly titled “Teachers’ requirement of special skills with inclusion”.</p> | <p>(2) Inclusion of children with autism will mean extensive re-training of mainstream classroom teachers;</p> <p>(20) Teaching children with autism is better done by special education teachers than by mainstream classroom teachers</p> <p>(16) Special Education Institutes are the best place for children with autism in the variety of activities that allow the children to demonstrate their strengths</p> <p>(25) It is not more difficult to maintain order in a mainstream classroom that contains children with autism than in one that does not have children with autism; and</p> <p>(17) Mainstream classroom teachers have sufficient training to teach children with autism.</p> <p>(7) I use appropriate language techniques to interact with children with autism</p> <p>(6) I am Capable of teaching and managing children with autism</p> |
| <p>Theme 2 Deals with the idea that if teachers agree that assignments should not be modified for children with autism, it could show how teachers perceive inclusion. Following this, one may confront what seems to be a contradictory response in the next statement, for example another statement in the group asks if the full time special education class is the best place for children with autism.</p> <p>This theme is broadly titled</p> | <p>(8) The extra attention that children with autism require will be to the detriment of other children;</p> <p>(13) Inclusion of children with autism will not promote his or her social independence; (24) The presence of children with autism will not promote acceptance of differences on the part of children without special educational needs;</p> <p>(15) The inclusion of children with autism into mainstream classroom will set a bad example for children without disabilities;</p> <p>(21) Assignments should not be modified for children with autism; and</p> <p>(11) The full time special education class is the best place for children with autism</p> |

| | |
|--|---|
| <p>“Teachers’ perception of inclusion”.</p> | |
| <p>Theme 3 Centres upon the idea that if respondents do not think that children with autism require more tolerance and patience from the teachers, this evidences that they understand enough about inclusion of children with autism into the mainstream classroom.</p> <p>This theme is broadly titled “Teachers’ knowledge about inclusion”.</p> | <p>1) Most children with autism will make sufficient attempt to complete their assignments; (23) Children with autism generally do not require more patience from the teachers;</p> <p>(10) Inclusion of children with autism in mainstream schools helps them to learn new social skills;</p> <p>(18) Children with autism will not be socially isolated in the mainstream classroom;</p> <p>(27) Segregation in a special classroom has a beneficial effect on the social and emotional development of the children with autism;</p> <p>(12) Inclusion of children with autism into mainstream schools helps them to learn new academic skills; and</p> <p>(22) Children with autism should have the opportunity to function in mainstream classrooms when possible</p> |
| <p>Theme 4 This theme is broadly titled “Teachers’ opinions on advantages and benefits of inclusion”.</p> <p>See below for discussion on how this theme was obtained from data.</p> | <p>3) It is likely that children with autism will exhibit behavioural problems in mainstream classrooms;</p> <p>(14) Children with autism who are placed in Special Education Institutions have better services than children with special needs who are placed in mainstream schools;</p> <p>(19) Inclusion will likely have a negative effect on the emotional development of the children with autism; and</p> <p>(26) Increased freedom in the mainstream classroom creates too much confusion for children with autism</p> |
| <p>Theme 5 This theme is broadly titled “Teachers’ opinions on restrictions and limits of inclusion”.</p> <p>See below for discussion on how this theme was obtained from data.</p> | <p>4) Inclusion of children with autism can be beneficial for children without disabilities,</p> <p>(5) Inclusion offers mixed group interaction that will foster understanding and acceptance of differences among children,</p> <p>(9) Children with autism can be best served in mainstream classrooms and</p> <p>(28) I would welcome children with autism into mainstream classroom and work with them rather than in a special institute classroom</p> |

The fourth and fifth themes were assembled, generated and reflected across data through the questionnaire with open-ended questions and interviews: Theme 4 is named “Teachers’ opinions on advantages and benefits of inclusion” and Theme 5 is “Teachers’ opinions on restrictions and limits of inclusion”. Both themes were illustrated and evidenced in both the qualitative and numerical data. This provides answers to research questions, especially those

of the open-ended responses and the interviews, particularly when answering the fourth research question; “what are the teachers’ perceptions of factors – if any – that may have an effect on the inclusion of autistic children in mainstream classrooms”.

It is worth noting that the last two themes emerging from the study instruments are most viable at providing realistic perceptions of teachers’ attitudes towards the inclusion of children with autism that is grounded within the real strengths limitations of the mainstream classroom environment in KSA. Furthermore, if a sense of being positive about inclusion is perceived to be the right response to give, the results in this regards might be somewhat distorted. It does seem difficult to reconcile the broadly positive outlook on inclusion on one hand, with the hurdles to its practical achievement that these respondents identify on the other.

7.14 Summary

This chapter described how the research procedures and methodology progressed. It described how the study was planned, arranged and structured as well as how each phase was rationalized. It included the main ideas behind how the study was proposed and intended; why and how the population and the study sample were chosen, as well as the instruments used to construct this study and how they were tested for validity and reliability, with details of the study’s ethics. Procedures for instrument distribution and collection were presented. Finally, the chapter outlined how the five themes as obtained from qualitative data were assembled, arranged and described as a means for data analysis.

Chapter 8: Demographics of the Study Population

8.1 Introduction

Following the description of the research design and methodology, this chapter provides the demographic characteristics of the study sample and demonstrates the information obtained about the study participants' background. The data gathered for this part were from the participants' responses to the demographic questionnaire (appendix 3 section 1). The aim of the demographic aspect of the study is to help analyse and obtain any cause and effects variables of the study together; for example whether the age, nationality or any other variables affect the participants' responses. This chapter of the study presents several research aspects of the teachers' factors and their analysis, i.e. their nationality; age; educational level; teaching subject; teaching experience; teacher training in special education; personal experiences with autism in the family, and in class. Thus demographic characterisation help connecting the analyses of data obtained from the study samples based on feedback from questionnaires and interviews.

This chapter is divided into eleven sections. Section 8.2; presents the characteristics of the study sample; section 8.3 describes age as a characteristic variable; section 8.4 describes nationality as a characteristic variable; section 8.5 outlines teachers' educational levels; section 8.6 teaching subjects; section 8.7 teaching experiences; section 8.8 training characteristics; section 8.9 autism in the teacher's family; section 8.10 children with autism in teacher's class; and the final section 8.11 is the chapter summary.

8.2 The characteristics of the study sample participating teachers

The study population covered 300 female teachers in mainstream elementary schools that implement SEN integration, and 300 female teachers of segregated special education institutes for children with autism in Riyadh, KSA (Table 8.1). The targeted populations were chosen specifically because no similar studies have been found published on KSA female teachers alone, or on teachers in institutes/centres for children with autism in the KSA.

Table 8.1*: Number of female mainstream elementary schools, institutes and their female teachers in Riyadh, KSA. **

| | |
|--|--|
| Mainstream elementary schools | 486 female elementary schools (12,430 teachers) |
| | 123 female elementary schools with generic integration of SEN children (none of whom have autism). (3,152 teachers). |
| | 14 female elementary schools with integration of IDD children (excluding autism) 364 teachers (average of 26 teachers from each school) |
| Private schools for children with autism/SEN | 26 centres and institutes for females with different SEN children |
| | 15 centres and institutes for female children with autism alone 364 teachers (average of 24 teachers from each institute) |

*Similar table was shown in the Methodology chapter (see Table 7.1)

**Source (MOE, 2012) and (MOSA, 2012).

As seen in Table 8.1, MOE (2012) estimated that in Riyadh there are 123 mainstream elementary schools for female children, which are involved in some form of integration, with 3,152 female teachers. These 123 schools promote integration of one kind or another for SEN children but none provide inclusion for children with autism. Fourteen (14) of those Female elementary schools which have integration of IDD children (excluding autism) were chosen for this study. The total number of teachers in the 14 elementary schools is over three hundred. Geographically, the schools are scattered through Riyadh.

The other research population comprised teachers of special education institutes and centres. As shown in Table 8.1, there are 26 centres and institutes for young children with SEN in Riyadh (MOE, 2012 and MOSA, 2012). Fifteen (15) of those are completely segregated for children with autism, most of which are private (non-governmental) schools. Only two are governmental institutes, which has a population special education needs (SEN) children, including children with autism. The number of teachers in such institutes/centres is over three hundred as well. The demographic information as presented in the following paragraphs starts in Table 8.2, with the valid number of questionnaires that was returned from teachers in both elementary schools and special institutes.

Table 8.2: Frequency and percentage of the valid questionnaires returned from teachers of both mainstream elementary schools and special institutes. (N=497)

| Type of Study Sample Schools (Places) | | Frequency | % Of total sample |
|---------------------------------------|--------------------|-----------|-------------------|
| Valid cases returned | Mainstream Schools | 267 | 53.72 |
| | Special Institutes | 230 | 46.28 |
| | Total | 497 | 100.0 |

As in Table 8.2, from the 300 questionnaires distributed to teachers in mainstream elementary schools, 267 questionnaires (89% of the subsample; 53.7% of the total valid sample) were valid for further statistical analysis. The other sample, as in Table 8.2, was teachers of special institutes, and from the 300 questionnaires distributed, 230 questionnaires (76.7% of the subsample, which represent 46.3% of the total valid sample) were valid for further analysis. This reveals that a total of 497 questionnaires were completed and are used thorough the entire study hereafter. The research sample is almost equally divided in terms of the school types (places), with 37 (6.4%) more returned from participants (teachers) in the mainstream elementary schools than from teachers in special institutes for children with autism. The following paragraphs summarize the demographic characteristics of the study from the useable returned survey sample.

8.3. Age characteristics variables

The teachers' age variable of the study sample is represented in Table 8.3.

Table 8.3: Frequencies and percentages of the teachers' sample age. (N=494)

| The Study Sample Teachers' Ages (Years) | Frequency | % |
|---|-----------|------|
| Less than 30 | 179 | 36.2 |
| 31-40 | 220 | 44.5 |
| 41-50 | 86 | 17.4 |
| 50+ | 9 | 1.9 |
| Total | 494 | 100 |

It was found, as seen in Table 8.3, that 220 teachers representing 44.5% of the study sample population were between 31 to 40 years of age. They were followed by 179 (36.2%) of the total teachers' study sample that were less than 30 years of age. Table 8.3 also show that 17.4 %, (86 teachers) were between 41 and 50 years of age, and only 1.9 %, (9 teachers) were

50 years of age or older. Three teachers from the whole sample did not answer the part of their age. It was the mainstream teachers' ages that were missing more in comparison to the special institutes.

8.4. Nationality characteristics variable

The study sample participants' nationality variable is shown in Table 8.4.

Table 8.4: Frequency and percentage of the teachers' sample nationality variable (N=490).

| The Study Sample Teachers' Nationality | Frequency | % |
|---|------------------|----------|
| Saudi Arabian | 440 | 89.80 |
| Non-Saudi Arabian | 50 | 10.20 |
| Total | 490 | 100 |

Table 8.4 show that 440 (89.8%) of the whole study sample were Saudi Arabian, while 50 (10.2%) were non Saudi Arabian teachers. There were however, seven cases (1.4%) missing from the nationality variable. Thus, the study sample participants were mainly (90%) Saudi Arabian teachers while only about 10% were non-Saudi Arabians. The non-Saudis were found in institutes for children with autism only.

8.5. Teachers' educational levels

The study sample's educational level variable is shown in Table 8.5.

Table 8.5: Frequencies and percentages of the sample teachers' educational level. (N=495)

| The study sample teachers' educational levels | Frequency | % |
|--|------------------|----------|
| Undergraduate Diploma | 71 | 14.4 |
| Mainstream BSc or BA degrees | 75 | 15.1 |
| Educational BSc or BA degrees | 300 | 60.6 |
| Postgraduate degrees (MA or MSc) | 12 | 2.4 |
| Others | 37 | 7.5 |
| Total | 495 | 100 |

Table 8.5 show that 60.6% of the sample (300 teachers) have BSc or BA degrees in education, nearly 15% of the sample (75 teachers) have mainstream BSc or BA degrees, nearly 14% (71 teachers) have an undergraduate diploma (less than BA or BSc degrees) and only 2.4% of the teachers (12 teachers) have Masters degrees. Thirty-seven (37) teachers (7.5%) reported that they had other degrees. This shows that the majority of the teachers' samples are BSc and or BA degree holders in education. There were only two data missing from the educational level that were both from the mainstream schools.

8.6. Teaching subjects

The study sample's teaching subjects are summarized in Table 8.6.

Table 8.6: Frequencies and percentages of the sample-teaching subjects (N=479).

| The Teaching Subjects Variable | Frequency | % |
|--------------------------------|-----------|-------|
| General | 211 | 44.1 |
| Special | 198 | 41.3 |
| Other | 70 | 14.6 |
| Total | 479 | 100.0 |

Table 8.6 reveal that 211 (44.1%) of the respondents teach academic subjects such as Sciences, Math, Languages, and Social Studies. 198 (41.3%) of the teachers teach special education as a subject. 70 (14.6%), indicated other in their teaching subjects. 18 cases however, were missing from the teaching subjects category. It is interesting to say that it was almost equally divided in their missing data for their teaching subject; ten from the mainstream schools and eight from the special institutes.

8.7. Teaching experiences

A key question in this study is: do the teachers have any previous experience in teaching? The answer is represented in Table 8.7, showing the teachers' responses as related to the experience question.

Table 8.7: Frequencies and percentages of sample teaching experience. (N=493)

| The study sample experience (years) | Frequency | % |
|--|------------------|----------|
| Less than 1 year | 80 | 16.2 |
| 1-5 years | 103 | 21.1 |
| 6-10 years | 57 | 11.7 |
| More than 10 year | 253 | 51.0 |
| Total | 493 | 100.0 |

Table 8.7 shows that 493 respondents provided information in relation to their teaching experience. It shows that more than half (51%) of the teachers' sample (253 respondents) has more than 10 years' experience in teaching, 103 teachers (21.1%) have between 1 to 5 years' experience, whereas the table 80 teachers (16.2%) have less than 1 year of experience. Finally Table 8.7 show that 57 (11.7%) have between 6 to 10 years' teaching experience. Four teachers' data were missing; one from the mainstream school and three from the special institutes.

8.8. Training characteristics

The teachers' sample was asked to indicate whether they had attended any training courses or programs in special education. Their answers are shown in Table 8.8.

Table 8.8: Frequencies and percentages of teachers' training in special education. (N=487)

| The teachers' training in special education | Frequency | % |
|--|------------------|----------|
| Yes | 241 | 49.5 |
| No | 246 | 50.5 |
| Total | 487 | 100.0 |

It can be seen in Table 8.8 that the sample subjects are divided nearly equally; half of them had attended training courses in special education and the other half had not. It shows that 246 (49.5%) said they have no undertaken training courses in special education, while 241 (49.5%) indicated they had attended training courses in special education. There where

however ten missing data; six from the special institutes and four from the mainstream school.

These data are not unusual; almost half of the study sample is comprised of teachers prepared for teaching and dealing with children with autism, while the other half of the study sample is teachers who were prepared for teaching and dealing with regular elementary school.

8.9. Autism in the teacher's family

Teachers' answers concerning having a family member with autism is shown in Table 8.9.

Table 8.9: Frequencies and percentages of teachers with autism in the family (N=495).

| Autism in the teachers' family | Frequency | % |
|---------------------------------------|------------------|----------|
| Yes | 48 | 9.90 |
| No | 447 | 90.10 |
| Total | 495 | 100.0 |

The results in Table 8.9 show that there are more teachers (447, 90.10%) who do not have a relative with autism. Only 48 out of 497 (9.9%) indicated that they have a family member with autism. From the Table 8.9 it can be seen that nearly 90 % of the sample do not have a family member with autism, and nearly 10% of them do. Two teachers from the whole sample did not answer the question about autism in family members.

8.10. Children with autism in teacher's class

Finally, teachers were asked to indicate if they have children with autism in their class. Their answers are shown in Table 8.10.

Table 8.10: Frequency and percentage of teacher's with autistic children in class. (N=496)

| Student with Autism in Teacher's Class | Frequency | % |
|---|------------------|----------|
| Yes | 214 | 43.15 |
| No | 282 | 56.85 |
| Total | 496 | 100.0 |

The above Table 8.10 shows that 282 (56.85%) did not have an autistic student in their class, and 214 (43.15%) of teachers did have children with autism. Thus nearly 57% of the sample did not have a student with autism in their class, and nearly 43% of them did.

This result is unsurprising because half of the teachers' samples are teachers of institutes for children with autism, while the other half are mainstream elementary school teachers, where they do not have any children with autism. The difference (about 16 cases) could be explained as being from those teachers who do not teach children with autism because they are teaching in the two institutes that are mixed with other SEN children. Only one teachers' data was missing that was from the institute school.

8.11. Summary

This chapter provides the demographic characteristics of the study sample and demonstrates the background information obtained for the study sample. The data gathered for this chapter was from the participants' responses to the demographic questionnaire section of the main questionnaire. The aim of the demographic aspect of the study is to obtain background data to help interrogate and interpret the interview data. This chapter presents several research aspects of the teachers' background, concentrating on the participants' backgrounds qualifications, proficiencies skills, nationality, age, educational level, teaching subject, teaching experience, teacher training in special education, personal experiences with autism in the family, and in class; these variables form the basis of enquiry in determining teachers' attitudes towards the inclusion of children with autism.

Demographic characterisations connects the analysis of data obtained from the study samples based on feedback from questionnaires, open ended questions and interviews; demographic aspects assist in answering the "second" and the "third" research study questions which relate to the study populations' background as such variables guide the teachers' attitudes regarding the inclusion of children with autism into mainstream schooling. This helps to obtain in-depth knowledge on why teachers had a positive or negative attitude towards the inclusion of children with autism. The following chapter provides analyses of the results and chapter 10 provides a comprehensive discussion of these results in relation to existing literature presented in this study.

Chapter 9: Results and Analysis

9.1. Introduction

The researcher investigated the themes in the research questions using a Likert-type questionnaire with open-ended questions and interviews (see chapter 7). The Likert-type questionnaire statements, open-ended answers and interviews were regrouped into the themes, analysed, and then interpreted. In this chapter the researcher combines the data obtained from the demographic, questionnaire statements, and interviews and then analyses the data thematically using the five themes as outlined in section 7.13. It is believed that the quantitative and qualitative approach to the analysis allowed for breadth and depth in terms of findings.

This chapter is divided into subsections as follows: section 9.2 shows how the mean for the study analysis was calculated and provides justification for why the mean was used as a mode of analyse. Section 9.3 outlined the research questions and briefly reiterates how the themes for analysis have emerged from this study. The differences between attitudes towards children with autism depending on whether teachers work in mainstream schools of institutes are presented in section 9.4. Section 9.5 presents how factors such as nationality, age, educational background, subject of teaching, experience and training and whether they have any personal experiences with children with autism (either personal or professional) affect teachers' attitudes. Section 9.6 identifies whether teachers' require special skills for successful inclusion to occur and section 9.7 and 9.8 identify teachers' perception toward inclusion and teachers' knowledge regarding inclusion respectively. Finally, this chapter identifies what teachers' believe to be the restrictions and limitations of inclusion (section 9.9), as well as the advantages and benefits of inclusion (section 9.10). The chapter ends with a summary of the results and analysis (section 9.11).

9.2. Calculating the mean for the study analysis

The researcher has adapted a four-point Likert scale to suit this research purposes (see chapter 7 for justification). For classifying teachers' attitudes according to the analysis of the data during this study, the mean was calculated. For this study the mean, sometimes referred to as an average, has been calculated by the sum of the data, in relation to the individual

scores selected by the participant on the questionnaire corresponding and then divided by the total number of data and accordingly deciding how to classify teachers' attitudes.

The mean is used in this study together with other descriptive statistics, such as T-test, percentages and frequencies, because the mean is the most commonly used and readily understood measure of central tendency (see chapter 7). The mean is used in this study because it takes all data and values into consideration with no need for reordering or rearrangement and can therefore identify differences between subgroups. Further, it is typically used and readily understood since it is used in almost every academic field to some extent.

As the Opinions Relative to Mainstreaming (ORM) scale (Antonak & Larrivee, 1995) was used in this study to measure teachers' attitudes to the inclusion of special needs children in mainstream education, the attitude of the female teachers to the inclusion of children with autism into the KSA mainstream schools is said to be "strongly positive" when the mean or the average respondents' agreements of their reactions to the statements is between 4.0-3.0; while attitudes are thought to be "positive" when the mean is between 3.0-2.0. However, when the mean is between 2.0-1.0 the attitude is said to be "negative"; and finally "strongly negative" when the mean is less than 1.0.

9.3. Research questions

The research questions that this section of the data addresses are as follows:

1. What are the Saudi Arabian female teachers' attitudes towards inclusion of children with autism into mainstream schools?

A: female teachers in mainstream elementary' schools, and

B: female teachers in special institutes for children with autism.

2. Are there any differences between the attitudes of the Saudi female mainstream elementary school teachers' and those in autistic education institutes? If so, what are the differences?

3. What is the effect of the following factors on teachers' attitudes towards the inclusion of children with autism in regular schools: -

a) Nationality of teachers (Saudi vs. non Saudi).

b) Age of teachers (- 30, 31-40, 41-50, and 51+).

c) Major and level of education (special ed. vs. non SE. ed. and BS vs. Diplomas).

d) Experience (less than 1 year, 1-5 years, 6-10 years, more than 10 years).

- e) Training in special education.
 - f) Personal experiences of SEN/autism children
 - g) Professional experiences of SEN/autism.
4. What are the teachers' own perceptions of factors (if any) that may have an effect on their attitudes toward inclusion of children with autism in regular classrooms?

To answer the research questions, five themes (T's) have been developed. These five themes emerged from data obtained from the responses of the study sample as acquired from the questionnaires, open-ended questions and interviews. These themes formed the framework of analysis and discussion for this study in chapter 9 and 10. The five themes are:

- T1: Teachers requirement of special skills with inclusion
- T2: Teachers perception of inclusion
- T3: Teachers' knowledge about inclusion
- T4: Teachers' opinions on restriction and limits of inclusion
- T5: Teachers opinions on advantages and benefits of inclusion

9.4. The differences between mainstream and institute teachers' attitudes

To find out participants attitude towards inclusion and if there were any differences between the attitudes of the KSA female mainstream elementary school teachers' and those in autistic education institutes, A T-test was applied on the mean of the responses of elementary schools' teachers and special institutes' teachers and the results were tabulated (Table 9.1).

Table 9.1: t-test, between elementary schools' teachers and special institutes' teachers mean responses.

| Groups | N | Mean | St. D | T-test | Sig |
|------------------------------|-----|------|-------|---------|---------|
| Elementary schools' teachers | 267 | 2.58 | 0.24 | - 1.384 | .008 ** |
| Special institutes' teachers | 230 | 2.61 | 0.22 | | |

** 0.01 level (2-tailed)

* 0.05 level (2-tailed)

As a result of t-test, it was found (Table 9.1) that there is an overall significant difference, at 0.01 level, between the two means of the two subsamples (elementary schools' teachers and special institutes' teachers). However, to find the differences in each area of the items, analyses of each of the 28 questionnaire statements was undertaken (Table 9.2).

Table 9.2: T-test to compare the teachers' responses; (means and standard deviations) of the study research samples: Elementary schools' teachers and Special institutes' teachers.

| Stat # | Statements | Elementary Schools' Teachers (N=267) | | Special Institutes Teachers (N=230) | | T-Test |
|--------|---|--------------------------------------|------|-------------------------------------|------|--------------|
| | | Mean | S.D. | Mean | S.D. | |
| 1 | Most children with autism will make sufficient attempt to complete their assignments. | 2.56 | .810 | 2.41 | .990 | 1.847 |
| 2 | Inclusions of children with autism will mean extensive retraining of mainstream classroom teacher. | 3.67 | .662 | 3.60 | .697 | 1.170 |
| 3 | It is likely that children with autism will exhibit behavioural problems in mainstream classrooms. | 3.17 | .760 | 3.21 | .768 | -.666 |
| 4 | Inclusion of children with autism can be beneficial for children without disabilities. | 2.14 | .880 | 2.40 | .873 | -3.267 ** |
| 5 | Inclusion offers mixed group interaction that will foster understanding and acceptance of differences among children. | 2.48 | .849 | 2.52 | .864 | -.502 |
| 6 | I am capable of teaching and managing children with autism. | 1.94 | .895 | 3.06 | .869 | -13.94 ** |
| 7 | I use appropriate language techniques to interact with children with autism. | 2.28 | .888 | 3.06 | .719 | -10.59 ** |
| 8 | The extra attention that children with autism require will be to the detriment of other children. | 2.03 | .859 | 2.10 | .841 | -.903 |
| 9 | Children with autism can be best served in mainstream classrooms. | 2.23 | .900 | 2.15 | .842 | 1.097 |
| 10 | Inclusion of children with autism in mainstream schools helps them to learn new social skills. | 2.84 | .821 | 2.97 | .831 | -1.784 |
| 11 | The full time special education class is the best place for children with autism. | 2.94 | .922 | 2.87 | .942 | .781 |
| 12 | Inclusions of children with autism into mainstream schools help them to learn new academic skills. | 2.73 | .760 | 2.69 | .856 | .502 |
| 13 | Inclusion of children with autism will not promote his or her social independence. | 2.36 | .852 | 2.18 | .788 | 2.316 * |

| Stat # | Statements | Elementary Schools' Teachers (N=267) | | Special Institutes Teachers (N=230) | | T-Test |
|--------|---|--------------------------------------|-------|-------------------------------------|------|--------|
| | | Mean | S.D. | Mean | S.D. | |
| 14 | Children with autism who are placed in Special Education Institutions have better services than children with special needs who are placed in mainstream schools. | 3.20 | .888 | 3.08 | .930 | 1.457 |
| 15 | The inclusion of children with autism into mainstream classroom will set a bad example for children without disabilities. | 2.19 | .833 | 2.16 | .785 | .461 |
| 16 | Special Education Institutes are best place for children with autism in the variety of activities that allow the children to demonstrate their strengths. | 3.17 | .900 | 3.15 | .790 | .230 |
| 17 | Mainstream classroom teachers have sufficient training to teach children with autism. | 2.09 | .957 | 2.01 | .871 | .906 |
| 18 | Children with autism will not be socially isolated in the mainstream classroom. | 2.68 | .784 | 2.56 | .850 | 1.615 |
| 19 | Inclusion will likely have a negative effect on the emotional development of the children with autism. | 2.50 | .835 | 2.43 | .706 | 1.070 |
| 20 | Teaching children with autism is better done by special education teachers than by mainstream classroom teachers. | 3.65 | .671 | 3.54 | .704 | 1.823 |
| 21 | Assignments should not be modified for children with autism. | 2.19 | 1.028 | 2.11 | .933 | .885 |
| 22 | Children with autism should have the opportunity to function in mainstream classrooms when possible. | 2.85 | .863 | 2.98 | .782 | -1.645 |
| 23 | Children with autism generally do not require more patience from the teachers. | 1.53 | .862 | 1.43 | .726 | 1.420 |
| 24 | The presence of children with autism will not promote acceptance of differences on the part of children without special educational needs. | 2.40 | .772 | 2.37 | .821 | .470 |
| 25 | It is not more difficult to maintain order in a mainstream classroom that contains children with autism than in one that does not have children without autism. | 2.19 | .941 | 2.13 | .817 | .667 |

| Stat # | Statements | Elementary Schools' Teachers (N=267) | | Special Institutes Teachers (N=230) | | T-Test |
|--------|---|--------------------------------------|------|-------------------------------------|------|--------|
| | | Mean | S.D. | Mean | S.D. | |
| 26 | Increased freedom in the mainstream classroom creates too much confusion for children with autism. | 2.95 | .706 | 2.97 | .723 | -.369 |
| 27 | Segregation in a special classroom has a beneficial effect on the social and emotional development of the children with autism. | 2.91 | .823 | 2.80 | .890 | 1.387 |
| 28 | I would welcome children with autism into mainstream classroom and work with them rather than in a special institutes' classroom. | 2.12 | .953 | 2.01 | .835 | 1.304 |

* 0.05 level (2-tailed)

** 0.01 level (2-tailed)

As a result of a t-test to each of the 28 questionnaire statements, table (9.2) indicated that there are significant differences on five (5) of the statements; four (4) of which at 0.01 level of significance while one statement at 0.05 level of significant. There were no significant differences for the remainder of the 23 statements.

The four statements, which were significant at 0.01, shown in Table 9.2, are the following:

- (4): Inclusion of children with autism can be beneficial for children without disabilities,
- (6): I am capable of teaching and managing children with autism,
- (7): I use appropriate language techniques to interact with children with autism".
- (13): Inclusion of children with autism will not promote his or her social independence.

All of the participants' responses toward the above statements were found to be to the benefit of special institute teachers.

9.5 Factors affecting teachers' attitude towards inclusion

This aspect of the study intended to find if there are any factors that may have affected the samples of teachers' attitudes toward inclusion of children with autism into mainstream classrooms in KSA schools; t-test, one-way ANOVA and Scheffe tests were applied. The

results were tabulated and presented in order to answer the study research question number three.

9.5.1. Nationality of teachers as a factor effecting teachers' attitudes

Table 9.3 below was set to find out if there are any significant differences between Saudi and non-Saudi teachers' attitudes towards inclusion of children with autism into mainstream classrooms.

Table 9.3: T-test; comparing Saudi vs. non-Saudi teachers' sample of the institutes for children with autism, as it affect the mean of the responses toward inclusion of children with autism into regular classrooms.

| Group | N | Mean | Std. Deviation | T | Sig. |
|-------------------|-----|--------|----------------|--------|------|
| Saudi Arabian | 176 | 2.5954 | .22870 | -1.314 | .190 |
| Non-Saudi Arabian | 49 | 2.6420 | .18328 | | |

The mean difference is significant at the 0.05 levels

T-test as in Table 9.3 shows that there were no significant differences as to the effect on teachers' attitudes towards the inclusion of children with autism between the two main study samples of teachers according to their nationality (Saudi vs. non Saudi) in this study.

9.5.2. Age of teachers' as a factor effecting attitude

To find out if there are any differences between teachers' responses because of the teachers' ages, one-way ANOVA test was applied to the data collected, and the findings were presented in Table 9.4.

Table 9.4: One-way ANOVA test, the teachers' sample age affect on their attitudes toward inclusion of autistic children into mainstream schools.

| Age | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|---------|
| Between Groups | 904.745 | 3 | 301.582 | 5.493 | .001 ** |
| Within Groups | 26901.314 | 490 | 54.901 | | |
| Total | 27806.059 | 493 | | | |

** 0.01 level (2-tailed) * 0.05 level (2-tailed)

As shown in Table 9.4, there was significant effect of teachers' age, at 0.01 level, on teachers' attitudes toward inclusion of children with autism into mainstream classrooms in KSA schools. However, since the differences were not clear between age groups, to find out where are the exact differences between different age groups attitude towards inclusion, the Scheffe test, presented in Table 9.5, was applied.

Table 9.5: The differences between age groups as tested by Scheffe test.

| Age (years) | | Less than30 | 31-40 | 41-50 | 50+ |
|--------------|-------|-------------|----------|-------|-----|
| Less than 30 | 73.04 | - | 2.84820* | | |
| 31-40 | 70.19 | - 2.84820* | - | | |
| 41-50 | 70.82 | | | - | |
| 50+ | 68.44 | | | | - |

* 0.05 levels (2-tailed)

It was found, as depicted in Table 9.5, that the Scheffe test revealed significant differences at the 0.05 levels between the teachers whose ages less than 30 years of age in comparison to teachers who were of 31-40 years of age. It was found that teachers who were younger had a slightly more positive attitude towards inclusion of children with autism.

9.5.3. Educational background factor

To find out if there are any differences between teachers' responses as a result of their educational background (Major and level of education (special education. vs. non special education and BSc vs. Diplomas), the one-way ANOVA test was applied to the data collected, and the findings were presented in Table 9.6.

Table 9.6: One-way ANOVA test compared the teachers' sample reactions toward the survey statements, according to their educational background.

| Educational Background | Sum of Squares | df | Mean Square | F | Sig. |
|------------------------|----------------|-----|-------------|------|------|
| Between Groups | 115.479 | 4 | 28.870 | .506 | .732 |
| Within Groups | 27976.913 | 490 | 57.096 | | |
| Total | 28092.392 | 494 | | | |

The mean difference is significant at the 0.05 levels

The One-way test (Table 9.6) above shows that there were no significant differences between the teachers' study sample responses based on their educational background; therefore educational background of teachers in mainstream elementary schools and teachers of special institutes did not have a significant effect on their attitudes towards the inclusion of children with autism into mainstream classrooms of the KSA schools.

9.5.4. Subjects of teaching as factor

To find out if there are any differences between teachers' responses based on the subjects they taught, the one-way ANOVA test was applied to the data collected, and the findings were presented in Table 9.7.

Table 9.7: One-way ANOVA test comparing the teachers' sample reactions toward the survey statements according to their subjects of teaching.

| Subject of teaching | Sum of Squares | df | Mean Square | F | Sig. |
|---------------------|----------------|-----|-------------|------|------|
| Between Groups | 14.064 | 2 | 7.032 | .122 | .885 |
| Within Groups | 27493.560 | 476 | 57.760 | | |
| Total | 27507.624 | 478 | | | |

The mean difference is significant at the 0.05 levels.

Table 9.7 above finds and compares the teachers' reactions according to the subjects they teach. T-test table 9.7 above shows that there were no significant differences between the teachers' attitudes towards the inclusion of children with autism in KSA mainstream schools according to the subjects they teach.

9.5.5. Teachers' experiences as factor

To find out if there are any differences between teachers' responses and attitudes towards inclusion because of their background experiences, the one-way ANOVA test was applied to the data collected, and the findings were presented in Table 9.8.

Table 9.8: One-way nova test: comparing the teachers' sample reactions toward the survey statements according to their experience.

| Experience | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|-------|---------|
| Between Groups | 1054.222 | 3 | 351.407 | 6.384 | .000 ** |
| Within Groups | 26915.084 | 489 | 55.041 | | |
| Total | 27969.306 | 492 | | | |

**Sig at 0.01 levels

As shown in Table 9.8, there were significant differences based on the teachers' experience at the 0.01 levels' and their attitudes toward inclusion of children with autism into mainstream schools. To clarify where and between which groups of teachers' experiences are the differences between; Scheffe test was applied (Table 9.9).

Table 9.9: Scheffe test between groups of teachers' experiences

| Experience | | Less than 1 year | 1-5 | 6-10 | More than 10 year |
|-------------------|-------|------------------|-----|----------|-------------------|
| Less than 1 year | 74.16 | -- | | 3.95197* | 3.90954* |
| 1-5 | 72.03 | | -- | | |
| 6-10 | 70.21 | -3.95197* | | -- | |
| More than 10 year | 70.25 | -3.90954* | | | -- |

** 0.01 level (2-tailed) * 0.05 level (2-tailed)

The Scheffe test was applied as presented in Table 9.9 above, and revealed that there were significant differences at the 0.05 level between the groups of teachers with experience of less than one year with those having experience of six to ten years. Furthermore, as in Table 9.9, there were significant differences at the 0.05 level between the groups of teachers with experience of less than one year with those having experience of more than to ten years. The teachers with experiences of less than one year of experience displayed slightly more positive attitudes towards inclusion in comparison those with between six to ten years of experience. There were however, as in Table 9.9, no significant differences as related to teachers with one to five years of experience in comparison to any of the other groups in the study.

9.5.6. Teachers' training as factor

To find out if there are any differences between teachers' responses because of their earlier training, a one-way ANOVA test was applied to the data collected, and the findings were presented in Table 9.10.

Table 9.10: shows t-test, comparing the teachers' sample reactions toward the survey statement, according to teachers training.

| Group | N | Mean | Std. Deviation | T | Sig. |
|-------|-----|--------|----------------|-------|------|
| No | 246 | 2.6084 | .24094 | 1.465 | .143 |
| Yes | 241 | 2.5775 | .22496 | | |

** 0.01 level (2-tailed) * 0.05 levels (2-tailed)

The t-test in table 9.10 above shows that there were no significant differences in attitudes between teachers with and without training; therefore teachers' training did not have any effect on teachers' attitudes towards the inclusion of children with autism.

9.5.7. Person with autism in the family as factor

Table 9.11 compares teachers' sample reactions toward the survey statements according to whether or not the teachers have a family relative with autism.

Table 9.11: show t-test, comparing the teachers' sample reactions toward the survey statements according to autistic person in the family.

| Group | N | Mean | Std. Deviation | T | Sig. |
|-------|-----|--------|----------------|-------|------|
| Yes | 48 | 2.6355 | .21408 | 1.534 | .130 |
| No | 447 | 2.5851 | .23452 | | |

** 0.01 level (2-tailed) * 0.05 level (2-tailed)

The t-test was applied as in Table 9.11 above and indicated that there were no significant differences between teachers with and without a relative with autism. Therefore, teachers with or without family member of a person with autism did not have any significant effect on

teachers' attitudes towards the inclusion of children with autism into KSA mainstream schools.

9.5.8. Student with autism in class as factor

Table 9.12 compares teachers' reactions toward the survey statements according to whether there was or there was not a person with autism in their classes' before.

Table 9.12: t-test, comparing the teachers' sample reactions toward the survey statements, according to autistic children in class

| Group | N | Mean | Std. Deviation | T | Sig. |
|-------|-----|--------|----------------|-------|--------|
| Yes | 214 | 2.6069 | .22569 | 1.361 | .012 * |
| No | 282 | 2.5782 | .23834 | | |

** 0.01 level (2-tailed) * 0.05 level (2-tailed)

Table 9.12 shows that a t-test revealed that there were significant differences between the teachers' reactions at the 0.05 level according to whether there were or there were not children with autism in their classroom on their attitudes toward inclusion of children with autism into mainstream classrooms. A more positive attitude was found to be toward those teachers who had a person with autism within their classes.

9.6 Teachers' requirement of special skills with inclusion

To identify teachers' attitudes towards the inclusion of children with autism, Table (9.13) presents the total responses and perceptions of the sample towards inclusion, using seven of the survey statements. The statements are: (2); Inclusions of children with autism will mean extensive retraining of mainstream classroom teacher; (20) Teaching autistic' children is better done by special education teachers than by mainstream classroom teachers; (16) Special education institutes are best place for children with autism in the variety of activities that allow the children to demonstrate their strengths; (7) I use appropriate language techniques to interact with children with autism; (6) I am capable of teaching and managing children with autism; (25) It is not more difficult to maintain order in a mainstream classroom

that contains children with autism than in one that does not have children without autism; and (17) Mainstream classroom teachers have sufficient training to teach children with autism.

Table 9.14 presents the two-subsample research groups' (elementary school teachers and autistic institute teachers) responses and perceptions towards inclusion, using the statements of their theme of the survey.

Table 9.13: The overall teachers' responses (% of agreement/disagreement and mean) to the survey statements. T1: Teachers' requirements of special skills with inclusion.

| Stat.# | Statements | N | F & % | SA | A | D | SD | Mean | Std. D |
|--------|---|-----|-------|------|------|------|------|------|--------|
| 2 | Inclusions of children with autism will mean extensive retraining of mainstream classroom teacher. | 496 | F | 360 | 109 | 12 | 15 | 3.64 | .679 |
| | | | % | 72.4 | 21.9 | 2.4 | 3.0 | | |
| 20 | Teaching autistic' children is better done by special education teachers than by mainstream classroom teachers. | 492 | F | 339 | 120 | 21 | 12 | 3.60 | .688 |
| | | | % | 68.2 | 24.1 | 4.2 | 2.4 | | |
| 16 | Special Education Institutes are best place for children with autism in the variety of activities that allow the children to demonstrate their strengths. | 496 | F | 202 | 192 | 80 | 22 | 3.16 | .850 |
| | | | % | 40.6 | 38.6 | 16.1 | 4.4 | | |
| 7 | I use appropriate language techniques to interact with children with autism. | 490 | F | 79 | 220 | 128 | 63 | 2.64 | .900 |
| | | | % | 15.9 | 44.3 | 25.8 | 12.7 | | |
| 6 | I am capable of teaching and managing children with autism. | 486 | F | 91 | 155 | 127 | 113 | 2.46 | 1.044 |
| | | | % | 18.3 | 31.2 | 25.6 | 22.7 | | |
| 25 | It is not more difficult to maintain order in a mainstream | 489 | F | 34 | 135 | 196 | 124 | 2.16 | .885 |
| | | | % | 6.8 | 27.2 | 39.4 | 24.9 | | |

| Stat.# | Statements | N | F & % | SA | A | D | SD | Mean | Std. D |
|--------|--|-----|-------|-----|------|------|------|------|--------|
| | classroom that contains children with autism than in one that does not have children without autism. | | | | | | | | |
| 17 | Mainstream classroom teachers have sufficient training to teach children with autism. | 489 | F | 38 | 105 | 191 | 155 | 2.05 | .917 |
| | | | % | 7.6 | 21.1 | 38.4 | 31.2 | | |

SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree

Table 9.14: The two-subsample research groups' responses (by % of agreement/disagreement and mean) to the survey statements and the sample overall mean. T1: Teachers' requirements of special skills with Inclusion.

| Statements | Public elementary Schools (N=267) | | | | | | Autistic Institutes (N=230) | | | | | | Overall (N=497) | |
|---|---------------------------------------|-------------|-------------|-------------|------|------|---------------------------------------|--------------|-------------|-----------|------|------|-----------------|------|
| | Responses (frequencies & Percentages) | | | | | | Responses (frequencies & Percentages) | | | | | | Mean & SD | |
| | SA | A | D | SD | Mean | SD | SA | A | D | SD | Mean | SD | Mean | SD |
| 2. Special Education Institutes are the best place for children with autism in the variety of activities that allow the children to demonstrate their strengths | 201 75.3% | 53 19.9% | 5 1.9% | 8 3.0% | 3.67 | .662 | 159 69.1% | 68 29.6% | 7 3.0% | 7 3.0% | 3.60 | .697 | 3.64 | .679 |
| 20. Teaching autistic' children is better done by special education teachers than by mainstream classroom teachers | 194 72.7% | 52 19.5% | 11 4.1% | 6 6.6% | 3.65 | .671 | 145 63.0% | 52 19.0% | 10 4.0% | 6 2.6% | 3.54 | .704 | 3.60 | .688 |
| 16. Inclusion of children with autism will mean extensive re-training of mainstream classroom teachers | 119 44.6% | 86 32.2% | 47 17.6% | 514 5.2% | 3.17 | .900 | 83 36.1% | 106 46.1% | 33 14.3% | 8 3.5% | 3.15 | .790 | 3.16 | .850 |

| | | | | | | | | | | | | | | |
|--|------------|-------------|--------------|-------------|------|------|-------------|--------------|-------------|-------------|------|------|------|-------|
| 7. They use appropriate language techniques to interact with children with autism | 22 8.2% | 82 30.7% | 102 38.2% | 54 20.2% | 2.28 | .888 | 75 24.8% | 138 60.0% | 26 11.3% | 9 3.9% | 3.06 | .719 | 2.64 | .900 |
| 6. I am capable of teaching and managing children with autism | 16 6.0% | 49 18.4% | 100 37.5% | 96 36.0% | 1.94 | .895 | 75 32.6% | 106 46.1% | 27 11.7% | 17 7.4% | 3.06 | .869 | 2.46 | 1.044 |
| 25. It is not more difficult to maintain order in a mainstream classroom that contains children with autism than in one that does not have children without autism | 26 9.7% | 67 25.1% | 100 37.5% | 70 26.2% | 2.19 | .941 | 8 3.5% | 68 29.6% | 96 41.7% | 54 23.5% | 2.13 | .817 | 2.46 | .885 |
| 17. Mainstream classroom teachers have sufficient training to teach children with autism. | 26 9.7% | 53 19.9% | 99 37.1% | 82 30.7% | 2.09 | .957 | 12 5.2% | 52 22.6% | 92 40.0% | 73 31.7% | 2.01 | .871 | 2.05 | .917 |

SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree

As in Table 9.14, there is a need for training teachers' in the field of special education teaching expertise; the inclusion of children with autism will mean extensive retraining of mainstream classroom teachers as shown by 94.3% of respondents. The overall mean of the study sample responses to the questionnaire statement number 2 is 3.64. Similarly, 69.6% reacted that mainstream teachers lacked sufficient training, suggesting a need for special education expertise.

Responses towards "teaching autistic' children is better done by special education teachers than by mainstream classroom teachers" (statement 20), which specifically asks about the teacher rather than the school, suggest that 92.3% considered specialists to be better equipped. This is logical, because the reaction fits the teachers' real background educational preparation and training, as it is seen through the high mean of the sample responses (3.60).

The majority of the sample respondents (64.3%) disagreed with the idea that "it is not more difficult to maintain order in a mainstream classroom that contains children with autism than in one that does not have children without autism" (statement 25); the mean of the total responses was 2.16, which suggests a negative attitude, implying a need for expertise in specific approaches to discipline. Teachers of both mainstream elementary schools and special institutes responded with 79.2% agreed to "special education institutes are the best place to demonstrate children' strength" (statement 16) with 3.16 as the mean.

It was also found that the total numbers of respondents that agreed that "they use appropriate language techniques to interact with children with autism" (statement 7) was 60.2%, with an overall positive mean of 2.64. However, as in Table 9.14, it can be seen that a higher mean of 3.06 (positive) respondents of special education institutes teachers' and a lower mean of 2.28 (negative) by mainstream elementary school teachers.

Respondents did not give a clear answer to "I am capable of teaching and managing children with autism" (statement 6) and the answers were they split to almost half and half, with a mean of 2.46. Consequently, as shown in Table 9.14, teachers in mainstream elementary schools disagreed (73.5%) that they are capable of teaching and managing children with autism. The responses of special institutes' teachers agreed (78.7%) that they are capable of teaching and managing children with autism. The mean of 1.94 was found for the responses of elementary school teachers. It was found though, that the mean for responses of special institutes' teachers was as high as 3.06.

9.7 Teachers' perception toward inclusion

Table 9.15 presents the total responses and perceptions of the sample towards inclusion, using six of the survey statements. The statements are: (8) The extra attention that children with autism require will be to the detriment of other children; (13) Inclusion of children with autism will not promote his or her social independence; (24) The presence of children with autism will not promote acceptance of differences on the part of children without special educational needs; (15) The inclusion of children with autism into mainstream classroom will set a bad example for children without disabilities; (21) Assignments should not be modified for children with autism; (11) The full time special education class is the best place for children with autism.

Table 9.15: The overall teachers' responses (% of agreement/disagreement and mean) to the survey statements of the T2: Teachers' Perception Toward inclusion.

| Stat.# | Statements | N | F & % | SA | A | D | SD | Mean | Std. D |
|--------|---|-----|-------|------|------|------|------|------|--------|
| 8 | The extra attention that children with autism require will be to the detriment of other children. | 496 | F | 38 | 80 | 250 | 127 | 2.06 | .850 |
| | | | % | 7.6 | 16.1 | 50.3 | 25.6 | | |
| 13 | Inclusion of children with autism will not promote his or her social independence | 492 | F | 78 | 239 | 132 | 40 | 2.27 | .826 |
| | | | % | 15.7 | 48.1 | 26.6 | 8.0 | | |
| 24 | The presence of children with autism will not promote acceptance of differences on the part of children without special educational needs | 496 | F | 53 | 237 | 156 | 43 | 2.36 | .794 |
| | | | % | 10.7 | 47.7 | 31.4 | 8.7 | | |
| 15 | The inclusion of children with autism into mainstream classroom will set a bad example for children without disabilities. | 490 | F | 91 | 256 | 111 | 34 | 2.18 | .810 |
| | | | % | 18.3 | 51.5 | 22.3 | 6.8 | | |
| 21 | Assignments should not be modified for children with autism. | 486 | F | 50 | 125 | 154 | 151 | 2.15 | .985 |
| | | | % | 10.1 | 25.2 | 31.0 | 30.4 | | |
| 11 | The full time special education class is the best place for children with autism | 489 | F | 156 | 167 | 131 | 35 | 2.91 | .931 |
| | | | % | 31.4 | 33.6 | 26.4 | 7.0 | | |

SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree

Similarly, Table 9.16 presents a separation of the two subsamples (elementary school teachers and autistic institute teachers) responses and perceptions towards inclusion, using the same six statements in the survey.

Table 9.16: The two-subsample research groups' responses (by % of agreement/disagreement and mean) to the survey statements and the sample overall mean. T2: Teachers' Perception Toward inclusion.

| Statements | Public School (N=267) | | | | | | Institute School (N=230) | | | | | | Over- all Mean | SD |
|--|-----------------------|--------------|--------------|-------------|------|------|--------------------------|--------------|--------------|-------------|------|------|----------------------|------|
| | Response (F) & % | | | | | | Response (F) & % | | | | | | | |
| | SA | A | D | SD | Mean | SD | SA | A | D | SD | Mean | SD | | |
| (8) The extra attention that children with autism require will be to the detriment of other children. | 21 7.9% | 38 14.2% | 133 49.8% | 73 27.3% | 2.03 | .895 | 17 7.4% | 42 18.3% | 177 50.9% | 54 23.5% | 2.10 | .841 | 2.06 | .850 |
| (13) Inclusion of children with autism will not promote his or her social independence. | 39 14.6% | 144 42.7% | 81 30.3% | 25 9.4% | 2.36 | .852 | 39 17.0% | 125 54.3% | 51 22.2% | 15 6.5% | 2.18 | .788 | 2.27 | .826 |
| (15) The inclusion of children with autism into mainstream classroom will set a bad example for children without disabilities. | 48 18.0% | 137 51.3% | 55 20.6% | 22 8.2% | 2.19 | .833 | 43 18.7% | 199 51.7% | 56 24.3% | 12 5.2% | 2.16 | .785 | 2.18 | .810 |

| | | | | | | | | | | | | | | |
|---|-------------|-------------|--------------|------------|------|-------|-------------|-------------|--------------|-------------|------|------|------|------|
| (11) The full time special education class is the best place for children with autism. | 87 32.6% | 87 32.6% | 71 26.6% | 16 6.0% | 2.94 | .922 | 69 30.0% | 80 34.8% | 60 26.1% | 19 8.3% | 2.87 | .942 | 2.91 | .931 |
| (21) Assignments should not be modified for children with autism. | 33 12.4% | 65 24.3% | 76 28.5 | 82 30.7 | 2.19 | 1.028 | 17 7.4% | 60 26.1% | 78 33.9% | 69 30.0% | 2.11 | .933 | 2.15 | .985 |
| (24) The presence of children with autism will not promote acceptance of differences on the part of children without special educational needs. | 20 7.5% | 91 34.1% | 124 46.4% | 26 9.7% | 2.40 | .772 | 23 10.0% | 65 28.3% | 113 49.1% | 27 11.7% | 2.37 | .821 | 2.36 | .794 |

SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree

It was found as in Table 9.15 that the full time special education class is the best place for children with autism (statement 11). The mean was 2.91, which is the highest mean of the teachers' perception of inclusion responses. It was found that 65% of the overall study sample agreed with the statement. As in Table 9.16, the mean of the respondents of elementary school teachers is 2.94, while the mean 2.87 were found for special institutes teachers.

It appears that most of the respondents of the sample believe that inclusion of children with autism into mainstream classroom will set a bad example for children without disability with about 70% agreement (statement 15). Within this theme, the teachers' perception (public elementary schools and special institutes' teachers) toward inclusion had the second lowest mean (2.18). Similarly, 63.8% agreed that inclusion of children with autism would not promote his or her social independence, with an overall mean of 2.27. This may suggest that the teachers are not supporting inclusion.

It was also found that 58.4% agreed that the presence of children with autism into mainstream public elementary classroom would not promote acceptance of differences in children without special educational needs (statement 24) Table 9.15 shows that both mainstream elementary school teachers and special institutes teachers had mean of 2.36.

The majority of the sample respondents (61.4%) agreed that assignments should be modified for children with autism (statement 21). The mean of the total responses to this statement was 2.15. This suggests a negative attitude, indicating a need for modification to assignments for children with autism. In the theme teachers' perception of inclusion, 75.9% of teachers in the sample of public elementary schools and special institutes disagreed that the extra attention that children with autism require will be to the detriment of other children. The mean was 2.06, which is the lowest mean in this theme. However, in Table 9.16, it is shown that public elementary schools' teachers had responded with 77.1% disagreement with the statement and similarly with 74.4% by special institutes' teachers who disagreed that the extra attention a children with autism require will be to the detriment of other children.

9.8 Teachers' knowledge about inclusion

Table 9.17 presents responses and perceptions of the study sample towards inclusion, using seven of the survey statements classified under the theme of teachers' knowledge about inclusion. The statements with their numbers within the questionnaire are as follow: (22) Children with autism should have the opportunity to function in mainstream classrooms when possible; (10) Inclusion of children with autism in mainstream schools helps them to learn new social skills; (27) Segregation in a special classroom has a beneficial effect on the social and emotional development of the children with autism; (12) Inclusions of children with autism into mainstream schools help them to learn new academic skills; (18) Children with autism will not be socially isolated in the mainstream classroom; (1) Most children with autism will make sufficient attempt to complete their assignments; (23) Children with autism generally do not require more patience from the teachers.

Similarly Table 9.18 presents responses and perceptions of the study sample towards inclusion, using the same seven of the survey statements classified under the theme of teachers' knowledge about inclusion. Nonetheless, they were separated as of two subsamples (elementary school teachers and autistic institute teachers).

Table 9.17: The overall teachers' sample responses (% of agreement/disagreement and mean) to the survey statements of T3: Teachers' knowledge about inclusion

| S | Statements | F & % | SA | A | D | SD | Mean | Std. D | N |
|----|---|-------|------|------|------|-----|------|--------|-----|
| 22 | Children with autism should have the opportunity to function in mainstream classrooms when possible. | F | 116 | 247 | 95 | 32 | 2.91 | .828 | 490 |
| | | % | 23.3 | 49.7 | 19.1 | 6.4 | | | |
| 10 | Inclusion of children with autism in mainstream schools helps them to learn new social skills. | F | 108 | 261 | 84 | 37 | 2.90 | .828 | 490 |
| | | % | 21.7 | 52.5 | 16.9 | 7.4 | | | |
| 27 | Segregation in a special classroom has a beneficial effect on the social and emotional development of the children with autism. | F | 120 | 209 | 129 | 29 | 2.84 | .856 | 487 |
| | | % | 24.1 | 42.1 | 26.0 | 5.8 | | | |
| 12 | Inclusions of children with autism into | F | 70 | 245 | 134 | 38 | 2.71 | .806 | |

| S | Statements | F & % | SA | A | D | SD | Mean | Std. D | N |
|----|---|-------------|-------------|------|------|------|------|--------|-----|
| | mainstream schools help them to learn new academic skills. | % | 14.1 | 49.3 | 27.0 | 7.6 | | | 487 |
| 18 | Children with autism will not be socially isolated in the mainstream classroom. | F | 62 | 227 | 158 | 44 | 2.63 | .817 | 491 |
| | | % | 12.5 | 45.7 | 31.8 | 8.9 | | | |
| 1 | Most children with autism will make sufficient attempt to complete their assignments. | F | 67 | 169 | 178 | 68 | 2.49 | .901 | 482 |
| | | % | 13.5 | 34.0 | 35.8 | 13.7 | | | |
| 23 | Children with autism generally do not require more patience from the teachers. | F | 26 | 19 | 121 | 327 | 1.48 | .803 | 493 |
| | | % | 5.2 | 3.8 | 24.3 | 65.8 | | | |
| | Mean | | 2.47 | | | | | | |

SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree

Table 9.18: The two-subsample research groups' responses (% agreement/disagreement and mean) to the survey statements and the sample overall mean of T3: Teachers' knowledge about inclusion.

| S# | Statements | Schools | | | | | | | Special institutes | | | | | |
|----|--|---------|------|------|------|------|------|--------|--------------------|------|------|------|------|--------|
| | | | SA | A | D | SD | Mean | Std. D | SA | A | D | SD | Mean | Std. D |
| 1 | Most children with autism will make sufficient attempt to complete their assignments. | F | 31 | 102 | 102 | 21 | 2.56 | .810 | 36 | 67 | 76 | 47 | 2.41 | .990 |
| | | % | 11.6 | 38.2 | 38.2 | 7.9 | | | 15.7 | 29.1 | 33.0 | 20.4 | | |
| 23 | Children with autism generally do not require more patience from the teachers. | F | 18 | 11 | 64 | 172 | 1.53 | .862 | 8 | 8 | 57 | 155 | 1.43 | .726 |
| | | % | 6.7 | 4.1 | 24.0 | 64.4 | | | 3.5 | 3.5 | 24.8 | 67.4 | | |
| 10 | Inclusion of children with autism in mainstream schools helps them to learn new social skills. | F | 50 | 139 | 53 | 20 | 2.84 | .821 | 58 | 122 | 31 | 17 | 2.97 | .831 |
| | | % | 18.7 | 52.1 | 19.9 | 7.5 | | | 25.2 | 53.0 | 13.5 | 7.4 | | |
| 18 | Children with autism will not be socially isolated in the mainstream classroom. | F | 33 | 132 | 79 | 19 | 2.68 | .784 | 29 | 95 | 79 | 25 | 2.56 | .850 |
| | | % | 12.4 | 49.4 | 29.6 | 7.1 | | | 12.6 | 41.3 | 34.3 | 10.9 | | |

| S# | Statements | Schools | | | | | | Special institutes | | | | | | |
|----|---|---------|------|------|------|------|------|--------------------|------|------|------|------|------|--------|
| | | | SA | A | D | SD | Mean | Std. D | SA | A | D | SD | Mean | Std. D |
| 27 | Segregation in a special classroom has a beneficial effect on the social and emotional development of the children with autism. | F | 66 | 119 | 65 | 12 | 2.91 | .823 | 17 | 64 | 90 | 54 | 2.80 | .890 |
| | | % | 24.7 | 44.6 | 24.3 | 4.5 | | | 7.4 | 27.8 | 39.1 | 23.5 | | |
| 12 | Inclusions of children with autism into mainstream schools help them to learn new academic skills. | F | 33 | 65 | 76 | 82 | 2.19 | 1.028 | 37 | 106 | 63 | 22 | 2.69 | .856 |
| | | % | 12.4 | 24.3 | 28.5 | 30.7 | | | 16.1 | 46.1 | 27.4 | 9.6 | | |
| 22 | Children with autism should have the opportunity to function in mainstream classrooms when possible. | F | 60 | 125 | 56 | 21 | 2.85 | .863 | 56 | 122 | 39 | 11 | 2.98 | .782 |
| | | % | 22.5 | 46.8 | 21.0 | 7.9 | | | 24.3 | 53.0 | 17.0 | 4.8 | | |

SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree

In general, as shown in Table 9.17 for teachers' knowledge about inclusion items, the overall mean of 2.47 of the total sample responses to the seven statements of the theme. This means that the average response towards inclusion of children with autism within mainstream schooling in KSA is 2.47/4. Most of the sample's mean responses to each statement of the theme "Teachers' knowledge about inclusion" appeared to be leaning toward the positive side. Still however, the responses to statement 23 ("children with autism generally do not require more patience from the teachers") indicated that teachers of both mainstream elementary schools and special institutes had responded with a rather negative reaction; the mean was 1.48/4, which is very low. Percentage wise, it was found in Table 9.17, that the teachers' responses to the same statement were 65.8% strongly disagree. The total disagreements were 90.1% of the whole teachers' sample of both schooling.

Likewise, in Table 9.18, when each teacher's subsamples responses were analysed separately, the mainstream schools' teachers responded to the above same statement - "children with autism generally do not require more patience from the teachers" - with a disagreement of 88.4%. The autistic institutes' teachers' responses were shown to present more of a disagreement with 92.2%. The mean of the responses were almost equal; a mean of 1.53 was found for the responses of mainstream schoolteachers', while a mean of 1.43 was calculated for the responses of special institutes' teachers.

In Table 9.18, the majority of both of the two subsamples responded with agreement to statement 22: "children with autism should have the opportunity to function in mainstream classrooms when possible". Teachers responded with the highest mean of 2.91 in this theme, with 73.0% agreement. Accordingly, as shown in Table 9.18, special institute teachers agreed with 77.3% and mainstream schoolteachers agreed with 69.3%. Again, the overall mean for "teachers' knowledge about inclusion" is 2.47 (Table 9.17).

9.9 Restriction and limits of inclusion

Under this section, there are two subsections. First, a presentation of the study sample's reactions to the restriction and limits of inclusion as to the questionnaire statements, and the second subsection presents the sample's answers to the open-ended questions pertaining to the restriction and limits of inclusion.

9.9.1. Restrictions and limits of inclusion as reactions to the questionnaire statements

Table (9.19) shows the whole sample's response towards inclusion of children with autism into mainstream schooling, using four of the survey statements that were themed into the teachers' opinion on restrictions and limits of inclusion. The statements are as follow: (3) It is likely that children with autism will exhibit behavioural problems in mainstream classrooms; (14) Children with autism who are placed in special education institutions have better services than children with special needs who are placed in mainstream schools; (26) Increased freedom in the mainstream classroom creates too much confusion for children with autism and; (19) Inclusion will likely have a negative effect on the emotional development of the children with autism.

The above statements will be followed, at the end of this section, by other statements provided by teachers, as responses to the open-ended question of the survey.

In addition to Table 9.19, Table 9.20 shows a separation of the two subsamples (elementary school teachers and autistic institute teachers) responses and perceptions towards inclusion, using the same four statements in the survey of this theme.

Table 9.19: The overall teachers' responses (% of agreement/disagreement and mean) to the survey statements of the T4: Teachers opinion on restrictions and limits of inclusion

| S | Statements | | SA | A | D | SD | Mean | Std. D | N |
|----|---|---|------|------|------|-----|------|--------|-----|
| 3 | It is likely that children with autism will exhibit behavioural problems in mainstream classrooms. | F | 182 | 236 | 57 | 16 | 3.19 | .763 | 491 |
| | | % | 36.6 | 47.5 | 11.5 | 3.2 | | | |
| 14 | Children with autism who are placed in Special Education Institutions have better services than children with special needs who are placed in mainstream schools. | F | 213 | 162 | 83 | 29 | 3.15 | .909 | 487 |
| | | % | 42.9 | 32.6 | 16.7 | 5.8 | | | |
| 26 | Increased freedom in the mainstream classroom creates too much confusion for children with autism. | F | 102 | 270 | 101 | 11 | 2.96 | .714 | 484 |
| | | % | 20.5 | 54.3 | 20.3 | 2.2 | | | |
| 19 | Inclusion will likely have a negative effect on the emotional development of the children with autism. | F | 40 | 224 | 174 | 46 | 2.53 | .778 | 484 |
| | | % | 8.0 | 45.1 | 35.0 | 9.3 | | | |
| | Mean | | 2.96 | | | | | | |

Table 9.20: The two-subsample research groups' responses (by % agreement/disagreement and mean) to the survey statements and the sample overall mean. T4: Teachers opinion on restrictions and limits of inclusion.

| S# | Statements | Schools | | | | | | | Special Institutes | | | | | | |
|----|---|---------|------|------|------|-----|------|--------|--------------------|------|------|-----|------|--------|--|
| | | | SA | A | D | SD | Mean | Std. D | SA | A | D | SD | Mean | Std. D | |
| 3 | It is likely that children with autism will exhibit behavioural problems in mainstream classrooms. | F | 94 | 125 | 36 | 7 | 3.17 | .760 | 88 | 111 | 21 | 9 | 3.21 | .768 | |
| | | % | 35.2 | 46.8 | 13.5 | 2.6 | | | 38.3 | 48.3 | 9.1 | 3.9 | | | |
| 14 | Children with autism who are placed in Special Education Institutions have better services than children with special needs who are placed in mainstream schools. | F | 120 | 87 | 39 | 14 | 3.20 | .888 | 93 | 75 | 44 | 15 | 3.08 | .930 | |
| | | % | 44.9 | 32.6 | 14.6 | 5.2 | | | 40.4 | 32.6 | 19.1 | 6.5 | | | |
| 19 | Inclusion will likely have a negative effect on the emotional development of the children with autism. | F | 36 | 81 | 122 | 22 | 2.50 | .835 | 10 | 93 | 102 | 18 | 2.43 | .706 | |
| | | % | 13.5 | 30.3 | 45.7 | 8.2 | | | 4.3 | 40.4 | 44.3 | 7.8 | | | |
| 26 | Increased freedom in the mainstream classroom creates too much confusion for children with autism. | F | 50 | 149 | 50 | 7 | 2.95 | .706 | 52 | 121 | 51 | 4 | 2.97 | .723 | |
| | | % | 18.7 | 55.8 | 18.7 | 2.6 | | | 22.6 | 52.6 | 22.2 | 1.7 | | | |

According to Table 9.19, it can be seen that, for the statement 19 (Inclusion will likely have a negative effect on the emotional development of the children with autism), 53.1% agreed that inclusion would likely have a negative effect on the emotional development of the children with autism, while 44.3% disagreed. Consequently, the mean (2.53) of all of the responses appeared to be the lowest mean of “teachers’ opinion on restrictions and limits of inclusion.” It can be seen in Table 9.20 that, also for statement 19, the mainstream schoolteachers mean of responses is 2.50 out of 4, while that for autistic institutes’ teachers is 2.43 as the mean of the subsample responses.

Table 9.19 shows that, according to statement 3, the majority of teachers’ sample reported strong support, with 84.1% of teachers agreeing that “it is likely that children with autism will exhibit behavioural problems in mainstream classrooms”, with an overall sample responses’ mean of 3.19 for this statement. It was found that the overall mean was 2.96 of the two subsamples for the themes statements.

9.9.2. Restrictions and limits of inclusion as answers to the open-ended questions

Further analysis under this theme includes, as mentioned earlier, the teachers’ sample responses to the open-ended question of the study survey. The responses have been grouped and included with the teachers’ opinion on the restriction and limits of inclusion. The sample population had responded to the open-ended question in the survey as points with statements. The researcher rephrased them according to its meaning and classified it under select themes; the statements were then translated from Arabic language to English as discussed in chapter seven.

The following are the teachers’ sample responses to the survey question: what are the limits and shortcomings of inclusion of children with autism into regular school? The final copy of the points on teachers’ opinions on restrictions, difficulties, and limits of inclusion, as perceived by the study teachers’ sample, are reorganized and presented in subheadings according to the areas of concern.

Restrictions, and Limits of inclusion on children with autism (particularly when there is no appropriate planning):

- Difficulty for children with autism to merge socially with large numbers of children.
- Not all autistic children can be integrated.
- A negative psychological impact on children with autism that may lead to frustration and a sense of inferiority.
- The children with autism may experience their condition deteriorating when integrated.
- There are no common or specific learning programs concerning the two group's inclusion (children with autism and children without autism).
- Inclusion may reinforce the concept of failure for children with autism (especially when there is no authentic concern from others).
- There are no extra curricula programs to fit all children, including those with autism.
- Schools have no common activities concerning children with autism and children without autism.
- Teachers experience in communicating with children with autism.

Restrictions, and limits of inclusion on children without autism:

- Alienated some of the children without autism because children because of the attention given to children with autism in class.
- Issues pertaining to behaviour management of children with autism, which often causes behaviour issues, and problems with children with autism in the classroom.
- Children may learn inappropriate social behaviours from children with autism.

Restrictions, and limits of inclusion on teachers and school staff:

- Teachers may not be fully qualified to deal with children with autism.
- An underdeveloped school environment that lacks resources and equipment for teachers to manage children with autism appropriately in their classrooms and for the integration of children with autism.
- The teaching staff are untrained and unprepared.
- Most of the schools are crowded, often having a large number of 40 children per class.

- In public education, there are very few who are specialists and interested in teaching people of special needs.

Restrictions, and limits of inclusion expected by society:

- Society is uninformed regarding the acceptance of children with autism.
- Parents of typical children do not accept mixing of typical developing children and children with autism in the regular classroom.
- There are very limited studies on inclusive education and society as yet.

9.10. Advantages and benefits of inclusion

As in section 9.8, there are two subsections in this section. First, the study sample reactions to what are the advantages and benefits of inclusion as to the questionnaire statements, and the other is the sample individual writing about the advantages and benefits of inclusion.

9.10.1. Advantages and benefits of inclusion as reactions to the questionnaire statements

This is the final theme that was identified from the 28 items of the study questionnaire. The four items themed as teachers' opinions about the advantages and benefits of inclusion are: (4) Inclusion of children with autism can be beneficial for children without disabilities; (5) Inclusion offers mixed group interaction that will foster understanding and acceptance of differences among children; (9) Children with autism can be best served in mainstream classrooms; and (28) I would welcome children with autism into mainstream classroom and work with them rather than in a special institutes classroom. The above statements will be followed at the end of this section by other statements provided by teachers as responses to the open-ended question of the survey (see subsection 9.9.2).

Table 9.21 presents responses and perceptions of the whole sample towards inclusion, using the four items of the survey statements (T5). Table 9.22 has presented them, separating each of the two subsamples (elementary school teachers and autistic institute teachers) responses and perceptions towards inclusion, using the same four statements in the survey.

Table 9.21: The overall teachers' responses (% of agreement/disagreement and mean) to the survey statements of the T5: Teachers opinion about advantages and benefits of inclusion.

| S | Statements | | SA | A | D | SD | Mean | Std. D | N |
|----|---|---|------|------|------|------|------|--------|-----|
| 5 | Inclusion offers mixed group interaction that will foster understanding and acceptance of differences among children. | F | 48 | 216 | 154 | 69 | 2.50 | .856 | 487 |
| | | % | 9.7 | 43.5 | 31.0 | 13.9 | | | |
| 4 | Inclusion of children with autism can be beneficial for children without disabilities. | F | 34 | 169 | 176 | 111 | 2.26 | .886 | 490 |
| | | % | 6.8 | 34.0 | 35.4 | 22.3 | | | |
| 9 | Children with autism can be best served in mainstream classrooms. | F | 35 | 135 | 203 | 112 | 2.19 | .873 | 485 |
| | | % | 7.0 | 27.2 | 40.8 | 22.5 | | | |
| 28 | I would welcome children with autism into mainstream classroom and work with them rather than in a special institutes' classroom. | F | 34 | 112 | 192 | 146 | 2.07 | .900 | 484 |
| | | % | 6.8 | 22.5 | 38.6 | 29.4 | | | |
| | Mean | | 2.26 | | | | | | |

SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree

Table 9.22: The two-subsample research groups' responses (by % agreement/disagreement and mean) to the survey statements and the sample overall mean. T5: Teachers' opinion about advantages and benefits of inclusion.

| S | Statements | Schools | | | | | | Special Institutes | | | | | | |
|----|---|---------|-----|------|------|------|------|--------------------|------|------|------|------|------|--------|
| | | F | SA | A | D | SD | Mean | Std. D | SA | A | D | SD | Mean | Std. D |
| 4 | Inclusion of children with autism can be beneficial for children without disabilities. | F | 14 | 80 | 97 | 72 | 2.14 | .880 | 20 | 89 | 79 | 39 | 2.40 | .873 |
| | | % | 5.2 | 30.0 | 36.3 | 27.0 | | | 8.7 | 38.7 | 34.3 | 17.0 | | |
| 5 | Inclusion offers mixed group interaction that will foster understanding and acceptance of differences among children. | F | 25 | 111 | 88 | 36 | 2.48 | .849 | 23 | 105 | 66 | 33 | 2.52 | .864 |
| | | % | 9.4 | 41.6 | 33.0 | 13.5 | | | 10.0 | 45.7 | 28.7 | 14.3 | | |
| 9 | Children with autism can be best served in mainstream classrooms. | F | 21 | 78 | 99 | 60 | 2.23 | .900 | 14 | 57 | 104 | 52 | 2.15 | .842 |
| | | % | 7.9 | 29.2 | 37.1 | 22.5 | | | 6.1 | 24.8 | 45.2 | 22.6 | | |
| 28 | I would welcome children with autism into mainstream classroom and work with them rather than in a special institutes' classroom. | F | 23 | 65 | 90 | 80 | 2.12 | .953 | 11 | 47 | 102 | 66 | 2.01 | .835 |
| | | % | 8.6 | 24.3 | 33.7 | 30.0 | | | 4.8 | 20.4 | 44.3 | 28.7 | | |

SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree

Table 9.21 represents teachers' opinion about the advantages and benefits of inclusion and appears to have the lowest mean of all the research groups, with 2.26. When viewing the themes statements, it can be seen that statement 28, "teachers would welcome children with autism into mainstream classroom and work with them rather than in a special institutes' classroom", had the lowest positive responses of all statements. It was found that 29.3% of the study sample responses positively agreed with the statement. However, 68% of the study samples disagree with the statement and the mean was 2.07.

Results revealed in Table 9.22 showed that 73.0% of special institute teachers disagreed (44.3% disagree and 28.7% strongly disagree) with statement 28 - the idea of welcoming children with autism into mainstream classroom and work with them - in comparison to teachers working in a special institutes classroom. A similar result was found with mainstream schoolteachers, as shown in Table 9.22, where 63.7% of the sample disagree (33.7% disagree and 30% strongly disagree) with the statement.

When the two subsamples of both mainstream elementary schools and special institutes teachers were combined (Table 9.21), there was a 53.2% agreement that inclusion offers mixed group interaction that would foster understanding and acceptance of differences among children. The responses mean is 2.50 for this statement, and the overall mean of the whole theme is 2.26.

When looking at statement 4 (inclusion of children with autism can be beneficial for children without disabilities) within the whole study sample responses (Table 9.21), it can be seen that 57.7 % disagree with the statement, while 40.8% agree, with mean of 2.26. When looking to the two study subsamples, it was found that 63.39% of mainstream schoolteachers (Table 9.22) disagreed with the same statement, with a mean of 2.14, while autistic institute teachers were more positive, but 51.3% of the responses still disagreed, with a mean of 2.40.

9.10.2. Advantages and benefits of inclusion as answers to the open-ended questions

Analysis under this theme segment includes the teachers' sample answers to aspects of the open-ended question of the study survey which have been grouped and included under theme five as describing teachers' opinion on advantages and benefits of inclusion.

The study sample had responded to the open-ended question in the survey in the form of statements; the researcher rephrased them according to their meaning and grouped them together, then translated them from Arabic language to English. The following are the teachers' sample responses to the survey question: what are the benefits and advantages of the inclusion of children with autism into regular school classrooms?

The final copy of the points and items on teachers' opinion about the benefits of inclusion as perceived by teachers of the study sample are reorganized and presented as under subheadings below.

Advantages and benefits of inclusion for student with autism:

- Enhance self-confidence of children with autism.
- Learn academic skills and educational capabilities including language, and become an active member of the community.
- Learn and enhance social and emotional skills.
- Increase communication skills and opportunity for integration with large number of children in classes.
- Increase and enhance many desired skills and behaviours such as critical thinking, simulations, replications and imitations, role-playing and reduce unwanted behaviours.
- Decrease isolation and segregation and promote incorporation, accumulate independence and get children with autism to feel acquainted and be familiarized with large number of children in school.
- Ensure children with autism acquire rights as members of the community to provide them with adequate learning opportunities.

Advantages and Benefits of Inclusion for other Children, Teachers, the Community and Parents:

- Typical developing children can learn and be familiar with how to accept children with autism and accept differences.
- Community awareness about autism is increased as well awareness of special education children.
- Children with autism will be given the opportunity to be in a school that is in the vicinity of their homes.

- For the government and the education department, it will save money and reduce material costs.
- Teachers learn how to deal with individual needs, distinguish and realize the individual educational requirements for all children.

9.11. Summary

In this chapter, data obtained from the questionnaire and interviews from the sample has been analysed in depth. The data, which was gathered from the questionnaire; open-ended questions and interview, were categorised thematically, detailing participants' perceptions towards the inclusion of children with autism. The analysis generally indicates that participants in mainstream elementary schools were less knowledgeable about children with autism and their inclusion than participants of special institutes. The analysis included that participants in mainstream classroom teachers need sufficient training. Importantly, several similarities were found, establishing that participants' attitude towards the inclusion of children with autism is positive with a slightly small difference towards the participants of special institutes. Such differences, along with comprehensive discussion of the study findings as a whole, are discussed fully in the next chapter.

Chapter 10: Discussion of the Study's Results

10.1. Introduction

The main focus of this study is investigating KSA female teachers' attitudes towards the inclusion of children with autism into mainstream classrooms. This chapter relates the findings from the results in chapter 9 to the literature within the research area. It discusses how these findings may add to existing literature on female teachers' attitudes toward inclusion. It exposes the main barriers that may prevent inclusion of children with autism as obtained from the research and suggests recommendations for future studies and identifies changes that may be made in relation to current education policies and practice to ensure inclusive education is successful. For detailed information of the study basis, rationale and the theoretical frameworks behind instruments and methods, see chapters 1, 7 and the appendices.

Participants were asked to respond to a series of statements related to their attitudes towards inclusion of children with autism in mainstream KSA schools. As the focus of the study is predominantly on female teachers, two key reasons for choosing solely female participants were: firstly some studies on KSA male teacher attitudes have taken place in the past, but the experiences of female teachers have not been extensively researched and, secondly, this is an oversight especially since the majority of teachers in elementary mainstream education in KSA are female. Finally, this chapter mainly keeps a focus on the four research questions set out in chapter 1 and forms the sub-sections of the chapter. This to ensure the discussion does not veer off its balance between core research questions and the sub-questions beneath them.

The structure of the following chapter is as follows. Section 10.2 presents a thematic model emerging from the present study on teachers' attitudes towards inclusion based on different factors. Section 10.3, discusses the research findings on teachers' attitudes in general towards inclusion of children with autism in mainstream classrooms. Section 10.4 explores the differences in attitudes of mainstream and institute teachers. Thereafter, section 10.5 discusses factors such as teachers' field and education (subsection 10.5.1), teachers training (subsection 10.5.2), teachers experience after training (subsection 10.5.3) and teachers experience with the children with SEN/autism (subsection 10.5.4) as affecting their attitudes towards inclusion. Section 10.6

discusses teachers' perceptions of the benefits and limitations towards inclusion and section 10.7 provides the theoretical outcomes, which emerge from the research findings. Finally, section 10.8 summarises the discussion chapter.

10.2 Thematic model of teacher attitudes towards inclusion

This section presents Figure 10.1, which identifies a thematic model of teachers' attitudes towards inclusion emerging from the results of the present study.

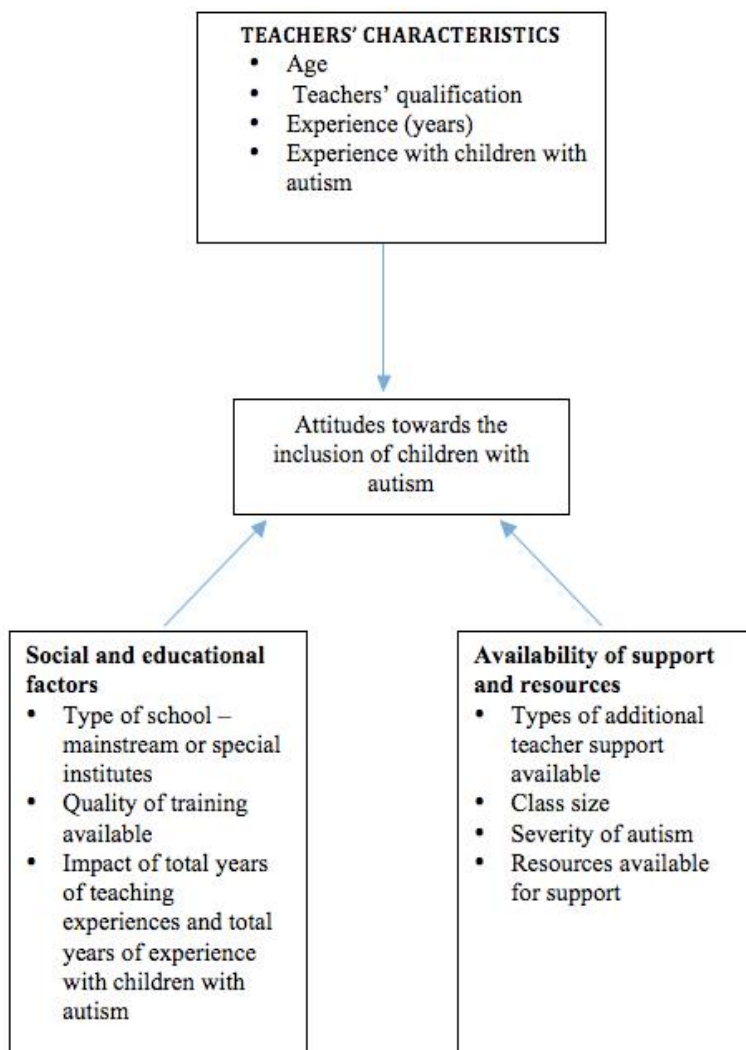


Figure 10.1: Thematic model of teachers' attitudes towards inclusion

Figure 10.1 presents a thematic model of the several variables that affect teachers' attitudes towards inclusion of children with autism in to mainstream classrooms, as obtained from the present study. It comprises of three major factors that affect teachers' attitudes towards inclusion; teachers' characteristics; teachers' social and educational factors, the availability of resources and support from educational administrators, stakeholders and whether the schools' environment is conducive to facilitating inclusive practice. The following sections of this chapter provides in depth discussion of these variables.

10.3. Teachers' attitudes towards the inclusion of children with autism

A number of striking and encouraging results came through with respect to teachers' attitudes towards the inclusion of children with autism. For example seventy six percent (76%) of participants disagreed that "the extra attention that children with autism require will be to the detriment of other children". The strength of this result contrasts similar studies where the interviewees were male. This implies that gender differences do have some influence on thinking and decision making pertaining to the issue of inclusion as greater confidence is expressed by females towards the capabilities of children with autism in comparison to previous studies.

When examining the findings in chapter 9, alongside previous studies focusing on male teachers attitudes towards inclusion, it is arguable that female teachers are generally more emotionally invested in the progress of children with SEN; although this may be a broad generalisation, it is clear that the differences between both genders' view of inclusion indicates a broader, more multidimensional perspective to inclusion when viewed through the lens of gender. This suggests that inclusion is not a clear-cut policy but rather teachers' attitudes towards inclusion are profoundly affected by culture and gender and such findings outline the differences between male and female perspectives on inclusion. Thus studies such as this study provide valuable contributions to the field of inclusive education by providing avenues to further determine why both genders view inclusion differently and thereby further examine and overcome gender barriers affecting teachers' inclusive practice.

Cassady (2011) emphasised that mainstream education teachers' attitudes towards inclusion are affected by the amount of support they have within autism-inclusive mainstream classes. The

findings of this study revealed that, without available support within the school environment, teachers' in mainstream classes display resistance to change; the researcher established from interviews that although teachers were given additional workload, they lacked the training necessary for inclusive practice. Mainstream teachers' attitudes may reflect a lack of confidence in their own skills and in the quality of the support staff available to them. Mainstream teachers' attitudes were positive regarding including only the children with mild SEN characteristics who are not likely to require extra instructional or management skills from the teacher (Avramidis et al., 2000).

Simpson (2004) noted that mainstream teachers must be provided with the necessary curricula and experiences to work in inclusive classrooms, and the results of this study supported this view. There is a sense from findings as to what might be the basis of attitudes displaying disapproval to inclusion on the part of mainstream teachers. There is initial and expected resistance to inclusion that can be understood due to the challenges that may be perceived to occur when integrating a profoundly SEN group of young people within mainstream classrooms. In addition, teachers' resistance to change may be exacerbated by the anxiety caused from concern or resentment about the commitment needed in including children with SEN. Further resentment may arise regarding teachers having to acquire additional skills and training in order to deliver teaching that is not a part of their job description; teachers may consider the role they are expected to take on as one very different from their original expectations.

10.4. Differences between attitudes of teachers in mainstream schools and institutes

The participants (female teachers) fall within two main subgroups: (i) mainstream elementary teachers and (ii) SEN/Autism institute teachers; both groups were randomly and carefully selected (see chapter 7). Reassuringly, the results revealed that teachers from the special education institutes had slightly more positive attitudes than those of mainstream teachers (see chapter 9). Generally, there were differences between the two subsamples responses towards select questionnaire statements. For example, as Table 9.2 & Table 9.15 show, 77.1% of mainstream elementary school teachers (with mean of 2.03) disagree with the idea that extra attention given to children with autism will be to the disadvantage of the remaining children, as opposed to 74.4% of autism institute teachers (with mean of 2.10). Taking into account that institute teachers are more

knowledgeable about children with SEN/autism (see chapter 8), this once again highlights the differences in knowledge, awareness and ultimately attitudes of teachers regarding children with SEN/autism within mainstream and institute teachers.

What was striking about teachers in special institutes having a more positive attitude towards inclusion in comparison to mainstream teachers is that the mainstream schools selected by the researcher in this study were promoters of IDD inclusion, yet the teachers in mainstream schools had a less positive attitude towards inclusive practice. The basis for this is unclear; however it is possible that those professionals working closest with children with SEN/autism in institutes have both knowledge about the children with SEN and also have greater faith in those children succeeding. It may be for this reason that there is uncertainty, on behalf of mainstream teachers, of the unknown when working with children with autism. Teachers working in institutes catering for children with autism may hold more positive views toward inclusion in comparison to mainstream school teachers due to the level of training teachers working in institutes or specialising in special education the area of SEN undertake. This may be because teachers working in institutes are more aware of the consequences that may occur when inclusion is not practiced, as understand that children with SEN will benefit more than from segregation. It is for this same reason that the higher the degree the teachers' received within the field of special education, the more positive their attitudes towards inclusion of the children with SEN were. The impact of training and education on attitudes towards inclusion is further explored more comprehensively in section 10.5 of this chapter.

A further explanation for the differences in attitudes between mainstream and institute teachers is that mainstream teachers may believe that if they work with children with SEN, then they have a greater awareness and sensitivity to the fact that many children with SEN have a variety of disorders or syndromes, including select children with symptoms they can not cope with nor manage or handle. It should be noted that there are a large group of children with SEN who are termed moderate and/or profound learners, although they are actually on the moderate or mild end of the spectrum and not too far from the typically developed children. The point here is that there is greater awareness of SEN among institute teachers who have greater belief and confidence that a significant proportion of those children can viably learn and coexist with children in mainstream schools. At the same time, there are children with profound learning needs that may not be

prepared for integration and therefore it is not easy for them to learn successfully in mainstream classrooms; it is in this case that such children may be rehabbed in segregated institutes.

Since there is a lack of precision over the exact ratios of children with SEN and autism in the KSA, it is simplistic to ignore the wide, complex and broad spectrum of SEN and label all children with SEN as having the same needs. This may lead to the belief that only one policy response is appropriate to facilitate the inclusion of all children with any SEN. There is, instead, a need to segment them and to have bespoke policy responses within the field of education catering to each of these distinct segments. Even for those children with more than mild learning needs, there is the space for inclusion providing that there is some adaptation by all concerned in order to foster learning through children with and without SEN coexisting successfully in mainstream environments.

10.5. Factors effecting teachers' attitude towards inclusion

This section more closely examines different aspects of teacher training and experience and explores how such factors effects teachers' attitudes towards inclusion.

10.5.1. Teachers' field and qualification as effecting factors

This subsection focuses on whether or not teachers' field of study and qualifications were a factor effecting teachers' attitudes towards inclusion, regardless of the type of degree obtained by the teachers. It was found that the majority of the study sample possesses degrees that were either Bachelor of Science (BSc) or a Bachelor of Arts (BA). This finding was surprised the researcher because - only less than 10 years ago - the majority of mainstream elementary school teachers were not educated as university graduates, and mainly obtained teaching diplomas from teacher training institutes. It should be noted, as shown within the demographic results (see chapter 8) and the study main results (see chapter 9), that mainstream teachers predominantly did not hold special education qualifications; if they do hold such qualification, the majority of them are inadequately prepared to teach special education.

Generally, regardless of whether or not teachers have a high degree of qualifications, teachers who are adequately trained in special education are more acutely attuned to and aware of the needs of children with SEN/autism, prompting such teachers to develop a more favourable attitude toward inclusion. While higher education tends to create open mindedness and more positive attitudes towards inclusion, it is not necessarily sufficient in itself in developing positive attitudes and towards inclusion; rather specializing in a special education subject and training is needed in conjunction with specialist degrees in order for teachers to acquire meaningful skills which will aid in successfully promoting the education, socialisation processes and, ultimately, inclusion of children with SEN. Such prior preparation and training ensures teachers are able to create a well-prepared environment for effective inclusive education. Thus, teachers must be acquainted with special education needs and understand the practices and premises behind inclusive education. A further avenue for research would be to identify the extent to which degrees obtained within certain fields create more positive attitudes towards inclusive practices.

10.5.2. Teacher training as an affecting factor

The participants in the present study stressed the importance of training courses for them; mainstream school teachers especially indicated that they were not qualified for teaching children with SEN and had not received the appropriate training. The lack of training and preparedness seems to be the main drive against inclusion among the interviewees and this is consistent with the literature (Lopes, Monterio, & Quinn, 2004). By contrasting the dissimilarity between the mean scores of the teachers' responses without training in comparison with those with training, it can be seen first-hand that the attitudes of practicing teachers towards inclusion improved as their training increased; this is further confirmed by literature (Bekle, 2004; Bandura, 1990).

The study results indicate that there is mostly even split between teachers who did not receive training and those who did. This implies that particular segment of the demographic possess a motivation and willingness for training if they want to teach the children with SEN, and are determined to acquire the necessary skills set to do so successfully. If teachers are resistant to such training, then they have no exposure to both the technical benefits accumulated from such training as well as the chance to make the attitudinal change to being more positive about inclusion. Indeed, abundant literature suggests that training reduces resistance to inclusive practices (e.g. Al-

Khatteeb, 2002; Avramidis et al., 2000; Avramidis and Kalyva, 2007; Bahn, 2009; Buell, Hallam, Gamel-McCormick, & Scheer, 1999; Clayton, 1996; Marchesi, 1998; Menlove, Hudson, & Suter, 2001; Shoho, Katims & Wilks, 1997; Subban and Sharma, 2006; Van Reusen, Shoho, & Barker 2000).

There is a need to address the nature of the training provided in KSA. It is confusing and perplexing that, although the literature indicates that training in KSA is abundant, some participants' of the interviewee teachers disputed the positive effects of the training. They questioned why it was available since it was not helpful in promoting inclusion to begin with. It would not be appropriate to overstate this and it is the case that the greater numbers of participants were positive about relating training to a more positive outlook on inclusion; however, a considerable number of participants held different views. The researcher's believes literature highlighted the training is very important for teachers, yet this was questioned and argued by a significant proportion of the study sample who believed their training in KSA was ineffective. It should be emphasized that the study results depicted that there were no significant differences in attitudes between teachers with and without training; indeed, many teachers in the sample felt that neither they nor their schools were ready for the inclusion of the children with autism.

Mainstream teachers' lack of experience in inclusion and in SEN/autism made them feel unprepared for inclusive classroom teaching. Such need for experiences and training are reflected in the literature as, for example, Loiacono and Valenti (2010), Parasuram (2006), Wilczenski (1991). Many of the special institute teachers in this study, however, explained that they occasionally had opportunities to cover specialist themes like autism during training, but mainly gained knowledge through direct interaction with children with autism in class.

In addition, those who were positive about the effects of training often had some experience of training from outside KSA. A disproportionate number of those who were negative about the effects of training had received training in KSA only. There is a need, then, to discuss and evaluate training practices in KSA. As based on this study, there is the suggestion here that training in KSA is predominantly lecture-based and is not focused on inclusion or autism as such, as is often without the practical nor engaging with children with autism. This does not take into account that each person has different way of learning. No doubt that some learn verbally, some

visually, and others need practice; yet these different learning needs remain unaccounted for during the training programs with the KSA teachers. It is important for training programs to recognise that there are no one instruction or learning way fit all.

Again, this tends to contrast the training regime in most other countries where teachers receive practical classroom teaching as part of the training process to qualify them as teachers. The only module KSA elementary school teachers are likely to take that gives them exposure to SEN is “Introduction to Special Education”, and this module is only taught in some universities. This is very limited particularly when compared to the level of training that teachers in special institutes have. They are mostly holding a BA degree in special education and many with more of concentrations and specializations in certain subjects.

The blended way of training, combining lectures and practical based training is a conducive way to increase knowledge in dealing with the children with SEN/autism. A common model that may assist inclusion, through the collaboration between specialist and regular education teachers, is Wang’s Adaptive Learning Environments Model (Wang, Reynolds, & Walberg, 1998). This model helps teachers to improve their knowledge and skills by providing interactive learning experiences, assisting them in working with each other and adapting new teaching skills through training.

10.5.3. Teaching experience as an affecting factor

Another finding that transformed the researcher’s thinking was that some teachers with fewer years of experience in teaching were more inclined to accept and have more positive attitudes towards inclusion. There were significant differences in attitude between groups of teachers with less than one year’s experience and those with six to ten years’ experience; the most optimistic were teachers with the least experience. Forlin (1995) found that the most experienced educators (i.e., teachers with more than 11 years’ teaching experience) showed the lowest level of acceptance for inclusion of children with physical and intellectual disabilities.

A point of discussion here is that a large number of the sample’s younger teachers were working in special institutes for autism - these institutes being relatively new to the country - and already

had a more solid than usual education in inclusion and autism through course modules than their older colleagues. KSA's Universities and Colleges have only recently started offering a broader range of courses for upcoming teachers, including courses in special needs. This was unusual for the researcher who, when completing her training in KSA, had very limited and narrow options for studying specifically special education in higher education. This means that younger teachers have completed broader range of modules and training, which their older colleagues have not experienced. Over the course of such a time period one can expect there to have been change – usually for the better – in understanding of this area and also of the training of prospective teachers.

Universities, particularly those in the emerging world (which continues to accurately describe Middle Eastern countries), have been significantly re-evaluating their teacher preparation courses in recent years. The researcher believes that care needs to be taken in thinking that there is a ‘cut-off’ in the number of years of teaching that result in shifts in teachers’ opinions whether positive or negative. Rather, it varies from individual to individual. That is to say there is no prevailing school of thought that argues that after X number of years’; however the present study identified that decisive change in attitudes depending on experience are evident so that we can make broad ranging conclusions.

Some studies such as McLeskey et al, (2001), compared the perceptions of teachers who were not working in inclusive settings with those working in well-designed inclusion programs. Their results indicated that teachers in well-designed inclusive programs had significantly more positive perspectives toward inclusion compared to teachers who lacked such experience. A similar piece of research suggested that primary school teachers who were more experience in teaching and trained with children with SEN, found to be more knowledgeable on inclusion than other teachers who were not experienced nor trained (Jerome, Gordon & Hustler, 1994).

However, while in this present study we see a growing consensus that the number of years of teaching does shape teachers’ perceptions on such issues, we also see different researchers suggesting different time periods as being relevant. There are likely to be underlining reasons for this, such as the different contexts in which these researchers conducted their research. With such different contexts come different training and teaching curricula and practices, cultures, pre-

existing outlooks and so forth. In turn, this means that while a teacher in context A may have their perception fundamentally shaped one way or the other after X years, their contemporary in context B may see a similar shaping after Y years. It is sufficient to accept that more recently qualified teachers are likely to be more positively inclined to inclusion than their older peers even if we cannot, at this stage, be prescriptive in terms of the number of years etc., that impact perceptions.

However, there is a further word of caution here. While perception may be positively shaped, Forlin and Chambers (2011) still noted that, in regards to prospective teachers' perceptions regarding (i) their preparedness, (ii) increasing their knowledge about legislation and policy related to inclusion, and (iii) improving their levels of confidence in becoming inclusive teachers, there was a problem regarding the concerns these teachers had about having children with disabilities in their classes. Although teachers' positive perceptions about inclusiveness are genuine, this does not mean that they are without concern or stress over their capacity to successfully manage inclusive classrooms. Such concern and stress does exist and overcoming it is vital to ensure confident and effective teachers and thus successful inclusive classrooms. This is an important insight and it emerges repeatedly among the feedback gathered from teachers over the course of this study.

10.5.4. Teachers' experience with children with autism as an effecting factor

The participants were asked about the presence of autism in their own families. It was felt that asking this was necessary as the experience of autism in close quarters is bound to shape the participants' conduct relating to inclusion of children with SEN. The results disclosed that nearly 90% of the samples had no one with autism in their families. Thus, it is not possible to treat relatives as an affecting factor. Ahmadi (2009) investigated Saudi Arabian teachers' perspectives regarding inclusion, concluding that there was no difference between those who had a family member with SEN and those who did not. In this study it was found however that, nearly 43% of the sample indicated that they had experienced children with autism in their classes.

If we look to the literature in other contexts, the picture is more mixed. Parasuram (2006) reached similar outcomes to the above when examined 340 Indian teachers' perspectives regarding

inclusion. His study indicated that there was no difference in teachers' perspectives between the two groups. However, Thousand et al. (1998) examined the perceptions of special and general education teachers teaching children with SEN in inclusive settings. Teachers who had children with SEN in their classroom changed their views positively in regards to their perspective on inclusion. Al-Faiz (2006) found an overall positive outlook on the part of female and male teachers in KSA who had children and relatives with SEN. These were the factors that most affected teachers' attitudes towards inclusion and it created a further variable to be considered in assessing teachers' perspectives.

Al-AbdulJabbar (1994) showed that the KSA administrators who had more experience with children with SEN had more positive attitudes regarding inclusive education. Dubais (1987) in a study from the 1980s, surveyed special education teachers' and administrators' attitudes toward mainstreaming for children with deafness, blindness, and mental retardation in KSA. He examined their attitudes in relation to four variables, including contact with children with SEN, and noted that these staff had positive attitudes regarding inclusion for these children. Time also plays a vital role in acceptance and tolerance, as the school with the longest experience had the greatest degree of mutual acceptance among all its pupils.

It might be argued, however, that with the relatively low incidence of disability in the wider community in KSA, the population of teachers with relatives who have a child with autism is too low to provide meaningful findings. However, it might also be that the profession does attract a disproportionate number of teachers who have some pre-existing, direct, personal experience that influence their attitudes towards inclusion. This is something warrants further study. Overall, it appears in this study that teachers develop more positive attitudes toward children with autism if they have had prior practice with these children (Al-AbdulJabbar, 1994; Al-Faiz, 2006; Gaad and Khan, 2007; Thousand et al. 1998). There is the implication, however, that attitudes are somewhat dependent on the level of autism.

10.6. Teachers' responses towards inclusion as an effecting factor

This subsection presents discussion of the sample's answers to the study's open-ended questions, interviews and to some of the questionnaire statements (see the result chapter 9). For the open-

ended response questions, the samples were asked to elaborate in writing what they consider to be (i) the benefits and advantages of inclusion and (ii) the limits, restrictions and disadvantages of inclusion.

10.6.1 Benefits and advantages of inclusion

This section discusses teachers' responses to the open-ended questions when asked about the benefits and gains of inclusion. In contrast with previous literature in the context of KSA, it was found that contact with children with SEN (as well as children with autism) was the only demographic variable that showed positive influence on educators' attitudes towards inclusion (Al-Marsouqi, 1980, and Al-Muslat, 1987). Al-Mosa (2010: p.21) stated "mainstreaming children with SEN in KSA regular schools improves some aspects of the children' adaptive behaviour such as independent living skills, linguistic growth, physical development, self-orientation, vocational activity, and social responsibility." Elsewhere, according to Yoon-Suk and David (2011), more than half of their sample teachers believed that inclusion brings social benefits for children with SEN.

In this study it was found that there was a positive correlation between the study samples' attitudes and the ways in which children would benefit when included. There was some consensus in the sample that inclusion would increase and enhance many desired skills in children with autism, such as critical thinking, imitation and role-play, and would reduce unwanted behaviour. Teachers also demonstrated an understanding of the social function of inclusion by indicating that children without SEN learned to accept and understand people who were different from them. The study sample reported that teachers' felt inclusion to be successful when they saw all their children playing together, regardless of disabilities and this coincided and matched with the literature (e.g. Yoon-Suk and David, 2011).

Teachers believed and recognised that inclusion will benefit children on academic, social and emotional levels. They suggested that inclusion of children with autism enhances children's self-confidence, and allow them to be a more active, integrated and participating member of the community, whilst simultaneously enhancing social and emotional development of children with autism. There is the recognition that inclusion does not only have benefits for children with

autism, but also benefits teachers, typically developed peers and the community at large. This strongly indicates that teachers are aware that, by segregating children with autism, this increases the level of isolation and detachment from a wider social community experienced by children with autism. If typically developed children work alongside children with autism in schools, typically developed children will grow and learn to accept differences in general. At the same time as fostering a sense of awareness of differences and creates a deeper sense of understanding not only among peers, but also the community as a whole. The Centre for Studies on Inclusive Education (CSIE) set out that, in interacting on a daily basis, children learn about and from each other, which is an integral part of their education for life. Children's relationships are also influenced by their school's philosophy, as demonstrated by varying degrees of acceptance of children with autism in different schools. The philosophies of the schools, collaborations and relationships are therefore essential in accomplishing the anticipated outcomes of inclusion (CSIE, 2008). Additionally, inclusive practices makes it simpler for children with autism to locate schools within their home vicinity, further and above all creating a sense of belonging for children with autism as they can attend schools alongside others within their neighbourhood.

There are also more economic benefits for inclusion as government and education departments will save money and be able to make use of this money elsewhere. Such savings may be used for improving school environment and providing for sophisticated projects, research, resources and teaching support to further facilitate inclusion. There are also possible personal and professional developments for teachers who implement inclusive practice, as they will become more readily experienced in dealing with individual children's needs. They will recognise that all children – regarding of whether they have SEN/autism – are autonomous, independent individuals with their own unique educational requirements. Such factors can easily be forgotten in a hectic, desperate classroom environment filled with dozens of diverse children, all of whom require their individual needs recognised and responded to, regardless of whether or not they have SEN.

10.6.2 Restrictions and limitations of inclusion

This section discusses teachers' responses to the open-ended questions and interviews responses when asked about the restrictions and limitations of inclusion. As in Table 9.7, 84% of the sample assumed that children with autism would exhibit behavioural problems in mainstream classrooms,

and consequently this would limit the implementation and practice of their inclusion within mainstream classrooms. This segment of the sample believed that when there is greater freedom and independence in a mainstream classroom, this may create confusion for children with autism.

Even if teachers have positive attitudes towards the concept of inclusion, it does not necessarily follow that they are confident with practicing inclusion. This is especially relevant and appropriate as we can make a well-grounded assertion that autism is not regarded as a homogeneous condition as discussed in chapter 5 and section 10.3. The severity of autism and the ability level in each individual, however, must be taken into account. This is an issue raised by a number of interviewees, as well as in writing when responding to the open-ended questions.

A further opinion that filtered into the participants' responses was that a sense of inferiority would have the effect of frustrating children with autism. This is especially relevant as typically developing children might not have knowledge and information of autism, exacerbating the problem for children with autism feeling inferior and isolated. The open-ended responses supported the closed answers to the statements in providing the general opinion that "inclusion may have negative effects on the emotional development of children with autism".

Another more practical cause for such belief was the large number of children in mainstream classrooms in KSA schools. This makes it difficult to manage each child individually. It can make managing those with more challenging behavioural issues more difficult in a class of up to 40 children with no support or assistance from specialised SEN teachers. Class size has long been an issue in managing inclusion. This may mean that children with autism might feel worse when integrated. This would lead them to regress or retreat and may have new behavioural problems or deepen pre-existing ones.

Yoon-Suk and David (2011) indicated that severity of disability and availability of resources frequently influenced teachers' attitudes towards inclusion, regardless of differences in nationality or culture. When the disability level was severe, teachers believed that mainstream classrooms were not an appropriate educational setting (Morberg and Savolainen, 2003). This may be partly due to the fact that in schools there are no extra curricula or programmes designed specifically for children with autism. Teachers are required to create and control a balanced classroom

environment for an unusually wide range of abilities, as well as correctly evaluating each child's ability and suitability for inclusion. This clearly presents a challenge for the teacher who, while perhaps trained on managing an inclusive classroom, almost certainly has no background devising programmes and additions to curricula for such scenarios.

A number of studies have reported the positive impact of inclusion developing the social skills of children with non-autistic (Downing, 2008; Reichow and Volkmar, 2010). Reichow and Volkmar (2010) stated that teaching non-autistic peers to act as social partners through initiating and educating them to be peers' mediators was an effective way to support and help children with autism. However, this does not eradicate the concern that typically developed children might display negativity towards their peers with autism or, even in cases where they were prepared to play and communicate with children with autism. Some typically developed children may be frightened of certain children with autism, particularly those who display sudden frightening or startling behaviour.

Kourea and Phtiaka (2003) identified that peer acceptance is affected by the type and nature of the disability. Although primary age children appear more willing to interact with their disabled peers, there were fewer acceptances of children with profound learning needs and obvious disabilities (Arampatzi et al., 2011). Such rejection may have detrimental effects on the self-esteem and self-worth of children with autism. In KSA adults are mostly expected to take care of such responsibilities, but Norwich (1994) showed that attitudes of typically developing children influence the success of inclusion. This means that giving them a greater level of responsibility might be the key to more successful implementation and practice of inclusion.

Feelings of fright and pity have also been reported (Allen, 2003), together with a dislike of aggressive behaviour (Arampatzi, Mouratidou, Evaggelinou, Koidou & Barkoukis, 2011). This may partly be due to failure in properly preparing children for inclusion, both before and during its implementation. If children do not know what is expected of them in welcoming and caring for children with profound learning needs than theirs, and do not understand the meaning of SEN, they may deal badly with the unknown. However, there is a balancing act in regards to this. We cannot expect young children to have the knowledge or sensitivity to fully grasp these issues. We need to be careful before recommending important teaching time be spent on trying to

teach/explain to typically developed children these issues. Nevertheless, a recent study of Albanian elementary school children, Osmanaga (2013) found that the children's attitude towards their peers with SEN was positive overall. Parental influence is also important. If typically developed children learn from their parents that children with autism are 'stupid' or 'dangerous', they will reject what they have been told to avoid.

Several teachers in this study indicated that chaos, disorder and problems with children with autism in the classroom may cause typically developed children to imitate unwanted behaviours from children with autism. For example one teacher stated that a student without autism will stop talking and will start walking just like a student with autism in class. This is an odd and unexpected finding and one that deserves further investigation in order to assess whether this is negative on either or both children.

10.7 Theoretical framework for findings

As detailed in chapter 4 (section 4.2), various theories describe how individuals develop attitudes and the relationship between attitudes in influencing and affecting behaviours and beliefs. The researcher adapted the planned behaviour and the reasoned action theories. They were initially chosen since they are relevant to this kind of study as they offer constructs and concepts as to the formation of certain attitudes and beliefs. This section briefly discusses how such theoretical models present an explanation of the study sample's beliefs and behaviours towards inclusion of the children with autism. Further discussion and explanation on the selection and justification for using these theories were provided and detailed in chapter 4.

The researcher modified the theories of planned behaviour and reasoned action in order to improve and enhance the theories to fit the KSA context and this study as a whole. In light of the findings presented in chapter 9, and above in section 10.2, Figure 10.2 represents a thematic model of teachers' attitudes towards inclusion constructed from the data obtained from the results of the present study. The theory of reasoned action (Fishbein and Ajzen, 1975) relates to the factors which affect and influence the formation of beliefs, attitudes and behaviours. The researcher's modification of this theory presents a model of specifically the factors that influence the sample's attitudes and beliefs towards inclusion of the children with autism within mainstream

classrooms, and how the decision to hold positive or negative attitudes towards inclusion is affected by several external factors which are often beyond the teachers' control.

The theory of planned behaviour as adapted by the researcher in Figure 10.2 presents an explanation of how a teacher's perception of the ease or difficulty of teaching influences their choices of accepting the children inclusion. This explains why a segment on the sample prefer to distance themselves from children with autism, believing instead that such children require placement in special segregated schools or classes. Teachers in mainstream education stressed that they do not possess the knowledge, skills or adequate resources to teach children with SEN/autism. Other factors that appeared from the study results, and related to these theories are those of environmental variables including class size, resources and the personnel support available to teachers, all of which impacted on the teachers' attitudes towards inclusion.

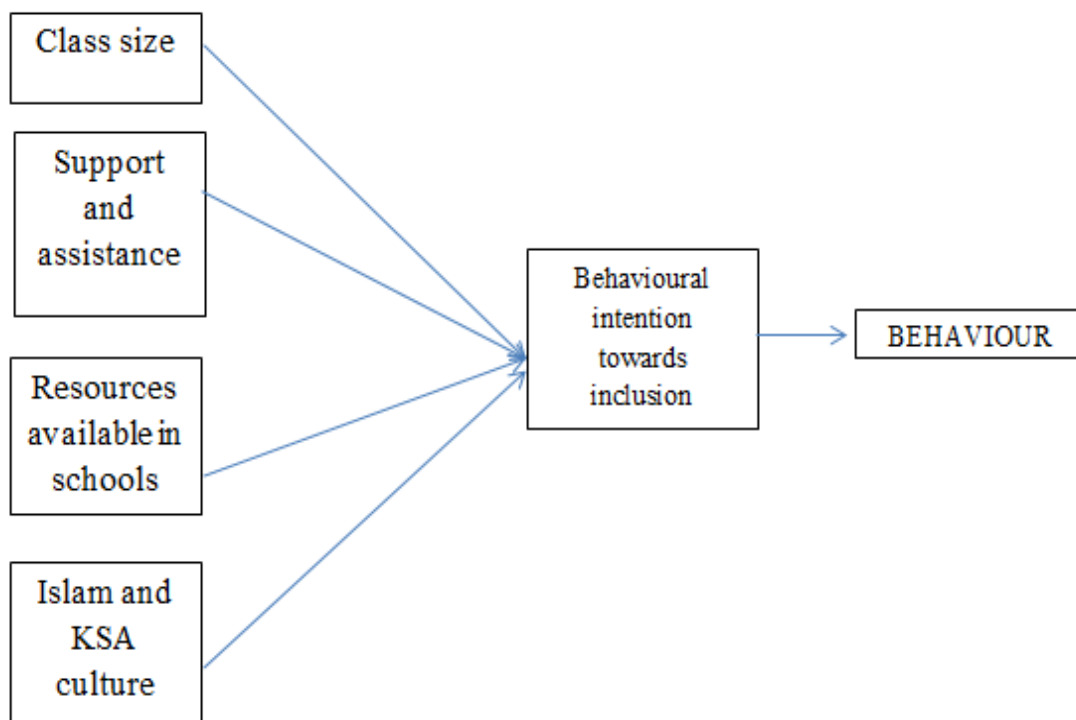


Figure 10.2 Modified theory of planned behaviour

The theory of planned behaviour can be used to assess and provide theoretical support for the findings in the study that suggested that the school environment that teachers' work within is crucial to inclusion (Ajzen, 1988). The researcher proposes that the theory of planned behaviour can be adapted and modified in order to provide comprehensive analysis of precisely how the environment can affect teachers' attitudes towards the inclusion of children with autism. Collectively, using the theory of planned behaviour with the researcher adaptation of such theoretical framework (Figure 10.2) can yield useful insight into teachers' perceptions of barriers. It may hinder inclusion as it reveals that obstacles to inclusion are often as a result of environmental constraints beyond teachers' control, which impact teachers' inclusive practice, rather than teachers' attitudes alone. By identifying how the environment affects teachers' attitudes towards inclusion, adequate action based policies to improve the quality of the environment can be suggested.

It emerges that while conceptually all stakeholders might accept the idea that children with autism can be included, it has to be when schools' environments and teacher training are adapted appropriately. Indeed the theory of planned behaviour provides theoretical support for this, i.e. that the environment the teachers work within is crucial to inclusion (Ajzen, 1988). The reasoned action theory would assist in clarifying the association between teachers' knowledge, attitude, and behaviour regarding inclusion (Kos, 2008). This is because findings into teachers' attitudes towards the benefits and limitations of inclusion were affected by what teachers considered they knew about inclusion of children with autism. This means that these were their reactions to the concept of inclusion, rather than true knowledge

10.8. Summary

A number of key issues emerge from this discussion of the results. New knowledge has been uncovered over the course of this study, which adds significantly to the stock of knowledge already present in this area. The analysis and discussion in the current and previous chapter showed that this study, as well as the literature in general, strongly supports a view that teachers' attitudes toward the inclusion of children with SEN/autism in mainstream KSA schools is a good, positive, and achievable object. The results also showed, however, that teachers of special institutes for children with autism had more positive attitudes toward the inclusion of children with autism than those of mainstream elementary teachers. The demographic group that was most positive about inclusion was the younger and less experienced segment of teachers. This was

partly due to recently updated training programmes and institutes in KSA, which give a far better grounding in autism and, consequently, inspire greater confidence. Surprisingly the study showed that knowledge and training did not make much of a difference to attitudes toward inclusion though there was some positive bias on the part of teachers with experience of teaching children with autism. The main difference in perspectives correlated with the surveyed age and their experiences with children with SEN/autism in class.

Despite an initial concern and suggestion that cultural attitudes would be a key barrier to inclusion, it was found that teachers' religious outlook overcame/counter-balanced any negative and regressive cultural influence. Such teachers may hold a view rooted in their traditional religious outlook that autism was not a source of shame but part of life's essential variety, and that children with autism should be supported. Teachers' general lack of confidence in existing support, school environments and resources for inclusion proved a far more important factor in discouraging them.

There is an overwhelming suggestion of teachers' having generally positive attitudes towards the benefits and advantages towards inclusion. They are clearly aware of and recognise the potential benefits of including children with autism within mainstream classrooms. However, despite such recognition, teachers require adequate support, resources (such as management of class sizes and the quality of the environment itself) and training, all of which appear to be barriers in teachers acting on these values of inclusion in KSA. We can conclude that the inclusion of children with autism in KSA should be judged and considered according to individuals' levels of severity and abilities. Among the recommendations that emerge from interviewees is that perceptions toward inclusion should be assessed to improve understanding and support for inclusion. Procedures to determine suitability for special education services should be based on the findings of specialised teams of different subjects. Finally, schools should consider providing related services and rehabilitative support to their SEN/autism children, particularly in occupational, physical, and other components.

The following concluding chapter reflects on the implications of the complete study, setting out the research's strengths (mainly the study theory and methodology) and limitations. Recommendations will follow for future research and for changes to educational policy that should be made in KSA to help implement large-scale inclusion of children with autism into mainstream schools.

Chapter 11: Conclusions, Implications and Reflections

11.1. Introduction

This final chapter of the study provides some concluding remarks. The chapter identifies the strengths of this study in section 11.2; section 11.3 assesses the limitations of the study, and provides some recommendations for future research. Further recommendations for future special education policies are presented in section 11.4, followed by section 11.5 that outlines the conclusion of this research study. The chapter ends with section 11.6, presenting a final note on the researcher personal reflections on her PhD development journey.

11.2. Strengths

Using a mixed methods approach for obtaining data through combining interviews and the questionnaires was one of the primary strengths of this study. The mixed method approach provided a depth and breadth of information and a means to cross analyse questionnaire and interview data. Analysing both sets of data allowed the researcher to make comparisons between the demographic and the interview data in order to identify whether one set of data confirmed and affirmed the findings of the other. Such correlations between data sets provided more substantial validity to the data obtained. By combining questionnaires with open-ended questions in interviews, teachers were able to describe the major obstacles and barriers inhibiting acceptance and successful implementations of inclusion. This was successful as participants were also able to use their own words to formulate responses, rather than being limited to use questionnaires. This also accounted for different comfort levels of the participants; some participants preferred to answer questionnaires, whilst others prefer discussions in interviews because of the rapport between interviewer and interviewee. The revision and adaptation of the instrument (as described in chapter 7) also ensured that it was well suited and adapted to the KSA context to avoid alienating participants.

A further strength of this study was the large sample size. Two groups of almost six hundred female teachers from mainstream schools and special institutes participated in responding to the study questionnaire and 12 teachers from both sites were interviewed. This is considered an adequate sample size to create confidence in the reliability of the results. In addition, this study, as

far as the researcher is aware, is one of the first to investigate only the growing number of female teachers working in institutes for children with autism in KSA. As growing numbers of females are professionally involved within education in KSA, it is vital that research such as this begins to illuminate female teachers' attitudes towards inclusion in order to raise awareness for the optimum methods to take in order to improve inclusive practices within KSA.

11.3 Limitations and recommendations for future research

The main limitations of this study are concerning the lack of awareness development in KSA regarding inclusion of children with autism; as far as the researcher is aware, it is evident that there was limited research on the subject in KSA. The study was limited to KSA teachers of mainstream elementary schools and institutes for children with autism at Riyadh City. Having the findings limited to particular schools, city (Riyadh) and country (KSA) due to the sample methods, we cannot make broad generalisations from the results obtained in this study, however it is possible that the findings from this study can be applied to a wider context. Future studies can be conducted within pre-elementary and secondary school levels to gain insight into the knowledge and attitudes of female teachers towards inclusive education across broader academic levels. There are now many SEN institutes in Riyadh, which are not "only" for children with autism, though they may include children with autism as well. Future research can focus on these institutes to identify whether teachers' working in such institutes hold different perspectives towards inclusion in education for a range of SEN.

One of the questions that may arise in future research asks to what extent the attitudes of participated teachers in this study concerning inclusion compare to the attitudes of teachers in other schools, cities, or countries. Similar research can potentially be conducted in other parts of KSA, different countries, and across all school levels. It should be noticed that, although the government schools represent the majority of schools in KSA, there are more private (non-governmental) elementary schools in Riyadh, which were not included in this study.

Personal interviews and statistical analysis indicated that the sample of teachers from special institutes had a slightly more positive attitude towards the inclusion of children with autism. Written responses of the participants indicated that they perceived a lack of training as contributing to being ill equipped to foster inclusion within classrooms. The potential relationship between training and attitudes towards inclusion needs to be further explored.

Due to time constraints, the present study did not go into detail regarding the nature of the teachers' present training. Future studies should involve teachers in relevant training programmes and the nature of the training should be made known to the researcher in order to assess, evaluate and measure the impacts after training on teachers' knowledge, attitudes and behavioural responses towards inclusion. In order to do so, longitudinal study designs with in-classroom observations, together with pre and post training questionnaires and interviews can be used in order to evaluate the impact of training on the teachers. Further, in-classroom observations provide a great legitimacy to the results as the researcher is able to evaluate first-hand the teachers' attitudes and practice.

As this study used only a sample of teachers, further studies of this nature can also explore the feelings and perspectives of classroom peers. Both children with and without autism are useful in providing a rich picture of inclusion practices. Parents and other school personnel viewpoints and knowledge of inclusion for children with autism can also provide avenues for further research. The literature indicates that a major problem for effective intervention and inclusion for children with autism is poor communication and collaboration between school staff, colleagues, and families (Turnbull and Turnbull, 2001).

Future research must identify and evaluate the causes that both prevent and promote an inclusive educational system in KSA. Cooperation and effective communication among teachers, administrators, lawmakers, and families should be observed. In depth studies are needed on variables related to school environments such as building structures and arrangements, instructional technologies, curriculum, and the availability of different school materials, focusing particularly on number of students in school classrooms. Community, family and educational environments support are major factors within the inclusive education process. Such interactions and interventions would specifically strengthen special education programs, and the public education as a whole.

The mixed methods approach was a highly valuable aspect of this study (section 11.2). The study may have yielded different or alternative insights if the research design used was a sequential explanatory method, rather than the convergent parallel design. The sequential explanatory method may have provided analyses of the results produced through the questionnaire, identifying

some gaps in the research, and then applying such information to construct the interview questions.

Further, socio-cultural restrictions limited the researcher recording the audio through the interviews. Information had to be quickly noted down, which may mean some data was accidentally omitted and the researcher would have been preoccupied with noting down information, rather than paying close attention to what was being said. The researcher often refined the transcripts after the interview and had to rely on her memory when doing so, further highlighting the potential for unreliable data.

It is important to note that references to inclusion should not be interpreted as being without exception as there is a spectrum of SEN conditions made further complicated by the ranges of severity for each of these conditions. The focus of this study was not to explore the broad spectrum of SEN across ranges of severity; however it is apparent from the literature surveyed and some of the informal feedback obtained from teachers in the primary research data gathering process, that a mass of children with SEN are allocated towards the mild end of the spectra. They are within a bandwidth of severity that makes it possible for them to be included in mainstream classrooms. Consequently, further research is needed into how inclusive practice engineered by teachers is affected by the severity of the condition they are dealing with, and whether specific training needs to be implemented for teachers dealing with children with more severe SEN.

11.4 Recommendations for special education future direction policies

From the findings of this study and from reviewing the literature, the researcher considered the following recommendations for future directions in KSA inclusion in education and special education policies. Changes in schools have been driven by KSA education officials' goal to ensure all children are as academically successful as their global peers.

During the 2008 to 2009 academic year, renovations were made to the KSA "general education curricula". This conditioned KSA academic policymakers to provide more opportunities for all children, especially children with SEN, to maximize their academic and social potential compared to not just their local, but also their global peers. There is, however, still a great deal of missing data regarding the inclusion of children with autism into mainstream schools; such omissions need to be taken into consideration by KSA, as the present study findings indicated. Examples for improvements are through teachers' training, curriculum, teaching methods, the general

environments of mainstream schools, as well perpetuating whole society awareness and understanding of inclusion. KSA officials could benefit from these study findings, by refining different components and segments of special education. For example they could improve what the teachers considered as the limitations and restrictions of inclusion of children with autism within mainstream education.

Findings of this study revealed that the participants' overall attitudes toward inclusion were positive. The need for support from teachers throughout the process of inclusion is one of the most critical implications of this study. As Larrivee and Cook (1979) indicated, for any special education program or any educational program to be successful, positivity from teachers is fundamental. The attitudes of the mainstream schools teachers towards the inclusion of children with autism were somewhat less positive than the participants of special institutes' teachers. A reason for this may be that the mainstream teachers were older and had their fears concerning whether inclusion of children with autism is a viable due to constraints of the school environment (such as class size, teachers knowledge and peer support).

MOE and the government of KSA as a whole should minimize the resistance of change that elder teachers may show, especially when this would affect children with autism. This can be done via different educational channels, avenues and other means of informing, enlightening, as well as through training, advising and counselling. The participants in this study indicated that current teachers' qualification programs, courses or training provided are lacking depth and focus very minimally on the practical nature of teaching children with SEN. This confirms that KSA needs to provide comprehensive training for better inclusion qualifications for SEN/autism education. Participants reported that they lack the knowledge and skills needed to make adaptations to an inclusive educational environment; they emphasise that for training to meet the needs of inclusion of children with autism it should be restructured, modernized and rationalised.

This study can help guide teachers and head teachers through training pathways that are available for them. The MOE in KSA could also identify and develop new methods for encouraging teachers to deal with children with autism, especially for those teachers who were out-dated in training. In addition, this could help in detecting the needs to analyse and evaluate resources to aid with teacher for children with autism and other SEN. Ultimately, the MOE should consider joining new approaches and different educational resources for lessons' developments other than the old approaches of instruction on teaching methods.

The inclusion of children with autism in KSA mainstream schools requires the investment of different resources. For KSA this involves a major foundation of change in educational programs, training institutes, and approaches to inclusion. The academic environments must be adapted for children with all types of SEN, especially for those with autism. Officials must be more stringent with teachers who are teaching children with SEN by insisting that teachers are required to have accreditation for assisting children with SEN who are included within mainstream schools. KSA should consider the long and short-term outcomes in order to bring about such modifications. The KSA government in general and MOE in particular, ought to construct legislation to provide knowledge clarifying and assisting the policy and include benchmarks for inclusive structuring. This would at least put the teachers on the right path towards inclusion and guide them in the implementation process.

A short-term measure by the MOE should be considered. Statistical evidence should be provided regarding KSA's special education and existing service resources. Such assessment would provide KSA officials with improved understanding of the resources available in the Kingdom. This is to enable the construction of education policies and practice that helps guide children with autism/SEN towards academic and social excellence. The MOE should consider reviewing evidence-based practice to cautiously or analytically find any complications that might exist and impact teachers' eagerness to work with children with autism.

The long-term considerations and resources that the MOE should consider are improving the completion of inclusion of children with autism in mainstream KSA classrooms. There is a need for specialised improvement for human and educational resources for general education to help with the new reform and facilitate new training for teachers who are less qualified. KSA policy makers should establish special education programs and curricula in all KSA universities; expanding universities' special education programs are essential and such programs should be well developed and funded. Improving training for teaching special education within teachers' preparation programs in the long run will strongly enhance the children' learning and achievement. There is the need for in-service teacher training for those who are already in the field to enhance the quality of autism programs in KSA as well as for inclusion. In-service training may be developed around different areas of focus. For example the accuracy of teaching, direct instructions, intervention programs, curriculum-based assessment, social, educational characteristics and behaviours of SEN children to be included in mainstream schools.

Any inclusion program, should take into consideration the role of parental involvement in the successful inclusive education for children with autism. Previous studies (Al-Abdulghafour, 1999; and Campbell et al., 1992) showed that the family is an essential factor in special education improvements (Gonzalez, Brusca-Vega and Yawkey, 1997). If parents better recognise their children's educational needs, the children could gain significant improvements in learning, progress and overall achievement. Teachers, parents and communities should work together to assist children's learning processes.

A nationwide awareness program to encourage positive attitudes regarding children with autism must be implemented. The program should focus on providing information and raising collective awareness about the needs, the causes, diagnosing and the implications for quality of life for each person with autism. Governmental authority needed to know that children with autism are a valuable part of society if they are provided proper education. The number of inclusive schools for SEN children in general and for children with autism in particular must be increased to ensure that every parent of a child with SEN has easy access to a location nearby in their areas.

Overall, those directly involved in implementing assimilation plan are essential to the success of any inclusive system. Such plans for assimilation, rather than being based on "individual direction" must be a "systemised regulation or decree" especially when it affects children with SEN in general and children with autism in particular. The researcher believes that the KSA education system needs laws that define the new system, research to support and contextualize it, and the resources needed to implement it. The MOE allows the public to have access to such plans, in order for the public to assess and evaluate their proposals because, although providing services to children with autism are complex mission; the key for offering it is comprehensiveness, interagency, and interdisciplinary contributions and involvement.

11.5 Conclusion

This study has achieved two key things in regards to previous research. The first of these is to reassure us as to the continuing validity of the respected and commonly cited research that examining the area of inclusion of children with SEN/autism. The second achievement is that there have been new insights that add to the body of knowledge in this area and taken the research forward. As both these achievements have been undertaken within an educational context that is significantly under-researched and among a population pool of teachers never previously surveyed

itself represents a third important accomplishment. This, importantly, has the effect of ‘universalising’ research done in this area up to now. Literature around the topics of inclusion of SEN/autism has focused primarily on the diverse, dynamic, first world context of Europe and North America. This may propose a distorting effect on the outcomes obtained from such research, as they may not produce conclusions that are universally applicable to a global context, which may provide restrictions to such findings, as researchers would have to restrict their findings to the contexts they studied. Studies such as this, conducted in the substantially more closed, homogenous, static and emerging context of KSA, are therefore valuable in obtaining research findings that represent an under-researched population of teachers. The researcher problematized the term “inclusion” for the participants; this was an unpredictable research outcome that went beyond the outcomes initially proposed for this study. As such, one of the contributions made by the researcher is developing the concept of inclusive education for the participants by encouraging them to view inclusion differently within the KSA context, which points towards the cross-cultural aspect of this study.

It is apt at this point to restate in summary form the key results that reinforce previous findings, the new knowledge that has been created, and what all this tells us about future recommendations and/or best practices and future research. There are differences among teachers in how they perceive the viability of inclusiveness depending on experience with teaching with special needs’ children. Those who have such experience are more positive about viability; and there is scepticism regarding inclusion for children with autism among those teachers with no such experience.

It is evident, then, that from a policy making perspective, although arguments about the viability of inclusiveness is largely based on research, we cannot take this as a green light to radically change our educational systems and implement an inclusiveness strategy without further delay. It is plain that there are doubts that need to be overcome among teachers with no experience of teaching children with SEN. Better informed and more comprehensive training covering both the theoretical and practical implications of including children with SEN needs to be provided to teachers, but crucially there is a genuine dialogue needed with those resistant to notions of inclusiveness and who feel they are having something imposed upon them, that is far away from what their original expectations were. What will not work is simply imposing upon reluctant teachers a new regime especially one that involves children that could be disruptive if they feel neglected, unwanted, or otherwise alienated.

This chapter provided suggestions for the resources and services needed for inclusion of children with autism. This may help the MOE and universities to design new programs, structures to be built and incorporate the feedback from teachers to identify the training and facilities needed. Such suggestions fulfil the aims of this study, which was to offer detailed and practical insights that inform the MOE, universities and other learning institutions in KSA, to encourage such stakeholders to provide pre-service and in-service teachers the practical training needed in inclusion and autism.

Since there are limited studies on KSA female teachers' attitudes and beliefs concerning inclusion of children with autism into regular classrooms, a further aim of this study was to add a piece of research to the literature on inclusion of children with autism from the perspective of KSA female teachers. The study findings inform the MOE to help upgrade the quality of educational inclusion services for children with autism in female mainstream classes, as well as improving schools for SEN children in general.

Further research and studies by professionals are needed in different aspects and areas of SEN and inclusion to make inclusive education possible for children with autism. MOE and Universities' administrators as well as researchers should respect and appreciate seriously the mentioned recommendations. For example; increasing the number of special education courses and programs in universities for pre-service teachers and providing in-service teacher's training programs, establishing new inclusive schooling in all cities and neighbourhoods at different parts of the country. Finally media should be involved in improvements of special education programs and the life of KSA children with autism. If inclusive education is to be effective, mainstream schooling need to be more active in identifying the obstacles that individual learners may encounter. This is not a challenge schools can achieve by themselves and requires policy, resources, strategy and oversight from national sources.

11.6. Personal reflections on PhD development

The development of my PhD journey began in the second semester of 2006. While I was in KSA, the researcher was required to do practicum teaching for a semester prior to BA graduation. The researcher was directed to teach in a special education private institute for children with autism. Since then the researcher began speculating why children with autism were kept segregated while

many of them could be at a mainstream school. At the time, the researcher was not well aware of autism and began reading about it, inquiring into what the teachers views and opinions were regarding including such children with typically developed children in mainstream classes.

Since then and especially within the last few years, in KSA private SEN institutions and centres for children with autism have seen a dramatic increase in numbers and distributions within the main cities. The researcher wondered: why is there segregation? Why do ASD children not have access to full opportunities as other children? What if the government decided – as the researcher believes should (and it may be very soon) – to implement and enforce the law of inclusive education for children with autism into mainstream schools. Then, what would be the teachers' attitudes towards such action? Are teachers prepared? Are the schools and the Ministry of Education ready?

The researcher had the opportunity to comprehensively learn, understand and realise how the special institutes work, i.e. how they provide services for children with autism. Visiting several centres and institutes for children with autism gave the researchers an opportunity to observe, detect, understand and appreciate such institutes. The researcher had the chance to visit “the Saudi Autistic Society” as well as the “Charitable Society for Autism Families” and acknowledge what they are doing for children with autism and their families. The researcher had the opportunity to meet and talk with people in KSA who have been strong, influential voices in raising awareness on those with autism and SEN education in general. This in particular was both inspiring and admirable.

The PhD journey prepared the researcher to learn and gain the necessary skills in different levels of the research process. The researcher had gained multiple and different kinds of experiences from joyful to painful, which the researcher summed up as the joyful first and the painful last. The researcher enjoyed learning about the cultural perspective that teachers had, and getting the opportunity to be in a field working for research, networking with researchers, visiting different kinds of institutes and attending related conferences, seminars, lectures and alike. The researcher had the opportunity to meet some parents of children with autism. At the University of Leeds, the researcher worked with research colleagues and attended seminars, workshops, lectures and more. The researcher completed modules relating to her research and interests and had access literature related to her study and around the educational system, which helped in opening up her critical thinking. Having consultations with teachers and lectures of SEN and various other skilful

professionals from the developed programs, gave opportunities to thinking more broadly about the cultural implications of inclusion and SEN.

Being a PhD researcher at the University of Leeds, UK from late 2010 to mid-2015 gave the researcher different kinds of assistance in developing several principles and values of research process. The use of theoretical models in this study advanced the researcher's thinking and affected her accomplishments. It helped the researcher to appreciate how teachers' attitudes and opinions could affect the inclusion of the children with autism and affect the typically developed children in their class and in the way of their teaching.

Throughout my PhD journey, the knowledge the research has developed has changed her way of thinking and confidence and has made the researcher better equipped in her field and will within her professional commitments. The researcher had the opportunity to learn new content every day and develop a better understanding of how it is to be a researcher in the field of inclusive education.

Certainly with all benefits, there were the ups and downs; days where the researcher saw herself as hopeless, weak, confused, frustrated, partly due to wanting to have a well-designed, useful study and also because of leaving my whole family back in KSA. The researcher believes that she can make changes for the best for children with SEN/autism and their families in KSA.

References

- Adams, J., Edelson, S. M., Grandin, T., & Rimland, B. (2004). *Advice for parents of young Autistic Children*. Autism Research Institute. Retrieved Nov 2, 2012 from: Autism Research Institute/notice/webcasts.
- Afeafe, M.Y. (2000). *Special Education in Saudi Arabia*. Retrieved from:
www.khayma.com/educationtechnology/PrvEducation3.htm
- Ainscow, M. (1995). *Education for all: Making it happens*. Paper presented at the International Special Education Congress, Birmingham.
- Ainscow, A. (1999). *Understanding the development of inclusive schools*. London: Falmer Press.
- Ainscow, M. (2005). Developing inclusive education systems: what are the levers for change? *Journal of Educational Change*, 6 (2), 109-124.
- Ainscow, M., Booth, A., & Dyson, A. (2006). *Improving schools, developing inclusion*, London: Routledge.
- Ajzen, I. (1988). *Attitudes, personality and behaviour*. Milton Keynes: Open University Press.
- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211 (1991).
- Allen, E., and Cowdery, S. (2005). *The exceptional child: Inclusion in early childhood education*. Albany, NY: Delmar.
- Al-Abdulghafour, M. (1999). A Study of Attitudes of Teachers and School Staff in general Education toward exceptional children in the general elementary schools. *Kuwait Educational Journal*, 8(15).
- Al-Abduljabbar, A. (1994). *Administrators' and teachers' perceptions of inclusive schooling in Saudi Arabia*. Unpublished doctoral dissertation, Southern Illinois University, Carbondale. USA.
- Al-Abduljabbar, A. & Masoud, W. (2000) *The opinions of principals and teachers towards inclusion programs*, King Saud University, Deanship of Scientific Research, Educational Center, College of Education. Riyadh, KSA

- Al-Faisal, S. (2012). Personal communication, General Directorate of KSA Organization for Children with Autism Families, Riyadh, KSA
- Al-Faiz, H. (2006). *Attitudes of elementary school teachers in Riyadh, Saudi Arabia toward the inclusion of children with autism in public education, (Doctoral dissertation)*. Available from ProQuest Dissertations and Theses database. (UMI NO. AAT 3262967).
- Al-Ahmadi, N. (2009). *Teachers' Perspectives and Attitudes towards Integrating Students with Learning Disabilities in Regular Saudi Public Schools*. Unpublished doctoral dissertation, the College of Education, Ohio University.
- Al-Ahmed, N. (2010). *The Teacher's File*. A paper presented at college of education conference, King Saud University, Riyadh, KSA.
- Aldmerdash, S. (1994). *Introduction to Teaching Science*. (In Arabic language, 2nd edit.) Falah Library, Kuwait.
- Alghazo, E. M., Dodeen, H., & Algaryouti, I. A. (2003). Attitudes of pre-service teachers towards persons with disabilities predictions for the success of inclusion. *College Student Journal*, 37(4), 515-523.
- Alghazo, E., M., & Naggar Gaad, E. (2004). General education teachers in the United Arab Emirates and their acceptance of the inclusion of students with disabilities. *British Journal of Special Education*, 31(2), 94-100.
- Al-hamad, K. (2006). *General education and special education teachers' attitudes toward inclusive education of students with emotional and/or behavioral disabilities (EBD)*. (Unpublished doctoral dissertation). University of Northern Colorado, Greeley, Colorado.
- Al Hamed, M., Ziadeh, M., Al Oteibi, B., & Mutawalli, N. (2007). *Al Taalim fi Al-Mamlaka al Arabiya AlSaudia: Reoayit al-Hader wa-Istishraf al Mustakbal*, (in Arabic language 4th ed.,) Al Rushd Library, Beirut, Lebanon.

- Alhusain, A. M. (2010). Al-Imam Muhammad Ibn Saud Islamic University Students Attitudes towards the Teaching Profession, (In Arabic Language). *Journal of Education and Psychology (Jestin)*, 35, 35-84.
- Al-Khatteeb, J. (2002). Teachers' Perceptions of the inclusive school concepts in Jordan. *Educational Journal*, 65, 19-39.
- Al-Mosa, N. A. (1999). *The Journey of special education in the Ministry of Education: marking the one hundredth anniversary of the foundation of the Kingdom of Saudi Arabia*. Riyadh, Saudi Arabia: Ministry of Education. King Fahad Library.
- Al-Mosa, N. A. (2000). *Experiment of Ministry of Education in KSA in the Field of Including Children with SEN in Mainstream Schools*. The Second International Conference for Impairment and Qualification. MOE, Riyadh, KSA
- Al-Mosa, N. A. (2004). *Mainstreaming Children with Special Needs in Public Education: An Educational Vision*. The Arab Bureau of Education for the Gulf States, Riyadh, KSA
- Al-Mosa, N. A. (2010) *The Experience of the Kingdom of Saudi Arabia in Mainstreaming Students with Special Educational Needs in Public Schools (A Success Story)*. The Arab Bureau of Education for the Gulf States, Riyadh, SA.
- Al-Mosa, N. A., Al-Saratawi, Z., Al-Abduljabbar, A., Al-Batal, Z. & Al-Husain, A. (2008). *The National Study to Evaluate the Experience of the Kingdom of Saudi Arabia in Mainstreaming Children with Special Educational Needs in Public Education Schools*. Ministry of Education, Riyadh, Saudi Arabia.
- Al-Munajjed, M, (2008). *Women's Education in Saudi Arabia, The Way Forward*. Ideation Center, Booz & Company, Riyadh.
- Al-Muslat, Z. (1987). *Educators' attitudes toward the handicapped in Saudi Arabia*. Unpublished doctoral dissertation, Indiana University
- Al-Musudi M. (2008). The class size in Saudi School. Retrieved from:
<http://www.alwatan.com.sa/news/writerdetail.asp? Issue no=2749&id=5193>.

- Al-Salloom, H. (1995). *Education in Saudi Arabia*. Belleville, MD: Amana Publication.
- Alsaud, S. (2011). *Autism in Saudi Arabia*. Special Education electronic paper, Retrieved from: <http://www.sabq.org/sabq/user/news.do?section=5&id=29793>
- Al-Turaiki, M. (2000). *National Survey of Disability and Rehabilitation in Saudi Society*. The Joint Centre for Research in Prosthetics Orthotic. Riyadh.
- Al-Quraini, T. (2011) Special education in Saudi Arabia: challenges, perspectives, and future possibilities. *International Journal of Special Education*, 26:(2), 149-161
- Al-Wazna, T. (2008). *National Study of Autism in Saudi Arabia*. King Abdul Aziz City for Science and Technology. Riyadh, SA.
- Al-Zayoudi, M., Al Sartwai, A., & Dodin, H. (2011). Attitudes of Pre-service Teachers towards Inclusive Education in UAE and Jordan (a comparative study). *International Journal of Disability*, 10, (1). www.ijdcr.ca ISSN 1703-3381
- Alvarez, J. A., Emory, E., Julie A., & Emory, Eugene (2006). Executive function and the frontal lobes: A meta-analytic review. *Neuropsychology Review*, 16 (1): 17–42. doi:10.1007/s11065-006-9002-x. PMID 16794878.
- Ainscow, M., Booth, T., & Dyson, A. (1998). England: inclusion and exclusion in a competitive system, in: T. Booth & M. Ainscow (Edits), *From them to us: an international study of inclusion in education*. London, Rutledge.
- American Psychiatric Association (APA). (2000). *Diagnostic and statistical manual of mental disorders (DSM-IV-TR)*. Washington DC: APA.
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders (DSM-5)*, (5th ed.). Washington, DC. London, England.
- American Speech-Language-Hearing Association (2006). *Principles for speech-language pathologists in diagnosis, assessment and treatment of autism spectrum disorders across the lifespan*. Technical report. Retrieved from: <http://www.asha.org/members/deskref-journal/deskref/default>.

- Antonak, R., & Larrivee, B. (1995). Psychometric analysis and revision of the Opinions Relative to Mainstreaming Scale, *Exceptional Children*, 62(2), 139–142.
- Antonak, R., & Livneh, H. (1988). *The measurement of attitudes toward people with disabilities: Methods, psychometrics, and scales*. Springfield, IL: Charles C Thomas.
- Arampatzi, A., Mouratidou, K., Evaggelinou, C., Koidou, E., & Barkoukis, V. (2011) Social developmental parameters in primary schools: inclusive settings' and gender differences on pupils' aggressive and social insecure behavior and their attitudes towards disability. *International Journal of special Education*, 26(2): 1-12.
- Armstrong, F., Armstrong, D., & Barton, L. (2000). *Inclusive Education Policy, Contexts and Comparative Perspectives*. London: David Fulton Publishers.
- Avramidis, E., Bayliss, P., & Burden, R. (2000a). Student teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school. *Teaching and Teacher Education*, 16, 277-293.
- Avramidis, E., Bayliss, P., & Burden, R. (2000b). A Survey into Mainstream Teachers' Attitudes Towards the Inclusion of Children with Special Educational Needs in the Ordinary School in one Local Education Authority. *Educational Psychology*, 20 (2): 193-213.
- Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: A review of the literature. *European Journal of Special Needs Education*, 17(2), 129-147.
- Avramidis, E., & Kalyva, E. (2007). The influence of teaching experience and professional development on Greek teachers' attitudes towards inclusion. *European Journal of Special Needs Education*, 22(4): 367-389
- Babbie, E. K. (2004). *Methods of Social Research*. Belmont, CA: Thompson.
- Bahn, K. (2009). *Classroom teacher attitudes toward inclusion*. (Doctoral Dissertation). Retrieved from: ProQuest and Theses database.
- Bailey, A., Luthert, P., Dean, A., Harding, B., Janota, I, Montgomery, M., Rutter, M., & Lantos, P. (1998). A Clinic pathological Study of Autism. *Brain*. 121: 889-905

- Bailey, K. D. (1990). *Methods of Social Research*. New York: The Free Press.
- Bandura, A. (1990). *Encyclopedia of Special Education: A Reference for the Education of the Handicapped and Other Exceptional Children and Adults*. Hoboken: Wiley.
- Barnard, J., Prior, A., & Potter, D. (2000). *Inclusion and Autism: Is It Working?* London: National Autistic Society.
- Baron-Coheren, S. (2001). Theory of Mind in normal development and autism. *Prisme*, 34, 174-183.
- Baron-Coheren, S. (2009). Autism: The Empathizing-Systemizing (E-S) Theory. *Annals of the New York Academy of Sciences*, V.1156; 68-80
- Baron, R. A. & Byrne, D. (2000). *Social Psychology* (9th Ed.). Boston: Alyn and Bacon.
- Batu, E. (2010). Factors for the Success of Early Childhood Inclusion and Related Studies in Turkey. *International Journal of Early Childhood Special Education (INTJECSE)* 2(1): 57-71
- Bauman, M., & Kemper, T. (2005). "Neuro anatomic Observations of the Brain in Autism: A review and Future Directions." *Int. J. Devl Neuroscience* 23: 183-7.
- Bekle, B. (2004). Knowledge and attitudes about attention-deficit hyperactivity disorder (ADHD): a comparison between practicing teachers and undergraduate education students. *J Attention Disorder*, 7(3): 151-61.
- Bender, W., Vail, C. & Scott, K. (1995). Teachers' attitudes to increased mainstreaming: Implementing effective instruction for students with learning disabilities. *Journal of Learning Disabilities*, 28(2): 87-94.
- Birkin, C., Anderson, A., Seymour, F., & Moore, D. W. (2008) A parent-focused early intervention program for autism: Who gets access? *Journal of Intellectual & Developmental Disability*, 33(2), 108-116
- Blayne, K. & Borden, M. C. (2008). The importance of early intervention for autism. *The Brown University Child and Adolescent Behavior Letter*, 24(6), 1+.
- Blecker, N. S., & Boakes, N. J. (2010). Creating a learning environment for children: are teachers able and willing? *International Journal of Inclusive Education*, 14(5), 435-447.

- Booth, T., & Ainscow, M. (1998). *From them to us, an international study of inclusive education*. London: Routledge.
- Booth, T., Ainscow, M., Black-Hawkins, K., Vaughan, M. & Shaw, L. (2000) *Index for inclusion: developing learning and participation in schools*. Bristol, Centre for Studies on Inclusive Education.
- Bowman, I. (1986). Teacher training and the integration of handicapped pupils: Some findings from a fourteen nation UNESCO study. *European Journal of Special Needs Education*, 1, 29-38.
- Boyd, B. A., & Shaw, E. (2010). Autism in the classroom: A group of students changing in population and presentation. *Preventing School Failure*, 54(4), 211-219.
- Bradshaw, L. & Mundia, L. (2006). Attitudes to and concerns about inclusive education: Bruneian in-service and preservice teachers. *International Journal of Special Education*, 21(1), 35-41.
- Brantlinger, E. (1996). Influence of pre-service teachers' beliefs about pupil achievement on attitudes toward inclusion. Teacher Education and Special Education. *The Journal of the Teacher Education Division of the Council for Exceptional Children*, 19(1), 17-33.
- Brunner, D., & Seung, H. (2009). Evaluation of the efficacy of communication-based treatments for autism spectrum disorders. *Communication Disorders Quarterly*, 31(1), 15-41
- Buell, M. J., Hallam, R., Gamel-McCormick, M., & Scheer, S. (1999). A survey of general and special education teachers' perceptions and in-service needs concerning inclusion. *International Journal of Disability, Development and Education*, 46(2), 143-156
- Buyse, V., Skinner, D., & Grant, S. (2001). Toward a definition of quality inclusive childcare: Perspectives of parents and practitioners. *Journal of Early Intervention*, 24(2); 146-161
- Buyse, V., Wesley, P. W., & Keyes, L. (1998). Implementing early childhood inclusion: Barrier and support factors. *Early Childhood Research Quarterly*, 13(1): 169-184.
- Campbell, J., Gilmore, L, & Cuskelly, M. (2003). Changing student teachers' attitudes towards disability and inclusion. *Journal of Intellectual & Developmental Disabilities*, 28(4), 369-379

- Campbell, P., Strickland, B., & La Forme, C. (1992). Enhancing parent Participation in the Individualized Family Service Plan. *Topics in Early Childhood Special Education*, 11(4); 112-124
- Carlucci-Nigro, R. (1998). Effects of classroom factors on teachers' self-efficacy and their beliefs about integration. Retrieved from: www.collectionscanada.ca.
- Carroll, A., Forline, C., & Jobling, A. (2003). The impact of Teacher Training in Special Education on the Attitudes of Australian preservers General Educators towards People with Disabilities. *Teacher Education Quarterly*, 65-79.
- Cassady, J. M. (2011). Teachers' Attitudes Toward the Inclusion of Students with Autism and Emotional Behavioral Disorder. *Electronic Journal for Inclusive Education*, 2, (7)
- Center for Disease Control (2012). Prevalence of autism spectrum disorders-autism and developmental disabilities monitoring network, US: *Morbidity and Mortality Weekly Report (MMWR)*, 61(3); March 30. Retrieved June 5th 2013 from:
<http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5810a1.htm>.
- Centre for Studies on Inclusive Education (2008). *Ten Reasons for Inclusion*. Retrieved July 2012 from:
<http://www.csie.org.uk/resources/ten-reasons-02>
- Center, Y., & Ward, J. (1987). Teachers' attitudes towards the integration of disabled children into regular schools. *Exceptional Children*, 34, 41-56.
- Chauhan, A., and Chauhan, V. (2006). Review on Oxidative Stress in Autism. *Pathophysiology*, 13:171-181.
- Chmiliar, L. (2009). Perspectives on Inclusion: Students with LD, their Parents, and their Teachers *Exceptionality Education International*, 19 (1): 72-88.
- Clayton, M. (1996). Clearing the way for inclusion: A Response to Thorley, Hotchkiss and Martin. *Special Education Perspectives*. 5(2), 39-44. Retrieved from: www.aase.edu.au
- Clough, P., & Lindsay, G. (1991). Integration and the support service. Windsor: NFER-Nelson.
- Cohen, L., Manion, L., & Morrison, K. (2000). *Research Methods in Education*. London: Routledge.

- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. (6th Ed.). London: Routledge.
- Cook, B. (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. (2002). Inclusive attitudes strengths, and weaknesses of pre-services general educators enrolled in a curriculum infusion teacher preparation program. *Teacher Education and Special Education*, 25(3), 262-277.
- Cook, B., Tankersley, M., Cook, L., & Landrum, T. (2000). Teachers' attitudes toward their included students with disabilities. *Exceptional Children*, 67: 115-135.
- Creswell, J. (2007). *Qualitative inquiry and research design: choosing among five approaches*. California: Sage.
- Crotty, M. (1998). *The Foundation of Social Research*. San Francisco: Sage.
- Daniel, L., and King, D. (1997). Impact of inclusion education on academic achievement, student behavior and self-esteem, and parental attitudes. *Journal of Educational Research* Vol.91, no.2, p.67-80.
- Davis, T. (2010). *General and special educators' attitudes toward students with severe disabilities included in the regular education classroom*. (Doctoral dissertation). ProQuest Dissertations and Theses database. (UMI No. AAT3355078).
- De Boer, A., Pijl, S., & Minnaert, A. (2011). Regular primary schoolteachers' attitudes towards inclusive education: a review of the literature. *International Journal of Inclusive Education*, 15(3), 331-35.3
- Deetz, S. (1985). Ethical considerations in cultural research. In Frost, P., Moore, L., Louis, M., Lundberg, C., and Martin, J. (Eds.) *Organizational Culture*. Beverly Hills: Sage.
- Dedrick, R. F., Marfo, K., & Harris, D. M. (2007). Experimental analysis of question wording in an instrument measuring teachers' attitudes toward inclusive education. *Educational and Psychological Measurement*, 67, 116-131.

- Denscombe, M. (2010). *The Good Research Guide for small-scale social research projects* (4th ed.) Berkshire, Open University Press.
- Denzin, N. (1989). *The research act: the theoretical introduction to sociological methods*. New Jersey: Prentice-Hall.
- Department of Education and Employment (D.E.E.) (2000). *SEN code of practice on the identification and association of pupils with special educational needs*. London WEE Publication.
- Department for Education and Skill (2001). *Special Educational needs code of practice*. London: DFES Publication.
- Desforges, C., & Abouchar, A. (2003). *The impact of parental involvement, parental support and family education on pupil achievement and adjustment: A literature review* London, Department for Education and Skills.
- Dickens-Smith, M. (1995). The effect of inclusion training on teacher attitude towards inclusion (*ERIC Document Reproduction Service No. 332 802*)
- Disability Discrimination Act (1992). *Disability Discrimination Act 1992, Australia*, Retrieved Sept 2011 from: <http://www.austlii.edu.au/05/14/2002>,
- Dodd, S. (2005). *Understanding Autism*. Australia: Elsevier.
- Downing, J. E. (2008). *Including students with severe and multiple disabilities in typical classrooms: Practical strategies for teachers*. London: Paul H. Brookes.
- Downing, J., E., Eichinger, J., & Williams, L., J. (1997). Inclusive Education for Students with Sever Disabilities: Comparative views of Principle and Educators at different levels of implementation. *Remedial and Special Education*, 18,133-142
- Downs, J. M. (2003). *Teachers' Attitudes and Beliefs during the Special Education Referral Process*. Diss: University of Florida.
- Dubis, S. A. (1987). *Educators' attitudes toward children with handicaps and the concept of mainstreaming in the Kingdom of Saudi Arabia*. Dissertation Abstracts International, 49(05). (UMI No AAT 8810105).

- El-Ashry, F. R. (2009). *General Education Pre-service Teachers' Attitudes Toward Inclusion in Egypt*. Unpublished doctoral dissertation, University of Florida, FL.
- Eldar, E., Rachel, T., & Zohar, D. (2009). An integrative model for including children with ASD in general education settings—a practical lesson in Israel. *International Journal of Special Education*, 24 (2): 66-76
- Elhoweris, H., & Alsheikh, N. (2006). Teachers' attitudes toward inclusion. *International Journal of Special Education*, 21(1), 115-118, retrieved from:
<http://www.internationaljournalofspecialeducation.com>
- Elkins, J., van Kraayenoord, C., E., & Jobling, A. (2003). Parents' attitudes to inclusion of their children with special needs. *Journal of Research in Special Educational Needs*, 3(2): 122–129.
- Emanuelsson, I., Haug, P. & Persson, B. (2005). Inclusive education in some Western European countries: different policy rhetoric's and school realities, in D. Mitchell (Ed.). *Contextualizing inclusive education evaluating old and new international perspectives*. London: Routledge, pp. 114-138.
- El-Zein, H. L. (2009). Attitudes toward inclusion of children with special needs in regular schools (A case study from parents 'perspective). *Educational Research and Review*, 4 (4):164-172.
- Errol, D., Clara, W., & Elisa, E. (2005). Teachers' attitudes toward inclusion integration of students with disabilities in Haiti and the United States. *International Journal of Disability, Development & Education*, 52(1), 43-58. doi: 10.1080/10349120500071894
- European Agency for Development in Special Needs Education (2010). *Teacher Education for Inclusion*. International Literature Review.
- Fang, Z. (1996). A review of research on teacher beliefs and practices. *Journal of Educational Research*, 38(1), 47-65.
- Farrel, P., & Ainscow, M. (2002). *Making special education inclusive*. London: David Fulton Publishers, pp. I-12.

- Ferguson, R. M., & Lopez, C. (2002). *World education encyclopedia: A survey of educational systems worldwide* (2nd ed.). Farmington Hills, MI: Gale Group.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: an introduction to theory and research*. Reading, MA: Addison-Wesley Pub.
- Fishbein, M. & Ajzen, I. (1997), *Belief, Attitude, Intentions and Behavior: An Introduction to Theory and Research*", Addison-Wesley, Reading, MA
- Fiske, S. T., & Taylor, S. E. (1984). *Social Cognition*. London: Addison-Wesley Publishing Company.
- Florian, C., Hattie, J., & Douglas, G. (1996). Inclusion: Is it Stressful for Teachers. *Journal of Intellectual and Developmental Disability*, 21(3): 199-217.
- Florian, C. & Chambers, D. (2011). Teacher preparation for inclusive education: increasing knowledge but raising concerns. *Asia-Pacific Journal of Teacher Education* (39) 1:17-32
- Florian, L., & Rouse, M. (2009). The inclusive practice project in Scotland: Teacher education for inclusive education. *Teaching and Teacher Education*, 25(4), 594-601.
- Forline, C. (1995). Educators' beliefs about inclusive practices in Western Australia. *British Journal of Special Education*, 22, 179-185.
- Fraenkel, J. R., & Wallen, N. E. (1993). *How to design and evaluate research in Education* (2nd ed.). New York: McGraw-Hill Inc.
- Frederickson, N., & Cline, T. (2002). *Special Educational Needs, Inclusion, and Diversity: A Textbook*. Buckingham, England: Open University Press.
- Friend, M., & Bursuck, W. D. (2002). *Including Students with Special Needs. A Practical Guide for Classroom Teachers*. (4th ed.), Arlington. Boston.
- Frith, U., Morton, J., & Leslie, A. (1991). The Cognitive Basis of a Biological Disorder: Autism. *Trends in Neurosciences*, 14: 433-438.
- Frith, U., (1989). *Autism: Explaining the Enigma*. Oxford: Basil Blackwell.
- Gaad, E. (2001). Educating children with Down's syndrome in the United Arab Emirates. *British Journal of Special Education*, 28, 4,195-203.

- Gaad, E. (2011). *Inclusive Education in the Middle East*. London, Rutledge
- Gaad, E., & Khan, L. (2007). Primary Mainstream Teachers' Attitudes towards Inclusion of Students with Special Educational Needs in the Private Sector: A Perspective from Dubai. *International Journal of Special Education*, 22(2), 95-109.
- Gay, L., R., Mills, G., E., & Airasian, P. (2009). *Education research: Competencies for analysis and applications*. (9th ed.). London: Pearson Education.
- Geisser, S., & Johnson, W., M. (2006). *Modes of Parametric Statistical Inference*. London: John Wiley and sons.
- General Development for Planning (2005). *The Executive Summary of the Ministry of Education Ten-Year Plane*. (2nd ed.). Ministry of Education, Riyadh, Saudi Arabia.
- Ghaziuddin, M., & Al-Owain, M. (2013). Autism spectrum disorders and inborn errors of metabolism: an update. *Pediatr Neurol*; 49(4): 232-6.
- Gilberg, C. (1992). Autism and Autistic like Conditions: Subclasses Among Disorders of Empathy. *Journal of Child Psychology and Psychiatry* 33: 813-842.
- Gillberg, C. (Ed.). (1989). *Diagnosis and Treatment of Autism*, New York: Plenum.
- Gleberzon, B. J. (2006). *Chiropractic and the Management of Children with Autism*. Clin Chiropr 9(4): 176-181.
- Goin-Kochel, R. P., Myers, B. J., Hendricks, D. R., Carr, S. E., & Wiley, S. B. (2007). Early responsiveness to intensive behavioural intervention predicts outcomes among preschool children with autism. *International Journal of Disability, Development and Education*. 54(2), 151-175.
- Gonzalez, V., Brusca-Vega, R., & Yawkey, T. (1997). *Assessment and instruction of culturally and linguistically diverse students*. Needham Heights, MA: Allyn & Bacon.
- Grbich, C. (2007). *Qualitative data analysis*. London: Sage.
- Grove, K. A. & Fisher, D. (1999). Entrepreneurs of meaning: Parents and the process of inclusive education. *Remedial and Special Education*, 20(4): 208-215.

- Hair, J. F., Black, W. C., Babin, B., Anderson, R. E., & Tatham, R. L. (2005). *Multivariate data Analysis*. (6th ed.) New Jersey: Prentice-Hall.
- Hall, L. A. (2005). Teachers and content area reading: Attitudes, beliefs and change. *Journal of Teaching and Teacher Education*, 21(4), 403-414.
- Halwani, H. (2008). 100,000 Autistic children in Kingdom. *Saudi Gazette*, March 31.p7:
<http://www.saudigazette.com.sa/index.cfm>
- Hammond, H., & Ingalls, L. (2003). Teachers' attitudes toward inclusion: Survey results from elementary school teachers in three South-western rural school districts. *Rural Special Education Quarterly*, 22(2), 24-31 PD.3
- Harrower, J. K., & Dunlap, G. (2001). Including children with autism in general education classroom: A review of effective strategies. *Behavior Modification*, 25, 762-784.
- Hassanein, M. (2010). *The inclusion of children with special educational needs in mainstream schools in Egypt*. PhD thesis, University of Exeter
- Henry, M., Whitney, D. R. (1947). *Annals of Mathematical Statistics*. 18 (1): pp. 50-60.
- Hobson, R. (Ed), (1989). *Beyond Cognition: A theory of Autism*. In G. Dawson, (Ed.), *Autism: Nature, Diagnosis, and Treatment* (pp. 22-48) .New York, NY: Guilford.
- Hodkinson A. & Vickerman P. (2009). *Key Issues in Special Educational Needs and Inclusion*. London: SAGE publications LTD.
- Hwang, Y-S, and David, E. (2010) Attitudes towards inclusion: gaps between belief and practice. *International Journal of Special Education*, 26(1): 136-146.
- Hyman, M. D., Susan, L. (2013), New DSM-5 includes changes to autism criteria, *AAP News*, Retrieved June 2014 from: <http://aapnews.aappublications.org/content/early/2013/06/04/aapnews.20130604>
- IDEA (*Individual with Disability Education Act*) of 1997. Retrieved from:
<http://www.wrightslaw.com/bks/cb4.idea.overview.pdf>
- Idol, L. (1997). Key questions related to building collaborative and inclusive schools. *Journal of Learning Disabilities*, 30(4), 384-394.

- Idol, L. (2006). Toward inclusion of special education students in general education: A program evaluation of eight schools. *Remedial and special Education, 27*, 77-94.
- Ingersoll, B., Lewis, E., & Kroman, E. (2007). Teaching the imitation and spontaneous use of descriptive gestures in young children with autism using a naturalistic behavioural intervention. *Journal of Autism Dev Disorders, 37*(8), 1446-1456.
- Japan International Cooperation Agency. (2002). *Country profile on disability: Kingdom of Saudi Arabia*. Retrieved from: <http://digitalcommons.ilr.cornell.edu/gladnetcollect>
- Jerome, L., Gordon, M., & Hustler, P. (1994). Comparison of American and Canadian Teachers' Knowledge and Attitudes towards Attention Deficit Hyperactivity Disorder (ADHD). *Canadian Journal of Psychiatry, 39*: 563-566.
- Johnson, R. B. & Onwuegbuzie, A.J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher, 33*(7), 14-26.
- Jones, P. (2009). *Rethinking Childhood, Attitudes in Contemporary Society*. Continuum International Publishing Group.
- Jordan, R. (2008). Autistic spectrum disorders: A challenge and a model for inclusion in education. *British Journal of Special Education, 35*(1), 11-15.
- Kalyva, E., Gojkovice, D., & Tsakiris, V. (2007). Serbian Teachers' Attitudes Towards Inclusion. *International Journal of Special Education, 22*(3): 30-35.
- King Salman Center for Disability Research. (2004). *Kingdom of Saudi Arabia provision code for persons with disabilities*. King Salman Center for Disability Research. Kluwer Academic Publishers. Riyadh, KSA
- Knight, B. A. (1999). Towards inclusion of students with special education needs in the regular classroom. *British Journal of Learning Support, 14*(1), 3-7.
- Koegel, L. K. & Koegel, R. L. (2000). Interventions to facilitate communication in Autism. *Journal of Autism and Developmental Disorders, 30*, 383-392.

- Koegel, R. L., & Koegel, L., K. (2006). *Pivotal response treatments for autism: Communication, social, and academic development*. Baltimore, MD: Brookes.
- Kos, J. M. (2008). *What do Primary School Teachers Know, Think, and Intend to Do About ADHD?* Paper presented at the British Educational Research Association Conference (3–6 September 2008). Edinburgh, Scotland.
- Kourea, L. & Phtiaka, E. (2003). Students without special needs attitudes towards their peers with special needs, integrated in the mainstream school. *Nea Paideia*, 107:133-146.
- Koutrouba, K., Malvina, V., & Marina, S. (2006). Factors Correlated with Teachers' Attitudes towards the Inclusion of Students with Special Educational Needs in Cyprus. *European Journal of Special Needs Education*, 21(4): 381-394.
- Kunc, N. (1992). The need of belonging: rediscovering Maslow's hierarchy of needs. In R. A. Villa, J. C. Thousand, W. Stainback & S. Stainback (Eds.), *Restructuring for caring and effective education* (pp. 25-40). Baltimore: Paul H. Brookes.
- Larrivee, B., & Cook, L. (1979). Mainstreaming: A study of variables affecting teacher attitudes, *Journal of Special Education*, 13, 315-324.
- Lecavalier, L., & Wiltz, J. (2006). The impact of behavior problems on caregiver stress in young people with Autism Spectrum Disorders. *Journal of Intellectual Disability Research*, 50. 172-183.
- Leyser, Y., Kappennan, G. & Keller, R. (1994). Teacher attitudes toward mainstreaming : a cross-cultural study in 6 nations. *European Journal of Special Needs Education*, 9:1-15.
- Lindsay, G. (2002). Inclusive education: a critical perspective. *British Journal of Special Education*, 30:1-2003.
- Lindsay, G. (2007). Educational Psychology and the effectiveness of inclusive education/mainstreaming. *British Journal of Educational Psychology*, 77 (1), 1-24.
- Lindsay, S., Proulx, M., Thomson, N., & Scott, H. (2013). Exploring teachers' strategies for including children with autism spectrum disorder in mainstream classrooms. *International Journal of Inclusive Education*. 18 (2), 101-122.

- Loiacono , V. & Valenti, V. (2010). General education teachers need to be prepared to co-teach the increasing number of children with autism in inclusive settings. *International Journal of special education*, 25 (3), 24-32.
- Lopes, J., Monterio, I., & Quinn, M. (2004). Teachers' perceptions about teaching problem students in regular classrooms. *Education and Treatment of Children*, 27 (4), 394-419.
- Loveass, O. I. (1987). Behavioural treatment and normal educational and intellectual functioning in young autistic children. *Journal of Consulting and Clinical Psychology*, 55, 3-9.
- Macfabe, D. (2007). The Epidemic of Autism: Growing neurobiological Links to Genetics, Environmental and Behaviour. *Inspire Muki Baum Treatment Centres*, 2 (4): 155-9.
- Magiati, I., Charman, T., & Howlin, P. (2007). A two-year prospective follow-up study of community-based early intensive behavioural intervention and specialist nursery provision for children with autism-spectrum disorders. *Journal of Chile Psychology and Psychiatry*, 48(8), 803-812.
- Maich, K., and Belcher, E. (2012). Using picture books to create peer awareness about autism spectrum disorders in the inclusive classroom. *Intervention in School and Clinic*, 47,206-213.
- Mann, H. B., and Whitney, D., R. (1947). On a Test of Whether one of Two Random Variables is Stochastically Larger than the Other. *The Annals of Mathematical Statistics*, 18,(1), 50-60.
- Marti L. F., (2006). *Dietary intervention in children with autism spectrum disorder-an updated review of the researches evidence*. *Curr Clin Pharmacol*.
- Mastropieri, M.A. and Scruggs, T. E. (2004). *The inclusive classroom: Strategies for effective instruction* NY, Pearson.
- Maurice, C. (1998). *Let Me Hear Your Voice: a Family's Triumph over Autism*, (4th ed.), Knopf, NewYork.
- Mayo Clinic (2008). *Autism*. Retrieved from: www.mayoclinic.com/health/autism/DS00348
- McGregor, E., Nunes, M., Cebula, K., & Carlos Gomez, J. (2008). *Autism an Integrated View from Neurocognitive, Clinical, and Intervention Research*. Blackwell Publishing Ltd.

- McLeskey, J., Waldron, N., So, T. H., Swanson, K., & Loveland, T. (2001). Perspectives of teachers toward inclusive school programs. *Teacher Education and Special Education*, 24(2), 108-115.
- Menlove, R. R., Hudson, P. J., & Suter, D. (2001). A Field of IEP Dreams: Increasing General Education Teacher Participation in the IEP Development Process. *Teaching Exceptional Children*, 33(5), 28-33.
- Merriam, S. (1998). *Qualitative research and case study applications in education*. San Francisco, Jossey-Bass
- Mehler, J., Morton, J., & Jusczyk, P. (1984). On Reducing Language to Biology. *Cognitive Neuropsychology*, 1,83-116.
- Meyers, H., & Nevin, A. (1998). The Impact of Inclusion on Students With and Without Disabilities and Their Educators. *Remedial and Special Education*, 20: 114-126.
- Michael, D., Gabriela, H., & Emanuel, T. (2001). "Autism in the Haifa area- An Epidemiological Perspective." *Isr Med Assoc J* 3(3): 188-9.
- Ming, X., Stein, T. P., Brimacombe, M., Johnson, W. G., Lambert, G. H., & Wagner, G. C. (2005). Increased excretion of lipid peroxidation biomarker in autism. *Prostaglandins Leukot Essent Fatty Acids*, 73(5):379-384.
- Ming, X., Stein, T. P., Brimacombe, M., Johnson, W. G., Lambert, G. H. & Wagner, G. C. (2005). Increased excretion of a lipid peroxidation biomarker in autism. *Prostaglandins, Leukotrienes and Essential Fatty Acids*. 73 (5): 379–384.
- Ministry of Economy and Planning (2012). *Monarchy with a Council of Ministers and Consultative Council*. Riyadh, KSA
- Ministry of Education (1990). *Educational policy in the Kingdom of Saudi Arabia*. MOE, Riyadh: KSA
- Ministry of Education (2008). *Development of Education in the Kingdom of Saudi Arabia*. Riyadh: KSA, Al-Farazdak Printing Press.
- Ministry of Education (2008). *Data center*: <http://www.se.gov.sa/database/sped-28-29.pdf>
- Ministry of Education (2011). *Statistical Meaning for SEN children schools*. Riyadh, KSA.

- Ministry of Higher Education (2011). *Women in Higher Education*, Riyadh. KSA
- Ministry of Social Affairs (2012). *Special Education Programs and Institutes for Children with Autism*. Riyadh, KSA
- Mitchell, D. (2005). Introduction: sixteen propositions on the contexts of inclusive education. In D. Mitchell (Ed.), *Contextualizing Inclusive Education: evaluating old and new international perspectives* (pp. 1-21). London: Routledge.
- Mittler, P. (2002). *Moving toward inclusion: The role of the United Nations*. Paper presented at the Third International Conference on Developmental Disabilities-Challenges and Opportunities: Policy, Practice, and Research, Tel Aviv, Israel.
- Molto, M. C. C. (2003), Mainstream teachers' acceptance of instructional adaptations in Spain. *European Journal of Special Needs Education*, 18, 3, 311-332.
- Monsen, J., & Frederickson, N. (2003). *Teachers' attitudes towards mainstreaming and their pupils' perceptions of their classroom learning environment*. Netherlands, Kluwer Academic Publishers.
- Morberg, S., & Savolainen, H. (2003). Struggling for inclusive education in the North and the South: Educator's perceptions on inclusive education in Finland and Zambia. *International Journal of Rehabilitation Research*, 26(1): 21-31.
- Morton, J., & Frith, U. (1995). Causal Modeling: A Structural Approach to Developmental Psychopathology. In D. Cicchetti & D. Cohen (Eds.), *Developmental Psychopathology* (Vol. 1, pp. 357–390). New York: John Wiley & Sons.
- Morton, J. (1998). *Understanding Developmental Disorder*. SAGE Publication Ltd: London.
- Monahan, R. G., Marino, S. B., & Miller, R. (1996). Teacher attitudes toward inclusion: Implications for teacher education in schools 2000. *Education*, winter, 1-3.
- Mushoriwa, T. (2001). A study of the attitudes of primary school teachers in Harare towards the inclusion of blind children in regular classes. *British Journal of Education*, 28, 3, 142-147.
- National Institute of Neurological Disorders and Stroke (2009). Autism fact sheet. Retrieved from: www.ninds.nih.gov/disorders/autism/detail_autism.htm?Css=print

- National Research Council (NRC) (2001). *Educating children with autism. Committee on Education Interventions for Children with Autism*. Division of Behavioural and Social Sciences and Education. Washington D.C. National Academy Press.
- Nierengarte, M. B. (2014). Managing autism symptoms through nutrition. *Contemporary Paediatrics'*, Retrieved from [feed://contemporarypediatrics.modernmedicine.com/author_feeds/380922](http://contemporarypediatrics.modernmedicine.com/author_feeds/380922).
- Norwich, B. (1999). The connotation of special education labels for professional in the field. *British Journal of Special Education*, 26 (4) pp. 179-183.
- Norwich, B. (2002). Education, inclusion and individual differences: Recognizing and resolving dilemmas. *British Journal of Educational Studies* 50 (4): 482-502
- Norwich, B. (2008). *Dilemmas of Difference, Inclusion and Disability. International perspectives and future directions*. New York: Routledge.
- Norwich, B., & Lewis, A. (2001). A critical review of evidence concerning teaching strategies for pupils with special educational needs. *British Educational Research Journal*, 27(3): 313-329.
- Norwich, B., & Lewis, A. (2001). Mapping Pedagogy Special Educational Needs. *British Educational Research Journal*, 27, 3,313-329.
- Okyere, B. A. (2003). Issues in educating exceptional children in Africa, in B. A, Okyere and J. S. Adams (Eds.). *Introduction to special education: an African perspective*. Accra: Adwinsa Publications, pp. 29-41.
- O'Neil, J. (1995). Can Inclusion Work? A Conversation with Jim Kauffman and Mara Sapon Shevin. *The Inclusive School*, 52(4): 7-11
- Osmanaga, F. (2013). The role of the gender on children's attitudes towards pupils with disabilities. *Život i škola, br. 29(59): 405 – 418*.
- Oppenheim, A. N. (1992). *Questionnaire design, interviewing and attitude measurement*. London: Pinter Publishers Ltd.
- Overton, T. (2003). *Assessing learners with special needs: An applied approach* (4th ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.

- Parasuram, K. (2006). Variables that affect teachers' attitudes towards disability and inclusive education in Mumbai, India. *Disability & Society*, 21(3), 231-242.
- Patton, M. (2002). *Qualitative research and evaluation methods*. California: Sage.
- Pearson, S. (2005). 'SEN- a politically correct phrase to replace terms such as disabled'? A study of the views of students entering a secondary PGCE course. *Support for Learning*, 20(1), 17-20.
- Pearson, S. (2009). Using activity theory to understand prospective teachers' attitudes to and construction of special educational needs and/or disabilities. *Teaching and Teacher Education* 25, 559–568.
- Pellicano, E. (2012). The Development of Executive Function in Autism. *Autism Research and Treatment*. Vol 2012 pp.1-8.
- Perry, T. L., Ivey, M., Conner, A., & Shelar, D. (2008). Recreation student attitudes towards persons with disabilities: Considerations for future service delivery. *Journal of Hospitality, Leisure, Sport, & Recreation*, 7(2), 4-14.
- Praisner, C. L. (2003). Attitudes of elementary school principals toward the inclusion of students with disabilities. *Exceptional Children*, 69(2), 135-145.
- Pratkanis, A., R. & Greenwald, A., G. (1989). *Advances in experimental Social Psychology*. Academic Press. INC: San Diego, California.
- Prince Salman Centre for Disability Research. (2010). *Disability Code*. Retrieved from: www.princesalmancenter.com.
- Pwer-defur, L. A., & Orelove, F. A. (1997). *Inclusive Education: Practical Implementation of The Least Restrictive Environment*. Gaithersburg, MD: Aspen Publishers, Inc.
- Rajecki, D. W. (1982). *Attitudes, themes, and advances*. Massachusetts: Sinauer Associates Publishers.
- Rainforth, B. (2000). Preparing teachers to educate students with severe disabilities in inclusive settings despite contextual constraints. *Journal of the Association for Persons with Severe Handicaps*, 25(2), 83–91.
- Redcay, E. (2005). "When is the Brain Enlarged with Autism? A Meta Analysis of all Brain size Reports." *Biol Psychiatr* 58: 1-9.

- Reichow, B., & Volkmar, F. R. (2010). Social Skills Interventions for Individuals with Autism: Evaluation for Evidence-Based Practices within Best Evidence Synthesis Framework. *Journal of Autism and Developmental Disorders*, (40(2): 149-166.
- Reid, R., Vasa, S. F., Maag, J. W., & Wright, G. (1994). An analysis of teachers' perceptions of attention deficit-hyperactivity disorder. *Journal of Research and Development in Education*, 27, 195-202.
- Richard, A., & Roger, S. (2001). General Education and Special Education Preservice Teachers' Attitudes Toward Inclusion. Preventing School Failure. *Alternative education for Children and Youth*, 46(1): 37-41.
- Roberts, C., & Lindsell, J. (1997). Children's attitudes and behavioral intentions towards peers with disabilities. *International Journal of Disability, Developmental and Education*, 44, 133-145.
- Robson, C. (2011). *Real World Research*. West Sussex: John Wiley and Sons Ltd.
- Rogers, S., & Pennington, B. (1991). A Theoretical Approach to the Deficits in Infantile Autism. *Developmental Psychopathology*. 3: 137-162.
- Rojas, D. C., Bawn, S. D., Benkers, T. L., Reite, M. L., & Rogers, S. J. (2002). Smaller Hemisphere Planum Temporale in Adults with Autistic Disorders. *Neuro Sci Lett* 328:237-40.
- Rose, R. (2001). Primary School Teacher Perceptions of the Conditions Required to Include Pupils with Special Educational Needs. *Educational Review*, 53(2): 147-156.
- Russell, F. (2003). The expectations of parents of disabled children. *British Journal of Special Education*. 30(3), pp.144-149.
- Russell, F. (2005). Starting school: The importance of parental expectations. *Journal of Research in Special Educational Needs*. 5(3): 118-126.
- Scheuerman, B., & Webber, J., (2002). *Autism teaching does make a difference*. Woodsworth.
- Scruggs, T. E. & Mastropieri, M. A. (1996). Teacher perceptions of mainstream /inclusion, 1958 - 1995: a research synthesis. *Exceptional Children*, 63(1): 59-74
- Sebba, J., & Ainscow, M. (1996). International development in inclusive schooling: Mapping issues *International development in inclusive schooling: Mapping issues*, 26, 5-17.

- Semmel, M. I., Abernathy, T. V., Butera, G., & Lesar, S. (1991). Teacher perceptions of the regular education initiative. *Exceptional Children*, 58, 9-23.
- Shoho, A., Katims, D., & Wilks, D. (1997). Perceptions of alienation among students with learning disabilities in inclusive and resource settings. *The High School Journal*, 81(1), 26-36.
- Silverman, D. (1993). *Interpreting qualitative data*. London: Sage.
- Simpson, R. (2004). Inclusion of students with behavior disorders in general education settings: Research and measurement issues. *Behavior Disorders*, 30 (1), 19-32.
- 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., & Myles, B. S. (1989). Parents' mainstreaming modification preferences for children with educable mental handicaps, behaviour disorders and learning disability. *Psychology in the schools*, 26, 292-301
- Simpson, R. L., Myles, B. S., Sasso, G., & Kampl, D. M. (1997). *Promoting Social Interactions of children and youth with autism*. Reston, VA: Council on Exceptional Children.
- Smalley, S., Asarnow, R., & Spence, A. (1989). Autism and Genetics: A Decade of Research. *Archives of General Psychiatry*, 45: 953-961
- Smylie, M. (1988). The enhancement function of staff development: Organizational and psychological antecedents to individual teacher change. *American Educational Research Journal*, 25, (1), 1-30.
- Snyder, R. (1999). Inclusion: A qualitative study of in-service general education teachers' attitudes and concerns. *Education*, 120, 173-181
- Sommers, R., & Sommers, B. (2002). *A practical guide to behavioural research tools and techniques* (5th ed.), New York: Oxford University Press.
- Soodak, L. C., Podell, D. M. & Lehman, L. R. (1998). Teacher, student, and school attributes as predictors of teachers' responses to inclusion. *Journal of Special Education*, 31(4), 480-97

- Spandagou, I., Evans, D., & Little, C. (2008). *Primary education in-service teachers' attitudes on inclusion and perceptions on preparedness to respond to classroom diversity*. Paper presented at the International Education Research Conference. SPA 08638.
- Spears, R., Tollefson, N., & Simpson, R. (2001). Usefulness of different types of assessment data in diagnosing and planning for a student with high-functioning autism. *Behavioral Disorders*, 26 (3): 227–242.
- Special Educational Needs Code of Practice (DFES, 2001). *Special Educational Needs – Code Of Practice*. MOE, Washington. DC.USA
- Stahmer, A. (2007). The basic structure of community early intervention programs for children with autism: Provider descriptions. *Journal of Autism and Developmental Disorders*, 37; 1344-1354
- Stephens, T. M., & Braun, B. L. (1980). Measures of regular classroom teachers' attitudes toward handicapped children. *Exceptional Children*, 46, 292-294
- Stout, K. S. (2001). *Special Education Inclusion paper*. Joanne Huston, Teaching and Learning Consultant/ Legal Counsel. <http://weac.org/articles/specialedinc>
- Stoiber, K., Gettinger, M., & Goetz, D. (1998). Exploring Factors Influencing Parents' and Early Childhood Practitioners' Beliefs About Inclusion, *Early Childhood Research Quarterly*, 13:107-124
- Subban, P., & Sharam, U. (2006). Primary School Teachers' Perceptions of Inclusive Education in Victoria, Australia. *International Journal of Special Education*, 21 (1), 42-52.
- Sugden, D., A. (2011). *Class Education 5812 m*, University of Leeds, Leeds, UK.
- Sugden, D. A., & Chambers, M. E. (2005). *Children with developmental condition disorder*. London: Whurr.
- Taylor, R. L., Richards, S. B., Goldstein, P. A., & Schilit, J. (1997). Teacher perceptions of inclusive settings. *Teaching Exceptional Children*. 29(3), 50-54.
- The EFA Global Monitoring Report (2005). *Education for All: The Quality Imperative*. UNESCO Publishing, Paris, France.

- The Merriam Webster Dictionary (2010). *Quran definition*. Retrieved from <http://www.merriam-webster.com/dictionary/Koran>
- The World Bank-FTI Secretariat (2004). *Education for All Fast-Track Initiative: Framework Document*, (www1.worldbank.org/education/efafti/documents/FrameworkDocMarch30_04.pdf)
- The World Factbook. (2010). *Background of Saudi Arabia*: <https://www.cia.gov/library/publications/the-world-factbook/geos/sa.html>
- Thousand, J., & Villa, R. (1990). Strategies for educating learners with severe disabilities within their local home schools and communities. *Focus on Exceptional Children*, 23(3), 1—24.
- Thousand, J. S., & Meyers, H., & Nevin, A. (1998). Teacher and administrator perspectives of heterogeneous education. *Exceptional Children*, 63 :(1), 29-46, retrieved from: <http://journals.cec.sped.org/>
- Tinbergen, N., and Tinbergen, E. (1983). *Autistic Children: New Hope for Cure*. London, Allen &Unwin.
- Tisdall, E. K. M. (2007). Social inclusion or exclusion? Recent policy trends in Scottish children's services for disabled children. In Riddell & Littet, (Eds.). *Education, Social and Integration* (2nd ed., pp.188-201) London: Rutledge.
- Tomlinson, P. (1989). Having it both ways: Hierarchical focusing as research interview methods. *British Educational Research Journal*, 15(2), 155-176.
- Turnbull, A. P., & Turnbull, H. R. (2001). *Families, professionals, and exceptionality: Collaborating for empowerment* (4th ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.
- UNESCO (1990). *World Declaration on Education for All*. Paris: UNESCO
- UNESCO (1994). *The Salamanca Statement's framework for action on special needs education*. Paris: UNICCO.
- UNESCO (1995). *Review of the Present Situation in Special Needs Education*. Paris: UNESCO
- UNESCO (2001). *The open file on inclusive education*. Paris: UNESCO
- UNESCO (2005). *Guidelines for inclusion: ensuring access to education for all*. Paris: UNESCO.

- UNESCO (2008). *EFA Global Monitoring Report: Summary, Education for All by 2015. Will We Make It?* EFA Global Monitoring Team, Paris, 1-41.
- UNESCO (2009). *EFA Global Monitoring Report. Overcoming Inequality: Why Governance Matters*, Oxford, Oxford University Press
- U.S. Department of Education. (2004). *Overview Four pillars of NCLB*. Retrieved from: <http://www.ed.gov/nelb/overview/intro/4pillars.html>
- Van-Reusen, A., Shoho, A., & Barker, K. (2000). High schoolteacher attitudes toward inclusion. *The High School Journal*, 84 (1), 7-20.
- Vaughn, S., Schumm, J., Jallad, B., Slusher, S., & Saumell, L. (1996). Teachers' views of inclusion. *Learning Disabilities Research and Practice*, 11(2), 96-106.
- Vislie L. (2003). From integration to inclusion: focusing global trends and changes in the western European societies. *European Journal of Special Needs Education*. 8 (1), 17-33.
- Waltz, M. (2008). The social and medical impact of a catastrophic model of Autism Spectrum Disorders. *Popular Narrative Media*, 1, 13-24.
- Wang, M., Reynolds, M., & Walberg, H. (Eds.) (1998). *Handbook of Special Education: Research and Practice: Emerging programs*. Oxford, England: Pergamon Press. 4, 37-55.
- Warnock, H. M. (1978). *"Special Educational Needs: Report of the Committee of Inquiry into the Education of Handicapped Children and Young People"*. London: HMSO.
- Webster Dictionary (2011). *Inclusion*. Webster Dictionary, London, UK.
- Weiner, B. (1985). An attribution theory of achievement, motivation, and emotion. *Psychological Review*, 92(4): 548-73.
- Wesley, P., Buysse, V., & Tyndall, S. (1997). Family and professional perspectives on early intervention: An exploration using focus groups. *Topics in Early Childhood Special Education*, 17(4): 435-456.
- Wilczenski, L. F. (1991). *Use of the "Attitudes Towards Mainstreaming Scale" with undergraduate education students*. Paper presented at the annual meeting of the New England educational research Organization, Portsmouth, NH.

- Wilkins, T., & Nietfeld, J. L. (2004). The effect of a school-wide inclusion training programme upon teachers' attitudes about inclusion. *Journal of Research in Special Educational Needs*, 4(3):115-121.
- Wilmshurst, L., Brue, W., A. (2012). *The Complete Guide to Special Education: Proven Advice on Evaluations, IEPs, and Helping Kids Succeed* (2nd ed.), Onlinelibrary.wiley.com
- Winzer, M., Altieri, E., & Larsson, V. (2000). Portfolios as a tool for attitude change, *Rural Special Education Quarterly*, 19, 72-82
- Wisniewski, L., & Alper, S. (1994). Including Students with severe disabilities in general education settings: Guidelines for change. *Remedial and Special Education*. 15(1), 4-13
- Yates, K., & Le Couteur, A. (2008). Diagnosing Autism. Paediatrics and Child Health. *Symposium: psychiatry*. 19(2) 55-59
- Yeargin-Allsopp, M., Rice, C., Karapurkar, T., Doernberg, N., Boyle, C., & Murphy, C. (2003). Prevalence of autism in a US metropolitan area, *The Journal of the American Medical Association*, 289(1): 49-55
- Zigmond, W. G. (1997). *Business research methods*. Chicago: Dryden Press.
- Zimbardo, P. G., & Leippe, M. R. (1991). *The Psychology of Attitude Change and Social Influence* (3rd ed.), New York: McGraw-Hill.

Appendices

Appendix 1: A Letter of Introduction to Inform Teachers about the Study

Covering Letter for schools/institutes teachers

Dear Madam,

My name is **Ghada Alhudaithi**, a PhD student at the University of Leeds, Leeds, U.K. and I am undertaking a PhD research into the following: -

Saudi Arabian Female Institutes and Mainstream Elementary Schools: An investigation of the attitudes of teachers to inclusion of autistic children in mainstream classrooms.

By mainstream schools, I simply mean the range of public and private schools that children unaffected by special needs commonly attend.

The main purposes and benefits of the present research are as follow: -

1. To investigate the attitudes of teachers towards inclusion of autistic children in mainstream classrooms;
2. Based on the outcome of this investigation, to inform the Ministry of Education of the situation and thereby help improve the quality of educational services for children with autism in mainstream classes, as well as improve schooling for SEN (Special Education Needs) students in general;
3. To contribute raising level of awareness of the importance of the issues which, it is hoped, will help in stimulating more research in the field of inclusion of autism;
4. Through understanding teachers' attitudes towards inclusion, to help improve special education in general and autistic children's education in particular.

I would appreciate if you complete the following questionnaire. Your personal details will not be shared with anyone. Additionally, qualitative data will be obtained through interviews with teachers who are willing to take part. Thus, if you would like to be interviewed then please contact me on my personal details below. Your participation will provide a more in-depth understanding. The data collected from the interviews will be completely confidential as well. Furthermore, if you need further information or clarification and before participating in the interview, then please feel free to contact me.

If you are interested in having the results of the research study sent to you, then please email me and I will be more than happy to respond.

If you participated in this study please fill and sign the enclosed reply slip (the informed consent form) and return it with the questionnaire in the envelope.

Thank you for your cooperation and contribution to the completion of this PhD research.

Ghada Alhudaithi

School of Education/Special Education,
University of Leeds, United Kingdom
[Email: edga@leeds.ac.uk]

(Information Sheet for teacher)

Dear Madam,

By completing this questionnaire, you will help me in my research to understand the attitudes of teachers to inclusion of autistic children in mainstream classrooms.

By mainstream schools, we simply mean the range of public and private schools that children unaffected by special needs commonly attend.

This is a survey of your opinions and current thinking. There are no “right” or “wrong” responses. This survey will help shape a variety of special education options, programs, and services.

The survey has three sections:

Section 1: Teachers’ demographic information

This section asks about your work with Special Education Needs (SEN) and autistic students as well as your nationality, age, educational level, major, subject of teaching, and experience and training.

Section 2: Teachers’ attitudes towards the inclusion of children with autism into their classrooms

This section will help me understand teachers’ attitudes towards the inclusion of children with autism into mainstream classrooms. It has 28 items. Each item has four choices (Strongly Agree, Agree, Disagree, and Strongly Disagree). Please give your honest opinion to each item by ticking the appropriate choice.

- Please remember that there are no “right” or “wrong” answers to your opinion.

Section 3: Open-ended responses

This section consists of open-ended responses, in which you write your opinion about what you believe to be the advantages and disadvantages and/or limitations on the inclusion of children with autism into mainstream classrooms. This is to allow you to freely compose responses, which you consider appropriate. Therefore, you will have the opportunity to express your view.

Again, please remember that there are no “right” or “wrong” responses to your opinion.

Thank you for your participation.

Ghada S. Alhudaithi
 School of Education/Special Education,
 University of Leeds, United Kingdom
 [Email: edga@leeds.ac.uk]

Appendix 2: Informed Consent Form for teachers who will fill the questionnaires

Please read carefully each point and place an 'X' indicating you understand and accept the statement.

Tick the box if you agree with the statement:

- 1 I confirm that I have read and understand the information sheet/letter explaining the above research study and I have had the opportunity to ask questions about the study.
- 2 I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline.
- 3 I understand that my responses will be kept strictly confidential. I give permission for the researcher to have access to my anonymous responses. I understand that my name will not be linked with the research materials and I will not be identified or identifiable in the report or reports that result from the research.
- 4 I agree for the data collected from me to be used in future research.
- 5 I agree to take part in the above research and will inform the principal investigator should my contact details change.

Name of participant Date Signature

Researcher Date Signature

Thank you for your participation.

Ghada Alhudaithi
School of Education/Special Education,
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Appendix 3: The questionnaires for teachers' attitudes toward inclusion

Survey: Adapted with modification from Opinion Relative to Integration of Students with disabilities questionnaires (Antonak and Larrivee, 1995)

Section 1: Teachers Demographic Information:

***Please tick (✓) the box that best describes you and corresponds with your background data.**

1. Teaching place:

Mainstream Elementary Public school Special Institutes for students with autism

2. Age range:

Less than 30 years 31-40 years 41-50 years 50+ years

3. Nationality:

Saudi Arabian non-Saudi Arabian

4. Education degree:

Undergraduate Diploma degree Mainstream BS or BA degree

Educational BS or BA degree Graduate degree (MS or MA)

Other (specify)

5. Teaching subject:

Special education General education (Natural Sciences, Math, Fine Arts, Arabic Language, English Language, Social sciences, etc.) Other (please specify)

6. Teaching experience:

Less than 1 year 1-5 years 6-10 years More than 10 years

7. Have you attended any courses in special education?

Yes No

If yes, please provide details:

8. Have you attended any training in special education?

Yes No

If yes, please provide details:

9. Do you have any family member or close relative with Autism?

Yes No

10. Have you had any students in your class with Autism?

Yes No

Section 2: Teachers' attitudes towards the inclusion of children with autism in mainstream classrooms:

In this study, your beliefs and attitudes are the thoughts you hold on children with autism in terms of meeting their needs in **inclusive education** (inclusive education is where children with and without SEN learn together in the same classroom).

What is Autism? Autism Spectrum Disorder (ASD) is characterised by a range of complex neuro-development disorders such as social impairments, communication difficulties, and restricted, repetitive, and stereotyped patterns of behaviour.

***Instruction:** Please, tick the item that describes you and corresponds to one of the four choices (4/Strongly Agree, 3/Agree, 2/Disagree, and 1/Strongly Disagree).

Again there are no right or wrong answers: the best answers are those that honestly reflect your feelings.

Example

| # | Statement | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| | Most mainstream students will make an adequate attempt to complete their assignments in short period of time. If, for example, you strongly agree that most mainstream students will make an adequate attempt to complete their assignment in short period of time then put X under 4 | | | | X |

| # | Statement | 1 | 2 | 3 | 4 |
|---|--|---|---|---|---|
| 1 | Most students with autism will make sufficient attempt to complete their assignments. | | | | |
| 2 | Inclusion of students with autism will mean extensive retraining of mainstream classroom teacher. | | | | |
| 3 | It is likely that students with autism will exhibit behavioural problems in mainstream classrooms. | | | | |
| 4 | Inclusion of students with autism can be beneficial for students without disabilities. | | | | |
| 5 | Inclusion offers mixed group interaction that will foster | | | | |

| | | | | | |
|----|---|--|--|--|--|
| | understanding and acceptance of differences among students. | | | | |
| 6 | I am capable of teaching and managing students with autism. | | | | |
| 7 | I use appropriate language techniques to interact with students with autism. | | | | |
| 8 | The extra attention that students with autism require will be to the detriment of other students. | | | | |
| 9 | Students with autism can be best served in mainstream classrooms. | | | | |
| 10 | Inclusion of students with autism in mainstream schools helps them to learn new social skills. | | | | |
| 11 | The full time special education class is the best place for students with autism. | | | | |
| 12 | Inclusion of students with autism into mainstream schools helps them to learn new academic skills. | | | | |
| 13 | Inclusion of students with autism will not promote his or her social independence. | | | | |
| 14 | Students with autism who are placed in Special Education Institutions have better services than students with special needs who are placed in mainstream schools. | | | | |
| 15 | The inclusion of students with autism into mainstream classroom will set a bad example for students without disabilities. | | | | |
| 16 | Special Education Institutes are best place for students with autism in the variety of activities that allow the students to demonstrate their strengths. | | | | |
| 17 | Mainstream classroom teachers have sufficient training to teach students with autism. | | | | |
| 18 | Students with autism will not be socially isolated in the mainstream classroom. | | | | |
| 19 | Inclusion will likely have a negative effect on the emotional development of the students with autism. | | | | |
| 20 | Teaching students with autism is better done by special education teachers than by mainstream classroom teachers. | | | | |
| 21 | Assessments should not be modified for students with autism. | | | | |
| 22 | Students with autism should have the opportunity to function in | | | | |

| | | | | | |
|----|---|--|--|--|--|
| | mainstream classrooms when possible. | | | | |
| 23 | Students with autism generally do not require more patience from the teachers. | | | | |
| 24 | The presence of students with autism will not promote acceptance of differences on the part of students without special educational needs. | | | | |
| 25 | It is not more difficult to maintain order in a mainstream classroom that contains students with autism than in one that does not have students without autism. | | | | |
| 26 | Freedom in the mainstream classroom may create confusion for students with autism. | | | | |
| 27 | Segregation in a special classroom has a beneficial effect on the social and emotional development of the students with autism. | | | | |
| 28 | I would welcome students with autism into mainstream classroom and work with them rather than in a special institutes' classroom. | | | | |

Section 3: Open-ended responses of teachers' attitude towards inclusion:

Please, write your opinion on what you believe to be the advantages and disadvantages and or limitations of the inclusion of children with autism into mainstream classrooms.

Advantages:

Disadvantages /or limitations:

Special Note:

I would greatly appreciate if you could give me 25-30 minutes from your time to be interviewed to help complete this study. If you are willing to be interviewed please contact me on the contact details below.

Thank you for your participation

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 University of Leeds, United Kingdom
 [Email: edga@leeds.ac.uk]

Appendix 4: Informed Consent Form for Teachers who are willing to be interviewed

Please read carefully each point and place an 'X' indicating you understand and accept the statement.

Tick the box if you agree with the statement:

- | | | |
|---|---|--------------------------|
| 1 | I confirm that I have read and understand the information sheet/letter explaining the above research study and I have had the opportunity to ask questions about the study. | <input type="checkbox"/> |
| 2 | I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline. | <input type="checkbox"/> |
| 3 | I understand that my responses will be kept strictly confidential. I give permission for the researcher to have access to my anonymous responses. I understand that my name will not be linked with the research materials and I will not be identified or identifiable in the report or reports that result from the research. | <input type="checkbox"/> |
| 4 | I agree for the data collected from me to be used in future research. | <input type="checkbox"/> |
| 5 | I agree to take part in the above research and will inform the principal investigator should my contact details change. | <input type="checkbox"/> |
| 6 | I understand that I should avoid the reference to other people's names (educators, principals, students). | <input type="checkbox"/> |
| 7 | I understand that if I wish to review the transcript of the interview note taking I should contact the present researcher. | <input type="checkbox"/> |
| 8 | I understand that the material collected from the interview will be used only purposes of the present research and in publications developed from the research. | <input type="checkbox"/> |

| | | |
|---------------------|------|-----------|
| Name of participant | Date | Signature |
| Researcher | Date | Signature |

Thank you for your participation.

Ghada S. Alhudaithi
 School of Education/Special Education,
 University of Leeds, United Kingdom
 [Email: edga@leeds.ac.uk]

Appendix 5: Questioning guide for interviewing the teachers

Dear Interviewee,

Thank you for making yourself available for interview. This information sheet aims to ensure that you are fully aware of the research procedure.

The aim and purpose of this interview is to obtain a more in-depth understanding of the attitudes of teachers towards inclusion of children with autism in mainstream classrooms. By mainstream schools, we simply mean the range of public and private schools that children unaffected by special needs commonly attend.

A semi-structured interview will be conducted and last no longer than 30 minutes. The interview consists of two sections with the first section obtaining information about your background such as educational level, speciality, and teaching subject, training and years of experience and so on. This will confirm and extend the data provided in the questionnaire. The second section will focus on the questions relating to the research question about attitudes to the education of pupils with autism.

The interview will be confidential and no voice recording will be taken. I have enclosed an overview of the interview so you can prepare for it. There will only be note taking and you are free to read the answers at the conclusion of the interview. You are free to request amendments to the notes or to withdraw from the interview at any time.

You may sign the consent form before we meet.

Thank you for your participation.

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Appendix 6: Interview schedule

First section: - Your background and experience

1. What are your educational qualification(s)?

2. What is your professional background?

3. What is your subject area?

4. How many years have you been teaching?

5. What is your experience of working with children in general?

6. What, if any, is your experience of working with children with special needs?

7. And what kind of Special Education Needs (SEN) have you experienced?

8. How many students with SEN are in your classroom (if any)?

9. Have you had or taught students with autism in your classroom?

Second section: - Your attitudes towards inclusion of children with autism

1 What does “autism” mean to you?

2 What does “inclusion” in the context of Special Education Needs (SEN) mean to you? Do you believe in it?

3 How does your school decide that a student has SEN/Autism?

4 Is the family part of the decision and placement?

5 Can you tell me about the referral process in your school?

6 How is the placement of students with SEN managed in your school?

7 What are your beliefs/perceptions/attitudes about working with students with autism?

Appendix 7: Arabic version of letter to inform teachers about the study

بسم الله الرحمن الرحيم

نموذج ١: خطاب للمعلمات

أختي المعلمة العزيزة / السلام عليكم ورحمة الله وبركاته وبعد:

فأنا غادة بنت صالح الحديثي طالبة دكتوراه في جامعة ليدز بمدينة ليدز بالمملكة المتحدة وأدرس عن التوحد، وأحضر حالياً لرسالة الدكتوراه وموضوعها:

"اتجاهات معلمات المرحلة الابتدائية ومعاهد التوحد في نمج تعليم الأطفال ذوي سمة التوحد في مدارس التعليم العام"

وأعني بمدارس التعليم العام: المدارس العادية الحكومية والخاصة التي لا يحتاج الأطفال بها لرعاية خاصة. والأهداف والغايات الرئيسة لهذه الدراسة هي :

- دراسة آراء، واتجاهات المعلمات نحو نمج أطفال التوحد في الفصول الدراسية العادية، وبالتالي العمل على تفهم تلك الاتجاهات والمساعدة في تطوير التعليم الخاص بشكل عام وتعليم أطفال التوحد بشكل خاص.
 - من المؤمل انه بناء على نتائج هذه الدراسة سوف تصل رسالة لوزارة التربية عن الوضع القائم حالياً في المؤسسات التعليمية بهدف مساعدتها في تحسين نوعية الخدمات التعليمية لأطفال التوحد لدمجهم في التعليم العام وكذلك تطوير العملية التعليمية للطلبة ذوي الاحتياجات التعليمية الخاصة بشكل عام.
 - المساهمة في رفع مستوى الوعي بأهمية القضايا التي تساعد في تحفيز وتشجيع إجراء المزيد من الدراسات والبحوث في مجال التوحد.
- وأنا ممتنة أن تكرمت وقرمت بالإجابة على الاستبيان المرفق.

علماً أن المعلومات المعطاة لن تستخدم إلا لأغراض البحث العلمي فقط.

كما سوف يتم جمع معلومات نوعية عن طريق مقابلات مع عدد من المعلمات الراغبات في المشاركة في الدراسة؛ وعليه فإن كان لديك الرغبة بإجراء المقابلة معك فأمل التكرم بالتواصل معي حسب الأرقام المدونة أدناه، حيث أن مشاركتك وما تقدميه من معلومات سوف يضيفي على الدراسة فائدة كبيرة. وستبقى المعلومات المعطاة في الاستفتاء، أو في المقابلة طي الكتمان. وفي حال وجود أي استفسار أو إيضاح ومزيد من المعلومات قبل المشاركة بالمقابلة فلا تتردي في الاتصال. وأن أحببت معرفة نتائج الدراسة فيمكنك الاتصال لأرسلها لك عن طريق الايميل لاحقاً إن شاء الله.

* وأخيراً أمل التكرم بتعبئة وتوقيع النموذج (#؛ المرفق داخل الظرف)، وإعادته مع الاستبيان.

مع خالص شكري وتقديري لتعاونكم ومساهمتم في إنجاز الدراسة.

جعله الله في موازين حسناتكم.

أختكم/ غادة بنت صالح الحديثي /هاتف الرياض ٠٥٥٤٠٤٤٠٠٤٠

بريد الكتروني: g.alhudaithi@gmail.com

قسم التربية الخاصة /كلية التربية /جامعة ليدز/ المملكة المتحدة

Appendix 8: Arabic version of the consent form for questionnaires

المرفق 4: (نموذج الموافقة الرسمية للمعلمت اللواتي شاركن في تعبئه الاستبيان)

نأمل قراءة كل بند قراءة جيدة ووضع "X" للدلالة على استيعابك وقبولك له.
ضع علامة في المربع إن كنت توافقين على العبارة .

- 1- أقر بأنني قرأت واستوعبت المعلومات/الخطاب الذي يوضح هدف
الدراسة ولدي الفرصة لطرح الأسئلة عن الدراسة؟
- 2- اعرف بأن مشاركتي اختيارية ولدي مطلق الحرية لانسحاب بأي وقت
دون إيذاء الأنسب والمبررات ودون أن يترقب على ذلك أية عواقب سيئة،
أضف لذلك أنه يحق لي عدم الإجابة عن أي سؤال.
- 3- أعلم جيداً بأن إجاباتي ستبقى سرية وأقوض الباحثة الاضطرار على
إجابتي. كما أعي بعدم ربط اسمي بأي من مضمون الدراسة ولم يتم البوح
عن هويتي أو التعريف بي في أي تقرير ناتج عن هذه الدراسة.
- 4- أوافق أن تستخدم البيانات والمعلومات التي أخذت مني لأغراض الدراسة
فقط.
- 5- أوافق أن أؤدي دوراً في الدراسة المذكورة أعلاه وسوف أخبر الباحثة في
حال تغيير عنوان الاتصال الخاص بي.

| | | |
|--------------|---------|---------|
| اسم المشاركة | التاريخ | التوقيع |
| الباحثة | التاريخ | التوقيع |

شكراً على تعاونكم معنا ...
شادة الحنشي
كلية التربية / التعليم الخاص
جامعة لينز بالمملكة المتحدة
هاتف سعودي : بريد الكتروني:

Appendix 9: Arabic version of the questionnaires for teachers' attitudes towards inclusion

القسم 1: معلومات ديموغرافية عامة عن المعلمات

عزيزتي المعلمة: أمل وضع علامة (✓) في المربع المتوافق مع بيئتك

1- نوع المدرسة :

- ابتدائية حكومية عالية
 أكاديمية أو معهد أو مدرسة أو مركز خاص لنوى اضطرابات التوحد

2- عمر المعلمة :

- أقل من 30 سنة
 31 سنة - 40
 41-50 سنة
 أكثر من 50 سنة

3- الجنسية:

- سعودية
 غير سعودية

4 - الشهادة العلمية:

- دبلوم قبل الجامعة
 بكالوريوس في التربية: تخصص.....
 ماجستير: التخصص.....
 أخرى: فضلاً حددي:.....

5 - مواد التدريس التي تقومين بها:

- مواد عامة (علوم طبيعية، رياضيات، تربية فنية، عربي، اجتماعيات، علوم شرعية، تسيير منزلي، الخ)
 تربية خاصة (رجاء حددي.....)
 أخرى (رجاء حددي.....)

6-الخبرات التدريسية:

- أقل من 1 سنة
 1 - 5 سنة
 6-10 سنوات
 أكثر من 10 سنوات

7- هل سبق والتحقت في دورات أو دراسة عن التربية الخاصة ؟ لا نعم

إن كنت الإجابة بنعم رجاء اوضحي بالتفصيل (ممكن خلفه)

8- هل يعني أي من أفراد أسرتك أو أقرينك من اضطرابات التوحد ؟ نعم لا9 - هل إحدى طالباتك تعاني من التوحد ؟ نعم لا

.....

القسم: 2 اتجاهات المعلمات نحو دمج طالبات اضطرابات التوحد بالفصول الدراسية العادية :

إن قناعات واتجاهات المعلمات المقصودة هنا هي تلك الخاصة بهن من حيث "مدى قناعتهن في الحق ودمج الطالبات من ذوات اضطرابات التوحد بالتعليم العام، أي بالمنازل العادية مع الطالبات العاديات للدراسة معاً في فصل واحد حسب أصول التدريس المعهودة في التربية الخاصة".

ما هو التوحد؟

باختصار: يتصف الطفل الذي لديه اضطرابات التوحد (ASD) بعدد من الاضطرابات العصبية المعقدة والسلوكية والنمو مثل: التخلف الاجتماعي، وصعوبات في التواصل، والسلوك المعقد أو المكرر والأنماط السلوكية النمطية.

إرشادات تهيئة جدول الاستبيان

أمل وضع علامة تحت البند الذي يتوافق مع تفضيلك من الخيارات الأربعة 4 أوافق بشدة، 3 أوافق، 2 لا أوافق، و 1 لا أوافق بشدة.

تذكرى عدم وجود إجابات "صح" أو "خطأ"

الفضل الإيجابية هي تلك التي تعكس الرأي الصادق لمشارك

رجاء الإجابة على جميع العبارات

| # | العبارات | 1 لا أوافق بشدة | 2 لا أوافق | 3 أوافق | 4 أوافق بشدة |
|------|--|-----------------|------------|---------|--------------|
| مثال | سوف يحاول غالبية الطلبة العاديين في المدارس العادية حل واجباتهم المدرسية خلال مدة قصيرة. | | | | X |
| | إن كنت <u>توافقين بشدة</u> على أن معلم ملهبة المدارس العاديين يبتلون جهداً لحل واجباتهم في فترة قصيرة ضعي علامة X أسفل الرقم 4 | | | | |





| # | المهارات | 1 لا أوافق بشدة | 2 لا أوافق | 3 أوافق | 4 أوافق بشدة |
|----|---|--------------------|---------------|------------|-----------------|
| 1 | يمكن لخاتمية الطالبات ذوات اضطرابات التوحد بذل الجهد بما فيه الكفاية لحل واجباتهن المدرسية. | | | | |
| 2 | يحتاج تدرج الطالبات ذوات اضطرابات التوحد في صفوف الطالبات العاديات إلى بذل جهود مكثفة لتدريب الملمات. | | | | |
| 3 | غالبًا ما تظهر الطالبات ذوات اضطرابات التوحد العديد من المشاكل السلوكية في الصفوف العادية. | | | | |
| 4 | إن تدرج الطالبات ذوات اضطرابات التوحد مع الطالبات العاديات يعتبر مفيدًا للطالبات العاديات. | | | | |
| 5 | تدرج الطالبات ذوات اضطرابات التوحد مع الطالبات العاديات يعزز عملية الفهم والاستيعاب وتقبل الفوارق بينهن. | | | | |
| 6 | لدى القدرة على السيطرة والتعرض للطالبات ذوات اضطرابات التوحد. | | | | |
| 7 | استطاع استخدام الأساليب التفرقة المناسبة للتعامل مع الطالبات ذوات اضطرابات التوحد. | | | | |
| 8 | الإفهام الزائد الممنوع للطالبات من ذوات اضطرابات التوحد نفسه يظل للطالبات العاديات. | | | | |
| 9 | إلحاق وتدرج الطالبات ذوات اضطرابات التوحد بالصفوف الدراسية العادية هو أفضل وسيلة لتعليمهن. | | | | |
| 10 | تدرج الطالبات ذوات اضطرابات التوحد في المدارس العادية يساعدن على اكتساب وتعلم مهارات اجتماعية جديدة. | | | | |
| 11 | تعليم الطالبات ذوات اضطرابات التوحد بشكل كامل في فصل مستقل يهن هو الأفضل لهن. | | | | |
| 12 | تدرج الطالبات ذوات اضطرابات التوحد في المدارس العادية يساعدن على تعلم مهارات أكاديمية جديدة. | | | | |
| 13 | تدرج الطالبات ذوات اضطرابات التوحد في المدارس العادية لهن يعزز استقلالتهن الاجتماعية. | | | | |
| 14 | تحصل الطالبات ذوات اضطرابات التوحد في المعاهد الخاصة يهن على خدمات أفضل من الطالبات ذوات الإحتياجات الخاصة التي يتبعن بالمدارس العادية. | | | | |

| # | العيبارات | 1 لا أوافق بشدة | 2 لا أوافق | 3 أوافق | 4 أوافق بشدة |
|----|--|--------------------|---------------|------------|-----------------|
| 15 | دمج الطالبات ذوات إضطرابات التوحد في الفصل العادي يشكل مثلاً سيئاً للطالبات العاديات. | | | | |
| 16 | تعتبر معاهد ومراكز التربية الخاصة المكان الأمثل لطالبات إضطرابات التوحد حيث تقدم العديد من النشاطات التي تتوحد للطالبات أداء وإظهار جوانب القوة لديهن. | | | | |
| 17 | لدى معلمات فصل الدمج العادي التدريب والمعرفة الكافية لتدريب طالبات ذوات إضطرابات التوحد. | | | | |
| 18 | لن تتعزل طالبات إضطرابات التوحد اجتماعياً عندما يوضعن في الفصول الدراسية مع الطالبات العاديات. | | | | |
| 19 | غالباً ما يكون لدمج الطالبات ذوات إضطرابات التوحد في الصفوف العادية أثر سلبي على نموهن العاطفي. | | | | |
| 20 | تعليم الطالبات ذوات إضطرابات التوحد يتم بشكل أفضل على يدي معلمات متخصصات في التربية الخاصة من أن يكون على يدي معلمات الفصل العادي . | | | | |
| 21 | يجب عدم إدخال تعديلات على التقويم (الاختبار) الخاص بالطالبات ذوات إضطرابات التوحد. | | | | |
| 22 | يجب إعطاء طالبات إضطرابات التوحد الفرصة للأداء والمشاركة والدراسة قدر الإمكان في الفصول العادية. | | | | |
| 23 | لا تحتاج الطالبات ذوات إضطرابات التوحد إلى مسير وجهه زائد من المعلمة. | | | | |
| 24 | وجود الطالبات ذوات إضطرابات التوحد بالصفوف العادية لن يشجع الطالبات العاديات على قبولهن. | | | | |
| 25 | ليس من الصعب المحافظة على نظام الصف العادي الذي فيه طالبات إضطرابات التوحد مقارنة بالصف الذي يخلو منهن. | | | | |
| 26 | قد تحدث الحرية في الصف الدراسي المدمج ارتباكاً للطالبات التوحد. | | | | |
| 27 | فصل الطالبات ذوات إضطرابات التوحد في صف خاص بهن له أثر ومردود جيد على نموهن العاطفي والاجتماعي. | | | | |
| 28 | الفضل العمل مع الطالبات ذوات إضطرابات التوحد في الفصل الدراسي العادي أكثر مما لوكن في فصل في معاهد التربية الخاصة. | | | | |



القسم 3: الإجابات المفتوحة لاتجاهات المعلمات نحو دمج طالبات التوحد في

المدارس العادية

معلمتي العزيزة: أمل التكرم بكتابة رأيك عما تعتقد أنه من المنافع والمحاسن لدمج طالبات ذوات اضطرابات التوحد في صفوف المدارس العادية، وكذا كتابة ما ترين أنه من المساوئ.

*أولاً: المحاسن والمكاسب والمنافع من الدمج : (اكتبي خلفه إن احتجت)

- 1
- 2
- 3

*ثانياً: المساوئ وأوجه القصور في الدمج : (اكتبي خلفه إن احتجت)

- 1
- 2
- 3

• (اكتبي خلفه إن احتجت):

ملاحظة هامة جدا

أختي المعلمة العزيزة: مع شكري وتقديري، أكون ممتنة لك إذا تمنحيني حوالي 30 دقيقة من وقتك لإجراء مقابلة معك في المدرسة لإكمال جزء من هذه الدراسة. *في حال موافقتك لي لمقابلتك أمل التكرم بالاتصال على رقمي أدناه للترتيب لذلك أو ترك وسيلة للاتصال بك.

أختكم/غادة بنت صالح الحديثي

قسم التربية الخاصة/كلية التربية /جامعة لينز/المملكة المتحدة

وشكراً على تعاونكم ،،،

Appendix 10: Arabic version of the consent form for interviews

المرفق 5 (نموذج الموافقة الرسمية للمعلومات الراجعة بإجراء المقابلة)

نأمل القراءة الجيدة لكل بند من البنود أثناء ووضع علامة "x" في المربع في حالة الموافقة على العبارة المقابلة له.

- 1- أقر بأنني قرأت واستوعبت المعلومات/الخطاب الذي يوضح هدف الدراسة ولدي الفرصة لطرح الأسئلة عن الدراسة؟
- 2- أعرف بأن مشاركتي اختياريه ولدي مطلق الحرية للتسحب بأي وقت دون إبداء الأسباب والمبررات ودون أن يترقب علي ذلك أية عواقب سلبية أضف لذلك أنه يحق لي عدم الإجابة عن أي سؤال.
- 3- أعلم جيداً بأن إجاباتي ستبقى سرية والفرص الباحثه الاضطلاع على اجاباتي. كما أعي بعدم ربط اسمي بأي من مضمون الدراسة ولن يتم البوح عن هويتي أو التعريف بي في أي تقرير ناتج عن هذه الدراسة.
- 4- أوافق أن تستخدم البيانات والمعلومات التي أخذت مني لأغراض الدراسة فقط.
- 5- أوافق أن أؤدي دوراً في الدراسة المذكورة أعلاه وسوف أعلم الباحثه في حال تغير عنوان الاتصال الخاص بي.
- 6- أقر بعدم الإثارة وذكر أي أشخاص آخرين (الموجودات، المميزات والطالبات).
- 7- أعرف بأنه في حال رغبتني الاضطلاع على مسودة المقابلة على التواصل مع الباحثه.
- 8- أعلم جيداً بأن المعلومات المنخوذة من المقابلة سوف تستخدم لأغراض البحث الحالي فقط ولأجل نشر البحث.

| | | |
|--------------|---------|---------|
| اسم المشاركه | التاريخ | التوقيع |
| الباحثة | التاريخ | التوقيع |

شكراً على تعاونكم معنا ،،،
 غادة الحديشي
 كلية التربية / التطعيم الخاص
 جامعة لينز بالمملكة المتحدة

المرفق 3 (ورقة معلومات لمقابلة المعلمة)

عزيزتي المعلمة :

أشكرك على إتاحة الفرصة لي لمقابلتك .

تهدف هذه الورقة إلى التأكيد على تفهمك التام لإجراءات الدراسة. ويمكن الهدف والغاية من المقابلة الحصول على مزيد من المعلومات المعمقة عن آراء المدرسات نحو دمج أطفال التوحد بالفصول والصفوف الدراسية العادية. ويقصد بالمدارس العادية المدارس الحكومية العادية والخاصة ولا يحتاج الأطفال أي عناية خاصة بهم.

كما أن المقابلة لن تستغرق أكثر من 30 دقيقة. وتتكون المقابلة من قسمين: الأول لجمع المعلومات عن خلفيتك مثل المستوى التعليمي التخصصي، مواد التدريس، الدورات وسنوات الخبرة وغير ذلك. وسيؤكد هذا ويكمل البيانات المعطى في الاستبيان. أما القسم الثاني فإنه يركز على الأسئلة ذات الصلة بتساؤلات البحث عن آرائك نحو تدريس طالبات التوحد مع التعليم العادي.

وستكون المقابلة سريعة ولن يتم أي تسجيل صوتي لها. وسوف أدون فقط بعض الملاحظات ويوسعك قراءة الإجابات في نهاية المقابلة.

كما يوسعك إدخال تعديلات على إجاباتك أو سحبها وإلغاءها من المقابلة في أي وقت تشاءين .
ويوسعك التوقيع على نموذج الموافقة قبل أن نتقابل

نشكرك على تعاونك ،،

غادة الحديتي

كلية التربية / التعليم الخاص

جامعة ليدز بالمملكة المتحدة

هاتف سعودي :

بريد الكتروني:

Appendix 12: Arabic version of interview schedule

ملحق 14 / مضمون أسئلة المقابلة**القسم الأول: مؤهلاتك وخبراتك**

- 1- ما مؤهلاتك التأسيسية ؟
- 2- ما خبراتك العملية ؟
- 3- ما مجال تدريسيك ؟
- 4- كم عدد سنوات خبرتك التدريسية ؟
- 5- ما خبراتك العملية مع الأطفال بشكل عام؟
- 6- ما خبراتك التدريسية مع طالبات الاحتياجات الخاصة ؟
- 7- ما نوع ذوى الاحتياجات الخاصة اللذين مارستى التعامل معهم؟
- 8- كم عدد طالبات الاحتياجات الخاصة في صفك ؟
- 9- هل سبق وأن درست طالبات توحد في صفك ؟

القسم الثاني: اتجاهات المعلمة نحو دمج طالبات طيف التوحد بالمدراس العادية.

- 1- ماذا يعني التوحد لك ؟
- 2- ماذا تعني "دمج" من حيث احتياجات التربية الخاصة لك. هل تعطين بها؟
- 3- كيف تتعامل بمرسيتك مع طالبات طيف التوحد ؟
- 4- هل كان لظاهرة دوراً باتخاذ قرار المدرسة ؟
- 5- هل بوسطك شرح كيفية الحق الطالبية بمرسيتك ؟
- 6- كيف تتم عملية تسجيل طالبة الاحتياجات الخاصة بمرسيتك ؟
- 7- ما هي فوائدها / مبرراتها / تجاه العمل مع طالبات التوحد ؟

Appendix 13: Examples of research and analytical methods in relevant literature

| # | Author | Year | Method of Data Collections (instrument) | | | | | Data Analysis |
|---|--|------|---|------------|-------------|------------------|----------------------|---|
| | | | Questionnaire (survey) | Interviews | Observation | Quasi-experiment | Open ended questions | |
| 1 | Knight B. | 1999 | | | | | | Examined through what was essentially a literature review, and identifying best practices in this area. |
| 2 | Simpson R.L. & De Boer-Ott S.R. & Smith-Myles B. | 2003 | | | | | | Using a literature review (meta-analysis) to identify the strengths & weaknesses of the model and its specific significance in facilitating inclusion was reviewed for the ASD Inclusion Collaboration Model |
| 3 | Brantlinger E. | 1996 | | | | | | Researcher screened the written and oral narratives. Conducted via analysis of narratives. (Observation & written assignments & course & advising discussion). |
| 4 | Eman Gaad Lavina Khan | 2007 | | | | | | Data from questionnaires was analysed using coded table. |
| 5 | Lori Bradshaw Lawrence Mundia | 2006 | | | | | | Analysed data by a variety of statistical techniques: frequencies, percentages, mean standard deviation-test & mean difference. |
| 6 | Campbell J. & Gilmore L. & Cuskelly M. | 2003 | | | | | | Analysed data through several test-retest reliability assessments, which include reliability coefficients. Confirmatory factor analysis of the interactions with Disabled Person's Scale (IDP) on whole sample from the beginning of the semester using LISREL 7. Repeated measures MANOVA compared the scores on each factor at beginning and end of each factor at the beginning & end of the semester. |
| 7 | Perry T.L. & Ivy M. & Conner. A & Shelar D. | 2008 | | | | | | Expressive data and statistical results from t-tests and analyses of variance have been used for this study. |
| 8 | Cook B.G. | 2001 | | | | | | One-tailed chi-square analyses. Plus a separate chi-square analyses were conducted. |

| | | | | | | | | | |
|----|--|------|--|--|--|--|--|--|--|
| 9 | Monsen J.J. Fredericks on N. | 2004 | | | | | | | Data were analysed using Descriptive Statistics and ANOVA results for Differences on MCI score for Classes of Teachers with High, Medium & Low Scores on the ORM. And a Descriptive Statistics and ANOVA results for Differences Between Teachers with High, Medium and Low Scores on the ORM on Teacher Background Variables |
| 10 | Monahan R.G. & Marino S.B. & Miller R. | 1996 | | | | | | | Data analysed through a five-point scale from strongly agree to strongly disagree... |
| 11 | Wilkins T. & Nietfeld J.L | 2004 | | | | | | | To analyse responses a four composite scores were created to represent each of the facets. And it included a descriptive and inferential statistics performed on the data from the questionnaire. Adding an overall composite score to create a holistic comparison. |
| 12 | Spandagou I, Evans D, & Little C. | 2008 | | | | | | | The data from surveys were coded and entered onto a spreadsheet that was transferred for analysis to a SPSS data file. |
| 13 | Praisner C. | 2003 | | | | | | | Descriptive statistics for analysing the data. Frequency distributions and percentages. And the frequencies and percentages were reported for each placement across all disabilities and for each category in the survey. Additionally, Central tendency data were calculated for the question on formal training topics and the Attitude Score. PPMC or PBC was computed between each variant determine if there was a significant relationship at the .05 level of significance. |
| 14 | Cook B.G. & Melvyn I. S. & Michael M. G. | 1999 | | | | | | | Mean & Standard deviations were used to analyse and describe attitude. Nonparametric bi variant procedures (Mann-Whitney <i>U</i> tests) were used to analyse the differences. |
| 16 | Mdikana A. Ntshangas e S. & Mayekiso | 2007 | | | | | | | Data were analysed using descriptive statistics. It is a small scale Investigation |

| | | | | | | | | |
|-----------|---|------|--|--|--|--|--|--|
| | T. | | | | | | | |
| 17 | Avramidis E., Bayliss P. & Burden R. | 2000 | | | | | | It was analysed in a six one-way MANOVA to test for Difference in the cognitive, affective & cognitive components of attitude. A statistical comparison was used. And a repeated measures ANOVA. Following, paired sample <i>t-tests</i> |
| 18 | Stanovich P.J. & Jordan A. | 1998 | | | | | | Data analysed through statistical analysis; Inter correlations among the Primary Variables & Simultaneous Regression Analysis Predicting Effective Teaching Behaviours. |
| 19 | Carlucci Nigro | 1998 | | | | | | To measure reality & validity, they used the mean correlation and Cronbach's alpha. They also used for data analysis: means, and standard deviation. |

Appendix 14: Panel of Experts Information

| Name | Position | Major and Institution |
|------------------------|---------------------|---|
| Abdullah M. Al-Wabli | Professor | Special Education, School of Education, King Saud University |
| Zaydaan A. Al-Saratawi | Professor | Special Education, School of Education, King Saud University |
| Ibrahim A. Al-Uthman | Associate Professor | Special Education, School of Education, King Saud University |
| Usri Isa Ali | Associate Professor | Special Education, School of Education, King Saud University |
| Turki A. Al-Quraini | Associate Professor | Special Education, School of Education, King Saud University |
| Ali M. Al-Zahrani | Associate Professor | Special Education, English Literature, School of Education, King Saud University |
| Saleh S. Al-Hedaithy | Associate Professor | Curriculum and Instruction/Science Ed., School of Education, King Saud University |
| Radhi S. Al-Suroor | Associate Professor | Curriculum and Instruction /English Literature, School of Education, King Saud University |
| Riyadh A. Al-Hasan | Associate Professor | Curriculum and Instruction/ Computer Ed., School of Education, King Saud University |
| Tami M. Al-Ulayaani | Teacher | High School Teacher, Ministry of Education (MOE) |

Appendix 15: Supervisor's letter to conduct the field work data collection

School of Education

University of Leeds
Leeds LS2 9JT
T +44 (0) 113 343 4545
F +44 (0) 113 343 4541



UNIVERSITY OF LEEDS

TO WHOM IT MAY CONCERN

10th January 2012Re: Student: *Ghada Saleh Alhudaithi*

Supervisors: Dr Sue Pearson & Dr Mary Chambers
School of Education, University of Leeds, Leeds, U.K.
ID: 200511416 Saudi's ID: R963

This is to certify that *Ghada Saleh Alhudaithi*, ID: 200511416 Saudi's ID: R963 is currently a full time PhD student here in the School of Education. Her research is in the area of special educational needs with a specific focus on Autism. Her PhD study title is: "*Saudi Arabia Female Institutes & Elementary School Teachers Attitudes toward Autistic children's Inclusion into Regular Classrooms*".

Ghada completed the upgrade process in December 2011 and now has full doctoral student status. In the light of that, we can confirm that she needs to go to Riyadh, Saudi Arabia, for her research fieldwork data collection, starting the end of January 2012 until not later than July 2012. She will be doing the data collection using questionnaires and interviews of the female teachers of the Elementary Public Schools and Private Institutes for children with Autism. We hope that her government will be able to support this phase of her studies.

In anticipation, we, her supervisors, would like to express our appreciation for your co-operation which will make her trip and field work data collection possible. She is still awaiting the outcome of the ethical review of her research which is a requirement of this university. She can however start to make some initial contacts before that is completed.

If you should require any further information please do not hesitate to contact any of us:
Dr Sue Pearson: S.E.Pearson@education.leeds.ac.uk, or Dr Mary Chambers:
M.E.Chambers@education.leeds.ac.uk

Yours faithfully

Dr Sue Pearson

بسم الله الرحمن الرحيم

سعادة المديرية العامة لمكتب الإشراف الإجتماعي بالرياض يحفظها الله

السلام عليكم ورحمة الله وبركاته وبعد :

فأنا المواطنة/السعودية غادة بنت صالح الحديثي أدرس في المملكة المتحدة لمرحلة الدكتوراه في تخصص التربية الخاصة (توحد)، والآن في مرحلة تطبيق أدوات البحث على عينة من معلمات التعليم العام وجميع معلمات مراكز واكاديميات ومعاهد التربية الخاصة (خاصة التي فيها توحد).

وعليه أرجو من سعادتكم التكرم بمساعدتي بإعطائي خطاب تسهيل مهمة لمراكز ومعاهد واكاديميات التربية الخاصة وخاصة التي فيها طالبات ذوات اضطرابات التوحد في مدينة الرياض، بهدف إجابة المعلمات على الإستبيان -المرفق- الموجه لهن . كما أرفق لسعادتكم نسخة من الخطاب التعريفي من الملحق التعليمي في بريطانيا ، وخطاب من المشرفة الأكاديمية على دراستي والذي تطلب فيه مساعدتي لتطبيق الأداة في مدينة الرياض.

شاكراً لكم ومقدرة جميل تعاونكم والله يرعاكم.

مقدمته/ الباحثة

غادة بنت صالح بن سليمان الحديثي

Appendix 20: Permission letter to mainstream public
and private schools to conduct the study

الرقم : ٥١٠٢٢٢ / ٢٢٠١١
التاريخ : ٤/١ / ١٤٢٢ هـ
الملاحظات : استبيان

الجمهورية العربية السورية
وزارة التربية والتعليم
مديرية التربية والتعليم
محافظة حماه
مديرية التربية والتعليم
محافظة حماه
قسم الدراسات والبحوث

وزارة التربية والتعليم
Ministry of Education

تسهيل مهمة باحث /ة

| | |
|-----------------------------|---|
| اسم الباحثة | شادة صالح الحديثي - |
| الكلية / الجامعة | جامعة لينز بالمملكة المتحدة. |
| رقم وتاريخ خطاب طلب التسهيل | ٣٣٦٢٨٥٢٨ وتاريخه ١٤٢٣/١/٧ هـ. |
| الهدف من الدراسة | متمطلب الحصول على /المستنوراه- |
| عنوان الدراسة | (اتجاهات معلمات المرحلة الابتدائية ومعاهد التوحيد في دمج تعليم الاطفال ذوي إضطرابات التوحيد في مدارس التعليم العام) |
| نوع الأداة | استبانه . |
| عينة البحث | _معلمات . |
| نوع التسهيل | تطبيق الأداة على هيئة البحث . |

حفظها الله

المكرمة مديرة المدرسة /الابتدائية (برنامج الدمج - حكومي اهلي-)

السلام عليكم ورحمة الله وبركاته وبعد ...

بناءً على تعميم معالي وزير التربية والتعليم رقم ٥٥/٦١٠ وتاريخ ١٤١٦/٩/١٧هـ بشأن تفويض الإدارات العامة للتربية والتعليم بإصدار خطابات السماح للباحثين بإجراء البحوث والدراسات ، وحيث تقدمت (الينا الباحثة) الموضحة بياناتها أعلاه) بطلب إجراء دراستها ، ، نأمل تسهيل مهمتها ، مع ملاحظة أن الباحثة تتحمل كامل المسؤولية المتعلقة بمختلف جوانب البحث من توزيع أدوات البحث واستلامها بعد استئذانها من العينة ، ولا يعني سماح الإدارة العامة للتربية والتعليم موافقتها بالضرورة على مشكلة البحث او على الطرق والأساليب المستخدمة في دراستها ومعالجتها .

شاكرين طيب تعاونكم .

مديرة إدارة التخطيط والتطوير

وضعاء بنت سعد الشريف



من: اسم الدراسات والبحوث