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**AN EXPLORATION OF SPECIAL EDUCATION
TEACHERS' PRACTICES IN A PRESCHOOL
INTELLECTUAL DISABILITY CENTRE IN SAUDI
ARABIA**

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Abstract

Exploration of special educational teachers' practices in a centre for children with intellectual disabilities in Saudi Arabia has been shown to be influenced by the Islamic and Arab context together with differing understandings of disability and American-influenced treatments of what are seen as inappropriate behaviours. This study explores teachers' practices together with their perceptions of the challenges and barriers they face, and strategies they consider could improve the delivery of services for the children they work with. In this interpretive qualitative study, data collected from semi-structured interviews with fifteen teachers in a single centre are presented under the three main research questions. Teachers emphasised the importance of correcting behaviour as a prerequisite for more academic learning, with some acknowledgement of a child's need for freedom. The findings indicate that provision for children with intellectual disabilities is informed mainly by Islamic teachings and American methods. The principal methods adopted from America are behaviourally based: TEACCH (Treatment and Education of Autistic and Communication related handicapped Children), which emphasises structure in the physical environment, schedules and methods of teaching tasks and skills; and ABA (Applied Behaviour Analysis), which aims to improve behaviours and skills by focusing on detailed breakdown and teaching of task components and rewarding desired behaviours with positive reinforcement. Future improvements require certain key issues to be addressed, especially professional development and staff support for special needs teachers, links between special and mainstream teaching, and collaboration with parents and colleagues. The thesis concludes by proposing that future improvements would be secured by the adoption of a more child-centred approach which benefits from constructivist teaching methods and which may be more suited to an Islamic approach to childhood.

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Dedication

I dedicate this study with deep love and affection to my caring parents, **Hussin** and **Galba** who are the source and support of my determination for my pursuit of perfection and for believing in me throughout this journey. My deep gratitude goes to my loyal wife **Reem** and beautiful children **Wassam, Nawaf and Omar**. Without their encouragement, support and their endless patience, this work would not have been achieved.

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ABBREVIATION

Abbreviation	Meaning
AAIDD	American Association of Intellectual and Developmental Disabilities
ECE	Early Childhood Education
ECI	Early Childhood Intervention
IDEA	Individuals with Disabilities Education Act
ID	Intellectual Disabilities
LRE	Least Restrictive Environment
NGO	Non-Governmental Organisation
RRSEP	Rules and Regulations of Special Education Programmes
SEN	Special Education Needs
SETs	Special Education Teachers
ABA	Applied Behaviour Analysis
IFSP	Individualized Family Services Plan
DTI	Discrete Trial Instruction
IEP	Individual Education Plan
IDC	Intellectual Disability Centre

CHAPTER 1 INTRODUCTION

1.1 Introduction

“Disability is part of the human condition” (World Health Organisation (WHO), 2011, p.1). The term disability includes impairments (loss of function such as hearing impairment), and restrictions or loss of opportunities to join in everyday activities as an equal. Opportunities can be lost or restricted because an individual has physical or cognitive difficulty in carrying out actions and tasks (activity limitation). This can also happen because an individual faces problems in real life situations, which can be caused by environment or social factors (WHO, 2011). The definition of disability offered by the Disabled Peoples' International (DPI) is the limitation or loss of opportunities to participate in their community or society in normal everyday life situations at the same level with others due to social and physical barriers (DPI, 1982).

Disabilities, including intellectual disabilities, are conceptualized differently in different countries and cultures, and may therefore have different names (WHO, 2007). Names and definitions of disabilities change over time and, in fact, a revised definition of intellectual disabilities was produced in 2015. Variations of definitions are examined further in the literature review in Chapter Three. The definition in use in Saudi Arabia when this study started was based on The American Association of Intellectual and Developmental Disabilities (AAIDD) criteria and classification to define intellectual disability (Richards, 2014). The three criteria were: IQ level; adaptive behaviour in terms of practical, social and conceptual skills; and manifestation before the age of 18. Four levels of disability were identified, and mild intellectual disabilities were associated with IQ scores from approximately 75 to 50, taking into account the other criteria (Schalock et al., 2010). The combination of education policies and the health

related classifications illustrates the need for close collaboration in providing services to very young children.

Estimates of the incidence of intellectual disability are in the range of 1-3% (Harris, 2006). Higher estimates are related to the concept of a normal distribution of IQ scores (Hodapp, Kazemi, Rosner, & Dyken, 2006). It has been estimated that mild intellectual disabilities (MID) account for between 80% (Ke & Liu, 2012) and 85-90% (Rojahn, Schroeder, & Hoch, 2008) of all intellectual disabilities. A reasonable estimate for the prevalence of MID in preschool age children in Saudi Arabia can be based on a population figure of 26,000,000 of whom some 74% are natives and almost 10% are aged 0-4 years (Salam, 2013). This suggests there are between 20,000 and 30,000 children with some degree of MID.

In response to increasing numbers of children, the number of programmes for intellectual disabilities children increased from 656 in 2006 to 718 in 2007, a growth of more than 9% in one year (Alnahdi, 2012). This indicates that the role of Early Childhood Intervention (ECI) may be important in helping to reduce the effect of impairments through programmes consisting of tailored support which target the needs of vulnerable children who have disabilities (Goddard, Davidson, Daly, & Mackey, 2008; Almalki, 2013). Typically, children below the age of six are initially assessed on the development of cognitive, health and social developmental dimensions in order to identify developmental delays or disabilities. An early start enables children to acquire as many skills as possible in the early years of growth (Almalki, 2013; Sexton, Snyder, Rheams, Barron-Sharp, & Perez, 1991).

However, the effectiveness and quality of interventions depend on a variety of factors. These factors include: assessment (Guralnick, 2011); partnership between parents and

professionals (Higgins, 2005; Cavanaugh, 2012; Merza, 2002); appropriate pre-service and in-service training and development for special education teachers and other professionals (Almalki, 2013; Gallagher & Malone, 1997; Mcfarlane & McLean, 2003; WHO, 2012); and collaboration among professionals (Chen, Klein, & Minor, 2009) and between authorities such as health and education (Bakhsh, 2009). Higher quality preschool provision has been associated with higher attainment in the first year in primary school in the subjects of mathematics and reading; this in turn has been associated with high quality teaching (Sammons et al., 2003).

In Saudi Arabia, early child intervention services and preschool provision for children with ID are expanding rapidly, chiefly through a network of Intellectual Disability Centres (IDCs). Therefore, a prime concern over the next 5 to 10 years will be to make sure that special education teachers (SETs) and other early intervention specialists in those IDCs have the preservice training and professional development they need to provide quality support and learning experiences. It is necessary to understand how preschool special education teachers perceive the effectiveness of existing provision in relation to the quality of support and training they receive, in order for children with ID to gain the greatest possible benefits. Moreover, the researcher's own experience as an SET working with preschool age children with intellectual disabilities revealed that SETs were dissatisfied and frustrated with the services they were able to provide.

1.2 Thesis structure

The study sets the context in terms of education policy and provision in Saudi Arabia for children with intellectual disabilities (chapter 2), after which key themes and theories in the literature are examined. Theoretical frameworks and models of disability, child development, and education are considered together with definitions of intellectual

disability in the literature review (chapter 3), keeping in mind the effect of the Saudi Arabian context. Specific attention is given to the teaching strategies and methods employed by SETs with preschool children assessed as having intellectual disabilities. A summary of key themes and issues is followed by explanation and justification of the research methodology (chapter 4).

Justification of the interpretive qualitative research methodology comprises information about the sample, the selected data collection method, with points of clarification regarding the relationships among the themes in the literature, the research questions and the methods. In addition, the choice of the data analysis technique is explained and justified. A description of the challenges presented by translation is accompanied by examples of how they were addressed. Discussion is offered of how the validation of this research has been undertaken. Ethical issues arising in relation to the study are shown to have been correctly dealt with and consideration is given to the limitations of the research.

The findings for the three main research questions are presented in chapters five, six and seven and are discussed in terms of disability theories, child development and approaches to teaching and learning. Discussions take into account how these are understood and implemented within the specific Islamic religious context and Arab cultural framework in Saudi Arabia. Chapter eight brings together the key findings and discussion of issues from each of the analysis and findings chapters, linked to appropriate recommendations. The thesis concludes with a summary of the main outcomes of the study, my reflections on my influence on the various stages of the research, and suggestions for future directions for research (chapter 9).

1.3 Researcher's positionality

It is essential to state my positionality as the researcher so that the reader knows how my own background and beliefs may have influenced the study, as recommended by Bourke (2014) and Wellington (2000). The present project grew out of my desire as a special education teacher to help other teachers. My own culture and history, my personal experience and my interests, have all had a profound impact on this research. Growing up in Saudi Arabia, and then completing a bachelor's degree in Special Education with an emphasis on Intellectual Disability at King Abdul-Aziz University in Jeddah, I understand the academic, social and cultural contexts as an 'insider' (Merriam et al., 2001).

As an undergraduate, I actively participated in various conferences, workshops, and activities relevant to providing services for children with special needs. Furthermore, I edited the first magazine published by our department, the Special Needs Magazine, which provided basic information about children with special needs. In 2004, I was selected with two other students to participate in an internship at the Jeddah Special Education Center, the first centre in the Arab world to provide services and care for children with intellectual disabilities. I worked there for two years, as a special education teacher.

I would describe my theoretical approach to disability as mainly Islamic, accepting differences between human beings as created by Allah in order for us to learn to help and love each other. This means I have a moral duty to help people who are more vulnerable than myself and I have chosen to do this by working with children who have intellectual disabilities, using my knowledge and skills to help them improve theirs. At the same time, I have to accept that stigmatisation of disability is an inescapable fact for

many people in Arabic cultures who regularly experience it, which means that parents who bring their children to the Center often hope and expect that their children will be 'cured', partly because of a lack of information and understanding.

I later gained valuable experience as a volunteer special education teacher in an Intellectual Disability Centre, before studying for a master's degree in the United States. The voluntary work focused on early intervention for preschool children with intellectual disabilities and gave me a great placement in an early intervention programme for special needs children and those who were at risk. The placement provided me with the opportunity to work collaboratively with parents and professionals; it was an enriching experience which profoundly affected me. I feel it planted a seed of preparation for my role as a mentor for such children and their families in the future.

A second scholarship from the Saudi Ministry of Higher Education brought me to the UK to undertake a PhD. I wondered if SETs shared my experiences of frustration as well as enjoyment. In my early days as an SET, I had little knowledge of what working for children with intellectual disabilities would be like. I lacked practical classroom experience and knowledge of teaching techniques and interventions. I struggled to implement Individual Education Plans (IEP) as intended. Most of the practical skills and knowledge I have gained has come from observing, working with, and discussing my experiences with colleagues. This has led me naturally to believe that bringing different experiences and perspectives together and reflecting on them can generate new understandings and ideas. Through my PhD, I hope that a deep understanding of how SETs perceive and carry out their work has enabled me to identify initiatives and directions for improvement in support offered to SETs and in services delivered to children with ID and their families.

1.4 Research aim, objectives and questions

Key gaps identified in existing studies in Saudi Arabia were early childhood intervention and early years provision for preschool children with intellectual disabilities, and for preschool provision in general. The reasons for selecting MID as the focus of this research are that MID is the most common intellectual disability in Saudi Arabia as elsewhere (based on normal distribution) and that I could use my own experience of working with these children to conduct a study of use to other SETs. I felt it was essential to explore and understand the practices and experiences of SETs, who comprise the majority of preschool early intervention professionals, and any barriers or challenges they encountered when providing services aimed at enabling the successful integration of these children into Saudi Arabian society. Thus, the intention of the present study is to examine and understand the practices of special education teachers in a preschool Intellectual Disability Centre in order to identify areas for development and improvement in the services provided to the children and the support provided for their teachers.

The aim of this study is to investigate practices and perceptions of SETs in an Intellectual Disability Centre in Saudi Arabia, regarding the services they deliver for preschool children with ID, and the support and development needed for high quality provision. From this general aim, the objectives were framed as:

1. to identify preschool specialist education teachers' practices and perceptions of Early Childhood Intervention services
2. to assess the impact of preschool specialist education teachers' perceptions on their delivery of specialist services

3. to ascertain practices and strategies that promote the development of preschool children with Intellectual Disabilities within the Saudi Arabian system

From these objectives, the specific research questions were framed as:

1. What practices, educational interventions and methods do Saudi special education teachers perceive as effective and useful to meet the educational needs of preschool children assessed as having intellectual disabilities in an Intellectual Disability Centre?

2. What challenges or barriers do Saudi special education teachers face when working with preschool children diagnosed with intellectual disabilities in an Intellectual Disability Centre?

3. What strategies can be used in Saudi Arabian Intellectual Disability Centre to improve practices and educational interventions in order to meet the educational needs of preschool children with intellectual disabilities?

1.5 Significance of the study

This is one of the first studies examining the practices of early childhood education and intervention for preschool age children with ID in Saudi Arabia. Relatively few interpretive qualitative studies in this field have been undertaken, and therefore the present study offers a deeper and richer insight into SET practices in an Intellectual Disability Centre and identifies potential areas for reducing teacher frustrations and enhancing the services provided for the children and their families.

Despite the existence of extensive relevant literature, there are relatively few studies related to these children. The present study is one of the first to explore education

provision for this particular group of children, certainly in Saudi Arabia. Although the number of qualitative studies in the context of Saudi education is growing, quantitative research is still considered more scientific and reliable.

This study has found that SETs used a wide range of teaching strategies and techniques to improve children's behaviours within a wider framework of educational activities. Educational activities such as listening to stories, counting and singing were mainly conducted with whole groups of around twelve children, but the number of children resulted in frequent interruptions to discourage unwanted behaviours and replace them with desirable ones.

This resulted in underlying tensions between a child-centred approach to development and a model of disability which seeks to remedy defects and normalise the child to fit into society. The tensions reflected differences in Saudi Arabia between an Islamic approach which values individuals and their differences as creations of Allah, and traditional Arab culture which tends to stigmatise disability, although religion and culture both value a conservative and conformist approach to society.

SETs were clearly dedicated to supporting the development of each child in their care, but were in need of various forms of support themselves. The professional development offered to them was considered inadequate, with some notable exceptions, and a lack of classroom teaching assistants led towards burnout. However, their inexperience in terms of professional development and teaching assistants meant that many were uncertain about what they would actually find useful.

In contrast, they were certain that a counselling service for parents would be valuable; it would provide information about their child's condition and help parents with difficult questions that the SETs could not answer.

It is proposed that the design and implementation of such a service for parents would benefit the child and his or her family. It is further proposed that some initial teacher training and professional development could be shared by SETs and general teachers, with a focus on topical issues and the preschool age group.

The findings and recommendations will be of interest to SETs and centres providing services for preschool children with intellectual disabilities. In addition, they will be helpful to those involved in designing and delivering courses and workshops that will address the professional development needs of teachers as the education system in Saudi Arabia continues to implement policy changes.

CHAPTER 2 SAUDI ARABIAN CONTEXT

2.1 Introduction

This chapter examines and evaluates Saudi Arabian policies regarding special education and preschool provision. Two key concepts which influence all aspects of the education system in Saudi Arabia, from policy to implementation and practices, are the meaning of the Arabic word for 'education' and the paramount importance of Islam in Saudi Arabian society. The Arabic word for education is said to be formed from three words: tarbiya, to bring up; ta'dib, meaning discipline; and ta'lum, to gain knowledge (Al-Attas, 1979; Risha, 2014). Tarbiya is concerned with guiding people to maturity, ta'dib deals with acceptance and performance of social and moral rules, while only one of the three, ta'lum, is concerned with teaching new information. Islam permeates all aspects of people's lives, influencing the country's socio-cultural customs, rules and habits of daily living, education and employment, and the legal system, leading to an integrated way of life (Ministry of Education, 2012). The importance attached to tarbiya and ta'dib is reflected not only in the emphasis on correct behaviour in Saudi Arabia, but in Islamic schools established in Europe (Aslan, 2011; Scourfield, Gilliat-Ray, Khan & Otri, 2013).

The pivotal role of Islam in the education system (Yaakub, 2009) can be seen in the objectives of education as stated in the education policy. According to official policy published by the Ministry of Education in their Education Policy Article 28 (Ministry of Education, 1976), these objectives are: to understand Islam correctly and completely, to implant and disseminate the Islamic doctrine, to provide pupils with Islamic values and precepts, to gain knowledge and skills, to acquire constructive behavioural tendencies, to advance society culturally, socially and economically, and to enable pupils to play a

helpful role in building their society. All societies attempt to establish an education system which meets their present and future needs and Saudi Arabia is no exception. It is widely held that the processes of learning and fulfilment of duty ought to be based on the principles of Islam in order to meet the religious and cultural requirements of society and at the same time achieve the goals of the nation. It is the goal of the Ministry of Education that all pupils achieve their full potential while conforming to Islamic teachings and the values of Saudi society (Education Policy Articles 2-5, Ministry of Education, 1976; Hegarty, 1995). Religion is also vital in maintaining cultural heritage, and therefore the educational system incorporates Islamic principles and the Qur'an within the curriculum (Alsonbol, Alshabanh & Mordi, 2008).

This contrasts with the humanist-based system of education in the United Kingdom, which tends to promote social values rather than religious principles. Religious education is part of the National Curriculum, but local councils determine the syllabus for schools which are not academies or faith schools; academies and faith schools determine their own syllabus (GOV.UK., 2017). It has been noted that since the 1960s, the United Kingdom has in general become less Christian and more secular (Ichijo, 2014) and this is reflected in the teaching of comparative religion. The aim is to encourage the development of spirituality in children while leaving them free to decide which faith they follow, if any. In addition, there is scope for children's spiritual needs to be met through different religious backgrounds; there are Church of England, Jewish, Roman Catholic and Islamic schools among others. Moreover, the UK system is more clearly focused on the significance of a child's contribution to the economy in later life. It also allows for considerable variation in the setting within which National Curriculum goals are achieved (Shuayb & O'Donnell, 2008).

Having presented two key philosophical differences between the education system in Saudi Arabia and the United Kingdom, the following sections deal with the role of special education within the overall system, early childhood intervention and preschool provision. All of these need to be understood in the context of the meaning of education and the centrality of Islam.

2.2 The education system

Prior to the introduction of formal education following the country's unification in 1925, education was provided in mosques to individuals, but was not accessible to everyone (Abdulkareem, 2005). The Department of Education was established to handle administrative and technical matters concerning the education of young boys and girls and to ensure that older pupils engaged in education (Alsonbol et al., 2008). Currently there are four stages of school: preschool, primary, intermediate and secondary.

Preschool represents the first stage, for children aged three to six (Al-Othman, Gregory, Jessel, & Khalil, 2015). This stage is important because it offers the child a beginning point in terms of social and cultural development; however, it is not compulsory (Al-Othman et al., 2015; Alsonbol et al., 2008). The next stage is primary, which starts at the age of six and lasts for six years. During this stage, pupils are gradually introduced to social, religious and scientific studies (Alsonbol et al., 2008). The Ministry of Education currently separates pupils into schools for the boys and the girls (Alharbi, 2014; Alsonbol et al., 2008).

At the age of twelve, after they have completed their primary school education, pupils move to intermediate schools. This stage lasts for three academic years. The main objectives of this level of education are to influence behaviour and to evoke a desire to

apply research methods, developing knowledge, cognitive capacity and talent, in addition to discovery of potential (Alsonbol et al., 2008).

The final stage of compulsory schooling is the secondary school stage that comes immediately before college education. Pupils join these schools when they are sixteen years old and have received an intermediate school certificate. During this stage, they are given special guidance to prepare them for higher education (Al-Hamli, 2008).

After having received their secondary school certificate, students have the option of enrolling in a university or exploring job opportunities. Higher education is not compulsory, but it is free. Saudi Arabia has 34 public and private universities (Ministry of Higher Education, 2013).

2.3 Special education

Saudi Arabia encourages the integration of pupils who have disabilities with their peers in the Least Restrictive Environment (LRE). Legislation allows the inclusion of pupils with disabilities in state (public) schools. As confirmed by the Directorate General of Special Education in Saudi Arabia, special education aims to provide training and educational services for individuals with special needs either in special programmes or closer to the general education system. According to Hassanein (2015), inclusion is understood as enabling pupils with disabilities to access a good standard of educational provision in the LRE, based on US legislation. In the United States, under part B of the Individuals with Disabilities Education Act or IDEA (2004), the term ‘special education’ covers a variety of social and educational services which are individually tailored to meet the needs of pupils with disabilities; these services are designed to develop their abilities and help them acquire appropriate skills based on their potential.

In Saudi Arabia, many children with disabilities will have most lessons in general classrooms, mainly following the general curriculum, with support sessions provided in resource rooms by specialist teachers. Published statistics for 2012 indicate that more than 1400 programmes have been provided on a pull-out basis within resource rooms to pupils with learning disabilities who are fully included in regular classrooms (Aldabas, 2015). Children with more evident cognitive disabilities who are assessed as having severe learning difficulties (SLD) are typically educated in separate classrooms, following a curriculum designed to be more suited to their needs and abilities (Al-Hamli, 2008). In these schools, pupils are potentially isolated from their peers during the day (Alquraini, 2011) except for break times and other noncurricular activities. In 2012, almost 750 state (public) schools had special programmes for pupils with moderate and mild disabilities together with those with multiple disabilities and intellectual disabilities, and a further 47 programmes for pupils diagnosed with moderate and mild autistic spectrum disorders (Ministry of Education, 2012). This means that the nature and severity of disability determines the educational setting, curriculum and extent of social interaction with children who are non-disabled, although supplementary aids and services are employed to enable the achievement of full potential in terms of meeting educational objectives in a regular education setting (Al-Ahmadi, 2009).

In Saudi Arabia, 'inclusion' and 'integration' have been used interchangeably without distinction since a single Arabic word, 'damg', covers both meanings. However, whilst both involve educating pupils with disabilities in a mainstream setting, they are actually very different approaches. Inclusion is an educational philosophy that promotes the delivery of educational services for pupils with special needs within regular classrooms in regular schools with non-disabled peers to the maximum degree possible in order to

enable them to gain the same educational and social skills as their non-disabled peers (Al-Ahmadi, 2009; Connor & Ferri, 2007). According to Dyson (2001), inclusion aims to involve pupils with intellectual disabilities holistically, in all school activities within mainstream education, providing them with equal opportunities and removing limitations. Integration means that children with intellectual disabilities attend mainstream school but are on the whole educated in separate classes on the same site as their non-disabled peers. Social interaction typically occurs during specific periods of non-curricular activities, for instance, physical education and art education, which helps them to gain many important skills, but they are basically educated separately (Ministry of Education, 2012).

Although the Directorate General of Special Education claims that pupils with disabilities are provided with inclusive education, in practice they typically have access to a special education classroom for pupils with intellectual disabilities within an inclusive school setting, and this type of education is better described as ‘partial or locational integration’. The use of special technologies and learning equipment in special education programmes, which are provided in environments that are designed to enhance access to learning, is considered in Saudi Arabia to be an intervention measure that makes the learning environment inclusive (Alfaraj & Kuyini, 2014). The aim is for pupils to gain equal access to education rather than to give them the sense that they belong in a mainstream environment and have a right to be completely involved at all times and on all levels, as with true inclusive education (AlShahrani, 2014).

Historically, Saudi Arabia has attempted to develop and diversify education in order that all its residents, no matter in what part of Saudi Arabia, can access education (Ministry of Education, 2012). The introduction of special education in Saudi Arabia commenced in 1958 (Alquraini, 2011), prior to which time the family of a child with a

disability was responsible for providing the support and assistance for his/her child (Alajmi, 2006). The change resulted from an Iraqi teacher who came to Saudi Arabia to teach the Braille System to several blind men, and organised private lessons to teach the language system to other individuals with visual impairments. It took about two years to persuade the Ministry of Education to recognise the importance of educating individuals with visual impairments and to adopt the Braille System as well as to provide support in terms of teaching materials (Alquraini, 2011; Hegarty, 1995). Visually impaired individuals were supported by government provision of evening classes in scientific institutes and colleges. The Ministry of Education School in Jabra also ran evening classes for pupils who were blind and chose to be educated via the Braille System (Almalki, 2013; Ministry of Education, 2012).

In 1971, an institute was established to provide services for pupils with intellectual disabilities in seven special day schools and some residential opportunities, both focused on the development of social behaviour and communication (Aldabas, 2015). Since then, provision has grown steadily in terms of special day schools (until 1990), special education classrooms or self-contained classroom in general schools (until 2000) and general education with pull-out sessions in resources rooms (after 2000) (Aldabas, 2015). For diagnostic and assessment purposes, special education programmes have used two intelligence tests, Arabic versions of the Stanford-Binet Intelligence Test and the Wechsler Intelligence Test (Alnahdi, 2014). Although these were intended to be used along with an adaptive behaviour skills scale, in 2007 it was identified that almost three quarters of special education institutes and programmes used only intelligence tests in order to diagnose and assess intellectual disability (Alnahdi, 2007).

In 1962, the Department of Special Education was established by the Ministry of Education to facilitate learning, education and rehabilitation of people who were deaf,

blind and assessed as having a cognitive disability (Alquraini, 2011). This was followed by the foundation of a number of organisations, including three institutions for the blind in Alhofouf, Aneaza and Mecca, established in 1964, and an institution for the deaf and those with a cognitive disability, founded in 1972 (Alquraini, 2011).

In 1972, the Ministry of Education indicated the increased importance of special education by upgrading the administration and giving a wider remit to the renamed Directorate General of Special Education, which was charged with responsibility for assuring the rights of individuals with disabilities, educating special education service providers and executing educational programmes across all categories of special education in Saudi Arabia (Almalki, 2013; Alquraini, 2011). Since 1996, the Directorate General of Special Education has established many institutes and schools for pupils with disabilities at all levels and in all parts of Saudi Arabia (Alquraini, 2011). Additionally, the Directorate has attempted to develop the services available for disabled students through establishing research centres that focus on disabilities (Al-Ahmadi, 2009).

The programmes and plans have been developed by the Directorate General of Special Education not only for people with intellectual disabilities, deafness, and blindness, but also for those with multiple disabilities, physical impairments, autism, emotional and behavioural disabilities, communication disorders and learning difficulties (Ministry of Education, 2012). In addition, the Directorate has demonstrated a keen interest in ensuring that the educational needs of disabled children are addressed by providing workshops and periodic seminars for in-service special education teachers (Hegarty, 1995) in addition to oversight of their initial teacher training at designated universities. Appendix A outlines the modules available to pre-service teachers, and shows the emphasis on knowledge of medical conditions, together with theoretical knowledge of a

limited range of specific teaching and behaviour modification strategies to be applied in special education programmes.

Whilst special education is the responsibility of the Ministry of Education, two other agencies provide assistance to individuals with disabilities, namely the Ministry of Health and the Ministry of Social Affairs. The service they provide depends on the person's age, type of disability and the associated need for medical, psychological and social services, all of which are free of charge. The Ministry of Health provides many health care services for individuals with disabilities, and clinics for all babies and toddlers up to 3 years olds (mother-and-baby or well-baby clinics) offer a wide range of screening services. These include assessment of cognitive, motor, language, social/behavioural and adaptive domains, involving the use of an Arabic version of the Denver Prescreening Developmental Questionnaire which has been standardised for use in Saudi Arabia (Bella & Al-Ansari, 1999). Other services for which the Ministry of Health is responsible are prosthetic aids, physical therapy and rehabilitation. The Ministry of Social Affairs performs various activities that relate to vocational rehabilitation, such as occupational programmes, and social adaptation for persons with disabilities, in addition to providing financial support for families with children with disabilities (Al-Ahmadi, 2009; Prince Salman Center for Disability Research, 2012).

2.3.1 Policies and legislation on disability in Saudi Arabia

Disability legislation was first introduced in Saudi Arabia in 1987. It includes significant provisions for persons with disabilities in terms of ensuring equal rights with their peers in society. This legislation defines disabilities, implements interventions, illustrates plans for the prevention of disabilities and describes strategies for the diagnosis and assessment of disabilities in order to identify eligibility for special

education services. Moreover, disability legislation demands that public organisations provide rehabilitation services and special education programmes to help persons with disabilities live independently (Alquraini, 2011; Ministry of Social Affairs, 2010).

In 2000, the Saudi Government passed a law that gave persons with disabilities the right to access medical services, educational services, social services, psychological services and rehabilitation services anywhere in Saudi Arabia free of charge (Prince Salman Center for Disability Research, 2012). Children assessed as having intellectual disabilities were granted the right to access the same preschools as their normally developing peers from the age of four to six years, followed by primary schools from the age of six to twelve years, followed by intermediate schools from the age of twelve to fifteen years and, finally, secondary schools until age eighteen or vocational training centres (Alajmi, 2006). Although they have the legal right, children may not always have access to a suitable school as not all schools have sufficient places and many are not yet inclusive schools.

Rules and Regulations of Special Education Programmes (RRSEP) were established in 2001, derived from legislation in the United States. The regulations require educators of pupils with disabilities to be given adequate training, in addition to describing how children with disabilities can benefit from early intervention programmes, individual education programmes and transition services. They also specify assessment procedures for determining needs and set out how to implement individual education programmes for children who are eligible (Alquraini, 2011). These regulations support the equal rights of individuals assessed as having disabilities to access appropriate education and services.

2.3.2 Services offered by Non-Governmental organisations (NGOs), non-profit and private organisations

A number of NGOs provide assistance and support for individuals with disabilities. These include the Prince Salman Centre for Disability Research, the Joint Centre for Research in Prosthetics, the Disabled Children's Association, and Orthotics and Rehabilitation (Japan International Cooperation Agency, 2002), and the Islamic World Council on Disability and Rehabilitation. NGOs are partly funded by the state system, with some donations being provided by voluntary agencies (Hegarty, 1995).

The mission of these organisations is to improve the prospects of people who have disabilities to enjoy a decent life through the provision of relevant opportunities, although the specific opportunities and programmes they provide depend on the individual organisation, as can be found by searching their websites or promotion literature. For example, some organisations advocate the care of people with intellectual disabilities and promote a specialised curriculum that helps disabled children to meet their daily needs, some concentrate more on access to rehabilitation services, while others have a greater focus on providing information and training. One example is the Disabled Children's Association, which employs a group of specialists in the areas of therapy, rehabilitation, early intervention and social work (Almalki, 2013) in order to provide free support, care at an appropriately high level, rehabilitation and education for children with disabilities from birth to twelve years old with the aim of meeting the children's needs, whether therapeutic or educational. By 2013, it was running 7 centres providing medical, social, and vocational services for children, as well as educational programmes for their parents and awareness-raising in the community (Aljadid, 2013).

Another example of the way in which these NGOs complement government provision is the research undertaken by The Prince Salman Centre for Disability Research. This

centre has developed assessment tools for early detection and diagnosis, together with teaching strategies and materials for children with learning disabilities, and proposing adaptations of curricula and ways of using supporting technology. Moreover, it plays a role in training teachers and specialists (Al-Odaib & Al-Sedairy, 2014).

There are also many charitable and private organisations which make a contribution to services for disabled children. However, data is not collected systematically which makes it hard to assess the extent of their contribution. In order to illustrate this, The Help Centre in Jeddah, which is relatively well known, is a non-profit organisation established in 1985 in order to meet a need; its aim is to enhance the quality of life of individuals with intellectual disabilities, in addition to providing services for approximately 350 children between the ages of 0 and 18 each year. These services range from a home visiting service for children under 3 to a pre-vocational programme for 16-18 year olds.

The full extent to which charitable and private organisations supplement government services can perhaps be estimated from the 12 centres specifically aimed at children with autism aged from 3-12 which were involved in a study by Babatin, Alzahrani, Jan, Alkarimi and Jan (2016). Two of the twelve centres were government-run and ten were privately run.

2.4 Early childhood intervention (ECI)

Early childhood is defined by the World Health Organisation (2007, 2012) as the time from prenatal development until the age of eight years, although it is also considered to end at six years (European Agency for Development in Special Needs Education, 2010a). In Saudi Arabia, the World Health Organisation (WHO) works with selected partner organisations in order to help the country to attain their national health

development goals. The organisations include United Nations agencies, several development partners, various humanitarian organisations, donors, nongovernmental organisations, WHO collaborating centres and the private sector. A key element of the work of the WHO is to ensure co-ordination of its efforts among the different partners. The first national survey of disability in Saudi Arabia in 2007 was a direct result of the WHO global survey.

Early Childhood Intervention (ECI) programmes attempt to meet the needs of young children who have been assessed as having developmental disabilities or at risk of developmental delay (WHO with UNICEF, 2012). These programmes provide psychological and educational support for those who have been diagnosed with a disability, adapting their behaviour early, usually during the development stages as early as three years old. The best time to deliver these services is immediately after children are diagnosed (Walker, & Johnson, 2008). Some children require extra help during the developmentally critical years from birth to six years. ECI consists of a range of support services synchronised in order to promote a child's age-appropriate growth and personal development so that they achieve their potential. The aim is to develop their ability and help them acquire new skills (Al-aoufi, 2011). Elements of early childhood intervention may include physical development, communication development, social and adaptive development, in addition to cognitive development and an educational component which is aimed at helping children to be ready for school.

Interest in early childhood intervention is relatively new in Saudi Arabia (Al rubiyea, 2010). A 2010 report of the status of early childhood provision in the Arab countries identified that most of the countries provided no data on the implementation or evaluation of their provision, indicating that, despite the existence of programmes and policies, international standards of performance were not yet being achieved (Faour &

Suwaigh, 2010). The provision of early intervention is fragmentary, as evidenced by several studies. For example, services for deaf and hearing impaired children were found to be insufficient, and children benefited earlier in Riyadh than elsewhere (Alyami, Soer, Swanepoel, & Pottas, 2016).

It was reported that in 2010 access to early intervention services for children diagnosed with autism was only available in three major cities (Al-Dammam, Jeddah and Riyadh) where such services were offered by private sector companies and therefore not affordable for many families (Almasoud, 2010). In addition, 2010 was the first year in which World Autism Awareness Day was observed across Saudi Arabia; previously it had been marked only in Riyadh (Saudi Autistic Society, 2010). Subsequently, training was offered in late 2012 for a group of therapists in order for them to use the Early Start Denver model; by March 2017, four were qualified (Mind Institute, 2017). The Early Start Denver model is considered to ameliorate or possibly reverse autism, subject to how intensively it is applied and the extent to which parents are involved (Wallace & Rogers, 2010).

In contrast to the UK, parents of autistic children in Saudi Arabia cannot access information or advice about dealing with stress (Saudi Autistic Society, 2010). However, limited support for parents of children with Down syndrome is available through an early intervention programme which has been offered since the early 2000s in Riyadh by the Down Syndrome Charitable Association (DCSA). The aim of this programme, which is provided for children from birth to 7 years and their parents, is to promote independence and self-reliance so that the child is equipped with the social skills and psychology needed for primary school. The mother plays an important role in using the same approach at home, as do other family members, to help the child to integrate into the family and society (Almasoud, 2010).

2.4.1 Access to early childhood intervention services in Saudi Arabia

Since a young child's early years are critical, families and their children who face exceptional difficulties need additional help. These families need to be aware of ECI services for which they are eligible, as well as the steps involved in accessing help for disabled children from birth to six years.

The process of accessing help from ECI services consists of several steps, and typically begins when parents suspect a problem with their child's development or notice early warning signs of disability. This could be through behavioural or physiological indicators that occur early in the child's developmental process and which indicate a delay in growth, such as delays in social behaviour, delays in communication with others, whether verbal or nonverbal, delays in motor behaviour and problems when playing. Having noticed there may be a problem, the parents give permission to professionals to evaluate the child developmentally in order to receive early intervention services (Ministry of Education, 2001). The parents will take the child to an ECI centre or to a hospital where he/she can be assessed. Alternatively, medical staff may diagnose a disorder associated with disability (for example, Fragile X syndrome or cerebral palsy) and follow Ministry of Health procedures.

In the United States, each state develops its procedures in a way that fulfils the requirements of the 2004 IDEA Act. Typically, the next step is for parents to meet an initial service coordinator, who begins by providing them with information on ECI services, informing them about the child's rights and explaining the ECI programme. The coordinator also listens to and documents any concerns expressed by the parents regarding their child's development. This is followed by an evaluation to find out if the child is eligible for ECI services and to collect information about the child's strengths as

well as search for the signs of delayed development. This assessment of the child must be carried out before a diagnosis can be made, and generally involves using survey tests, detection of disabilities and developmental disorder tests, as in New York state (Department of Health, 2011) which was the origin of one of the models adapted for use from an earlier version in Saudi Arabia in the RRSP (Ministry of Education, 2001). A variety of procedures is employed to identify the current capabilities of the child; information is gathered through a range of tools, tests and interviews and compared with accepted normal standards to determine the nature of the problem and the child's weaknesses in order to draw up a treatment plan. The process of developing a plan with objectives and services that will address the needs of the child and establish priorities ought to involve professional providers and parents working together, with the child if possible.

A service coordinator is assigned to work with the parents and their child to help them to prepare an Individualized Family Service Plan (IFSP). This is a tool created for children with developmental delays who are entering special education, and through which effective early intervention services can be implemented. It includes information about the services necessary to facilitate a child's development, and enhance the parents' capacity to support the child in all areas, such as cognitive, physical, social and adaptive development as well as communication. These are based on the child's own particular strengths and the specific challenges he/she faces, which are identified in the plan. In addition, the IFSP delineates when and where services will be provided and evaluates the services designed with regard to the parents' concerns, priorities and resources, leading to implementation of strategies for supporting the development and learning of the child (Rush & Shelden, 2008). The last step is transition, whether from home to preschool, or from early childhood intervention services to other services. The transition

includes procedures and a plan to assist the child to settle and make progress in a new place, and prepare service providers and the family, updating the Individualized Family Service Plan (Alnahdi, 2012).

2.4.2 Modes of Early Childhood Intervention delivery in Saudi Arabia

There are four modes of ECI service delivery in Saudi Arabia, namely: home-based programmes, centre-based programmes, home and centre combined, and hospital-based. The RRSEP state that every child with special needs is entitled to early intervention programmes among other services, but in practice these services are neither available everywhere nor to all individuals, depending on how they are classified. As of 2015, specific regulations covering early intervention had not been written into law (Aldabas, 2015). This helps to explain why information about early intervention services is piecemeal and limited as noted in the context of hearing loss (Alyami et al., 2015) and autistic spectrum disorder (Al-aoufi, 2011; Alotaibi & Almalki, 2016). A hospital-run programme aimed at supporting mothers of premature babies, Ideal Step for Mothers with Premature Infants (ISMPI), is more widespread (Merza, 2002). In some parts of the country, the Portage Project has facilitated the implementation of the Portage programme (Hadidi & Al Khateeb, 2015).

Home-based programmes in Saudi Arabia are designed to support families by providing some or all of a range of services and activities for disabled children or developmental delays in their home setting, through a visit from the appropriate early intervention provider once a week or more. ISMPI is intended to provide information and emotional support for mothers of premature babies (Merza, 2002). ISMPI and the Portage weekly home visits focus on teaching parents how they can work with their children to help them reach developmental milestones and acquire the basic skills and knowledge that

typically develop throughout the initial three years of life, for instance: self-help (dressing, eating), cognitive (learning, thinking), communication (talking, understanding), social (playing, feeling) and physical (walking, reaching) (CESA 5, 2003). In the United States, children who received home-based ECI services from Early Head Start, which is primarily aimed at low-income families, were reported to be more prepared to enrol in preschool than children who had not received such services (Wall et al., 2005). Additionally, Early Head Start made a significant contribution to the processes of parents' understanding and acceptance of their child's disability. It was also found to help avoid delays in language and cognitive development in the early years, hence the growing interest in such programmes in Saudi Arabia. Moreover, the role of home-based ECI services may be important in helping to prepare children with intellectual disabilities for a more academic life in a general primary school. Again based on the US model (IDEA, 2004), when a child reaches three years old, he/she can receive services in an ECI centre whether or not attending a preschool.

2.4.2.1 Centre based programmes

Intellectual Disability Centres (IDCs) cater for children aged from three to six who are assessed as having ID or a related disorder, for example autistic spectrum disorder. However, these centres are established only in the major cities and the majority of children with ID who access some form of education between the ages of three and six attend a kindergarten or preschool. The government-funded centres operate as self-contained rehabilitation centres, where children with disabilities aged between three and six years receive educational and other support services at varying intensities up to a maximum of five hours a day five days a week according to their needs. The centers are based on the US model described by Frieden (2004) but with the traditional Saudi Arabian and Islamic approach of teaching appropriate behaviour and focusing on

communication before attempting pre-literacy and related skills. In these centres, public sector education is free for the children, who are taught based on their specific personal needs in order to gain important developmental skills.

Children are expected to progress through three stages in these centres; the duration of each stage varies according to the requirements of the individual child. The particular programme provided by each centre depends on the centre and the needs of the children attending it, although the goals of each stage are constant. The goal of the first or preparation stage is to develop learning and acquire skills which are necessary for daily life, for instance communication and perception together with behavioural and social skills. In this preparation stage, parents are involved in some training activities (Ministry of Education, 2012). The goal of the second or occupational stage is to acquire the necessary self-care and playing skills in addition to communication, perception, and behavioural skills. The child also begins education in mathematics, reading and writing, with skills development depending on the child's capabilities (Ministry of Education, 2012). The aim of the third or professional stage is to acquire necessary skills in education and communication with the environment, at the same time to learn to become more independent in order to be more successful in life (Ministry of Education, 2012).

In these centres, prior to going through the above stages, Saudi Arabia aims to match provision in the United States (Al rubiyeh, 2010) by offering evaluation by a multidisciplinary team that includes early intervention specialists, physiotherapist, special educators, nurses, audiologists, psychologists, social workers, occupational therapists, doctors and speech pathologists, who interview the children in the presence of the guardian. This is based on legislation and best practice in the United States (IDEA, 2004) and a number of other countries such as Russia (Akhmetzyanova, 2016).

However, the implementation of services for children with special needs is relatively new in Saudi Arabia (Al rubiyeh, 2010), and in fact is still in progress, which means there remains a shortage of qualified professionals. Concern has been expressed at the shortage of speech and language therapists, physical and occupational therapists (Alajmi, 2006) and, although the situation is improving, problems persist. According to Aldabas (2015), this is partly because policies and laws of early identification and intervention services are aspirational rather than compulsory. He further asserts that the scarcity of expertise in assessment and diagnosis limits the benefits of individual plans because they do not cover all the developmental domains (Aldabas, 2015).

2.4.2.2 Combined home and centre

This means some services are provided at home while others are provided in at least one government-run centre, NGO or charitable organisation to meet the children's needs. Based on my own knowledge and experience, children typically receive services in a centre for a few days, after which the family receive home visits, usually once or twice a week, depending on their needs and the availability of appropriate therapists.

2.4.2.3 Hospital

Again, based on my own experience, ECI services are also provided in some hospitals for young children who have complex disabilities including severe or profound intellectual disabilities and require therapy during a long hospital stay.

2.5 Preschool provision

The private sector was responsible for preschool provision prior to 1975 (Aljabreen & Lash, 2016), when the first state (public) preschool was opened in Riyadh (UNESCO, 1991). Since then, preschool provision has increased to more than 2,500 schools

catering for over 180,000 children in 2013-2014 (Alqassem, Dashash, & Alzahrani, 2016), with a curriculum originally developed in the 1990s then modified and issued as 'The Self-Learning Curriculum for Kindergarten' (Alqassem, et al., 2016; Samadi & Marwa, 2006). This curriculum emphasises flexibility, freedom, play, interaction, appreciation and respect of children's culture and identity, in addition to knowledge, skills, and constructive relationships between preschool and families (Samadi & Marwa, 2006). Although the idea of self-learning shares aspects with the western concept of child-initiated activities, greater stress is placed on the Islamic precept of the adult directing the child's learning and development, and serving as a role model for religious and social dimensions of Islam, promoting appropriate behaviours. Indeed, two of the first three curriculum objectives specified by the Ministry of Education concern religion and appropriate behaviour (Samadi & Marwa, 2006).

One strand of the Public Education Development Project of King Abdullah bin Abdul-Aziz is aimed at developing comprehensive nationwide provision of preschool education which is based on the adaptation of western child-centred approaches in which children are considered active learners who initiate and direct their learning (Al-Othman et al., 2015). The need to develop the capabilities of teachers, supervisors and directors working in early education through effective private sector partnership has been acknowledged. Three possible models of preschool programmes have been piloted through a project led by Tatweer, a Saudi strategic investment company working with international educational businesses. In January 2013, selected schools in various regions took part in piloting one of: Bawakeer, the Creative Curriculum and Montessori (Al-Othman et al., 2015).

It seems evident that the final decision is likely to widen the distance between mainstream preschools and early intervention centres. In the same year the preschool

pilots began, an article published by university academics demonstrated the importance of teachers' knowledge of behaviour modification "and its various principles and strategies ... in controlling these behaviours, which will result positively in the educational process, and improve adaptation of pupils with autistic disorder and mental retardation [sic]" (Abdel Aziz & Alzarea, 2013, p.20). The separation of general and special education at the time of the present study appears to be pulling the two systems further apart rather than increasing their shared knowledge and understanding.

2.6 Conclusion

This chapter has set the overall context for the study in terms of the general and special education systems, the role played by NGOs and other organisations in providing facilities and services for children with disabilities, and the essential policies and regulations regarding disability. It has looked more specifically at how early childhood intervention is understood and implemented in Saudi Arabia, illustrating differences in preschool provision and curricula between education services for children with and without disabilities. Crucially, it has highlighted the meaning of the Arabic word for education and the role of Islam in determining the importance of appropriate behaviours as a foundation for both education and life in Saudi Arabian society. Taking into account the cultural context, the elements of early childhood intervention which are explored in this thesis are predominantly communication, social and adaptive development in a preschool setting.

CHAPTER 3 LITERATURE REVIEW

3.1 Introduction

The previous chapter presented the Saudi Arabian context for the present study, highlighting relevant features of both the general and the special education systems. This chapter presents key theories and ideas from literature together with summaries of previous research related to the aims and objectives of this investigation, as indicated by many scholars (e.g. Cohen, Manion, & Morrison, 2007; Hammond, & Wellington, 2013). It draws on literature from the United States, the country which has provided the policy and procedures adapted in Saudi Arabia, because much less has been written in Arabic. It also draws on literature from the UK and elsewhere, which typically offers a different viewpoint.

Definitions and understandings of intellectual disability are critically examined, particularly with regard to very young children. The underlying theoretical frameworks and models of disability and SEN are discussed, after which theories of child development, education and teaching are considered, keeping in mind the effect of the Saudi Arabian context. This is followed by consideration of some of the main teaching strategies and methods employed with preschool children, especially with children assessed as having intellectual disabilities, after which selected relevant research in the fields of Early Childhood Intervention and Early Childhood Education is critically examined. The chapter concludes by summarising the main themes of the literature review which shed light on the present study.

3.2 Intellectual disability

Lowe, Reynolds and Applequist (2006) defined intellectual disability as sub-average general cognitive functioning existing simultaneously with deficits in adaptive that are revealed through the developmental stages and unfavourably influence a child's educational performance. In this context, adaptive behaviour is understood as "the collection of social, practical, and conceptual skills" (Schalock et al., 2010, p.1) that all people learn in order to deal with everyday tasks and situations. However, this definition is not straightforward, as intellectual disability has been investigated in a number of disciplines and from different perspectives.

In medical terms, intellectual disability can be defined interchangeably with what is commonly referred to as intellectual development disorder or intellectual retardation. It is basically classified as a neuro-developmental disorder, the primary characteristics of which include impaired intellectual and adaptive functions (Sala & Verpelli, 2016; Riazuddin, et al., 2016). Terms such as 'deficit', 'disorder' and 'retardation' are associated with ideas that something is missing, chaotic or not right about the individual, which can too easily be understood as a problem that belongs to the individual but which can perhaps be solved or cured, either by experts or perhaps by the individual making appropriate efforts to overcome the problem.

Sociologists, on the other hand, have defined intellectual disability in terms of social development skills; someone who has an intellectual disability has delayed social development characteristics and capabilities. This definition takes into account the types of support such a person needs in order to function and adapt to life activities (Richards, 2014). Intellectual disability acknowledges the social, economic and cultural barriers that prevent people with disabilities from living like their non-disabled brothers and

sisters (Goodley, 2014) and purports that society has a responsibility to remove those barriers. Looking at the concept of intellectual disability from a social perspective adds another point of view, that the difficulties experienced by people with a disability are not caused by the disabilities they have but rather by the disabling society they live in, which makes it difficult for them to access services and support, and fails to remove barriers that hinder them from community participation (Goodley, 2014). Therefore, exploring such barriers is needed in order to support such children to live like non-disabled people.

In contrast, some psychologists believe that intellectual disability revolves around psychometric results, which basically consist of the level of a child's intelligence quotient (IQ) (Zucker, Perras, Perner, & Murdick, 2013). This means that the diagnosis will only be based on simple psychometric results, which are then used to make a simple classification. In the United States, specific IQ scores are no longer used as diagnostic criteria, although the concept of functioning two or more standard deviations below the population average has been retained, irrespective of the measuring instrument (American Psychiatric Association, 2013). Psychometric results are potentially more useful when supplemented by social, cultural, psychological and interactional factors (British Psychological Society, 2000), which are highly influential in the learning environment and process.

Educational scholars note that educational aspects have also become relevant when defining intellectual disability. In the educational context, intellectual disability can be defined as intellectual functioning that is below average along with deficiencies in adaptive behaviour exhibited during early developmental stages that hamper the pupil's educational process and result in poor performance, for example, in reading, writing and arithmetic skills (Greenspan & Wieder, 2006; Ohio Department of Education, 2011). In

this context, the learning process can be facilitated through better educational approaches. For instance, pupils who have disabilities that affect their learning can be given access to new technologies that can be used to help them to learn faster.

In England, the Department of Health (2001) defined ID as a significantly decreased capacity to understand new and difficult information or to learn new skills alongside a decreased ability to cope independently before puberty, with a permanent impact on development. On the other hand, the American Association of Intellectual and Developmental Disabilities (AAIDD) defines intellectual disability according to three basic criteria which have been adopted by Saudi Arabia. The first is IQ; if a child has an IQ level lower than 70-75, that child is deemed to have an intellectual disability. Thus, IQ is considered an important criterion by which to identify ID. Whilst the idea that IQ testing alone is an adequate means of identifying ID has been repeatedly challenged (e.g. Colmar, Maxwell, & Miller, 2006), in practice IQ scores remain a primary means of determining ID (Shulman, Flores, Iarocci, & Burack, 2011). The second criterion is a problem with adaptive behaviour, with some key elements considered including social skills, conceptual skills and practical skills. This indicates the extent to which an individual achieves a certain social standard or level of personal independence as well as understanding social responsibility so that he or she can identify with a certain cultural group (Vitug, 2014). This revolves around the capability of a child to develop typical social skills including communication skills and interpersonal skills. In other words, it takes into account a person's social development. Finally, if the diagnosis was determined before the child reached 18 years of age, then he or she is classified as having ID (Richards, 2014).

Although the Diagnostic and Statistical Manual of Mental Disorders 5 (DSM-5) stopped using specific IQ scores as diagnostic criteria, and gave more weight to

adaptive functioning and life skills, it continued to refer to intellectual functioning two or more standard deviations below the general level of the population (American Psychiatric Association, 2013). Consequently, IQ remains widely used as the main criterion to define ID. Individuals who have an IQ of less than 70 also typically have deficits in adaptive behaviour in terms of their greater need for social, health and educational support. This appears throughout the developmental period when it has a detrimental effect on the educational performance of the children.

In summary, individuals with intellectual disabilities have a delayed and marked disability in cognitive functioning along with a weakness in memory, social skills, and logical thinking and language expression. In addition, they may need assistance in daily self-care. It should be acknowledged that such people so-labelled are not a homogenous group and vary with regard to their educational needs.

Intellectual disability can be classified into four categories, which are all strongly associated with the person's IQ. Thomas (1996) defined this classification as a process that categorises all people with a cognitive delay into four groups, depending on the severity of the delay or disability, taking into account their abilities, traits and achievements: mild, moderate, severe and profound intellectual disability.

People with a mild disability are considered to be delayed in most academic areas, behaviours, social life, cognition and language compared to their same-age peers. This depends on mental rather than chronological age and reflects the child's level in terms of both educational needs and capacity at a point in time (Umansky & Hooper, 1998). People with a mild disability would have an IQ of between 50 and 70 as measured on the Stanford-Binet Intelligence scale and are considered educable (Alberta Education, 2012; Wajih, 1985).

For people with a moderate disability who commonly require on-going support, their IQ would be between 35 and 55 ± 5 as measured on the Stanford-Binet Intelligence scale; they are considered trainable (Alberta Education, 2012; Wajih, 1985). People with a severe disability are commonly delayed in all or most areas of development and require extensive on-going support. They have an IQ between 20 and 40 ± 5 as measured on the Stanford-Binet Intelligence scale. This category is referred to as custodial (Alberta Education, 2012; Wajih, 1985). Finally, people with a profound intellectual disability require direct support and on-going care. They have an IQ of less than 20 as measured on the Stanford-Binet Intelligence scale. They depend on others in all aspects of their life (Alberta Education, 2012; Wajih, 1985).

It can be claimed that IQ is one of psychology's greatest achievements in terms of the measurement of intelligence (Nisbett et al. 2012). Thus, in Saudi Arabia, psychologists utilise an IQ test as a means of determining intellectual disability in order to identify the pupil's eligibility for a particular level of educational support based on IQ score. However, it has been maintained that there is no single test that can identify the complexity of human intelligence (Al-Mousa, 2010; Nisbett et al. 2012). Moreover, there are tests which are more suitable for assessment of young children (Weis, 2014). For example, there are tests which measure cognitive, motor, and social development rather than IQ as such. For example, Wechsler Preschool and Primary Scales of Intelligence Fourth Edition (WPPSI-IV) may be administered to children aged two and a half, while the Bayley Scales of Infant and Toddler Development Third Edition (BSID-III) are considered suitable for children between aged 1 to 42 months (Bedford, Walton, & Ahn, 2013). Another intelligence test which is widely used but only appropriate for children aged six or above, is the Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV) (Watkins, Wilson, Kotz, Carbone, & Babula,

2006). Although the Stanford-Binet Intelligence Scales Fifth Edition (SB-5), can be given to children aged two, it is suggested that IQ level measured before 4 or 5 years old is an unreliable predictor of IQ in later childhood or adolescence (Tirosh & Jaffe, 2011). Indicators of intellectual disability in preschool children therefore require further consideration.

Development of psychometric tests has not kept pace with increased knowledge and understanding of intelligence such as Gardner's multiple intelligence theory (Almeida et al., 2010). This has led to concerns about the continuing relevance of some of the tests in use, accompanied by concerns regarding the adequacy of the underpinning theory (Woodcock, 2002). Woodcock also asserts that the main reason for conducting tests should be to learn more about the problem, and not to produce an IQ score. Moreover, it has been noted that surveys to establish norms have often failed to include children with disabilities, leading some psychologists to question the meaning of comparison with existing population norms (National Research Council, 2000). The situation becomes more complicated when the short attention spans and inconsistent responses of young children, whether or not they are typically developing, are taken into account; the effect of including more items to increase reliability would be cancelled out by the additional time and effort required (Tzuriel, 2001). Perhaps one of the most striking criticisms of tests which report IQ scores is that in the study reported by Tzuriel, there was no correlation between IQ and the speed of learning in 30% of the children involved.

3.3 Indicators of intellectual disability in children up to 6 years old

According to the DSM-5 (American Psychiatric Association, 2013), the characteristics of intellectual disability are substantial limitations, when compared with other people of the same gender and age, in overall mental abilities and dealing with the demands of

everyday life; these limitations appear during the developmental years. Social-cultural background is also taken into account. The term intellectual disability is typically used with reference to children aged 5 or older; in younger children it is often referred to as global developmental delay because results of testing are less reliable (Shevell, 2008). It remains difficult to distinguish mental abilities and skills of motor, language and play using developmental measures in very young children. However, the term used in Saudi Arabia for preschool children is ID, because the group includes 5-6 year olds who can be appropriately assessed before they start primary school.

The American Psychiatric Association (2013) has highlighted that ID often occurs together with other disorders, for example epilepsy and cerebral palsy, and some genetic conditions such as Trisomy 21 or Fragile-X syndrome (American Psychiatric Association, 2013), autistic spectrum disorders (ASD) (Bax & Gillberg, 2010), attention deficit hyperactivity disorder (ADHD) (Ahuja, Martin, Langley, & Thapar, 2013), and oppositional defiant disorder (Oeseburg, Dijkstra, Groothoff, Reijneveld, & Jansen, 2011) among others. Thus, the noticeable characteristics may sometimes be attributable to two or more disorders and children with ID may exhibit characteristics associated with one or more of the other disorders. This is important in the context of the Centre in Jeddah where many of the children are referred following a home visiting programme, which itself typically follows a referral from a hospital or family doctor, and are likely to have diagnosis of a co-occurring condition.

Developmental delay is a noticeable and continuing delay in one or more of the broad developmental areas: language, motor or social skills. Very young children may develop more slowly than age-matched peers in the broad developmental domains of: speech and language; gross motor; hearing, social and emotional: vision and fine motor (Walters, 2010). Also, hyperactivity and poor attention are often seen in preschool age

children, for example they may be very easily distracted and unable to sit still (Lerner & Johns, 2014). Moreover, children with ID are heterogeneous; one child may exhibit very different characteristics from another and there is a wide variety of possible characteristics (e.g. Gargiulo, 2014; Streagle & Scott, 2015). In fact, Lerner and Johns (2014) have said that preschool children have very individual problems and so the treatment is unique to each child.

In children aged 2 or under, especially if disabilities are more severe, early signs of ID can be delays in motor functioning, language (understanding or speech), and social milestones including behaviour from 18 months onwards (Lerner & Johns, 2014). For example, they sit up, and start babbling or talking and walking noticeably later than other children of the same background and age. As children get closer to school age, delays with reasoning, social awareness and interaction, and skills such as colouring and drawing become more evident, while challenging behaviours can increase. Specific examples include inability to hop or catch a ball at 3, incomprehensible speech at 4, and problems in counting to 10 at 5 years old (Lerner & Johns, 2014). These are examples of what are termed in school age children and adults the practical, social, and conceptual or academic domains of ID (American Psychiatric Association terminology).

The importance of a successful move to school for preschool children with ID, and of their later educational attainment, has led some scholars to identify and classify characteristics in educational contexts. For example, Lerner and Johns (2014) discuss the following: disorders of attention; poor strategies for thinking and understanding, lack of organisation; poor motor abilities (including fine motor coordination); problems in processing visual and/or auditory or cues and information; difficulties in communication related to language development (speaking, listening and vocabulary); problems with reading such as word-recognition and comprehension; difficulties with

writing (handwriting, spelling); and problems with mathematics. In addition, they noted poor social skills in terms of establishing friendships and other social relationships (Lerner & Johns, 2014).

3.3.1 Attention

Children with intellectual disabilities find it problematic to achieve and maintain different types of attention, including joint attention, attention span and on-task behaviour (e.g. Jansen et al., 2013). This is more noticeable in children who have been diagnosed with autism spectrum disorder, which is often found together with ID (Hoekstra, Happé, Baron-Cohen, & Ronald, 2009; Polyak, Kubina, & Girirajan, 2015). On-task behaviour in primary school can involve keeping focused on relevant elements of the task and sustaining attention to those relevant elements in addition to focusing on the teacher (Wenar & Kerig, 2006). Children with ID may also have more difficulty in starting a task. Moreover, estimates propose that some 18% of children with global developmental delay have substantial hearing problems and between 13% and 25% have problems with vision (Shevell et al., 2003) and these impairments also affect attention. In preschool children, signs of poor attention include lack of pointing or responding to pointing, and reduced eye contact and failure to respond when name is called. However, many preschool children show inattention to some degree, thus it may be easier to be certain regarding those who have Attention Deficit Hyperactivity Disorder (ADHD) and display more noticeable signs consistently (Mahone, 2005). Some authors have also associated inattention with memory deficits in children with ID with regard to paying attention to what needs to be remembered.

3.3.2 Memory

Potential indicators of memory problems are difficulties in learning and recalling the alphabet, colours and numbers, among others. Gathercole (2008) also mentions failure to follow multiple instructions (for example, ‘take off your coat, come here and sit down’), and abandoning tasks. Memory problems become more obvious when children start to learn to read and write, and working memory deficit has been especially associated with difficulties in learning mathematics (Bull, Espy, & Wiebe, 2008; Meyer, Salimpoor, Geary, & Menon, 2010). Signs of poor memory vary among individuals with ID; for example, a study comparing verbal and spatial backward spans in two groups of young adults, one with Trisomy 21 and the other with ID found deficits in the former group (Vicari, Carlesimo, & Caltagirone, 1995). An investigation of cognitive overlap in working memory and IQ compared groups of children assessed as having intellectual disabilities, speech and language impairment, and autism, with mean ages between 8 and 10 years (Alloway, Seed, & Tewelde, 2016). Differences between the groups suggested that deficits in working memory resulted from core deficits in the areas of language, behaviour, social relationships and motor abilities. Although the signs may not be clear until the second or third year of primary school, it is proposed that preschool children with ID benefit from age-appropriate working memory training (Spencer-Smith & Klingberg, 2015), for example regarding the part of memory that deals with reception, processing and storage of verbal information, the phonological loop (Van der Molen, Van Luit, Jongmans, & Van der Molen, 2007).

3.3.3 Behaviour

According to Weis (2014), around 25% of children with ID are considered to exhibit challenging behaviour in one form or another. This becomes evident by around 3 years old, when children with developmental delays have been found to have up to four times

as many behaviour problems, including internalising and externalising, than those without such delays (Baker, Blacher, Crninc, & Edlbrock, 2002; Baker et al., 2003). Repetitive behaviours which have no apparent purpose or use and which disrupt functioning (stereotypies) constitute one form of challenging behaviour (Weis, 2014). Repetitive behaviours include movements such as flapping hands, rocking, and head or face tapping. A review which compared preschoolers' records from an inpatient unit found that a diagnosis of oppositional defiant disorder or ADHD was more likely in children assessed as having borderline and mild intellectual disability, while stereotypies were more frequently diagnosed for children with more serious intellectual disability (Johnson, Lubetsy, & Sacco, 1995).

Benson and Brooks (2008) have also identified that children assessed as having both intellectual disability and autism are likely to exhibit aggression; this may take forms such as hitting and biting other children, spitting, breaking toys and screaming. The sensory processing dysfunction and hypersensitivity associated with autism spectrum disorder adds to difficulties (Tseng, Cermak, & Shieh, 2011). Some 20% of children with ID are considered to display repeated aggression, and more frequent aggression seems to be related to lower IQ. This may be related to frustration arising from poor communication abilities, although it has also been related to the child's desire to avoid a particular task (Matson et al., 2011).

Some studies have found that ID co-occurs with ADHD in more than 90% of cases (e.g. Gupta, & Gupta, 2014), thus hyperactivity and defiance are also characteristics of many children with ID. Some children, especially if the disability is severe, will also display a self-injury to differing degrees, for example picking fingers, putting objects in their ears or mouth, pulling out hair and head banging (Weis, 2014). The behaviour can occur

many times in a day and may be associated with gaining attention, avoidance of a task, stimulation or some combination of these.

A study by Eisenhower, Baker and Blacher (2005) investigated behaviour problems in small groups of children with autism, cerebral palsy, Down syndrome (trisomy 21) or undifferentiated developmental delays. They reported that by the age of three, different behavioural patterns could be seen depending on the specific syndrome. Children with autism or cerebral palsy exhibited more problems than children with undifferentiated developmental delays who in turn exhibited more problems than children with Down syndrome.

3.3.4 Personal care

Children with ID may show more difficulties in personal care as they reach 5 or 6 years of age. Unlike typically developing children, very young children will not be as competent in using the potty or toilet, or drinking from a cup and trying to feed themselves. At 4 or 5 they may not be able to reach expected standards of washing, especially hands, brushing teeth and hair, or dressing themselves, all of which are very important to Muslims because they are essential to the routines of everyday life specified directly in the Qur'an and Hadith (Prophet Mohamed's teaching).

3.3.5 Speech and communication

Speech and language disorders impact especially the conceptual domain, affecting understanding as well as the ability to respond appropriately, and the social domain, where concrete and simplistic language is not enough for effective interaction (Weis, 2014). Estimates of speech and language disorders in preschool children range from 5% (Law, Peacey, & Radford, 2000) to 20% in 4 year olds (Reilly et al., 2014). Children who are assessed as having autistic spectrum disorder are more likely to display such

disorders (Levy et al., 2010). The IDC in Jeddah sees many children with these problems.

Difficulties in understanding, or receptive language, are characterised by problems such as: not following instructions or answering questions, incorrect identification of pictures and objects, failure to interpret gestures, and not taking turns in talking. Difficulties in expressive language are characterised by problems such as not saying the names of objects, not using gestures, not asking questions (or not being able to ask them), not putting words together to make sentences and not being able to start or continue an exchange. Preschool children often have difficulties with both receptive and expressive language. Some preschool children may have no speech and very little understanding and may be categorised as having severe or profound intellectual disability when accurate assessments of IQ can be made.

As they progress towards starting school, some children also show signs of difficulty with pre-reading skills. For example, they do not look at pictures in a book, hold books the wrong way up, or do not turn the pages in a book. They may also struggle with learning the alphabet and have problems with spelling which can range from minor to an inability to represent almost all sounds recognisably in writing. According to Boyle et al. (2011), these difficulties result from an underlying intellectual disability and so they do not classify learning disabilities separately. Moreover, in the social domain, the language delays in preschool children will affect their ability to learn other subjects. Difficulties in communication will have an adverse impact on their ability to make friends and establish relationships with teachers, as will their inability to understand social signals.

The types of services provided to these young children will depend to a varying degree on the models of disability and SEN, child development frameworks and early childhood intervention models that underpin them.

3.4 Models of disability and SEN

Several models of SEN and disability have been identified (Frederickson & Cline, 2009), the main ones being the deficit model, the social model, and the human rights model. The deficit model assumes that the disability is the problem of the individual, and that any improvement is most likely to result from health and education services, usually in a segregated environment. A child's development is measured against various norms for age-matched peers, and causes are sought for any deficits discovered in order to identify possible remedies (Macdonald, 2009). Human desire for explanations and cures has meant that, prior to advances in medicine and psychology, causes traditionally included possession by spirits or sins committed by the mother in some societies, and treatments were sought from traditional healers or religion (Al Khatib, 2017). In this case, the medical model has a long history. The main features of this model are assessment, diagnosis and treatment; treatments may be nutritional, chemical, physical, emotional or cognitive. Thus, the model tends to be applied in a mechanistic way. One important drawback of this model is that it concentrates on what the child is unable to do, looking at the disability rather than the child.

The social model assumes that SEN and other disabilities are more closely related to the values and behaviour of society as a whole. For example, many societies have historically hidden family members with intellectual disabilities (Al Khatib, 2017), and prior to the concept of Education for All, special educational needs could not have been recognised or addressed as they are now because many of the affected children would

never have attended school, and any employment would have been unlikely to require specific levels of educational attainment. The requirement for children to reach or exceed certain norms at a given age could be seen as disabling, and separate classrooms could also be seen as creating a barrier to their integration and inclusion in society. According to this model, society and its education system are responsible for removing the barriers they create by making changes to legislation, structures and systems. This model places less responsibility or blame on the individual child, and highlights the fact that there may be no 'cure' for intellectual disabilities, but there may be a risk that focusing on the design of structures and systems takes attention away from meeting the heterogeneous needs of individual children.

In contrast to models centred on needs, the third model focuses on human rights. The human rights model strongly opposes segregated education and requires rights to be specified and upheld by the law. This model assumes that every individual with a disability has a right to participate fully in the economic, political and social life of their society. For children, this implies 'special rights to education' rather than special needs, which would involve a complete rethinking and redesign of educational provision, including premises, learning and curriculum and teaching. The approach in Saudi Arabia can be considered to contain elements of all these models, together with additional elements from Islam.

In Islam, every individual has absolute equality in the sense that each one was created by Allah; differences do not imply inferiority or superiority (Hassanein, 2015). However, differences do imply that people have particular strengths and weaknesses, and Islam instructs people to help each other for the benefit of everyone, for example those with health and wealth are instructed to take care of the infirm and poor. This is not the same as a charity model of disability, because charitable giving is a separate

aspect of Islam. Instead, the relationship is based on a shared love of Allah and mutual dependence and help among people, in contrast to the value attached to greater independence in Western societies. In this model, diagnosis and categorisation of disabilities can be seen as the first step to identification of the help required and who is best placed to provide it.

Moreover, every Muslim has a duty to grasp the knowledge of the Qur'an and pass on such knowledge to their children. Parents need to take particular care of their children in order to make them participate in a good way within their daily life situations (Cairo Declaration on Human Rights in Islam, 1990). Therefore, children with ID should be given greater help to achieve their potential in keeping with the duties required of every Muslim to educate himself/herself, with the support of good parenting, aimed at increasing understanding of, and obedience to, Islam. These principles are set down in Article 9-a in the Cairo Declaration on Human Rights in Islam (1990) which states that seeking knowledge is an obligation in Islam, and that both the state and society therefore have a duty to provide educational services which can be accessed by all individuals. In this model, the role of the individual, parents and other family members, health and education professionals, and the state are clear. However, implementation is beset by difficulties; these include the size of the problem, competition for resources to meet multiple challenges even in an oil-rich country, and the co-existence of Islamic and pre-Islamic Arab cultures, in addition to tensions arising from adapting or adopting Western approaches in another culture. Thus it is not surprising that the medical model elements dominate the picture, since assessment, diagnosis and treatment are an obvious way for those with advantages in life to help those at a disadvantage. Moreover, it is consistent with the strong and persisting value of conformity derived from the Bedouin culture (Patai, 2002).

It is difficult to reconcile the social model of disability with the Islamic approach because society is understood to be founded on the words of Allah. Thus, any suggestion that society should change to accommodate a different perception of disability would be rejected instantly. However, it can be seen that changes are taking place in the wider society to enable children and adults to participate more fully in society; examples relevant to my thesis are the moves towards inclusive education and awareness-raising programmes aimed at reducing the stigmatisation of disability. Moreover, based on a report by the Prince Salman Center, accessibility in the areas of the built environment, transport and accommodation has been benchmarked against international best practice. Newer commercial and government buildings have followed these guidelines. Changes like these happen because they are consistent with the teachings of the Qur'an.

The extent to which the Islamic model is consistent with one or more of the child development theoretical frameworks requires further examination.

3.5 Child development frameworks

According to Crain (2010) there are various broad groups of child development theories. These include psychoanalytic theories (Freud and Jung for example); learning or behaviourist theories (Bandura); cognitive development theories (such as Piaget), ethological theories (such as Bowlby's attachment theory) and ecological theories (for example Bronfenbrenner). Deep cultural differences mean that much of the theory does not easily fit into an Islamic society, for example the Western concept of individual happiness and freedom is in direct contrast with the Islamic concept of happiness which is based on being a true believer and doing good, with equal importance attached to happiness in earthly and everlasting life (Jafari, 1992). Most psychology graduates in

the Arab world are not practitioners but are employed in universities (Al Krenawi, 2005).

The overriding child development framework in Saudi Arabia is provided by the principles of human development that can be found in the Qur'an. These principles can be summarised as growth and development occurring in a gradual process which follows a set pattern of stages (Qur'an, 71:13-14) within an overall pattern of life:

“It is God Who created you in a state of (helpless) weakness, then gave (you) strength after weakness, then, after strength, gave (you) weakness and a hoary head; He creates as He wills. And it is He Who has all knowledge and power” (30:54)

Parents are recommended to be sensitive and take especial care of bringing up their children, but there is no great debate about the relative impact of nature and nurture, because both hereditary and environmental factors are equally determined and controlled by divine will and power. However, the importance of good environmental influences and the need to avoid bad influences is stressed in all the teachings of Islam, and the importance of parental guidance is strongly emphasised. Parents are responsible for ensuring their children are aligned to God from the day they see the world and first hear the sound of the call to prayer whispered soon after birth. Moreover, they have a right to obedience from their children, who have an obligation to be obedient.

In contrast to this religious and spiritual perspective, the cognitive development theory of Piaget states that up to around 2 years old, the infant is in the sensorimotor stage, developing motor skills, experiencing the world through sight and touch, starting to babble and then acquire language. From the ages of 2 to 7, in the egocentric or pre-operational stage as defined by Piaget, the child understands the world only through

their own experience but develops memory, imagination and language, although as yet there is no logical thought. Thus, early childhood is an important stage during which the child is forming linguistic, cognitive, psychological, sociological and emotional skills. Although constructivism is officially endorsed, Piaget's theory is taught briefly in Initial Teacher Education for SETs, and has not been widely applied (Al-Abdulkareem & Hentschke, 2014); to the best of my knowledge, it has only really been applied in special education in a few privately run schools including preschools, which tend to cater for the international community. Some studies have found that whilst preschool teachers have good knowledge of Piaget's theory and other constructivist theories, they tend in practice to adopt the teaching methods of experienced teachers and to incorporate the elements of theory which fit with the prevailing and traditional Muslim culture (e.g, Al-Jadidi, 2012). However, they perhaps cannot always reconcile theories of learning with theories of teaching; for example, one study has shown that they struggle to understand how to make effective use of computer technology other than as either a component of free play or an instructional tool, with most teachers in the study preferring the latter (Hammed, 2014).

Psychoanalytic theories are rejected in Saudi Arabia on the basis that they assume development is driven by a sequence of innate urges that have no connection with religion (Open University et al., 2007). Behaviourist or social learning theorists like Bandura are more compatible with the Islamic worldview since they propose interaction of the three elements of the individual, environment and behaviour (e.g. Bandura, 1977). Behaviour is learned through modelling, thus the behaviours of parents and other adults are important influences on the child's development. In Saudi Arabia, the approach to behaviour improvement in children with ID in an inclusive setting contains

a modelling element, not only modelling behaviour in the home but being with children who are developing normally.

Developmental models can be criticized on the basis that they give too much emphasis to who the child will become in the future, without giving enough importance or attention to the child as he or she is at any particular point in their early years. As Uprichard (2008) points out, young children are typically aware of how they are now and also aware that things will be different in their future lives. Professionals who work with children should therefore recognise when it is appropriate to focus on the present rather than the behaviours, knowledge and skills needed for the future.

Bowlby's attachment theory asserts the necessity of a protective figure when environmental threats are presented in order to remove anxiety and stress (Bowlby, 1982). The role of the attachment figure is to provide the child with physical protection, care, comfort and psychological support which last throughout life (Bowlby, 1988a, 1988b). In Islam, the lifelong attachment is to Allah and there is no separation even in death. Language used by Bowlby to describe the attachment figure, for example loving, comforting and available, is used in Islam to describe Allah. Parents or guardians are the mechanism through which the attachment is achieved. This has to be taken into consideration in the designing and delivery of Early Childhood Intervention and other educational provision in Saudi Arabia.

The ecological theory of Bronfenbrenner (1979) proposes various levels of environmental factors that interact with the child and that by changing some of the environmental influences, a child can recover from negative experiences. Some elements of his theory are compatible with the Islamic worldview of child development, but in his theory God is a feature of the outermost level of influence and contained in

the broad ideology, customs and laws of the culture. This recognises that societies like the US and UK contain different cultures with widely differing family traditions and various religious beliefs. However, it is in conflict with the unifying nature of Islamic society, so is largely rejected.

However, there is agreement that the rate of development and learning among human is most rapid in the preschool stages; child development research and the Qur'an both support this. Therefore, it is essential to take advantage of the stages when readiness is greatest and what are referred to as the most teachable moments (Yadav, 2016), otherwise the child may find it more difficult at a later time to learn a particular skill (WHO, 2007). This then places considerable responsibility on services for preschool age children with ID and on the SETs and other Early Intervention Professionals who deliver them.

3.6 Early childhood intervention services

According to Shonkoff and Meisels (1990), early childhood intervention services have developed from education services, as a result of the evolution of attitudes in the 20th century. Attitudes have moved from keeping children with disabilities out of sight, to segregated services following screening, through to identification and provision of support. Some Early Childhood Intervention Services emphasise improving opportunities for children living in poverty, while others place more the emphasis on health care services, or on various special education services (European Agency for Development in Special Needs Education, 2010a). For example, Poland has offered services only regarding children's primary medical diagnosis, rather than their developmental or special educational needs. Services in Portugal are aimed at children from 0 to 6 years old who have disabilities that limit their involvement in social settings

and activities typical for their age as well as those at risk of developmental delay. In Iceland, health services refer very young children who they consider may have a serious developmental disorder, and preschools, with parental consent, refer children with possible developmental disorder to a Pedagogical Psychological Advice Centre, who in turn may refer children to the State Diagnostic and Counselling Centre or Child and Adolescent Psychiatric Unit (European Agency for Development in Special Needs Education, 2010b). Local health centres in Iceland also conduct a national screening programme for all children at age 2.5 years and 4 years old.

The United States describes early intervention as the provision of services, education and support to young children who have an existing delay or have a high probability of experiencing such a delay, or who have a special need that could negatively affect their development or education (IDEA, 2004). The aim is to reduce the effects of the disability or delay by identifying the needs in five areas of development and providing services to meet those needs. The five development areas are: physical, cognitive, communication, social, and adaptive (IDEA, 2004). According to IDEA, early intervention programmes and services should begin as soon as the delay is identified and should take place as far as possible in natural environments.

Much of the legislation, policy and practice in Saudi Arabia has been adapted from the United States (Alnahdi, 2012). This is done in a way that suits the social and cultural differences between the two, because they have very different ideas about some of the purposes of education in primary school and beyond, about the role and image of the family, and about what a model citizen is and how he or she behaves. This has resulted in Saudi Arabia adapting various practices and interventions from different US programmes and services. Much less emphasis is placed on psychological services (Sattim, 2012) and on selection of techniques considered appropriate rather than

complete programmes. Furthermore, Applied Behaviour Analysis techniques are used rather than the Early Start Denver Model, and some traditional Montessori teaching equipment or classroom organisation rather than the Montessori model.

ECI also reinforces competencies in parenting and enhances the social inclusion of parents and children. The specialised services include parent-focused support (e.g. counselling and training); special education services; medical care; rehabilitation (e.g. assistive devices and therapy); psychological and social support. Other services, such as planning, coordination, assistance and support, are provided in order that children and their families get the right services (World Health Organization with UNICEF, 2012).

ECI may use an interdisciplinary team of professionals, specifically psychologists, physical therapists, speech therapists, occupational therapists, family counsellors, audiologists, nutritionists, social workers, early intervention specialists and nurses, in addition to special education teachers, who work in a collaborative way to support not only special needs children but also their whole families. Together they have the skills, knowledge and ability to teach children effectively in an early childhood setting, promote their development and meet their varying and complex needs (Zager, 2005). ECI teams create programmes designed especially for children with disabilities from diagnosis to approximately six years old, starting with early identification, comprehensive assessment, treatment, training and ultimately educational support.

Intellectual disabilities children go through the same developmental stages as their typically developing peers; however, they need more input from their teachers which is sustained over a longer time in order to acquire the different skills associated with milestones. Support for children with developmental delays has been shown to be more

effective when it is started earlier; this highlights the importance of early identification (Akhmetzyanova, 2016; Koegel, 2000).

Moreover, ECI is based on individual differences in growth among children. A plan that might fit one child may not suit another child of the same age with the same disability. Therefore, each child has a specific plan that is suited to his/her abilities and needs. Assessing the current level of the child, setting short and long-term goals, creating an Individual Educational Plan, implementing an Individualized Family Service Plan and progress evaluation are all part of the general process, but at each stage the individual needs of the child are taken into consideration so that the plan can be tailored to the child in question (Morsi, 1996).

For young children with delayed intellectual development, the aim of early intervention is to change the course of their development and avoid secondary complications so that the effect of the delays is diminished (Guralnick, 2005). ECI teams working with children with ID aim to develop some or all of a child's cognitive, emotional, social, linguistic, motor and educational skills also meet the multifaceted needs of their families through a comprehensive programme of early identification and support services.

Additionally, ECI programmes for young children with ID help them to function better both cognitively and socially and thus help to limit the impact of the disability. The most critical stage of learning and growth is the preschool stage, when children develop at a more rapid pace linguistically, cognitively, psychologically, socially and emotionally, and hence it is important that ECI begins to support children with ID during this stage (Kirk, Gallagher, & Anastasiow, 2000), providing therapeutic

programmes as well as educational and psychosocial support which will develop their abilities and skills in order to improve their performance.

The main techniques adopted from practices in the United States and implemented in early childhood intervention services in Saudi Arabia require critical examination. The American Psychiatric Association (2013) has highlighted that the co-occurrence of ID with other conditions is associated with behavioural problems. Moreover, it has been asserted that children with mild developmental delays might have a higher risk of acquiring unacceptable patterns of behaviour because they actually have the ability to make alternative choices (Crnic, Hoffman, Gaze, & Edelbrock, 2004). Thus, is it not surprising that many of the treatments and interventions employed to help children with ID may have originally been designed to assist those with a different primary diagnosis, in particular autism.

In the US and UK, the need for more support from teachers and therapists over a longer time, together with the stress experienced by families and the fact that most very early learning takes place in the family has led to increasing use of family-based interventions over the past twenty years (e.g. Guralnick, 2005; Hoffman, 2016). Services in Saudi Arabia are not yet evolving in this direction; instead, while ECI services have been developing, pressure to develop and extend preschool provision has also been increasing.

3.7 Preschool teaching practices: behaviourist or constructivist?

This section examines two of the main theories of teaching and learning, behaviourist and constructivist, and how they are applied in preschool settings in Saudi Arabia, in IDCs and in mainstream kindergartens or preschools. The various early years contexts

share the educational goal of correct Islamic behaviour, but demonstrate differing objectives in terms of transition to primary school or school readiness.

Some definitions of school readiness have highlighted the social and academic skills that children are expected to need when they start school, but these have been criticised on the basis they do not consider how or whether children have had appropriate environments in which to acquire them, or whether schools are ready to receive them, for example by providing transition arrangements that facilitate the process (Mashburn & Pianta, 2006) and offering the best possible learning environments (UNICEF, 2012). A diverse range of school readiness skills and behaviours has been identified: ability to follow instructions (Britto & Limlingan, 2012), age-appropriate language development (Blair et al., 2007; UNICEF, 2012), some knowledge of letters and numbers, attention and engagement with learning activities (UNICEF, 2012), and positive relationships with other children and teachers (Mashburn & Pianta, 2006), among others. These are sometimes considered to all be explained by self-regulation, which is seen as the foundation for early literacy and numeracy skills (Blair & Raver, 2015) and which can be defined as having the ability to focus attention, and control and manage emotions, thinking and behaviour.

The three trials in Saudi Arabian mainstream preschools which are all aimed at developing early literacy (the Arabic Bawakeer, the US Creative Curriculum and the Montessori) are based on a more child-centred constructivist approach and clearly aimed at developing academic skills in addition to correct behaviour. In contrast, much of the state provision for preschool children with ID and disabilities such as ASD and Down's syndrome is more noticeably based on a behaviourist approach to teaching and more clearly aimed at self-regulation. The principal differences between the two approaches to learning and teaching are set out in Table 3.1.

Table 3.1 Behaviourist and Constructivist Approaches to Teaching and Learning

	Behaviourist	Constructivist
knowledge	Knowledge is based on environmental stimuli and behavioural responses to them	Knowledge is gained proactively and interactively constructed by learners based on experiences and social contexts
learning	depends on repetition and positive reinforcement	depends on discovery by learners and active assimilation and interpretation, often in collaboration with others
motivation	depends on external positive and negative reinforcement	depends on learner to define their own objective and motivate themselves to learn, rewards intrinsic as much as extrinsic
implications for teaching	teacher directs the learner through correct behavioural responses	teacher facilitates learning through creating appropriate environments that encourage the learners to discover, often through collaborative learning in groups

The behaviourist approach tends to focus on objectives in terms of observable behaviours, on analysis and a step-by-step method of gaining skills and knowledge as well as learning correct behaviour. A behaviourist model of teaching and learning concentrates on outcomes that can be measured, typically relying on principles of reinforcement theory and assuming that all behaviour is learned according to rules (Morrison, Ross & Kemp, 2004). Rules can create, change and maintain behaviour. Variants of the model also include the ability of individuals to understand and think about their behaviour (cognitive-behaviourist models). Behaviourist models are attractive to educators because they offer a relatively easy way of setting goals and explaining them to children as well as being comparatively easy to measure. However, they often rely on extrinsic rewards for motivation, which may result in less interest in learning for its intrinsic rewards later in life (Davis & Florian, 2004). Selected teaching strategies and methods associated with a behaviourist approach and used widely with children with ID are described in detail in sections 3.8.1 to 3.8.12.

In contrast, constructivist models of teaching and learning assume that children participate actively in the learning process and enjoy new experiences, making discoveries and solving problems. Therefore, more emphasis is placed on making learning more interesting and useful from the point of view of the child. Constructivist models promote a greater variety of teaching strategies and methods, for example a multi-sensory approach to allow for differences in learning styles, discovery learning and authentic learning environments (Mitchell, 2011). The main example offered in this literature review, because it was developed by a teacher who believed that all children were capable of learning, is the Montessori Method, even though this will be shown to incorporate elements of the behaviourist approach within a constructivist one which also places great importance on the learning environment.

There follows an examination and discussion of some of the main teaching strategies used with preschool children with ID.

3.8 Strategies, treatments and interventions

It is useful to begin this section with definitions of teaching practices, teaching strategies, treatments and interventions in order to be clear about differences between them and between the approaches and understandings that underpin the use of these terms. The terms are often used interchangeably, and not consistently, in the literature. Thus, I have used my personal definitions to distinguish between them.

In my view, teaching practices can be defined as what teachers actually do and how they think in the classroom, thus they are more than methods of instruction. Teaching practices include the organisation and management of the classroom environment and the activities, in addition to the supportive relationships, effective communications and instructional interactions with children (Curby & Chavez, 2013; Mashburn et al., 2008).

They can also include activities such as the development of colleagues, coaching and mentoring, and curriculum development.

Teaching strategies are, in my view, wider than teaching and learning methods and can be applied to many, if not all, of them. One example would be setting clear objectives for what the child is expected to learn in a session, whether that is an individual session or a group activity, some letters of the alphabet or a social skill. Another example is giving children many opportunities to practise and use new skills and knowledge; this is important in any situation where new skills are being learned. A different example is the use of alternative ways of communication when teaching children who have delays or impairments in spoken or written language; the strategy is Augmentative and Alternative Communication (AAC), while the methods include among others Makaton, Sign Language for children who have little or no hearing, and communication through pictures and symbols.

One of the main meanings of the word ‘treatment’ is the medical care given to a patient who is injured or ill, and therefore there is a strong suggestion that, in the context of provision for children with ID, the treatment will improve their condition. Behavioural problems are treated, rather than resolved. Treatment is not the same as cure so there is no suggestion that the condition will be cured after treatment. For children who have an initial assessment of ID which persists into adult life, treatment and management are perhaps the most suitable terms. There may be multiple treatments in terms of language or behavioural therapy and other services, all of which may be of long duration or repeatedly administered over time.

The word ‘intervention’ is also associated with the idea of medical intervention but has the more general idea of making a deliberate entry into a situation in order to improve it

and, from my standpoint, it can be short-term as well as long-term. Although ‘treatment’ and ‘intervention’ are often used interchangeably in the literature, there is a tendency to refer to pharmacological treatment, in contrast to, for example, behavioural intervention, although both may be described as treatments (e.g. Ageranioti-Bélanger et al., 2012). From a personal perspective based on my experience as a special needs teacher, I defined ‘treatment’ as medical and ‘intervention’ as educational, in order to keep discussion straightforward and clear. Different interventions have evolved from different theoretical or practical standpoints, aim to improve a variety of skills, and have diverse procedures. Some have a larger evidence base than others, but few have sufficient evidence to enable special education teachers, early childhood therapists, other professionals and policy makers to be able to state confidently that this approach works well with these children and these particular skills or behaviours.

In relation to the characteristics of children with ID from 3 to 6 years of age, section 3.3 has highlighted developmental delay in the areas of speech and communication, and behaviour, which can include elements of other areas such as joint attention. In practice, there is a strong overlap between the teaching practices and interventions used to address both areas, not least because frustrations often arise from inability to communicate and can lead to unacceptable behaviours.

Interventions for early communication, reviewed in the context of children who have autism, can be classified into didactic, naturalistic, and developmental-pragmatic (Paul, 2008). In fact, most interventions can be classified in this way. Didactic methods are based on behaviourist principles; controlled by an adult, they use lots of repetition and practice, techniques such as prompting and chaining, and reinforcement. Naturalistic methods also use behaviourist principles, but try to employ them in more natural

interactions such as asking for food or drink, and in comparison with didactic approaches, attach more importance to the child initiating the communication.

Developmental-pragmatic methods stress functional communication and so encourage aspects of communication such as attention/gaze and gestures as much as speech production. As far as possible, the adult responds to the child who can select from toys and other materials to initiate interaction.

3.8.1 Discrete trial instruction

Discrete Trial Instruction (DTI), or Discrete Trial Training (DTT), uses detailed analysis of a selected skill to train the child in each separate component. There is intensive training using highly structured procedures involving strategies of shaping, prompting, prompt fading, and reinforcement. Positive reinforcers should be chosen after children's likes and dislikes have been assessed; they often start with favourite food but are replaced as soon as possible with others, such as high-fives, verbal praise and tickles (Sanford School of Medicine, 2006).

The child imitates the adult. When the selected component is repeatedly produced with minimal prompting, the next component is tackled. Although these approaches have been successful in getting nonverbal children to speak (Tsiouri & Greer, 2003) and developing expressive language, the child responds to adult-initiated communication and it is difficult to use DTI to encourage the child to initiate communication or use the learned approaches in social settings outside the classroom.

However, despite its limitations, DTI has been used successfully with preschool children with developmental delays, based on 3 sessions of 10 to 15 minutes a day (Downs, Downs, & Rau, 2007) or 1 session of 30-45 minutes a day (Downs, Downs, Fossum, & Rau, 2008). Although only three children were involved in these studies, the

authors indicated that results pointed towards greater developmental gains and rates of learning in children with developmental delays as compared with children with ASD.

3.8.2 Applied behaviour analysis

Applied Behaviour Analysis (ABA), which is closely related to DTI, is also referred to as behaviour modification, behaviour intervention and behaviour therapy. The underlying assumption is that children are more likely to repeat behaviour which is rewarded rather than behaviour which is disregarded (Zachor, Ben-Itzhak, Rabinovich, & Lahat, 2007). ABA is an intervention which completely applies behavioural principles to reducing deficits in social behaviours and associated verbal skills and reasoning skills. Therapists and teachers need to observe and make notes of when and how often the undesirable behaviours occur, their antecedents and consequences. It is also important to break down the skills needed for the desired behaviours, so they can be taught using repetitions of discrete trials and progress can be measured and monitored, and any necessary changes can be made (Prior, 2003). ‘Applied’ refers to choosing appropriate behaviours that are socially important, ‘behavioural’ refers to a strict scientific approach to recording what happens, and ‘analysis’ refers to having enough evidence to show that the ABA intervention resulted in the changed behaviours. The repetitions aim to provide enough opportunities for learning the new behaviour to ensure that the child knows when to use it as well as thoroughly practising it. There are specific techniques that assist the ABA process and are similar to those used in DTI: prompting, fading (gradual reduction in prompting), modelling, pairing primary and secondary reinforcers (with reduction over time in the primary reinforcer), repeating these for each step in learning a new behaviour, and chaining (sequential reinforcement of steps until the full behaviour is achieved).

Past criticisms of ABA regarding the use of punishment have largely been addressed in the US and Canada by calls for practitioners to be licensed and to follow legal and ethical requirements in their professional Code of Conduct (e.g. Dorsey, Weinberg, Zane, & Guidi, 2009). In Europe, however, there remains the wider concern about the ethics of attempting normalisation of individuals (Milton, 2012). It is argued that if we seek to value individual differences, it is hard to justify why we seek to remove those very differences which make the individual unique. Moreover, the atypical behaviours may be essential to the individual to enable him or her to cope with the environment, which means that removal of those behaviours may make life more difficult and painful for a child we are seeking to help. This gives rise to ethical and moral dilemmas for practitioners (Hammond & Wellington, 2012).

ABA is considered a psycho-educational intervention (e.g., Eikeseth, 2009), which places it in the categories of both treatment and educational intervention. This illustrates a typical source of controversy about the use and effectiveness of interventions, and who should deliver them. Callahan, Shukla-Mehta, Magee, & Wie (2010) noted that ABA should be delivered by

“teachers and service providers who are knowledgeable, experienced, and qualified in autism, including how to correctly apply and evaluate behavioral management, communication, social interaction, independent living, cognitive and academic skill instructional interventions, and related strategies and curricula” (p.79).

Although the term ‘appropriate behaviours’ is, in general, accepted without question in the conformist, Islamic society of Saudi Arabia, it is not always so readily accepted, as indicated by Burman (2008). Burman traces the history of developmental psychology,

highlighting issues such as normalization and testing, and identifying how these have led to intervention and regulation in the lives of children and parents, especially mothers. Advocates of developmental psychology can exert considerable power over families, particularly when their ideas predominate in early childhood intervention and education services. In such a context, many of the behaviours that children and adults adopt because they are social norms can be determined by power and a desire or requirement for control. In these circumstances, it is open to question whether the behaviours are ‘appropriate’ or not.

Awareness that the concept of ‘appropriate behaviours’ may be highly contested and impose unnecessary constraints on children may have contributed to the evolution of ABA approaches over time. Nowadays they include a range of methods that are situated more in the child’s natural environment for instance, incidental teaching and mand-modelling. These are also termed ‘naturalistic teaching’ because they aim to emphasize the physical and social contexts in which learning occurs, what the child finds motivating, and what the child is most likely to wish to communicate about.

3.8.3 Incidental teaching

Incidental teaching entails teacher’s assessment of the children's interests, waiting for the children to initiate a short teaching session through showing interest in a target activity or an object, restricting access to that object or activity, expanding on the children’s initiation, and rewarding responses with access to the high interest activity or object (thus producing reinforcement within the activity itself). It offers a way of capturing ‘teachable moments’ and has been shown to result in children with ASD using language more spontaneously and more often (Koegel, 2000).

3.8.4 Mand-modelling

This procedure was developed as a modification of incidental teaching specifically to increase vocalisations and lengthen utterances (LeBlanc, Esch, Sidener, & Firth, 2006). It aims to develop joint attention as a precursor to speaking, and to train the child in turn-taking, provide information when asked or instructed to do so, and respond to various cues given by an adult. This technique may be effective with children who rarely initiate speech because they are prompted in each trial. Mand refers to the therapist's verbal behaviour, not the behaviour of the child who is the listener. During preparation for a Mand-Model training session, the therapist identifies a specific response for reinforcement, with the aim of a gradual shaping of complex responses, such as a longer phrase. The session may start with the therapist placing favourite toys in the room, then when the child shows interest in playing with a certain toy, the therapist Mands for a response, for example by asking 'What do you want?'. If the identified response is achieved, the therapist praises the child and gives the toy to him or her. Modelling of the desired response is used when the child does not achieve it the first time.

Didactic and naturalistic methods have both been criticized for various reasons. On the one hand, didactic methods like DTI may be too tightly structured to be useful for caregivers in more natural settings. On the other, some naturalistic interventions may not incorporate enough trials to ensure learning (Koegel & Koegel, 2006). Attempts to follow the natural sequence of language development more closely by encouraging communication before verbalisation have led to interventions that are described as developmental/pragmatic. These often involve parents and caregivers other than professional staff in implementing the intervention, thus may be termed relationship-based models.

3.8.5 Floor time

Floor time is a developmental/pragmatic approach which is sometimes also called DIR or developmental, relationship-based, individual-difference model. The goal is to develop interactive communication through sharing play and emotional attachment. Typically developing children learn about social interaction and language through play, which is therefore considered a key activity for all children to master. Training is provided to parents in giving their child many daily floor time sessions; the role of the parent is to follow the lead of the child, comment on the child's actions, offer opportunities for two-way interactions and provide appropriate challenges and obstacles that will extend the child's capacities. Floor Time aims to integrate speech and occupational therapies into the interactions between child and adult rather than providing these therapies separately (Greenspan & Weider, 2006).

3.8.6 Relationship development intervention

Relationship Development Intervention (RDI) also offers training for parents, giving them a range of strategies for providing support through scaffolded opportunities to enable the child to respond more flexibly to gradually more challenging and unpredictable activities in their daily lives. The aim of RDI is to assist children with autistic spectrum disorder (ASD) to experience positive two-way communication and relationships with other people. Based on the way in which typically developing infants form emotional attachments, RDI assumes that such relationships are the precursor and context in which language and social skills are learned.

Relationship-based models can have obvious benefits in terms of the parent and child spending purposeful time together on activities the child is more likely to enjoy than DTI. The developmental approach focuses on meeting the individual needs of a

particular child and thus highlights individual differences and the requirement to adjust the intervention to suit the child. Therefore, there are many positive anecdotal reports regarding floor time. However, from the point of view of scientists and clinicians, individualisation makes it difficult to measure the effectiveness of an intervention for a sufficient number of children to be able to say that this approach brings significant improvements in this particular skill. As Warren et al. (2011) explained, further research is needed before it will be possible to determine the most appropriate specific behavioural interventions for individual children.

In order to provide more holistic interventions for children, various treatments have been combined and offered in varying duration and intensity. In some cases they have been extended to form complete programmes. Some examples are Learning Experiences and Alternative Program (LEAP), Douglass Developmental Disabilities Center, the Denver Model, Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH), Walden Early Childhood Program, and Pivotal Response Training. Both LEAP and Walden have a specific preschool programme (Paul, 2008).

3.8.7 TEACCH

TEACCH is considered to have many elements that are useful for all children who have difficulty in communicating and processing information, although it was developed to respond to the needs of children diagnosed with autism and is in general use for that purpose in the United States and Finland (Mesibov & Shea, 2010). One reason for this widespread acceptance is that the fundamental principles of TEACCH include setting targets that can be measured in a standard way using traditional assessment found in clinical research. TEACCH emphasises a close partnership between parents and

teachers, and structured teaching, skills development and better adaptation, thus it focuses on essential skills needed for daily life: attention, engagement, communication, language, social skills and executive functioning (Mesibov, Shea & Schopler, 2005). Structure is an important aspect of the programme which is present in every element: class structure (where activities happen), visual schedules/timetables (when activities happen), what a child does and how they should do it (structured activities often supported with pictures, photographs and/or signs), detailed routines and rewards. Communication through pictures is an important factor.

It has been proposed that TEACCH could effectively be evaluated by measuring intellectual functioning and developmental age using standard tests. Most of the evaluation to date has focused on parents' experiences and views of the programme, although small to moderate gains have been identified in a number of areas (Virues-Ortega, Julio, & Pastor-Barriuso, 2013). Although TEACCH is aimed at children with ASD, the elements of communication and socialisation are relevant to many children with ID.

The positive response by parents of preschool children benefiting from the programme reported lower levels of stress (D'Elia et al., 2014) and similar findings regarding parental stress and improved ability to cope with a child with a disability have been reported for Denver Early Start Model (Estes et al., 2014). Indeed, many programmes and interventions report similar findings. This reinforces the importance of parents feeling that they are supported and can have a better relationship with their child. However, there are very few rigorous and large scale evaluations of the gains made by children with ASD or ID. Thus, it can be said at present that some intervention is generally positive, but not that any particular programme or treatment has specific advantages over another.

3.8.8 Head start

A different approach has been taken in the United States' Head Start programme which assumes that teachers will work with groups consisting of both children with typically developing and children with disabilities. Teaching strategies therefore emphasise ways of supporting children with disabilities and including them in group activities, making adjustments to standard teaching practices (Head Start, 2003). The recommendations share features with the more specialized approaches such as TEACCH. These include using pictures for communication; structured and suitable activities, materials and environment; working with the child's preferences, and the importance of supporting adults, especially teachers and parents working in partnership.

Head Start offers three types of provision, according to initial health and developmental screening. The extent to which early intervention programmes are based on supportive health services provision, and the nature of this provision, varies among countries, as in the comparison of early childhood prevention and intervention in Germany and United States by Benz and Sidor (2013). However, these programmes were focused on parent training and avoidance of child abuse or neglect, in contrast to IDCs in Saudi Arabia which emphasise early intervention to minimise the impact of developmental and behavioural problems through a particular approach to education with children who all have some form of developmental delay.

The initiatives discussed so far have a number of characteristics in common; these include structuring (classroom, timetable, activities), and communications. Communications are particularly important when children with language delays and difficulties are involved, and an important teaching strategy is the use of Alternative and Augmentative Communication (AAC) approaches. These can assist young children who

cannot speak easily to express their needs or feelings and therefore become frustrated (e.g. Ronski & Sevcik, 2005), which can lead to or increase behavioural problems.

3.8.9 Alternative and augmentative communication

Various types of alternative and augmentative communication exist. For example, one study has compared how well two different AAC systems, Picture Exchange Communication System (PECS) and Voice Output Communication Aids (VOCAs), enabled generalisation from pull-out sessions to whole class lessons. That study found that usage, transfer and effectiveness tended to vary with their individual child (Bock, Stoner, Beck, Hanley, & Prochnow, 2005). PECS was originally intended to assist teachers to provide a means of functional communication to ASD children who struggled with speech-based communication. However, a review of studies conducted between 1994 and 2009 led to the recognition that PECS could be potentially useful for improving communication for other young children diagnosed with developmental disabilities, as confirmed by a study involving children aged 3 to 6 with developmental disabilities; interventions for the 31 children lasted between 3 and 28 months (average 14 months) (Schwartz, Garfinkle, & Bauer, 1998).

There are six distinct phases in training a child to use PECS, starting with the exchange of a picture for a positive reinforced such as a toy or activity. Following this, the child is trained to bring the picture from somewhere nearby, then to tell the difference and choose between two or several pictures, to make a sentence strip which starts with 'I want', to respond to direct questioning, and, finally, to comment (Frost & Bondy, 2002). Each phase has specific steps and the first phase emphasises that no verbal prompts are to be used, only the name of the picture, in order to convey PECS as an alternative and augmentative communication system and to encourage independence. Stress is also

placed on the importance of structuring the environment (one picture, correct positioning of a communication partner and clear visibility of the reinforce toy or activity), and, subsequently, the use of the same picture in other activities during the day in order to assist generalisation of the new communication skill to other settings and people (Frost & Bondy, 2002).

Although PECS is highly prescriptive in how it should be taught and used, this helps the child with ID to learn it. Once learned, it fits with the widespread use of pictures and symbols in preschools and primary schools that cater for a mix of children with and without ID.

Studies show mixed results for PECS, in part because of individual differences between children (Nunes, 2008). It is likely that too many claims have been made for the system. It is an important element of the TEACCH programme, but only one element. The aims of PECS are to promote communication, not to provide a complete communication-training programme, and the developers of PECS indicated that other communication skills should be developed alongside PECS (Frost & Bondy, 2002). Specifically, working with pre-schoolers on vocal production and imitation, among other skills required for verbal behaviour to be both functional and vocal was mentioned by Bondy (2012).

Much of the literature surveyed so far has concentrated on the role of the adult, whether that adult is a teacher, parent or other caregiver, or a specialist such as a speech therapist. The emphasis on improvement and treatment is also noticeable. However, it is also proposed by some scholars that there should be less separation between learning and play, especially for preschool children (e.g. Samuelsson & Johansson, 2006). Moreover, children such as those with ID who have language delays are likely to

experience difficulty in starting and continuing play, and are more likely to spend time alone in unoccupied behaviour than peers with normal language abilities (Sualy, Yount, Kelly-Vance, & Ryalls, 2011). Interventions based on play may therefore be one way of combining learning with having fun. Relatively few relevant studies have been conducted, which means that support for play interventions relies on belief in their effectiveness as much as on research evidence. In my view, this is because the potential of play interventions is still being explored.

3.8.10 Play as intervention

Interventions based on play can be more or less directive and adult-led. A directive approach to play therapy is typically led by a therapist or other adult and is likely to include a sequence involving toy selection, observation, prompting for interaction, and modelling desired behaviour (Terpstra, Higgins, & Pierce, 2002). Examples of relatively directive techniques include among others: mirroring, modelling, play scripts, play routines and parallel play (Cumine, Dunlop, & Stevenson, 2010). Less directive approaches target a broad domain of play skills which include play-related communication and social interactions, and place more emphasis on using natural settings, as well as being used with a mix of typically developing and other children. Examples of the skills that may be targeted are play initiation and responses such as requesting information or action (Josef & Ryan, 2004; Wong & Kasari, 2012).

Toys can be used to meet a variety of objectives in addition to play skills; for example, they can be used to develop joint attention, self-concept, improve motor skills needed for activities such as dressing, prepare for more independent engagement with the environment, and employ repetition to improve understanding and functioning in the real world (Sherratt & Peter, 2002). Some types of interventions based around toys may

be more or less structured; some have set elements, such as narrative and structure in Tabletop Identiplay (Thomas & Smith, 2004).

More generally, play as an intervention has many possibilities. As Barton and Wolery (2008) mentioned in their literature review about teaching pretend play to children with disabilities, there are many reasons why teaching children to play is important. They noted that play is “a context in which intervention strategies for other goals (social, communicative, cognitive) are embedded” and that it can also provide “reinforcing properties for other skills” (Barton & Wolery, 2008, p.109).

However, the very advantages of using play can work against it. Its flexible use in diverse settings, especially for interacting with other children, and a context for achieving other goals (Barton & Wolery, 2008), mean that it could be a context, a therapy, or an educational intervention. This opens possibilities for confusion about how and why it is used, even for misuse, which could undermine its benefits.

There are specific interventions such as Floor Time (section 3.8.5), which is child-led and aimed at improving social interaction in addition to involving emotional attachment to a parent (or other caregiver). Play as a context may be very suitable for incidental teaching. For very young children with ID who have difficulty with various forms and stages of play, play may itself be a developmental domain. For young children with ASD, play skills have been associated with language levels later on, thus research investigating the development of communication skills in children has repeatedly stressed that play should be a prelinguistic objective (Yoder, 2006).

However, play is supposed to be enjoyable, fun, and perhaps a reward for work done. This suggests there is a need for careful balance in the use of play for purposes of educational intervention and the opportunities for free play.

3.8.11 Social stories

There is no such dilemma with the use of social stories which are different in tone and length from most other stories for children, i.e. they are shorter, written in the first person singular, and have a clear learning objective (Gray, 2000). Many use pictures in recognition of the language difficulties experienced by the children for whom they are intended, although the inclusion of pictures was a later recommendation by Reynhout and Carter (2009). The purpose of social stories is to learn and share social information that is accurate and easy to understand while providing reassurance as well as describing a situation or skill, with useful social cues and typical responses (Gray, 2010). Social stories can be utilised in a wide range of applications, for example reducing unwanted behaviours (e.g. Rhodes, 2014), and acceptance of daily routines from home-to-school transition to handwashing (e.g. Beaumont, 2008).

Gray (2004) is prescriptive about the types of sentences that should be contained in social stories, for example descriptive sentences, affirmative sentences, cooperative sentences, and control sentences. Descriptive sentences are factual, without opinions or assumptions (Gray, 2004). Examples are ‘Most children go to school’ and ‘My dad takes me to school’. An affirmative sentence reinforces the meaning of the previous sentence, for example after ‘Most children go to school’, ‘This is very important’. Cooperative sentences state how others can help, for example ‘Mum and Dad can help me draw pictures’.

Social Stories illustrate a problem that is common to many interventions for children with ID, namely that evaluation of their effectiveness is difficult because the actual intervention is constantly changing as teachers and parents add their own ways of writing stories or of using them and individual children respond differently. There are many variations on

the original trademarked concept which are often referred to as social stories (without capitals), social educational stories, or as story-based strategies. Teachers may find that stories accompanied with actions keep children's attention for longer and so it may be easy to confuse the purpose or delivery of the stories. Thus, some interventions such as social stories are trademarked or copyrighted in order to try to ensure not only that the inventor keeps the rights and benefits from any profit, but also that the intervention is applied in its original highly prescriptive or structured form in order to repeat the results they have obtained.

3.8.12 Structure

Structure is a recurring theme in the practices and interventions, for example in Discrete Trial Instruction (3.8.1), TEACCH (3.8.7) and Tabletop Identiplay (3.8.10). It is widely accepted that all young children need structure and routines to provide security and to develop self-control, although this present literature review indicates that research has been scarce and has focused on the home environment and parent-child relationships. The importance of both responsive relationships and structure for young children is emphasised in a review of early socialisation literature by Laible and Thompson (2007). Effects of the learning environments at home and outside have been shown to relate to the quality of both of them, where quality includes the relationships in both cases, but also the routines and structure of learning (Evangelou, Sylva, Kyriacou, Wild, & Glenny, 2009).

An early evaluation of TEACCH found that autistic children generally responded more positively to structured sessions, and also found that children with higher functioning coped better in less structured situations than those with lower functioning (Schopler, Brehm, Kinsbourne, & Reichler, 1971). The particular importance of structure for

children with ASD continues to be emphasised (e.g. Willis, 2006). Moreover, structured development programmes that are maintained throughout childhood may have enduring positive effects (Ramey & Ramey, 2004).

There is broad agreement about what should be structured, although the details and application vary. TEACCH, for example, identifies four main aspects of structure: organisation of physical environment, task organisation, routines and visual strategies, and work systems (Gresham, Beebe-Frankenberger, & MacMillan, 1999). It also includes visual structuring of materials for tasks as a fifth component of structured teaching, focusing on setting out the task with a sequence of numbers and pictures in a way that allows pupils to complete it with little or no references to teacher or peers.

Visual structure is supported by priming, with or without modelling. These methods are used to let children know what to expect next, for example by showing children the materials (or what will happen in a lesson) before the lesson (Wilde, Koegel, L & Koegel, R, 1992). This helps to reduce anxiety by increasing familiarity and predictability. A review of studies (Lang et al., 2011) indicated that priming benefited ASD children in a number of areas, including improving behaviours, using the toilet, daily living skills, and play skills, in addition to appropriate academic responding in school age children. After behaviour is primed, it may be supported by adult modelling of the target behaviour as required. The adult will also provide the child with oral prompts and oral cues about performing that behaviour himself or herself. It is important to give the child opportunities to practise the target behaviour just before it should be carried out (Zanolli, Daggett, & Adams, 1996).

TEACCH has been applied in the areas of personal care skills and social skills as well as communication skills, while a different approach to structure is seen in direct

instruction (DI) which is mainly applied to academic skills, or preparatory stage skills for preschool children including children with intellectual disabilities. DI specifies in detail teaching procedures and the particular sequence in which they should be used, including detailed correction procedures (Marchand-Martella, Slocum, & Martella, 2004). It is based on the concept that if teachers teach correctly, every child can learn, thus the children's learning is the responsibility of the teacher. It has been shown to improve basic academic skills in preschool intellectual disabilities children (e.g. Dale & Cole, 1988).

A further approach to structure in education is offered by schools based on the Montessori philosophy. Structure includes three-year age groups in a single classroom (up to 3 years old, 3-6, 6-9 and 9-12) on the basis that the older group members assist the younger ones who in turn want to copy the older ones. There is a daily schedule and levels of structure exist within each activity. Montessori classrooms are highly organised in terms of different spaces for learning, specific learning materials organised by topic and designed in a way that allows children to see and correct their own mistakes (Lillard, 2013). Montessori herself understood teachers as guides for children's learning rather than deliverers of instruction, believing that every child could be absorbed for a long time in a particular activity if he or she was shown how to use the learning materials and given the time and space to choose an activity (Lillard, 2013). An important difference between Montessori and other types of structure is that no extrinsic rewards are given; instead, learning and the enjoyment of learning provide intrinsic rewards. Thus, it can be considered profoundly child-centred, although the boundaries can appear quite strict.

The underlying differences in the extent to which a preschool environment is teacher-centred or child-centred reflect not only individual schools but also the society and

culture in which they operate. Examples of alternative perspectives are presented in the following section.

3.9 Alternative perspectives on special educational needs

A scoping study produced for UK policy makers (Davis & Florian, 2004) noted that classification by special educational needs could be more useful than classification by type of disability, in order to relate teaching and learning strategies more closely to meeting needs. Based on extensive reviews of the literature, they proposed classifications such as communication needs, which they broadly divided into three categories (although they retained children with autistic spectrum disorders as a separate category, on the basis that the communication needs were accompanied by ritualistic behaviours, and resistance to change). Another classification was cognition and learning, covering such fields as attention, problem-solving and, naturally, language and literacy, which are fundamental to academic learning. Behavioural, emotional and social development was treated separately and associated with either what is termed attention deficit/hyperactivity disorder or problems arising from severe psychiatric or emotional disturbance. It was for this special educational need that ABA and TEACCH were recommended, but the authors expressed concern that these approaches tended to locate the problem within the child and not pay enough attention to the effect of the context on their behaviour.

A different alternative view is encouraged by the theory of multiple intelligences which suggests that everyone has various types of intelligence which are independent of each other but a child may be at different stages in the development of different intelligences at a single point in time (e.g., Gardner & Hatch, 1989). In addition, there is the theory of learning styles which, in children, are often described as visual auditory, kinaesthetic

and tactile (e.g., Dunn & Dunn, 1992) and which implies that there should be a match between the learning style and teaching strategy. These theories should not be used by educators to simplify classify children in different ways, but should be a reminder that it is useful to present and practise what is to be learned in a variety of ways so that as many children as possible have the opportunity to learn. Whole class instruction and workbooks may be efficient for the teacher but will not necessarily work for more active learners or those who prefer to work in a small group.

3.10 Conclusion

This literature review has explored the meaning of intellectual disability and developmental delay, followed by discussion of the theories which underpin early childhood intervention services and education for preschool intellectual disabilities children. It has examined a number of widely used teaching strategies and techniques and has found structure to be a common element in all of them, although with a greater emphasis in some than in others. Research evidence supporting the claims of particular approaches has been mixed, as has the quality of sample selection, methodology and measurement of outcomes in many of the studies. Therefore, it is concluded that many strategies have merits, but it is not possible to say for certain that one particular approach benefits a child with intellectual disability more than, for example, a child with ASD. However, it can be seen that teachers and researchers have found that particular techniques are effective in improving behaviour, such as ABA, while others enhance relationships and communication, such as Floor Time. TEACCH and Montessori probably come closer than others to a 'whole child' approach, although the former is more behaviourist in approach and, in contrast to Montessori, does not assume that there are teaching strategies and methods which are suitable for all children, whether or not they have disabilities. Alternative perspectives on intelligence and

learning styles add strength to the argument that one teaching style or method, or a single set of methods, cannot suit all children.

The areas of early childhood intervention to be explored are educational interventions as defined in the Saudi context in chapter 2, which therefore include communications, the development of social skills and behaviours, and associated adaptive skills development.

CHAPTER 4 RESEARCH METHODOLOGY

4.1 Introduction

The previous chapters have set out the specific aims and questions of the research, presented the context for the study and critically examined key relevant literature. This chapter describes and justifies the methodology I adopted in order to provide answers to the research questions, explaining the overall approach, together with the specific methods of data collection and analysis which were selected for this study. Sample selection and pilot study are also described, and the chapter concludes with how ethical considerations were addressed.

4.2 Research methodology

Scholars have offered different definitions of methodology. For example, Miller and Brewer (2003) define methodology as “a set of rules and procedures to guide research and against which its claims can be evaluated” (p.193). In contrast to this emphasis on procedures, research methodology has also been explained in terms of the researcher’s thinking processes. For instance, Wellington and Szczerbinski (2007) consider methodology to be “the activity or business of choosing, reflecting upon, evaluating and justifying the methods you use” (p.33).

Making and justifying appropriate methodological choices are vital in every study, not only for choosing the best way to answer the questions of the research but also to uncover the researcher’s own mind-set. I learned this from my supervisor Dan Goodley when I asked him about the most important point in the study. Similarly, Wellington (2015) stressed that the methodology is a fundamental element in any dissertation or thesis with regard to justifying the approach taken. Moreover, the importance of

methodology in social science theses is stressed by Hammond and Wellington (2013). The main components of the methodology I selected for my study are presented in Figure 4-1 which shows the methods used to collect and analyse data.

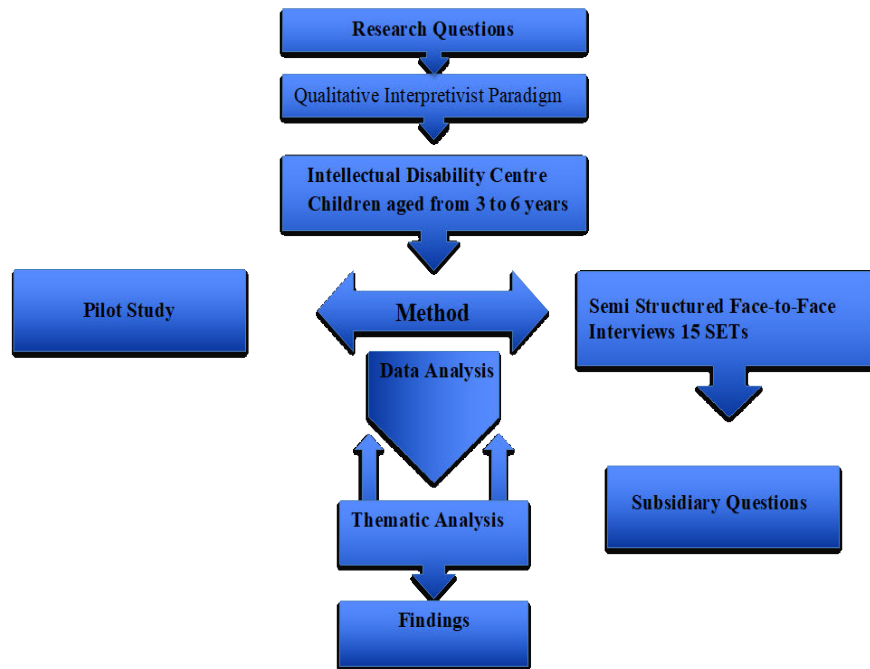


Figure 4-1. Overview of research methodology

I had several reasons for adopting a qualitative interpretivist approach. Firstly, as indicated by Miles and Huberman (1994), qualitative data can enrich the understanding of the phenomenon being investigated by providing “thick descriptions” which illuminate the real context (p.10). The term ‘thick description’ includes not only the facts of a situation but also comments and interpretations, together with interpretations of those comments and interpretations. It comes from a belief that meaning structures in a particular culture cannot be understood from facts alone (Geertz, 1973) and has been employed by many research theorists since (e.g., Creswell & Miller, 2000; Holliday, 2002; Merriam, 2009). Thus, my selection of a qualitative approach facilitated interpretation of participants’ responses and behaviours in order to understand their perceptions of educational practices, obstacles faced and strategies for improvement.

A second important reason for choosing a qualitative interpretivist approach to collect participants' views and ideas about a social phenomenon is that it is considered one of the most valuable ways to validate research, generate credibility and gain trustworthiness (Creswell & Miller, 2000).

The third main reason for selecting this overall approach is associated with my ontological belief that there is more than a single reality, necessitating interaction in the research process such as mine, with the aim of reporting the multiple realities, as discussed by Creswell (2013). I also believe that reality is constructed via humans through their thinking, including my thinking as a researcher. My selected epistemology is one in which knowledge is socially constructed instead of objectively determined (Ling & Ling, 2016). Therefore, adopting a qualitative interpretive research approach is consistent with my assumptions about how can acquire the knowledge and their nature.

Moreover, the aim of this study necessitated exploring SETs' practices and educational interventions in natural settings, using natural research procedures in order to elicit stories about their experiences and thoughts. This view is supported by Auerbach and Silverstein (2003) who assert that when people speak about their experiences, they very often do so "in a storied form" (p.24). My study involved individuals telling stories about their experiences, thus this approach suited the particular research aims and questions. The importance of selecting research approaches to suit the research questions being asked has been asserted by scholars such as Creswell (2013) and Stake (2010).

The following sections examine in greater detail the choice of research paradigm, ontology, epistemology and methods employed.

4.3 Research paradigm

A research paradigm can be considered as “a network of coherent ideas about the nature of the world and of the functions of researchers which, adhered to by a group of researchers, conditions the patterns of their thinking and underpins their research actions” (Bassegy, 1990, p.13). Some scholars have defined it in broader terms, for instance as “the dominant framework in which research takes place” (Hammond and Wellington, 2013, p.116), whilst Collis and Hussey (2009) emphasise the philosophical structure behind the paradigm. For the, philosophical structure directs how research ought to be carried out, in the light of individuals' philosophies and their presumptions about the nature of knowledge and the investigated world. The term ‘paradigm’ was first defined in a research context by Kuhn (1962) as a cluster of convictions which directs researchers to choose what ought to be studied and how outcomes ought to be interpreted. Social science researchers have for many years sought to comprehend the world in various ways, which has prompted the emergence of various paradigms based on long experience (Creswell, 2013; Guba & Lincoln, 1994). Differences in paradigms can be characterised by the following three essential questions (Guba & Lincoln, 1994):

- “• Ontology: What is the form and nature of social reality? Or, what is the nature of reality?
- Epistemology: How do we know what we know? Or, what is the nature of the link between the known and knower?
- Methodology: How can the knower go about finding out whatever they believe can be known?” (p.108).

All research designs can be followed through methodological and epistemological positions, to an ontological one. It is difficult to engage in any type of research without committing to an epistemological and ontological position. Although this commitment often happens tacitly, its absence tends to be reflected in a muddled methodology which

in turn means that the path from question to answer is unclear, casting doubt on the value of the findings. Even when that path is clear, researchers' own epistemological and ontological positions can lead to diverse research approaches to a single phenomenon (Grix, 2004). Therefore, in order to be clear in the present study, I will discuss the main research paradigms before describing the interpretivist knowledge framework that shapes the basis of my study.

An understanding of the paradigms depends on an understanding of the ontology and epistemology underlying them, together with the relationship between them and the methodology. Therefore, I will explain what these terms mean at the general level before describing the paradigms.

4.4. Ontology, epistemology and methodology

Ontology is the part of philosophy concerned with the nature of being and knowledge, or what there is that can be known (Guba & Lincoln, 1994). The central issues relate to whether knowledge, truth and social reality are absolute and universal, and exist independently of the human mind. In social sciences, this concerns whether social reality is shared or simply a set of context-specific realities as experienced by different people; and whether laws governing social behaviour are generalisable and unchangeable (Snape & Spencer, 2003). If reality is external, then research should be value-free and not influenced by the researcher (Snape & Spencer, 2003). Researchers who adopt a positivist stance and investigate the same phenomenological ought to come up with the same conclusions; their findings should be replicable (Scott & Usher, 2011).

Epistemology is closely related to ontology since it addresses the question of "how we know what we know" (Crotty, 2003, p.3). It deals with relationships between the nature of reality and knowledge, the researcher's personal preferences and assumptions, and

how and where to access data and information. According to Denzin and Lincoln (2003), epistemological assumptions involve the relation between the known and the knower, a view supported by Snape and Spencer (2003). They also involve the sources of knowledge and the ways where knowledge is acquired and communicated with others. For example, a positivist stance assumes that phenomena and knowledge is not valid unless it can be confirmed by the senses, and ideally through statistical proof of the evidence, in experimentation (Wellington, 2000). Both ontology and epistemology can be considered as lying on a spectrum (Crotty, 2003), with absolute and external reality at one end and individual subjectivity at the other. Within a paradigm, the methods need to be consistent with the ontology and epistemology and also need to meet practical and ethical considerations among others (Hammond & Wellington, 2013).

4.4.1 The positivistic paradigm

Positivism assumes that reality is absolute and external to the researcher and study participants – an ontology of realism. Traditionally, it was considered to be as suitable for social sciences research as for fields recognised as scientific. Within a positivist view of the world, social events and interactions exist independently of the people involved and their meanings are also independent of interpretations attributed to them by the social actors (Bryman & Bell, 2003). As knowledge is objective and based on hard data, the researcher is expected to fulfil the role of impartial observer and remain neutral throughout the process of research (Cohen, Manion, & Morrison, 2011). Thus, the epistemology is objectivist; there is no bias on the part of the researcher and if the right methods are chosen, the results will be true. This also applies to research investigating people and organisational structures, which can be studied objectively in the same way as physical objects, because the researcher can be detached from the world and

phenomena explored (Healy & Perry, 2000). Some researchers assert that positivism, as it has evolved into a newer version, is as applicable in the social sciences as in physical sciences (e.g. Sarantakos, 2012). In the same vein, human behaviour can be predicted and cause and effect identified (Hitchcock & Hughes, 1995). This partly explains why the paradigm is regarded as the scientific approach to research and, following its long term use in the natural sciences, why it was extended into quantitative research and experimental studies in the social sciences (Hennink, Hutter, & Bailey (2011). Researchers can objectively observe and measure the reality of a social phenomenon through the facts (Hennink et al., 2011) and their findings can be generalised.

Positivist research in social sciences typically employs one or more of the following methods within the methodology: data-gathering through surveys, structured observations and statistical records with an emphasis on statistical techniques of data analysis (Gorard, 2004). The selection of statistical techniques is important for achieving reliability and validity (Hatch, 2002).

However, it is difficult if not impossible for any human being to be completely free of bias and cause-effect relationships in human behaviour are often unclear and complex (Wellington, 2000). As Bryman (2008) noted, a statistical analysis can present social contexts as static and detached from human lives.

Positivism was not suitable for investigating SET practices and challenges in this study, because the context, in which teachers and children with ID interact not only with each other but also over time with an evolving environment, is important. The dynamics of teaching and education are not easily compatible with a positivist approach. I therefore considered the interpretivist paradigm.

4.4.2 Interpretivist paradigm

Interpretivist ontology assumes that the world and knowledge exist in the human mind and are created by social and contextual understanding (Bryman, 2008). Understanding social contexts through the interpretations of participants places a greater emphasis on the researcher's experience and interpretation (Henning, Van Rensburg, & Smit, 2004). Reflection on events by the researcher and participants plays an important part in achieving understanding (Ritchie, Lewis, Nicholls, & Ormston, 2014). The epistemology is variously described as subjectivist or transactional; the researcher is a participant in the process of understanding and giving a meaning to the data (Guba & Lincoln, 2005). Therefore, face to face interaction between the participants and researcher is of paramount importance, as reflected in the range of methods within the methodology. In accordance with Cohen et al. (2011) who describe interpretivist research as naturalistic, methods employed can include narrative, ethnography, in-depth case study and reflective journals among others. Analysis also tends to differ, with methods of language analysis such as content analysis and discourse analysis (Cohen et al., 2011). Moreover, descriptive analysis is used as a way of providing understanding at a deep level (Henning et al., 2004). It can be seen that this paradigm offers a far more personal approach to research.

In fact, the history of social sciences research has been involved in many endeavours to comprehend the surrounding world. Such interest has contributed to the emergence of various research approaches. These are still evolving, together with changes in terminology (e.g., Arthur, Waring, Coe, & Hedges, 2012; Tashakkori & Teddlie, 2010). Thus, researchers employ considerable flexibility in how they apply the various elements and techniques to create a research design and methodology (Hammersley, 2012).

4.5 Qualitative interpretive approach in this study

“Approaches represent a distillation of what we think about the world (but cannot prove). Our actions in the world, including actions we take as inquirers, cannot occur without reference to those approaches” (Lincoln & Guba, 1985, p.15).

Accordingly, this section explains and justifies the research approach adopted in the present study so that readers can understand my stance as a researcher and thus have a better understanding of how to assess the present study.

In my view, studying a certain phenomenon requires the researcher to understand the perspectives of the people who live it, as stated by Schwandt (1998). I share the view of Anderson and Arsenault (1998) in which they consider the interpretation of the universe can be carried out via observing the natural environments rather than conducting experimental studies. In other words, as a qualitative researcher, my interest lies upon understanding social situations from multiple perspectives. As Creswell stated (2013), I should seek out participants’ views of the situation in order to investigate it thoroughly, with the aim of knowing it as fully as possible so that I can better understand it from their perspectives as well as my own. In doing so; I should endeavour to capture the complexity of perspectives rather than reduce them to simple ideas.

I agree with Orlikowski and Baroudi (1991) when they contend that statistics cannot capture social processes and assert that researchers have to enter the world of the people who create the process, a view later supported by Kincheloe (2003). I also agree with scholars who argue that it is not possible for the researcher to be separated from the participants in the study (e.g. Lincoln & Guba, 1985; Charmaz, 2006).

Epistemologically, my orientation is that knowledge is co-created by participants and researcher (Denscombe, 2007), while ontologically, my stance is interpretivist (Bryman, 2008). In this regard, I seek to make sense of my study participants' and my own subjective realities in order to achieve meaning (Bryman, 2008).

I view knowledge as socially constructed and the means of inquiry are "individual perspectives or constructions of reality" (Hatch, 2002, p.15). Moreover, I consider that there is no one true meaning of an event, but that event can be experienced and interpreted differently by different people, thus the researcher and readers can "feel enriched by the different perceptions, the different experiences people have, in the same place at the same time" (Stake, 2010, p.66).

As the key focus of this research was to explore SETs' practices in an IDC in Saudi Arabia, I considered the SETs' experiences and my own interpretation to be the main sources of knowledge. Moreover, several social science researchers such as Stake (2010) and Hammersley (1992) claim that research positions need to reflect the research questions. In my study, a qualitative interpretive approach seemed to be the most appropriate for addressing the research questions.

Qualitative research "is sometimes defined as interpretive research" (Stake, 2010, p.36). This is supported by Denzin and Lincoln (2003) who stress that "Qualitative research is multimethod in focus, involving an interpretive, naturalistic approach to its subject matter" (p.3). In other words, researchers who adopt a qualitative research approach investigate things in their natural settings, aiming to understand and interpret phenomena using the meanings brought by participants (Denzin & Lincoln, 2003). Furthermore, as the interpretive approach is characteristically concerned with the individual, its main aim is understanding the subjective world of human experience; as a

result, researchers working with this approach start with individuals and set out to understand their interpretations of the world around them (Cohen et al., 2007; Creswell, 2009; Hatch, 2002).

The method I selected was in accordance with Denscombe's characterisation of qualitative research (2007) as: using text rather than numbers as basic data, demonstrating concern with meanings and understandings, and displaying interest in patterns of behaviour, use of language, and cultural norms.

However, a potential disadvantage of this methodology is that the analysis of qualitative data may take longer (Denscombe, 2007), in view of the probability of facing overwhelming amounts of data (Bryman, 1988). Denscombe (1998) proposes that the researcher needs to develop their interpretive skills, thus I ensured that I updated myself on methods of analysing qualitative data while remaining alert to time limits and avoiding mistakes.

Throughout the present study, I did not anticipate making any generalisations regarding the findings because, as Bassey (1999) indicates, the 'reliability' is more significant than the generalizability of the results. I attempted to increase the 'reliability' through "detailed description and skillful reporting" as suggested by Hammond and Wellington (2013, p.20).

In this section, I have provided an explanation of the research methodology I adopted together with the reasons for its selection. There follows explanation and justification of the data collection procedures.

4.6 Data collection procedures

A full description about procedures and methods of data collection allows interested parties to replicate the study, for example instruments, how you carried out your study, and additional details about the fieldwork (Wellington & Szczerbinski, 2007). In my study, I opted to employ semi-structured interviews to collect data, using an interview guide as the data collection method. This section justifies the choice of semi-structured interviews and describes how I piloted the data collection technique, before implementing it in the full study.

The selection of semi-structured interviews was consistent with the interpretivist approach that is designed to build meaning through interactions and personal visions (Mason, 2002). Interviews are a type of human communication between the interviewee and interviewer (me) where “knowledge evolves through a dialogue” (Kvale, 1996, p.125). The choice of data collection method was linked to considerations of the sample frame, research questions, research topic, and characteristics of the sample as well as the amount of time and finance available, as indicated by Fowler (2002).

4.6.1 Interviews

Interviews afford the opportunity to discover things that cannot be seen by the researcher, but which may be highly relevant to the topic under investigation, such as the perceptions and values of study participants (Wellington, 2000). Since the principal focus of this research was to inductively explore SETs’ practices, the use of interviews facilitated understanding of the challenges they encountered and their needs in working with children with ID. This view is supported by Krueger (1994) who illustrates that qualitative data from interviews can yield insights into participants’ perceptions and views. Interviews were appropriate for the present study because they enabled me to

gather in-depth information about participants' practices and perceptions of the reality, which would otherwise have been inaccessible, and thus to gain an insight into teachers' experiences and views.

Face-to-face interviews provided an opportunity to encourage SETs to develop their thoughts as they were speaking, enabling them "to say what they think and to do so with greater richness and spontaneity" (Oppenheim, 1992, p.81). This helped to reveal additional themes and comments about them, and as indicated by May (2001), to "explore group norms and dynamics around issues and topics which they wish to investigate" (p.125). As Wellington (2015) pointed out, "Interviews can reach the parts which other methods cannot reach" (p.137). Therefore, I selected interviews in order to give SETs the opportunity to broadly discuss and develop their thoughts, perceptions and experiences.

The quality of data collected during interviews relies on establishing a relationship of trust between the researcher and participants as much as on the data collection method. This means assuring participants that their careers are in no way at risk and that their participation is voluntary. I had to make sure they were comfortable to talk with me, therefore conducting the interviews in a place and at time of their choice was vital, starting the whole process in a relaxed and friendly way to assist in building trust. I carried out the interviews in Arabic, again to establish trust, so that participants were confident in what they were saying and to avoid unnecessary translation that could affect the flow of the interview. Trust plays a very important role in Saudi Arabian culture, rooted in conservative traditions and relationships built on close association, familiarity and shared values, all of which help to generate new information and insights during the interview. Establishing this trust is essential to obtaining permission to record interviews and I was able to record them all with a Sony digital voice recorder.

The reasons why I selected semi-structured interviews in preference to structured or unstructured interviews are discussed in the next section.

4.6.1.1 Semi-structured interviews

This type of interview has been shown to generate flexibility and in-depth insights in research in education and is often used to explore views and opinions (Gray, 2009). Interviews of this kind allow for differences in experience, as researchers typically have a list of ideas and topics which do not need to be all covered in a single interview because the aim can focus on expanding particular responses of interviewees (Gray, 2009). In this manner, the researcher is flexible regarding the order and the organisation of topics and ideas to be covered, something which is not possible in structured interviews. Interview questions need to be open-ended to give more opportunity for development of ideas and thoughts (Denscombe, 2007). In accordance with that, flexibility allowed SETs to express themselves at greater length and/or in more depth on the key areas they felt most strongly about or where they had greater experience. During the interviews, I reorganised the sequence of questions to follow their points of most interest, without imposing a set order that could interrupt the flow of their thinking.

4.6.1.2 The interview guide

The interview guide contained questions about what SETs actually did in the classroom, and the interventions they used and considered effective. I was prepared to prompt for information about specific methods if necessary, based on the categories identified in the literature review as well as my own experience. I asked about their understanding of disability and how they encouraged children with ID to explore opportunities for learning, in order to pick up the themes of intellectual disabilities, early childhood intervention and child development from the literature review I also asked why they

considered their methods to be effective or not, in order to make further links between their educational practices and the underlying theories. I initially developed the interview guide in English, and then translated it into Arabic. When I compared the Arabic version translated back into English with the first English version, I found one or two places where the meaning was slightly different and so I made some small changes to the Arabic version. Finally, I produced the English version shown in Appendix D. During the interviews, I used the interview guide to ensure all areas were covered and, when it was useful, I asked additional questions to probe further or to give participants time to reflect on their responses. I also asked an ‘anything else?’ question two or three times towards the end of the interview to give them a chance to mention any important point they could have missed.

The final set of questions I used in my field data collection including the warm-up question consisted of 15 questions with probes covering all aspects of my enquiry. I started each interview with a question relating to the participant’s background in order to encourage participants to talk about themselves and their experiences. Although the set of questions which followed the warm-up question was presented in a logical sequence linked to my research questions, I did not rigidly follow the same order of questions in every interview, because there were many times when the respondent had answered a question or questions further down the interview guide in response to an earlier question.

Having designed the interview guide, the next step was to ensure it would generate the data required to answer the research questions by piloting the method and procedures.

4.8 Sample selection

The first step was to select the sample for the main study, the IDC and SETs. The qualitative research tends to focus on people's understandings and interactions, thus normally takes fewer cases than the quantitative (Silverman, 2005). According to Wellington (2000) data collection by using interviews can be stopped once no new information appears in responses because the views and ideas begin to recur in the interviews. Similarly, Fusch and Ness (2015) assert that when the researcher reaches the saturation point, they can stop the processes of data collection. In line with that, Bryman (2008) mentions that twelve cases could be sufficient for researchers to reach most of the theoretical codes required for analysis. Hence, the population of my sample reflected this and I believe that the saturation point has been achieved.

4.8.2 Sample size and participants

In accordance with Bryman (2008), who recommends a minimum sample size of 12 participants in qualitative research, I selected a total of 15 SETs who agreed to take part in one-to-one interviews interviewed. Their profiles (gender, qualification and years of experience)

4.9 Quality criteria for interpretivist research

It is important to consider how the quality criteria were addressed for a study employing an interpretivist approach, starting with an examination of how quality criteria differ between qualitative and quantitative studies. Quantitative research is traditionally evaluated according to criteria of objectivity, internal validity, external validity or generalisability and reliability (Edmonds & Kennedy, 2012; Bryman, 2008; Lincoln & Guba, 1985). In quantitative research, validity indicates the ability of an instrument to measure what it is intended to measure, or more generally whether the researcher is

measuring what she/he claims to measure (Cohen et al., 2011; Creswell, 2009). Internal validity concerns the extent to which findings are caused by the particular variable or variables being investigated; external validity concerns the extent to which the findings could be generalised to wider or whole populations, or over time (Hopkins, 2014). Reliability is defined as consistent measurement and results when different researchers follow the same experimental design or procedures, or involve the same study participants (Cohen et al., 2011; De Vaus, 2001).

Scholars have examined various ways of defining quality of qualitative research (Bryman, 2008; Merriam & Tisdell, 2015; Seale, 1999). Alternative quality criteria have been proposed for qualitative studies, for example: confirmability, credibility, transferability and dependability (Guba & Lincoln, 1994), also broader terms of authenticity and trustworthiness (Schwandt, Lincoln, & Guba, 2007). Reflexivity, when the researcher's own position and values are stated, is another aspect of quality control (Berger, 2015; Cohen et al., 2011).

Cohen et al. (2011) argue that validity in qualitative research can frequently be more closely related to authenticity, researcher honesty, depth and richness of data collection and analysis. I will explain how I attempted to include all these in my study and how I met the four quality criteria aspects of trustworthiness: confirmability, credibility, transferability and dependability (Lincoln & Guba, 1985).

Confirmability requires researchers to show that their personal standpoint did not lead to hidden bias in their study (Patton, 2002). In this respect, Flick (2009) asserts that researchers need to be transparent by explaining the processes they used and how these led to the study findings and conclusions. Confirmability also concerns the extent to which the study data support the results (Hammond & Wellington, 2013), which can be

judged by an external researcher or other readers. Confirmability is assisted when study participants have the opportunity to check transcripts of their own contributions and the study findings (Bryman, 2008; Hammond & Wellington, 2013; Lincoln & Guba, 1985), provided checking is limited to addition of information omitted in the original questionnaire or interview, and to correction of factual errors and misinterpretation. I was very aware that my experience as a special education teacher made my role that of an 'insider' researcher. Keeping a reflection journal enabled me to be clear about any differences between my opinions and understanding and participants' views and contributions.

Credibility is considered to be essential for demonstrating that the research is trustworthy (Lincoln & Guba, 1985). It concerns confidence in the research findings, including the extent to which the study participants consider the findings believable. Credibility as described by Wellington (2015) also relates to "the extent to which a document ...is sincere and undistorted" (p.214). This leads him to highlight the importance of rich and extensive data as part of achieving credibility. Other suggested methods are prolonged contact and exposure (Hammond & Wellington, 2013), peer debriefing, for example, from academic staff, and data triangulation of data sources and methods, among others (Lincoln & Guba, 1985). I spent two months in the IDC in Jeddah, which was not necessarily 'prolonged contact and exposure'. However, since I had been a teacher in that centre for a couple of years, I therefore had to be careful to not assume that the situation was the same, or indeed assume anything about possible changes, but my experience contributed and added depth to the research. Guidance in the form of feedback and comments from my supervisor helped me to meet the requirement for credibility.

Transferability indicates the extent to which the findings of a particular study can apply to situations beyond the limits of the study (Hammond & Wellington, 2013). Although qualitative research is more concerned with relatability than with generalisability, I believe I have included adequate details to enable readers to make a judgment about how far shared assumptions and characteristics of the context allow my findings to be applied to their own contexts, based on the detailed, thick rich description in the findings chapters. Quotes from participant interviews in close to literal translation also help to catch the meaning and bring to life the situation, which further helps readers to make their own judgment.

Dependability in qualitative research as parallel to reliability in quantitative research is more difficult because findings could differ over time if participants changed or factors in the situation changed. Thus, some scholars have emphasised the idea of providing an ‘audit trail’ where researchers keep detailed records of every step in the research process (Cohen & Crabtree, 2006; Lincoln & Guba, 1985). This is supported by Yin (2011) who asserts that such documentation helps to create trustworthiness. Coding of participants and their statements forms an important aspect of such an audit trail, as in my study. For academic purposes, I retained audio recordings and transcripts in Arabic, translations and coded statements.

Consideration of the researcher’s position in relation to the participants is also an indication of quality in interpretivist research. It was important that I recognized how my previous experience could have affected my participants, their responses to the interview questions and my own collection and analysis of data. This was more than an issue of power relations (covered in section 4.13) because I needed to regularly check during the data analysis that I was not changing what participants had actually said to

make their responses be more like my own would have been. This was quite difficult at times, but a valuable check on the quality of my study.

In my view, I have done everything I could to ensure that my study meets quality criteria for this type of research.

4.10 Data translation

Data collection in a language other than the language in which the research is designed and reported requires data to be translated accurately and without distortion of meaning as an essential stage in the preparation of data prior to analysis. The researcher therefore has to decide when and how data are to be translated and by whom, decisions which must be responsive to the challenges involved in the translation of data in order to address potential issues of ethics and trustworthiness in addition to quality. The importance of addressing these issues has risen as the volume of research conducted across cultures and languages has increased (Crane, Lombard, & Tenz, 2009).

It is proposed that individuals from different cultures and utilising different languages may construct meanings about social life in different ways, leading to methodological and epistemological challenges for researchers (Temple & Young, 2004). According to Esposito (2001), some concepts are not global and some important meanings are untranslatable. In such cases, the researcher plays a central role in the representation of participants' views and therefore needs to be open and transparent about the processes of translation and interpretation. This affects the ethics of the research as well as the credibility of findings (Shklarov, 2007; Temple & Young, 2004). Bicultural researchers who know the cultures and the languages of participants and conduct and publication of the study may be most able to "convey the underlying cultural meanings" of participants (Hennick, 2008, p.5).

Three key issues highlighted in the literature on cross-cultural social research involving different languages are: various factors that affect the quality of translation; challenges of data translation in general, and in particular the translation of direct citations and concepts, including academic concepts; and the importance of transparency regarding the translation processes used. I shall briefly discuss these issues and explain how I addressed them in my study.

4.10.1 Factors affecting the quality of translation

A variety of factors can affect the quality of translation, including the overall theoretical approach (in my case, a qualitative interpretivist approach), the linguistic, cultural and research-related competence of the individual or individuals who perform the translation (Birbili, 2000), and the stage at which data is translated. The theoretical approach is related to the choice of translator (Temple & Young, 2004). A positivist approach is more likely to assume there is one correct translation which applies across cultures and can be produced objectively by a suitably professionally qualified translator. In contrast an interpretivist approach is more likely to assume that any translator will bring their own understanding of the language, culture and subject to the task and that this may influence the meanings they attribute to participants' words (Smith, Chen & Liu, 2008).

Thus, the decision to carry out translation by a bilingual member of the research team, possibly the researcher, or by an independent professional translator, is closely related to the overall theoretical approach (Esposito, 2001). In addition, the words people use contain a set of values and emotional connotations which are part of their culture and may lose their meaning in translation. Birbili (2000) argues that the quality of translation is considerably enhanced when the translator is not only proficient in a

language but also possesses ‘intimate’ knowledge of the associated culture. Moreover, the translation of academic terms and direct citations poses particular challenges.

According to Crane et al. (2009), the translation of academic terminology requires taking into account the particular political, social and cultural meanings embedded in the two languages. This leads some authors to assert that data translation in cross-language social research involves the translation of meaning and not simply of words (Nurjannah, Mills, Park & Usher, 2014). If translation is performed by someone who is not the researcher or a close member of the research team, problems may result from lack of familiarity with the research approach and topic, and participants’ culture as well as language. This can lead to failure to capture the intended meaning of words and idioms used by participants.

Bicultural researchers who translate their own data may be able to avoid such misinterpretation (Smith, Peterson, & Thomas, 2008). Indeed, it is argued by Shklarov (2007) that their expertise and understanding bring considerable advantages and assist in resolving relevant ethical concerns in cross-cultural research. This is in agreement with my ontological belief in multiple realities and the associated need for interaction between the participants and myself as researcher within an interpretivist epistemology.

4.10.2 Challenges of data translation

Challenges of data translation are often linked to challenges in transcription, in particular decisions about whether to transcribe participants’ words literally and then to translate as literally as possible, or whether to adopt a more flexible approach which captures the gist but is easier to read and has a more elegant style. According to Birbili (2000), a more literal translation can be seen as more faithful to participants’ intended meanings. In addition, it can help readers to more fully understand how participants

think, their mindset and their culture. Although this may make the research report harder to read, it is argued that the original structures, vocabulary and style used by participants should be employed during analysis in order to preserve cultural concepts that are important to interpretation and drawing conclusions from data (Hennink et al., 2011). Thus, the transcription needs to be accurate and trustworthy as the starting point for achieving quality of translation and rigour of data analysis (Poland, 1995). This also raises the issue of when the translation should be carried out.

Translation may be performed before, during or following analysis. If translation of raw data takes place immediately after transcription or during the process of transcription, the process may need longer time but facilitates understanding in both languages. Text from the participants' original language can be retained along with the translation as a useful reference to assist analysis (Hennink et al., 2011). I adopted this approach in my study, in agreement with the assertion of Hennink et al. (2011) that the translator must be familiar enough with participants' culture and language to be able to capture and convey participants' intended meaning expressed in individual interviews or group interactions (Hennink et al., 2011). Translation can also be performed during the analysis process, as often happens in cases where research team members speak different languages. Another option is to translate the analysed data, although the risk of losing meaning may be greater as some of the detail and cultural nuances may have already been reduced. It is considered important to take into account the membership of the research team when deciding the appropriate stage for translation (Nurjannah et al., 2014).

4.10.3 Data translation: approach and method in this study

In this section, I describe how, when and why I translated my data for analysis in order to make the process clear for readers. I also provide examples of specific challenges presented by the data and how I tackled them. Firstly, my study adopts an overall interpretivist approach, in which knowledge and meaning are constructed and the researcher/translator plays a vital role in this. A professional translator would only have been needed for a positivist study (Temple & Young, 2004). Moreover, my personal view is that translation cannot be simply a technical process of converting words and structures from one language into another because of the cultural, social and political nuances embedded in the participants' language.

The most obvious example of this in my study was participants' use of conversational Arabic, which is greatly abbreviated in comparison with formal (Modern Standard) Arabic. My original translation was literal but presented difficulties in reading the English version and actually interfered with understanding what participants had said. I therefore inserted subjects, verbs and phrases in square brackets where greater clarity was necessary to facilitate reading. One example is the literal translation 'dolly she want sleep or picnic or...?' which I reworded as 'does dolly want to sleep or [have a] picnic or...?'. A different example is when I replaced 'stash' with 'hide' in 'I may hide something, for example hide wheels of the truck' because the colloquial Arabic word does not have the negative connotations of 'stash' in English. In some cases where participants used expressions that could cause offence in the UK, I retained the original because it illustrated the thinking and culture, such as retaining the words 'mental retardation' in 'I would tell you that rather than whatever [else], mental retardation makes it difficult'.

Certain words caused particular difficulty for the whole thesis because they have a different meaning in Arabic and English, and these have been explained at appropriate points: 'education', 'guide' and 'guidance'. There are different words in Arabic for 'challenge' and 'problem' so I have used the literal translation. In contrast, only one Arabic word is used for 'training', 'coaching' and 'mentoring' so I have been careful not to try to convey various meanings which were not actually expressed by participants. I have used 'coaching' because participants generally referred to a more practical skills-based type of learning than they had received at university.

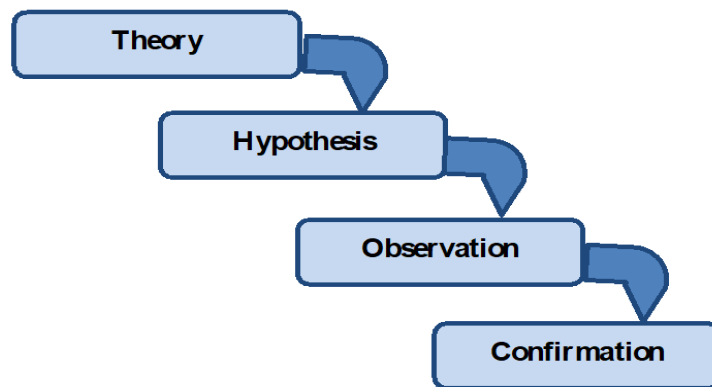
Secondly, the decision to translate the data myself was influenced by research ethics and a commitment to maintaining confidentiality and anonymity as far as possible. In addition, I had a responsibility to ensure that participants' voices were heard with minimum distortion. The final reason for translating my own data was linked with my decision to translate it prior to analysis. The process of translation made me think very deeply about the meaning of certain statements and greatly enhanced my familiarisation with and understanding of the data. In some respects, this process started before data collection because I had translated my interview guide from English into Arabic, a step which involved some rewording to ensure clear and comfortable communication with participants.

4.11 Data analysis

According to the purpose of the research, data can be collected and analysed using a deductive or inductive approach, or a combination of the two (Fereday & Muir-Cochrane, 2006; Gray, 2009). Similarly, people utilise these three kinds of reasoning to understand their world (Cohen et al., 2011). In research, a deductive approach often involves testing an existing theory or hypothesis based on literature and may use a top-

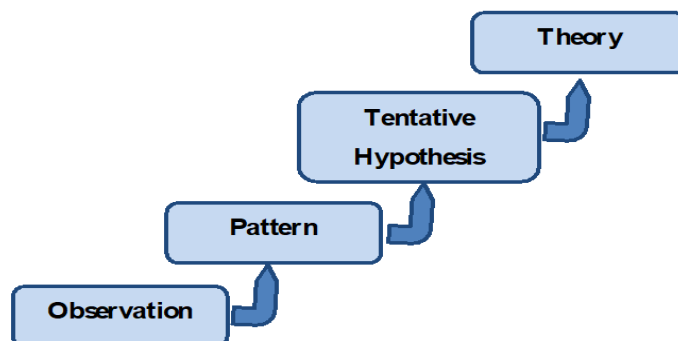
down coding framework based on the theory (Trochim & Donnelly, 2006). In contrast an inductive approach usually entails identifying codes and relationships from the data (Hammond & Wellington, 2013). A combined approach in qualitative research assumes that findings which emerge from data can be checked against existing theory or model to explore differences and make comparisons. This section provides information about the approach I selected for this study and my reasons for choosing it.

Firstly, the two approaches are illustrated in Figure 4-2 (deductive) and Figure 4-3 (inductive).



Source (Trochim & Donnelly, 2006)

Figure 4-2 Representing Deductive Reasoning



Source (Trochim & Donnelly, 2006)

Figure 4-3 Representing Inductive Reasoning

Figure 4-2 and Figure 4-3 suggest that the inductive approach is the opposite of the deductive one and leads to theory building. However, the contrast between bottom-up and top-down approaches to data (Creswell & Plano Clark, 2007) is not straightforward. Theory identified through an inductive approach can be used to explain the phenomenon (Hennink et al., 2011) or patterns in the data can be checked against existing theories, using a deductive approach (Hammond & Wellington, 2013).

I have used an inductive approach in my study which explores the practices and experiences of SETs in Saudi Arabia because there is a need to understand the situation before making decisions about which theory or theories in literature will be appropriate. I have utilised semi-structured interviews to generate data and concepts, in preference to starting with a more traditional exhaustive literature review as described by Charmaz (2006). However, I am aware that my own education and experience mean that my research cannot be completely free from influences of theory and practice, in agreement with Charmaz who asserts that these impact on a researcher's observations and analysis. Moreover, a number of participants shared my experience and much of my academic study related to the research topic. I could not avoid this, and therefore I used a reflection journal to record where this was helpful or not. For example, some participants were confused when I used terms such as 'sensory-motor interventions' and 'naturalistic teaching', so I had to find a simpler, clearer language for my questions.

4.12 Method of data analysis: thematic analysis

Various possible methods of data analysis are described in the literature, such as grounded theory (Glaser & Strauss, 1967; Strauss & Corbin, 1990; Strauss & Corbin, 1994), framework analysis, content analysis and discourse analysis (Spencer, Ritchie, &

O'Connor, 2003), and thematic analysis (Braun & Clarke, 2006). Some of these need detailed and specialist knowledge of the particular analytical technique and are therefore less suitable for the beginning researcher, while thematic analysis is considered easier to implement for researchers who have less experience in conducting qualitative studies (Braun & Clarke, 2006). Braun and Clarke (2006) propose six stages in their description of the thematic analysis method, as shown in Table 4-2.

Table 4-2 Stages of Thematic Analysis

Stage	Description of the process
1. Familiarizing yourself with your data	Transcribing data, reading and re-reading the data, noting down initial ideas.
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes	Checking if the themes work in relation to the coded extracts and the entire data set generating a thematic 'map' of the analysis.
5. Defining and naming themes	On-going analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report	Selection of vivid, compelling extracts examples, final analysis of selected extracts, relating back of the analysis to the research question and literature.

(retrieved from Braun & Clarke, 2006, p.87)

A theme can be identified from patterns in the data, from relevant literature, as a reflection of the research questions, from the literature review, or based on the researcher's judgment (Braun & Clarke, 2006). It is helpful to be flexible when identifying themes, rather than keeping to strict rules (Braun & Clarke, 2006). In my own analysis, I tried to make a note when I altered my thoughts about themes and codes, in order to retain rigour in the process. The following sections describe each of the stages in Table 4-2.

4.12.1 Familiarisation with data

The processes of data transcription and translation, also reading and re-reading several times and making notes of early ideas, are very important. Familiarisation should also include reviewing any notes about the fieldwork (Yin, 2011) and should involve the processes of immersion (Braun & Clarke, 2006) and discovery (Hennink et al., 2011). I found that the familiarisation continued through all the stages, although I noticed it most

in the earliest stage, especially in the transcription when I sometimes had to listen very carefully several times to catch the exact words and meaning.

4.12.2 Initial codes

This stage involves listing interesting ideas that emerge from words and phrases in the data (Braun and Clarke, 2006) and starting to think about combining and distinguishing between them in various ways (Miles & Huberman, 1994). I used key words to help me at this stage, although as I realised later, sometimes I was identifying themes rather than codes. In this respect, I define a theme as covering several codes or as a single code which covered a range of smaller interesting ideas. This agrees with Hammond and Wellington (2013) who assert that there is no consensus about the definition and use of ‘codes’ and ‘themes’.

Examples of themes identified at once from the academic literature in our shared background were ‘applied behaviour analysis’ and ‘modelling’. An example of a theme which emerged from interviews via a phrase marked as a code in one transcript and then repeated by various participants was ‘parent attitudes’.

4.12.3 Searching for themes

This third stage involved a more formal search for themes by identifying which codes belonged together under a broader heading (Braun & Clarke, 2006). I used the research questions, the literature and my own experience as a SET to do this, as well as any themes obtained from the data itself. I also tried to be clear about where each theme originated. In my study, some participants talked about ‘sensory-motor interventions’, some mentioned ‘kinaesthetic’ and some described children as physically active in their lessons or learning. These different codes all became ‘sensory-motor interventions’ as a theme. The next stage requires themes to be critically reviewed.

4.12.4 Reviewing themes

The purpose of this stage is to check that the analysis is on the right track. It is important to try to find any omissions or distortions of participants' meanings by comparing the themes that have been identified so far with the raw data. It is also necessary to see whether the themes need editing, for example if some need to be renamed, combined or divided. I did make changes and found it difficult sometimes to know when to stop, as Braun and Clarke (2006) stated could happen. For example, I found it difficult to decide if 'adult modelling' and 'peer modelling' should be in a single theme 'modelling behaviour' or kept separate because one concerned teacher-child relationship but the other involved a third party.

4.12.5 Defining and naming themes

After themes have been reviewed, it is important to think about how to name them in a way that will facilitate presentation and understanding (Braun & Clarke, 2006). This involves finding words or concise phrases that participants as well as readers would recognise (Auerbach & Silverstein, 2003). I decided to use the terminology found in the literature because it is very familiar to anyone working in the field as a practitioner or academic, and knew that most of the people who read my thesis, or any articles I write from it, would be in the same field.

4.12.6 Producing the report

Writing the report requires the researcher to select and present extracts of the data in a coherent way, showing how the examples and themes relate to relevant literature as well as the research questions (Braun & Clarke, 2006). The three chapters reporting findings show how I have organised the themes, illustrated them with participants' quotes and related them back to my research questions and the literature.

4.13 Ethical considerations

Borg and Gall (1983) point out the importance of ethical considerations: “In planning a study, the investigator has the responsibility to make a careful evaluation of its ethical acceptability” (p.108). In this respect, May (2001) explains that “ethics is concerned with the attempt to formulate codes and principles of moral behaviour” (p.59). In this section, I explain how ethical considerations related to my own study and issues were addressed. Copies of approvals and permissions are shown in Appendix F.

4.13.1 Official permission

Official permission as described by Cohen et al (2007), “involves the gaining of official permission to undertake one’s research in the target community” (p.5). Accordingly, I sought official permission from the Head of Centre after introducing a general picture about the research aims and the proposed research benefits for SETs.

4.12.2 Informed consent

Informed consent “refers to the voluntary consent of the individual to participate in research” (Burgess, 1989, p.110) based on having enough information to do so. The consent form and Participant Information Sheet used in the present study are provided in Appendices B and C.

4.13.1 Confidentiality and anonymity

Before carrying out the interviews, I provided a clear explanation of the ethos of the research, confirming that all the data would be digitally stored and utilised for only academic purposes. In addition, I stated that all the research population would be treated with autonomy, reflexivity and confidentiality (British Educational Research Association, 2011). Assurances were given that participants – SETs and children with

ID – would not be identifiable and any codes assigned to individuals, together with their raw data, would only be accessible to myself and to my academic supervisor.

4.14. Conclusion

This chapter has explained and justified the interpretive qualitative research methodology adopted in the present study. Details of the methods and procedures used in collecting and analysing data have been provided: sample selection, interview guide, and thematic analysis. It concluded with a description of the steps I took to approach the participants ethically.

CHAPTER 5 DATA ANALYSIS AND FINDINGS: RESEARCH QUESTION 1

5.1 Introduction

Following the explanation and justification of the selected methodology in the previous chapter, this is the first of three chapters that will present the analysis, interpretation and discussion of the findings to provide answers to the research questions. Findings, analysis and discussion are combined in these chapters in order to allow readers to more clearly follow the process of interpretation. My choice of a qualitative interpretivist approach acknowledges that the interpretation of findings includes my thinking as a researcher. Therefore, it is appropriate to show my own opinions as well as participants' quotes and relevant literature to inform the discussion. The inclusion of short sections of discussion following various themes and subthemes also adds clarity to the research process, as does presenting the analysis and findings relevant to each research question in a separate chapter.

From a sociological perspective, the educational context of the findings can be considered as functional. In other words, it focuses on the positive functions performed by the education system in terms of what is beneficial for the whole of society (Ballantine, Hammack & Stuber, 2016). In the case of Saudi Arabia, there is a strong emphasis on two of these positive functions: teaching core values, and creating social stability and continuity. Thus, the emphasis on normalisation of behaviour is also strong. The remaining functions of imparting skills required for employment, and role allocation and meritocracy are less evident in Saudi Arabia than in Western societies (Jamali, 2014). The disadvantages of the functionalist approach are related to its assumption that there is a wide agreement that society is in an appropriate state of equilibrium which does not require change or improvement when this may not

necessarily be the case. From a Western perspective, it can be understood as repressing individuality despite directing individuals toward diverse but specific roles required for society to operate, also as attaching too much importance to teachers and teaching rather than learners and learning, and as exhibiting an overriding preoccupation with social and academic norms (Ballantine et al., 2016).

Chapters 5, 6 and 7 present the findings, analysis and discussion for the first, second and third research questions, respectively. Discussion of the findings for the first research question is helpful in understanding the findings regarding the second question and together they help to explain the findings of the third research question. The present chapter concerns the first research question:

What practices, educational interventions and methods do Saudi special education teachers perceive as effective and useful to meet the educational needs of preschool children assessed as having intellectual disabilities in an Intellectual Disability Centre?

‘Effective’ is one of those words often used but not explained. Nowadays, researchers and educationalists often use the term ‘evidence-based practice’ (e.g. Mesibov & Shea, 2011). However, although a strict evidence-based approach to assessing interventions and treatments can ensure that the selected techniques result in the desired outcomes, it can also lead researchers to focus on shorter term outcomes that can be more easily measured (Mesibov & Shea, 2011). Thus, the present study has adopted the SETs own working definition of ‘effective’ in terms of what works for them as teachers in improving specific aspects of behaviour or skills attainment and which parents report as improving their child’s capabilities and/or their relationship with their child.

It is important to bear in mind that ‘educational interventions’ in Saudi Arabia include what would be termed behavioural and social skills interventions in Western countries, in line with enabling pupils to live according to Islamic rules and values (see section 2.1). Therefore, the themes identified through repeated examination of the participants’ responses relate strongly to the improvement and development of behavioural, communication and related social skills, which the SETs considered to be the necessary first steps for children before more academic skills should be attempted. It was felt vital to assist children to develop the communication skills that they need for everyday life as well as for functioning in a mainstream primary school or special education institute which requires some level of interaction with teachers and peers, and a level of literacy to be attained.

5.2 Themes

I identified eight main themes from key phrases and words repeated across transcripts. Practices, interventions and teaching methods which were considered by the majority of participants to be positive and effective for children with ID have been grouped into the themes presented in Table 5-1.

5.3 Practices and educational intervention techniques for children with ID

Practices, educational interventions and teaching techniques identified by study participants as effective for preschool children with intellectual disabilities, can be described overall as a combination of dynamic and engaging activities which focused on three key points: play as intervention; structure in all activities and the learning environment; and reduction or avoidance of inappropriate behaviours. The main themes under this heading are summarised in Table 5-1 together with subthemes for adult interventions, intensive intervention using multiple approaches, and alternative and augmentative communication method. Each of these is then presented and discussed in greater detail.

5.3.1 Using play as intervention

One of the most important themes that emerged from the interview data was the effectiveness of using play as an intervention to encourage communication and social skills in children with ID. All of the participants genuinely supported the use of play. SETs referred to the benefits of playing for children with ID regarding the encouragement of reciprocal social interaction, social skills development, and language in addition to play skills. They added that for these children, they found play most effective when it was structured, physical and interactive, but that other activities within a highly structured day also needed to be engaging and dynamic in such a way that they had some of the elements of play. Computer technology was seen to benefit some children who preferred solitary play because it offered interaction and colour in a variety of structured activities.

During the two months of fieldwork, various SETs spoke about the effects of play as intervention. As one special education teacher (SE1) reported, child A was four years

old at this time and was receiving an intervention which typically lasted for about 30 minutes daily, depending on the activities written in the class plan. The intervention was aimed at improving the child's language and play skills so that he could communicate with others. Through reinforcing play behaviour and encouraging him to use the language used in play as well as how to model play behaviours, the SET observed a considerable improvement in the child's communication and his language when he utilised new words such as 'take, put, give, share, in, on, up, down'.

The following provide example quotes from SETs that illustrate the ways in which play was used:

Play as an intervention to develop language and communication skills:

"It's really that play gives an opportunity to engage their emerging cognitive and language abilities, and social skills development... Play can benefit many areas of development in multiple settings, whether in the classroom or at home...so helps the child to use language, movement, releases energy and communicate with peers and adults. We use play as a way of targeting the child's needs" (SE2).

Play as a means of encouraging the development of more complex behaviours:

"Sometimes, we have a 20-25-minute play session. During that time the children play with toys while the SET models, facilitates and instructs the children on particular play behaviours to induce the child towards a more complex level of play. For example, if the child has a dolly, I might ask 'what do you think a dolly needs? Is she thirsty? What could she need?' and encourage repeating 'what do you say...' 'water'? Where is the water?' then praise again ... 'does the dolly want to sleep or [have a picnic or...?'. These questions and comments encourage the child to use language, [and help to] develop thinking and reinforce verbal interaction" (SE4).

The importance and effectiveness of using some of the elements of play in other activities was highlighted in the following quotes:

"We use hands-on activities whenever we can. I have one child now who especially benefits from performing and doing things and utilise manipulatives to create new structures and answers. It makes learning process solid and intelligible for her. R has found she can do a few things all by herself, and that was extremely rewarding" (SE6).

“Some children with intellectual disabilities are more engaged with the use of technological devices such as computers and iPads. I believe for B in specific, using computers in learning is a better approach to make B child learn as well as enhance learning and retention” (SE15).

My own earliest professional experiences of teaching children with ID and other types of disabilities revealed they were engaged when playing, especially outdoors, and that associated progress in cognitive, social and linguistic skills was motivating for the children, myself and other teachers. It is clear that play is an important element in the early years especially from 3 to 7, as it motivates and supports children with ID to acquire new skills and concepts, including language and communication, concentration and a positive attitude towards engaging with others (Siraj-Blatchford & Clarke, 2001). In accordance with SETs perceptions based on their experience, purposeful structured play is considered vital for early childhood development, in contrast to extended time of free play without direction which has been shown to be ineffective (e.g. McLachlan, Gilfillan & Gordon, 2013). Children with intellectual disabilities are considered to benefit from play with a few simple rules (Saracho, 2012). However, Lifter et al. (2011) assert that clear objectives are needed when using play with children with learning delays and disabilities, and that the distinction between developing play skills and using play to develop other domains such as communication is useful because different purposes need different approaches. Moreover, meeting the child’s needs through play is facilitated by clear strategies (Lifter et al., 2011).

SETs emphasis on using play as intervention to develop social and communication skills is consistent with the importance attached to these skills as a vital component of education in a conformist, Islamic society. Although there are references to Prophet Mohamed playing with his grandchildren in religious texts, there are far more references to play as a break after class from the duty of learning and therefore many parents and educators tend to consider play as a waste of time once the child has had

some opportunity to play. Efforts to address the imbalance include arguments such as that of Al-Azhar University in co-operation with UNICEF (2005) which asserts that parents of all children should “provide the child with appropriate advice and guidance without neglecting its right to enjoy its childhood by playing, enjoying life and acquiring the skills that are appropriate for its age” (p.34).

Al-Azhar University in co-operation with UNICEF (2005) further assert that play in early childhood makes an important contribution to the development of children’s cognitive skills and ability to understand their environment, proposing that such opportunities mainly arise in games with, or supervised by, family members: “This is a basic right of the child” (Al-Azhar University & UNICEF, 2005, p.89). In their view, this applies to all children.

The notion that children with disabilities play differently from others, or cannot play, is challenged by scholars such as Goodley and Runswick-Cole (2010) on the basis that all children can and do play without prompting and guidance from adults, and that it is not necessary for disabled children to have to learn how to play or to experience play only as therapy.

However, the concept of play as intervention for children with disabilities is consistent with the Islamic idea that they are weaker than other children and therefore should be supported by stronger people, that the adult should guide (direct) the child to maturity and that all individuals have a right to education in the Arabic sense of the word, in other words to learn to accept and carry out social and moral rules as well as acquiring knowledge (Al-Aoufi, Al-Zyoud & Shahminan, 2012). As someone who grew up with Islam in Saudi Arabia, I accept this viewpoint, but I also believe that we should continually strive to improve what we do in order to implement Islamic ideals more

completely. These ideas underpin many of the interventions and methods highlighted by participants, and can also be seen in the following section which deals with interventions by adults to develop communication and social skills.

5.3.2 Interventions by adults to develop communication and social skills

A second significant theme in terms of SETs perceptions of the effectiveness of practices was interventions by adults for facilitating the development of both communication and social skills. During my interviews, individual SETs stressed the usefulness and importance of interventions initiated and led by an adult, in accordance with the duty of guidance placed upon Islamic parents and other adults to ensure their children have a good Muslim upbringing which applies until the age of 14 (Al-Azhar University & UNICEF, 2005). It should be noted that the Arabic word for guidance has a meaning much closer to 'direct' or 'instruct'.

In addition, SETs reported situations where adult-modelling, role play, and priming were combined with peer-modelling, with SETs providing guidance to peers during interactions with children with ID and then including an intervention by an adult to enhance and reinforce the peer guidance. This appeared to be a common occurrence in classroom settings, because SETs found it efficient. Two effective subcategories of interventions by an adult were highlighted: (a) priming, adult modelling, and role play; and (b) social educational stories.

5.3.2.1 Priming, modelling, and role play

SETs found that interventions by an adult were straightforward and easy to use with children in the classroom. They usually combined these with other teaching methods, often adding such an intervention in order to assist the flow of activities and instructions. For instance, SE4 reported sitting beside a child in a group and prompting

her to interact socially in adult-guided play with peers; this happened to work very well in terms of engaging her, and tapping into her interest in playing games as a method of learning communication and social skills. Priming (see section 3.8.12) with adult modelling is often utilised to target nonverbal social skills through facial expressions, for instance eye contact, giving affection and smiling (Machalicek et al., 2008).

SETs considered priming and role-play as efficient ways to facilitate social and communication skills in preschool children with ID. Capturing the child's interest and providing plenty of opportunities to practice a new language and skills were highlighted as important factors in using these approaches effectively.

Priming, adult modelling and role-play were considered to be appropriate for tackling behavioural issues. It was suggested that giving a child feedback about inappropriate behaviour should include encouraging the child to think about different ways of responding and discussing possible reactions to the choices before replaying the incident as a role play but trying a different approach. One SET called this "the rewind technique" (SE2). Modelling is the concept of habit-formation to improve behaviours (SE6) based on "teacher redirection" (SE5). It was seen to maximise opportunities for practicing and experiencing exemplary social interaction in the natural environment. Exploiting cases which occur in everyday natural settings was seen as important in order to move from a learning situation to a practical application; two SETs stated they often combined priming, adult modelling and role-playing in order to deal with problem incidents at the time that they occurred.

Example quotes from SETs are:

"In our daily routine in the IDC classroom I do a lot of verbal prompting to encourage our children to imitate correctly, with social skills... I will tell them 'what do you want to do?' or 'why do not you ask her and see if she will give you a doll or toy?' I may prompt them to give an alternative

thing. I have actually seen loads of that without any help. For instance, I did have a bag out and a child wanted another kids' bag. Then she went to get a different bag in order to give it to her. After that, she articulated its name (the bag) "Here... Here.". Then she put the first bag down, the other child got the bag she wanted" (SE3).

Another SET stressed the importance of both an early start with these interventions and maintenance in order to ease issues of transition as children progressed to higher classes. SE4 reported that:

"It's like anything.... you simply need chances to practise and practise to master [any skill]. When communicating is an issue, the teacher needs to give the children more chances for practising ... also, I believe that teachers need to go through the whole issue where children have eye contact problems. When children with ID have difficulty with individual space matters, I believe you need to provide them with a lot of ordinary daily interactions which they can cope with. You may need to figure out and define some activities you need in the classroom such as "yesterday, I worked on the technique of eye contact" and now I will tell them how to say "this is my space" rather than being upset and shouting when someone uses their personal space. In addition, I teach the children how to utilise certain words in actual situations. We [cannot] assume that they definitely realise that this is what [they] could say" (SE4).

The context is often one of dealing with inappropriate behaviour:

"Yesterday, I had a child just jump up out of his chair, out of his desk... he was upset when another child commented on his actions and she pushed the chair which he was sitting on and he made some angry noise. Then I told her "all right, let's see what occurred from the beginning step by step. So "explain what happened? Say that once more. Can you make a different choice? The child could have been responded effectively?". "The child then said, "I am sorry.... OK, how about if we try this once more!". "I am sorry" is emotionally big ... Also, it is often a matter of working towards when they can say 'OK, I want to go and sit down on the chair. 'What you need to do is that don't do it again. These are the words I always aim to teach in such situations" (SE2).

The techniques utilised and supported by SETs in this study are supported by the literature. For example, Zanolli et al. (1996) describe priming as giving children cues, prompts and the chance to practice a target behaviour just before that behaviour has to be used. A sequence could lead on to opportunities to act out the desired behaviour in one or more role plays. All of these have added benefit when combined with praise and

reinforcement of appropriate reactions (Zanolli et al., 1996). Good behaviour is highly valued in children in Islam (Al-Azhar University & UNICEF, 2005), which partly explains the emphasis placed by participants on methods aimed at improving behaviour, as has also been found in Islamic schools in Europe, from Wales (Scourfield et al., 2013) to the Netherlands and Romania (Aslan, 2011).

The focus on play as intervention in participant responses is directly related to the questions asked. However, it should be noted that children have two breaks every day when they can play freely, thirty minutes for outdoor play and a further thirty minutes for lunch and play.

5.3.2.2 Social educational stories

In addition to modelling, priming, and role play, more than half of the participants stated that they found social educational stories (defined in section 3.8.11) an effective way of teaching social skills to preschool children with ID. My participants found that social educational stories are simple to use and extremely efficient ways for children to learn suitable social behaviours as well as skills, and for helping children to become more aware of social cues. Some SETs wrote their own social educational stories to fit the particular group of children they were working with; they and others also used existing resources. One SET shared a selection of her own stories with me as well as showing me a copy of ‘Best Children Stories’, and explained how she shared them with parents for use at home as well as with colleagues in the IDC (SE9).

The following quote illustrates the variety of social educational stories used:

“I have written many little stories, about things like asking for help, wearing your clothes, or keeping on, keeping hands to yourself, breaking time activities, building friendships, tasting new foods, what to do when an adult talk, and how to greet someone. Keeping your clothes clean, what to do at the weekend, how to pray, how to be a good friend, what to do when your mum is talking...” (SE9).

Another SET created her own social educational stories (in little books) for children by using pictures on every single page. She also showed me one of the stories she wrote in relation to biting behaviour. The story had pictures of some marks of a child biting another child so that the child can see these pictures which would lead him/her to learn an alternative behaviour in case the child attempted to bite another child (SE11).

SETs were using social educational stories, which portray a specific social situation and supply information about an expected behaviour together with the view of others in that situation, and ways to implement suitable social skills (Gray, 2000; Gray & Garand, 1993), in order to address deficits in understanding social situations from the viewpoint of others and especially reading social cues. In accordance with the literature, SETs using social stories found they helped children to realise what they needed to do and what was considered a suitable behaviour in various social situations (Machalicek et al., 2008). However, it should be noted that a study comparing children simply listening to social stories and children reading social stories followed by practice in groups of preschool children with and without disabilities found that no significant difference resulted from the interventions (More, 2010). More (2010) proposed two reasons for these results. Firstly, preschool children were listening to, rather than reading, the stories, thus relying more heavily on one set of skills (listening) compared with the more complex skill of reading, and, secondly, previous studies showing positive outcomes had looked at individual children rather than groups. Individual attention may have made the results more positive in the single case studies; moreover, averaging outcomes for a group can have the effect of concealing significant differences in individual children.

In my own teaching, I used social educational stories following the main intervention or activity of the school day, and finding or creating a story fitting for our day in order to facilitate and reinforce the activity.

In general, I would agree with my participants concerning the importance of adult-mediated intervention with preschool children with ID. However, it is important that children do not rely too much on adults, and therefore other types of intervention may be needed to enable greater independence and generalisation in the use of the skills learned to more natural environments or new settings with their peers (Denning & Stanton-Chapman, 2014; Rogers, 2000). In addition, adult-mediated interventions usually request a certain pattern and routine of behaviour, but naturalistic interactions are learned from peers in a more natural setting without previous organisation or planning (Goldstein, Schneider, & Thiemann, 2007). Children have been shown to learn social interactions more effectively from their peers in situations which occur more naturally than from adult-mediated interventions (Goldstein et al., 2007).

Although SETs attached considerable importance to adult-mediated interventions to develop communication skills and social skills, they also recognised that a range of various approaches could increase opportunities for maximising the positive impact of early intervention.

5.3.3. Intensive early intervention by utilising multiple approaches

Most of the participants in this study emphasised the effectiveness of using multiple types of intervention in intensive early intervention programs. Consistent with the recommendations of the Directorate General of Special Education, no single methodology is employed in a self-contained IDC. Instead, SETs utilise a diversity of interventions and teaching techniques including: TEACCH model and structured

teaching (see section 3.8.7), naturalistic teaching techniques (see section 3.8.3), and applied behaviour analysis (ABA) (see section 3.8.2) with Discrete Trial Training (DTT) (see section 3.8.1). Although not all participants used these terms, they described the same interventions and considered all three approaches to be useful. However, they stressed that flexibility in applying the various interventions was essential because this helped to ensure that every child's needs could be met in one way or another. They also stated that the different interventions could be mutually reinforcing, leading them to describe the IDC programme as highly effective to meet the needs of preschool ID children, and also facilitating acquisition of school readiness skills (see section 3.6). Some SETs cited parent satisfaction as proof of this.

For example, one SET said:

“Parents are happy when they visit us in this centre. One parent expressed her admiration, saying ‘I am glad with this programme and I love it, I would like my child spends more time here! All staff members assist us; my child has been in this centre for two years. The ways they worked with him and the activities he does at the IDC have helped him to be ready for school’ (SE10).

As further evidence of both parent satisfaction with their child's progress and the success of using multiple approaches, the same SET mentioned that the parent in this case specifically pointed to their child's language acquisition as proof that the programme was successful. When child C started at the centre, he was almost nonverbal; before leaving, he was able to articulate more than five words to make up sentences. In addition, he had gained sufficient social and play skills to be more confident in dealing with other children (SE10).

The experiences of SETs trained in TEACCH structured teaching techniques led them to conclude that the approach worked just as well for preschool children with ID as for children with ASD or other communication disorders. They found that the approach

worked well with the (IEP) and Behaviour Improvement Plans (BIP). After prompting, they considered that the reason for this was that they could match targets in the plans to setting targets and achieving them using TEACCH techniques.

5.3.3.1 Structured teaching

All participants reported positive impressions concerning structured teaching methods or models, stating that this worked well for preschool children with ID, due to the focus on establishing an appropriate learning environment with the use of clear and concrete visual information, accompanied by the use of timetables. One SET provided photos of the materials used in the TEACCH method, some of which were made by SETs at the centre, for example, an activity schedule with photo symbols to assist children to visualise their daily routine and ‘what comes next’. Photo symbol cards for activities were added and taken away by the SET as ID children transition during their day; photo symbols included such activities as washing hands, eating, going to bed, dressing, shaking hands and dancing (SE6). The same SET had additionally produced scheduled activities for ID children to do with their parents at home. Some parents stated that these helped greatly in managing their children’s behaviour at home.

One SET found TEACCH beneficial but not straightforward and therefore required help from the art teacher when utilising the approach:

“I like to use TEACCH so that the children can learn social skills. In this manner, SETs can have time to teach several adaptive behaviours and communication skills by using visual aids and schedules. They seem to be working very well with ID children. Doing things is arranged in order.... It tells you how to brush your teeth and how to use the toilet and wash your hands afterwards. We utilise less language and more pointing ... SETs utilise some objects in order to show them what to do next via pictures. For instance, I show them a picture at the circle time so that they are required to either sit at the lunch-table or wash their hands. We spend five hours every day in the classroom and we do a lot of drills to improve their communication skills” (SE6).

“AA has oral delay; however, he is somehow vocal. AA also depends on a photo schedule. As SETs, we already know that he needs a picture schedule. This is because he always says, ‘can I please have a look at my schedule?’ My answer is, that is fine, go and have a look at your schedule. What we have noticed is that when AA sees his schedule, he feels more secure and comfortable about what might happen next” (SE8).

“One father said ‘my son used to have two different behaviours (at home and at school)’. Actually, I created scheduled activities for his daily routine in terms of picture cards to use at home. These picture cards include examples such as ‘put on your pyjamas, put your stuff in your box, teeth brushing time and bedtime.’ He finds that if his son can see what was coming next, he is good with his routine, no major bad behaviours or anything” (SE7).

Results of a small number of evaluation studies have suggested that the TEACCH programme can result in some preschool children with severe ID and autism making noteworthy progress in several developmental domains together with improvements in behaviours (Panerai et al., 1998; Panerai, Ferrante & Zingale. 2002).

Ozonoff and Cathcart (1998) compared the progress of children with autism aged between 2 and 6 years old in a 10-session TEACCH home programme and in public school services. They found that TEACCH group children scored significantly higher on the Psychoeducational Profile-Revised (PEP-R). Evaluation of a TEACCH-based Early Intervention Programme in the UK, Barnardo’s Forward Steps programme, compared parental stress and achievement of 18 preschool children with autism before and after the intervention which was aimed at enabling parents to utilise the techniques at home. The results showed that there was an increase in children's expressive and receptive language skills, and a corresponding reduction in parental stress, which were attributed in part to the availability of support for parents in terms of visual cues that they could use to help set routines and improve their child’s expressive and receptive language skills; these results were statistically significant (Braiden et al., 2012). A longitudinal study which involving 30 preschool children who had been diagnosed with ASD found that a low intensity TEACCH programme led to reductions in autistic

symptoms and maladaptive behaviours in children and a reduction in parental stress, highlighting the importance of parental involvement (D'Elia et al., 2014). However, the benefits of TEACCH may be greater with older age groups than with preschool children. A 2013 review and meta-analysis of 13 studies identified that gains were greater for adults than for school-age children which in turn were greater than for preschoolers (Virues-Ortega et al., 2013). It was also identified that effects probably vary by domain, with small effects for cognitive, communication, daily living motor, perceptual, and verbal skills, in contrast to moderate to large effects on maladaptive and social behaviours. The authors asserted that further carefully designed research is needed.

One study published in 2014 compared the effects of TEACCH with LEAP (Learning Experiences - An Alternative Program for Preschoolers and Parents) and non-model-specific (NMS) special education programs (Boyd et al., 2014). A total of 198 children aged 3 to 5 who had been assessed as having developmental delay or ASD were included in the study which investigated the effects of teaching on children with ASDs behavioural and developmental performance as well as child and family factors which impacted the effects of the intervention (Boyd et al., 2014). The study noted that TEACCH and LEAP were based on different philosophies. According to Mesibov and Shea (2010), TEACCH is based on adapting the environment in order to facilitate learning and engagement, whereas LEAP has a greater focus on teaching typically developing children to assist in developing the language and social skills of their peers with ASD in a more inclusive setting of early childhood education supported by ABA. Thus, TEACCH is said to focus on adapting the environment to the child, in contrast to LEAP which places greater emphasis on reducing characteristics of development delay or ASD to enable children to maximise their learning opportunities. Analysis by Boyd

et al. (2014) indicated that, despite the differences in educational philosophy, positive outcomes from the three approaches were related to elements found in them all, such as teacher relationships with parents and classroom organisation, rather than to elements specific to a particular approach.

In the absence of more evidence regarding the use of TEACCH with preschoolers in comparison with other approaches, my own observations and experience indicate that it produces progress which teachers and parents can see. This is motivating for SETs and provides satisfaction for parents. To the best of my knowledge, we do not know how the children feel about it, although if they are perceived and treated as relatively 'normal' by their family and the wider highly conformist society, they are likely to sense a greater feeling of belonging. It is interesting that the IDC in Saudi Arabia seems to have adopted adult-led instruction within a modified environment from TEACCH and focused on ABA which is supportive rather than central to LEAP. From my point of view, this is explained by the definition of education, the role of parents and other adults in guiding children and the cultural expectation of normality. However, I believe that more could be done to include the child's perspective.

5.3.3.2 Structuring tasks

Another TEACCH strategy that participants have frequently utilised in IDC is a 'work first, then play' method of structuring learning tasks that has a huge effect and practical implications for a child's life. Several SETs brought visual aids that they made to assist children visualise 'work play' possibilities. One SET showed me how she used three coloured circles (one green, two red) on a piece of wood board. The SET put photo cards beneath each red circle to show the children two tasks they have to complete 'work-work', trailed by a photo beneath the green coloured circle to show the rewarding

or prize ‘fun time’ or ‘play’ they can get when they complete the task. These tasks give structure to learning. Also, the children (step by step) could remove a circle from the board when the first stage was achieved. As a child progresses beyond the early preschool stages, this approach to structuring tasks leads to placing three or four ‘work’ circles on the board before a ‘play’ circle is earned, and later, for children who can write, tasks to be achieved that result in rewards can be written on the board by the SET. SETs stated the effectiveness of using ‘work and play’ with easy possibilities to increase self-direction in learning among ID children.

In fact, structuring activities and tasks occurs at a level of fine detail, as illustrated by the following two examples, one from break-time and one from using the toilet:

“Before the end of playtime, [we need to] help children to be prepared for the end of playtime, so we gain the children's attention, let them know we are setting the timer [signalling the end of break time] for 1 minute. Then [we tell them to] sit down in the corner of the hall, have a drink of water, and then tell them it is time to go back to their classrooms when the timer sounds” (SE5).

“Teaching children to use the toilet is difficult [because there are so many steps]. At the start, you have to tell them how to take off or move clothes out of the way – this has pictures as well – remind them to be in the right place. Prior to finishing on the toilet, we have to tell the children to use tissue to clean themselves, and how to get the tissue and how much tissue to get, so we do this with pictures of the small steps as well. Next we have to let them know they should wash their hands with soap, and all this is step by step again with ‘turn on tap slowly until water comes out’, ‘put both hands into the water’, ‘pick up the soap’ and so on, of course with pictures. Then it will be time to tell them to come out” (SE2).

There is support in the literature for SETs use of structured tasks based on visual cues and organised in a visually clear way (Ganz & Flores, 2010; National Research Council, 2000; Schopler, Mesibov & Hearsey, 1995). Children with ID tend to exhibit visual skills that are more developed than their verbal skills. In other words, they are more likely to be visual learners, and therefore teachers often give instructions in pictures instead of speech. Highly structured schedules presented with visual cues assist children

with ID to facilitate moving from one activity to the next, something they otherwise often find difficult (Heflin & Simpson, 1998; Schopler et al., 1995). Communication through pictures allows the children to understand what is happening or what shall occur next. Moreover, having a means of communication with adults gives them greater control over their environment and what happens.

5.3.3.3 Small group activities

Structured teaching and tasks were supported by the use of small group activities, in which a class was divided into two or three groups to enable SETs to more easily provide support for the development of social and communication skills. As one SET stated:

“In a small group activity, we do many activities such as singing, listening to stories or to the holy Qur’an. We sometimes do painting, colouring or watch videos. We also teach children how to engage in an activity and learn social skills in the context of tasks that attract their attention. It is easy for me to control the classroom” (SE14).

Another special education teacher reflected upon the diverse benefits of structuring small group activities:

“A small group activity is one of the practices that I do every day. It takes about 15 to 20 minutes. All the children sit and do simple games or simple craft. A small group can promote listening skills, social skills, and physical tasks that assist the children to reduce problems and be disciplined” (SE15).

The structure of small group times is also a critical component of a preschool day, providing one element of a consistent routine and engaging all children in an activity that leads them to learn better (Wasik, 2008; Worthington, 2008). Small groups are less confusing or overwhelming for children, and the teacher is able to give more attention to specific points arising in the group activity, for example using incidental teaching.

5.3.3.4 Naturalistic teaching

Another approach utilised by most SETs was naturalistic or incidental teaching. Participants were enthusiastic about the use of naturalistic teaching methods (see section 3.8.3) with preschool children with ID, saying they worked extremely well with this age group. In this IDC, they had been implemented through circle time and were focused on the development of communication and early academic skills. Photographs that SETs shared with me included a broad diversity of SET-created resources with photo cards for children with ID to utilise in their circle time so that they can choose books to be read, songs to sing, and physical movements to utilise for counting. For instance, SETs created a list of pictures for ID children to utilise when learning to count. In this case, children count by pointing to photo cards by stepping their feet, raising their heads clapping, touching their noses, and other physical gestures. At home, young children will sing various songs and ask parents or siblings to read their favourite story to them. Some SETs tried to bring a feeling of this into the centre by having a picture menu which permitted children to choose some poetic lines by moving photo cards alongside them: “let’s put poetic lines in the picture chart, and stories are chosen in a similar way” SE11. Thus, such SET-created materials offered a combination of the TEACCH model focusing on visual signs with natural teaching techniques intended to reflect the activities that ID children would do at home with their mothers and siblings. Participants reported that preschool children with ID genuinely love being engaged in learning by the use of photos, physical movements and multisensory tasks.

Several SETs used naturalistic teaching techniques to structure the classroom setting in terms of blocking access to toys so that the children will be more comfortable to use language, based on the idea that these situations would occur in the home environment. Naturalistic teaching methods were also employed when SETs engaged in play with the

children, promoting turn taking, giving options, encouraging expanded spoken language, and promoting social interaction with play companions. For instance, a SET mentioned that “we try to create a teaching moment whenever it is possible.”

SETs also used the mand-model (see section 3.8.4) variation on the naturalistic model, approaching individual children and mand-model (requesting) that they talk whenever they are undertaking any activity such as colouring, swinging, playing and drawing. Some SETs were also using a time-delay element by waiting before providing the child with his/her desired object. In both cases, praise and attention were given as rewards for an appropriate response, and modelling was provided if additional support was required. SETs perceived such a method as useful regarding the increase of language and communication development among preschool children with ID. This is supported by the following illustrative quote:

“For example, we are having a snack and they need more food. At this moment, we will be working on the use of ‘Please.’ After giving them many instructions on how and when to use this word I check whether they have grasped how and when to use it. So I wait.... if a child did not speak out loud ‘Please’ and then I simply show them that you need to speak out loud Please. When they say ‘Please’, I intend to provide them with more situations such as giving them a small proportion of biscuit so they would utilise language and use ‘Please’. Another example when we use the swing and then I stop swinging them in order to give them the chance to say ‘please’ push the swing once more” I may hide something, for example hide wheels of the truck, and I shall say, ‘Do you think I miss something here?’ children shall begin to look for them, and ask about them” (SE11).

The utilisation of the naturalistic teaching model including multisensory, hands-on, and highly engaging tasks, together with the use of time-delay procedures, is in agreement with the literature (e.g. Miranda-Linne & Melin, 1992; Charlop-Christy & Carpenter, 2000; Allen & Cowan, 2008). Improvements reported by SETs regarding preschool

children's development and use of language concur with the findings of Allen and Cowan (2008).

5.3.3.5 Applied behaviour analysis

Another subtheme within the multiple approaches theme is ABA with discrete training. SETs who work with nonverbal young children who have severe intellectual disabilities use this technique more than other SETs. They tend to use it in one-to-one instruction with reinforcers for the development of engagement and imitation skills as essentials for future learning objectives. Although it is not a major component of the IDC programme (regular use of this method is limited to a maximum of around 30 minutes a day for the children who benefit from it), SETs perceived ABA to be useful with preschool children with severe ID in the development of simple limitation skills and joined attention as a basis of the mastery of more complex skills.

The application of ABA for children deemed to benefit from it is consistent with the emphasis on correct behaviour in accordance with Islamic teaching and parenting:

“The goal of using ABA is to analyse and change behaviour to be more reasonable and to reduce undesirable behaviour. I found the ABA model works well in changing behaviours such as excessive anger, aggression and hyperactivity” (SE4).

The following quotes illustrate how SETs apply ABA with discrete training:

“We do attempt to work one-to-one (child and teacher) but not each child every day. It's sort of applied behaviour analysis. We change the classroom around to make it suitable for this method, also we do a lot of reinforcing to encourage [the child] to do tasks and activities. In applied behaviour analysis, if children perform a skill, they receive a reward (reinforcement). We are working on their addresses and positional words. With other children, who have more severe ID, we simply work on paying attention and interacting with SETs. It could be in terms of babbling and tickling and we babble back to the ID children so that there will be more interactions between the SETs and ID children” (SE7).

On the types of reinforcements used with ABA:

“Actually, it depends on the child’s behaviour.... One reinforcement [we use with child T] is letting her close off for a few seconds, so she can walk around the classroom and then return. We also utilise tickling, she likes tickling. Other reinforcements are a glitter spinner and a green card, which enable the child to get candy or whatever from the canteen” (SE9).

The use of this approach is consistent with recommendations in the literature, firstly that ABA is not an essential element in an IDC programme (Anderson et al., 1987; Lovaas, 1987) and, secondly, that it is a valuable intervention for children with ID who have imitation skills and limited verbal ability, as found in a study by Smith (2001).

In Saudi Arabian society, the concern with correct behaviour as an aspect of moral education is reinforced by the Bedouin tradition, in which the success of the family unit is judged in terms of compliance with norms and values (Patai, 2002). Thus, the appropriate use of ABA is considered suitable for producing the type of behaviour required by the cultural context. However, one systematic review and meta-analysis of data has cast doubt on the efficacy of applied behavioural interventions with preschool children who had autism and/or intellectual disabilities; no significant variations were found between treatment groups for cognitive, expressive or receptive language outcomes or adaptive behaviour. Heterogeneity was low for cognitive and receptive language outcomes and moderate for adaptive behaviour and expressive language (Spreckley & Boyd, 2009).

Behaviourism has been criticised on various grounds: it ignores human emotions, and limits behaviours, which it bases on seeking rewards, and a mechanistic approach to defining and imposing behaviours (e.g. Hammond & Wellington, 2012). More seriously, as Hammond and Wellington point out, it ignores the moral and ethical aspects of human identity. I believe this is a concern for Saudi Arabia, because to the limits of their capacity, all Muslims in any situation should decide between good and less good courses of action. If we place too much emphasis on a behaviourist approach,

some children may be unable to make such decisions, thus we could be said to be failing these children, especially those who will never attend mainstream schools. The plasticity of the brain in the early-years period means that we should support children's cognitive development as much as we can, alongside the development of appropriate behaviours and communicative and social skills.

5.3.4 Sensory and motor interventions

The social importance of compliance with norms corresponds to the importance attached to sensory and motor interventions by the SETs. These interventions were perceived as very useful for some children with ID who exhibited atypical sensory responses and stereotyped motor behaviours. The types of responses SETs mentioned included: squeamishness to loud horseplay, some textures in clothes, certain types of food, lack of sensitivity to pain, uncommon hand mannerisms or finger flicking, body rocking, licking, rubbing and sensory features, to name but a few (Baranek, 2002; National Research Council, 2000). The medical model of disability sees these as disorders which require correction and assumes that correction will benefit the child in the same way as a cure for an illness. In contrast, the social model of disability assumes that these behaviours are normal in terms of both normal-to-the-child and normal distribution; these assumptions challenge our thinking about the ethics of attempting to impose change on children who have no voice. In the deeply conservative and conformist Saudi society, such behaviours limit the ability of the child to participate in their community; therefore, knowledgeable and loving parents may well seek to improve those behaviours by any means in order to benefit their child in later life.

In addition to stereotypies and atypical sensory responses, some children find it difficult to stay in one place for any length of time or simply find it difficult to grasp something.

SETs stated they found sensory-motor interventions a good way to increase quietness and focus in children assessed as having ID and reduce atypical sensory responses.

The particular types of interventions that they identified as effective and useful especially among preschool children were: brushing; deep pressure; occupational therapy; movement; and the utilisation of toys for calming senses or engaging such as sand sticks, chewy necklaces, light-up toys and squeegees. They found such interventions to be a beneficial addition to occupational therapy in assisting children with ID to develop motor skills, fine motor coordination, and adaptive behaviour skills such as stacking cups, tying buttons and shoes, and sewing with ribbons. They also identified that the benefits varied with the type of sensory motor intervention and therapy, as well as with the age of the child. With older children, for example, they might use weighted backpacks and the experience of teeth brushing, whereas they were more likely to put children's hands in various textures with preschool children with ID.

One SET (SE11), who had attended relevant training workshops, clarified that sensory motor interventions were utilised daily in the centre. She reported that she was one of the strongest advocates for the beneficial role of sensory motor intervention, sensory toys, exercise and movement for calming ID children and lessening challengeable behaviours. Specific examples that a SET gave were: putting hands in shaving cream, a bowl of sand containing small plastic objects for children to try to find in the sand, and various other textures aimed at reducing tactile hypersensitivities. In addition, she reported that a set of sensory toys are useful in meeting children's auditory and verbal sensitivities and reiterated that the benefits of exercise lessen problem behaviours and improve attention skills.

Another SET (SE5) portrayed the benefits of using occupational therapy interventions (OT) for instrumental activities of daily life, sensory breaks, movement, and exercise, while another highlighted the benefits of sensory motor interventions in terms of enabling children to be quieter and more focused, and being able to effectively use the information that comes via their senses in a better way.

The following quotes illustrate the application of sensory motor interventions:

“Today we are finger painting with white shaving foam or cream of some kind. Once a week, particularly on Mondays, we use play dough and sensory desks. For instance, last Monday, we placed silver coins (half riyal) on the sensory desk in the sand...We put black pen in the grass on sensory desks. It was all over the place...a very big mess. We can change what we want - such as salt, rice or water - to assist the children to know the materials and touch them. Children love that” (SE11).

“We have here in this centre S, who has been diagnosed with microcephaly, cognitive delay, receptive language delay, expressive language delay, gross motor, fine motor...overall global delay. We as SETs try to assist S to develop her abilities. For instance, I brought some toys and balls to play with S and I sat in front of her and pushed the ball towards her, then I used verbal prompts to ask her to catch the ball and give it back to me. Each time I encouraged her to do it, more than 10 times, to develop sensory motor skills and visual motor synergies. It helps S to use language and move her fingers to roll the ball and to practise hand under hand to put pressure on the ball. With time, this activity proved to be effective as S was able to use her hand to get hold of anything” (SE8).

“When you work with ID children, they have difficulty in sensory motor synergies or visual motor synergies. First of all, use verbal prompts with them, keep the child's hand busy with a toy and keep the child engaged in a play activity. Also, when you play with them, try to position the child on her/his hands and knees with just enough support to maintain the position as well as encourage the child to (pass, catch, throw) from one hand to the other. At this time, the teacher should be facing the child. Finally, place the toys just out of the child's reach to motivate her/him to move out of the sitting position in order to reach them. I used to use these strategies and share them with my colleagues ...it's really effective” (SE10).

“A lot of ID children have sensory problems here in the IDC. They have no clue where their hands, head and feet are in relation to their body. One child was helped by brushing, not always, but sometimes it is stunning how much the brushing would aid her. It will assist the attention and sitting behaviour of the ID children. It will calm them down and quieten

them so they can simply concentrate on what you're asking them to do" (SE12).

"A lot of children do not comprehend personal space, edges, boundaries and soft textures. We say in our culture 'they do not differentiate between the dates and embers'. Likewise, a lot of children need something tangible to realise what is happening around them (SE10).

"I use a small ball and small box with children. They try to run with the ball to kick the ball into the small box. They should run and walk in a straight line that has been drawn on the playground. In this task, the children are able to focus on sensory motor synergies or visual motor synergies" (SE15).

My own experience is very similar to that of my participants, although I tended to use sound-maker toys (for distinguishing notes and tones) and bubbles (for developing gross and fine motor skills as well lessening sensitivities). I found that children and their parents reacted positively to the progress resulting from these interventions.

One evaluation study regarding the effectiveness of sensory motor interventions (Abdel-Karim & Mohammed, 2015) involved children aged 40 to 65 months. The study reported that sensory integration therapy (which involves special exercises to strengthen the child's senses of balance, touch and where parts of the body are in space) resulted in greater gains than fine motor interventions in respect of Goal Attainment Scaling scores and a significant reduction in mannerisms associated with ASD. A systematic review of 27 studies indicated that sensory integration interventions could improve reading-related, active play and socialisation skills, as well as behavioural and sensorimotor skills (May-Benson & Koomar, 2010). Gains in gross motor skills, reading gains and self-esteem could last between 3 months and 2 years, although the authors were critical of the sample sizes and methodology of many of the studies.

Sensory integration interventions have proved effective with motor skills development in Down Syndrome children (Parhoon, Parhoon & Movallali, 2014; Wang, 2004;

Zimmer et al., 2008). One study in Saudi Arabia found that teachers in mainstream primary schools perceived children with learning difficulties as normal, proposing that this was in agreement with the general social view that children who seem normal and generally behave like other peers are accepted as normal (Al-Ahano, 2006). Sensory and motor interventions can help children with stereotypies and motor skill delays to look and behave more normally.

The focus on SET practices and interventions aimed at correcting behaviour continues with their endorsement of a functional approach to problem behaviours.

5.3.5 Functional approach to problem behaviours

Most participants emphatically endorsed a functional approach to problem behaviours, which they stated was highly efficient in diminishing, eliminating, and proactively avoiding challenging behaviours for ID children. A functional behavioural assessment plan is carried out in order to develop a behaviour intervention plan which will increase desirable behaviours while reducing or eliminating undesirable ones. SETs reported that positive practices and a diversity of proactive of functional approaches or plan intervention based on the principles of ABA and developing positive behaviour supports to address problem behaviours. Specifically, they mentioned the effectiveness of two positive behavioural models: (a) antecedent-based interventions; and (b) positive reinforcement.

SETs highlighted the importance of picture cues in managing behaviour (SE9, SE11 and SE13), reading social cues concerning personal space (SE12), and prompting desirable behaviour (SE15).

5.3.5.1 Antecedent-based interventions

Participants described antecedent-based interventions as a category that concentrates on determining the triggers or causes that lead to the more probable occurrence of problem behaviours, the environmental modifications and responses to minimise different triggers, or to change the conditions as well as to avoid problem behaviours prior to happening.

As such, participants endorsed the use of antecedent-based interventions for avoiding the occurrence of problem behaviours. Indeed, this behavioural intervention has been one of the most commonly cited approaches by participants, in particular referring to adjusting the structure of the physical setting and through the provision of schedules and visual cues. This reinforces the importance of giving visual clues and schedules which also emerged strongly in the structured teaching and naturalistic subthemes reported earlier. In addition, participants perceived the use of giving options, amending task requirements (SE12) and giving breaks or “time away” or “time out” from guidance to be effective antecedent-based interventions. One SET found amendments to task requirements to be particularly effective (SE15). However, it was critical to be aware of triggers that gave rise to unacceptable behaviours in order to identify what needed to be changed and when to make the intervention, especially sensory triggers (SE13). In this respect, functional behaviour assessments, which consist of analysing the circumstances in which a repeated undesirable behaviour occurs in order to identify the triggers for that behaviour, combined with improving positive behaviour support plans, were helpful tools (SE15). Behaviour intervention plans can incorporate the utilisation of a “free card” to go to the coordinator office or guidance office when a child needs to take a break for any reason during classroom time. He/she can go to a coordinator or another

teacher who the child was comfortable with (SE11). Modelling was used alongside antecedent-based interventions by some SETs, when considered appropriate (SE15).

The following illustrative quotes reveal the importance attached to identifying what triggers the undesirable behaviours:

“When we talk about the reduction of unacceptable behaviour with children with ID according to my experience, I believe the only thing you actually need to find out is, could you please find the stimulus for what causes that? Antecedents is the right word and right way... absolutely, discovering the antecedents, that's what I believe” (SE14).

“Withdrawing these children with intellectual disabilities out into little breakfast groups (if it is feasible) instead of tolerating a big noisy canteen during the breakfast time, has been efficient in eliminating sensory overload” (SE13).

One SET used a cushion in the room crowded with stories, toys and books as a “time away” space for children with intellectual disabilities, saying:

“When the children get upset or annoyed and begin to have behaviour issues, I merely observe them comfortably and ask them if anyone wants ‘time out’? And that really works, and they will just go back, and there will be books, photo stories and some toys. They will pay attention... Time out does not need to happen inside the schoolroom” (SE7).

Participants’ descriptions of and support for antecedent-based interventions, alongside their reports of success with this technique, are in agreement with relevant literature (e.g. Conroy at al., 2005; Luiselli, 2008). In practice, they are often used together with other techniques such as positive reinforcement.

5.3.5.2 Positive reinforcement

In addition to antecedent-based interventions, more than two-thirds of the participants perceived that utilising positive reinforcement produced very good results in terms of reducing problem behaviours and increasing desirable behaviours in children with ID. After the successful completion of a task, a child may get a food treat, receive praise, or be given time to play with their favourite toy. Based on the functional behaviour

assessments they carry out; SETs often develop individualised positive behaviour support plans for preschool children with ID.

Among the photos I have also been shown a number of behaviour support plans which contained goals and associated activities for addressing behavioural issues. The utilisation of rewards and positive reinforcements was considered by SETs to be important element of such plans, in particular when utilised in combination with the kinds of antecedent-based intervention described in the previous section.

One SET made considerable use of an “if / then” behavioural contingency to improve discipline generally and to reinforce work implementation and decrease problem behaviours in specific instances, pointing out that if a particular party carries out a particular behaviour, then particular consequences may follow (SE9).

SE9 reported that other SETs also used this frequently, for instance in short ‘time out’ sessions following serious problem behaviours, for instance, pinching, biting, or hitting. In order to offer the children some assistance with understanding the explanation behind a time out, while the SET gives the child sitting in the time out seat a piece of shower board to hold. This board has a nylon fabric tape on which the SET placed two photos demonstrating the “if and then”. Briefly, if you hit then you sit.

Some SETs employed a wide range of positive reinforcements, including stickers, candy, playing with cars, free time on the computer, juice, and toys. SE3 reported using positive reinforcement to foster children parent-school collaboration through placing stickers on each ID child’s daily behaviour table, then asking the parent to review it and encourage the child at the same time. A number of SETs also stated that positive reinforcement could assist in improving the amounts of tasks completed successfully (SE8).

In general, SETs observed their approach to dealing with challenging behaviours to be more efficient when applying antecedent-based interventions, positive behaviour supports and positive reinforcements in a concerted way that aimed to prevent the behaviours prior to taking place.

The following examples of quotes are related to interventions utilising a positive reinforcement:

“As much as assisting N to control her behaviour, she can get toys, rewards or stimulus. I believe that perhaps assisted her... N still likes to get the new things. She loves to gain video games. I think that means something valuable for her, N spend much time to watch television, iPad... YouTube as her parent said. So I think when you see what a child loves, this is an effective way to reach for a target behaviour through a child's favourite thing” (SE11).

“I talked with families, ‘On Thursday (the last day of the week) when your children have more than five stickers, try to ask them what they like or want’ a kind of reinforcement” (SE8).

“SETs should show the children what they have to do, identify the task simply [for understanding] such as colouring or writing, tell them they need to work for so many minutes, and afterwards they can play or choose a favourite toy. Once a child met my expectation and realised she had finished, she could pick out a task that she enjoyed. At one age, a lot of it was technology- she loved to be on a iPad. Later, it got to be more colouring board and giving her stickers. These things made her feel rewarded if she did what was asked” (SE14).

The behavioural support plans and examples provided by SETs were consistent with the generic profile of a positive behaviour support plan offered by Dunlap et al. (2008) in that they were planned to decrease and remove triggers for challenging behaviours, learn alternate skills to replace challenging behaviours, and to promote desirable behaviours.

My own experience of using positive reinforcement was to focus first on reducing challenging behaviours and then on acquiring desirable behaviours. Many mainstream schools in Saudi Arabia continue to use traditional teaching methods, for example, in

Islamic studies (Alsenaidi, 2012), English (Alrashidi & Phan, 2015) and classroom management (Aldossari, 2013). Children are expected to sit still, listen and be quiet unless answering a question or memorising parts of the lesson, and are also expected to obey their teachers, whom Islam requires them to respect. Any other behaviours are widely regarded as challenging.

Thus, from my perspective as a SET based in Saudi Arabia, this approach is a high-impact technique for improving children's behaviours to the point where SETs can control the classroom and manage behaviours better in terms of what is expected in mainstream schools in Saudi Arabia. I found that a clear definition of target behaviour was essential, followed by a careful selection of reinforcers to suit the particular child. It was also important to evaluate the effectiveness of the reinforcer and amend the technique if necessary. The literature supports the need for a careful choice of reinforcement and a regular review of the frequency and timings of reinforcement, with changes to the schedule as necessary in the learning and maintaining stages of skills or behaviour acquisition (Watling & Schwartz, 2004).

It is clear that my participants endorsed and utilised positive reinforcements in their work. Thus, the participants have heavily emphasised the teaching of appropriate behaviour in accordance with Islamic precepts, Arab cultural expectations and two of the three meanings of the Arabic word for education. Together, these lead to the assumption that good behaviour must precede other successful learning experiences. However, not all preschool children will learn new behaviours from such methods alone, especially if they have minimal speech and communication skills. Therefore, the next section describes how SETs used augmentative and alternative communication methods to overcome some of the barriers they encountered when communicating with nonverbal individual children.

5.3.7 Structured learning environment

The seventh theme I identified under the broad heading of practices and educational interventions for children with ID was a structured learning environment within which activities take place. SETs considered this to be one of the essential foundations of any educational programme for children with ID, in particular for preschool children. Almost all participants in this study used the word ‘structure’ repeatedly, emphasising its importance for all children with intellectual disability and frequently using it in association with ‘schedule’. A structured learning system supports children with ID through differentiated instruction and a differentiated skills programme within which an appropriate instruction can enable the social, communication and emotional needs of the children to be met (Alquraini, 2011).

The ways in which SETs use structured teaching and TEACCH methods were presented in Chapter 3 and the importance of clear visual information, including picture prompts and activity schedules, has been highlighted. However, the emphasis placed by SETs on the overall structure was strong enough to deserve its own section. One SET gave me a copy of the visual activities list (that she had made) for a particular child’s tasks process list and the colour-coded sheet to self-monitor her completion of the work (SE6).

Whilst structure was heavily emphasised by the SETs, several participants also stressed the significance of offering engaging and dynamic learning activities within that clear framework, often citing the types of activity. As one participant stated:

“Structure is fundamental, can be crucial for children, through assisting them to build self-discipline, useful habits, and independence. I believe it is fundamental” (SE2).

Another participant summarised the benefits for the child:

“A structured learning environment especially in schoolrooms gives the child individualised, structured teaching and assists the child to practise, promote independence and engage with peers interactively” (SE7).

The significance of structure for young children diagnosed with intellectual disabilities was described in general terms and for individuals:

“If something should occur and it does not occur, then it will generally trigger an emotional upset. So that is why we have a considerable measure of structure, just due to that fact. For example, we have chocolate every morning” (SE13).

“On the chance that you don't give D structure, D will simply be everywhere” (SE6).

“One of the children did better and improved with structural. Changes are very difficult for these children, that, if we want to change anything in the schedule of children we prepare for the change through the use pictures and write that in their daily schedule.” (SE11).

In addition, a structured learning environment with visual prompts can be utilised to assist children with ID to be self-monitoring and organised as a way of guiding their own learning. As one SET said:

“The visual schedules proved effectiveness through assisting children to know what will occur next. Also, they could be utilised as self-monitoring devices to increase on-task behaviour, direct learning and get organised for children with behavioural problems. For instance, I have a child who now has a visual checklist. There are pictures of a toilet, drinking fountain, food, and a work folder. He used to forget what he should do in the morning, then I ask her to look at the pictures and try to do these tasks sequentially. [The schedule] was crucial for her, she checked off every one of her things. She is doing pretty well with these.” (SE2).

My personal experience of working with children with ID has shown me that they prefer to work in structured plans and routines. Within the daily activities schedule, I used to show the child a task in a structured way before we started in order to make it easier for me and for the child. I encouraged the children to work from right to left, in readiness for writing in Arabic. I showed them that each activity had a start, middle and end point because some of the children had problems with planning and rules. Thus, the

activity had to be very clear to enable successful completion. Structured plans helped the children to understand what they needed to do, including identifying the timings and sequences.

In general, participants in this study emphatically concurred that an extensive, structured learning environment is extremely valuable for children with ID. Seaver and Cartwright (1986) argued that classroom design and activities were related to different educational philosophies based on informal and unstructured activities, formal and structured activities, or a combination of the two. The IDC approach concurs with their description of the behaviourist stance, focusing on developing skills and topics using mainly structured and formal activities, but recognising the need for quiet spaces and time away.

The effects of structure have been investigated in various studies, some specific to interventions or work systems and others more general in terms of the learning environment, routines and schedules. One small-scale study investigated the effects of structured work systems used with 3 preschoolers with developmental disabilities who were provided with routines with visual schedules and an organised physical environment (Bennett, Reichow & Wolery, 2011). Gains were observed in engagement, and tasks were completed more quickly and accurately, while task avoidance and stereotypic behaviours were reduced.

It has been proposed that structured development programs continued throughout childhood may have lasting beneficial effects (Ramey & Ramey, 2004). There is broad consensus among scholars about what should be structured, although to a varying extent. In general, consensus is that the physical environment, tasks, routines, visual strategies, and work systems should be structured (Gresham et al., 1999).

At one extreme of structuring instructional methods lies direct instruction (DI) which is mainly utilised with preschoolers to teach preparatory stage skills. This prescribes teaching procedures and their sequence in great detail, including error correction (Marchand-Martella et al., 2004). DI has been demonstrated to enhance basic academic skills in preschool children with ID (e.g. Dale & Cole, 1988). However, as instructional methods and contexts have become more naturalistic over time in response to evolving theories of child development, structure is incorporated into more naturalistic and interactive social contexts, taking into account children's preferences for learning materials (Schreibman et al., 2015). An alternative approach to structure was developed by Montessori (Lillard, 2012, 2013). In essence, this created a highly-structured environment within which all children can choose which learning materials to use provided that they have been taught and therefore understand how to use them correctly. The Montessori Method does not distinguish between children with and without disabilities, focusing instead on the development of the individual according to their ability and therefore allowing for this to happen over different time frames, depending on the child.

The ideas of Montessori (see section 3.8.12) have recently been introduced in Saudi Arabia and some SETs find them attractive and interesting, as the next section reveals.

5.3.8 Montessori method or Montessori methods?

Some SETs stated they were using the Montessori approach or Montessori methods with the children. Montessori training is available in Saudi Arabia and many elements of the Montessori approach including specially designed materials have been shown to support children's development. The book 'Montessori from the Start' has been translated into Arabic by one of the SETs in this study, a teacher with a passionate

interest in the field of disability, and this has enabled teachers to take advantage of the principles and ideas even if they cannot undertake accredited courses. SETs were aware of the fact that they were using a selection of simplified elements of the Montessori method that correspond to daily living goals in Individual Educational Plans.

One SET highlighted the child-centred nature of the Montessori Method:

“This book is really helpful. Some activities help children in their task of self-formation. The Montessori technique of self-discovery and hands-on learning are suitable and practical guides to raise calm, confident and competent children” (SE10).

Five of the SETs saw strong similarities between elements of Montessori and their own teaching methods regarding the “focus on daily life activities, the concentration on senses” (SE10). They had extended the sensory interventions described here in section 5.3.4 by using Montessori-type activities. SE10 also emphasised that senses were the basis of developing thinking: “at this age, the children can build themselves through thinking and discrimination”.

The same SET also described how elements of the Montessori method could help children with ID to develop their senses:

“For example, to develop the sense of touch we use all kinds of paper - thick, thin, coarse, and soft - to help the child know and learn the kinds of paper by touching and naming each type. For the hearing sense, we use a method of realising differences of sounds and tones such as sounds of birds and animals by displaying some different sounds when children’s eyes are covered, such as ‘talk - silence - animal sounds’” (SE10).

Another SET reported how guided learning in the spirit of the Montessori method can give a child time to explore and play freely:

“If the children show some sort of interest in colours, we try to refine their awareness of colour and understanding of colours in the environment. We use three primary colour boxes, yellow, blue, and red. The children try holding the box, taking the colour tablets out of the box,

matching them, and naming them. Trying to match colours in the environment... in this task the child tends to explore, take his time, and play freely; whether alone, with children or with the SET. In this way, the child takes time to work, feels free... no one is directing him” (SE15).

SETs favouring the use of aspects of the Montessori Method emphasised the need for children to have freedom in their development. Example quotes are:

“We take into account the inclinations of children based on their abilities. The children are free to do activities and tasks” (SE9).

“During the activities each child has freedom to sit anywhere they like and they can move around as they like, there are no restrictions. They also have the opportunity to choose an activity with unrestricted time to do the task. In this case, the teachers provide the child with the opportunity and environment to foster reliance on himself/herself without any direct intervention” (SE10).

“In my view, when children are free, they acquire new skills to act independently - we are observers, looking to see if the child needs any help” (SE12).

However, the considerable differences between Montessori’s concept of ‘freedom’ and the current practices in the IDC were recognised. On a practical level, the usual classroom arrangement was not suitable for the Montessori approach. On another level, the gap between arranging the furniture and embracing the Montessori philosophy is clear, as shown in the following quote:

“We sometimes do the Montessori classrooms to change the routine and give the child freedom, so we arrange the classrooms to fit with the Montessori approach” (SE4).

Three important points to consider when trying to apply the Montessori method were:

“First, repeating the activity, [followed by] children using the stuff which gets scattered. After that, they have to return the stuff to the original place, and there are no punishments” (SE10).

Repetition is natural, according to Montessori, when children are in a moment where they are sensitive to that activity. This sensitivity can lead the child to choose the same activity again and again. This is different from the idea of giving children the chance to

practise what has been previously identified because it assumes children make their own opportunities when they are ready. Attempts to integrate Montessori methods with those already used in the centre are illustrated by the following comment from SE10:

“Training the children to rely on themselves through several activities ... for example, I divided the class into some parts: 1. practical life activities: Opening and closing different types of doors, cupboards and cabinets. Other activities could include pouring water into a cup, taking a chair from under the table and lifting it and carrying it away and back again to its place under the table 2. Sensorial part. 3. Language part. 4. On self-reliance, such as washing hands and face, brushing hair and hanging clothes on the hanger. Carefully going upstairs and downstairs” (SE10)

The division of lesson and activities are the teacher’s choice rather than the choices of individual children, and the overall timing has already been broadly allocated by the IDC centre coordinator in a far more restrictive way than the plan of a typical day in a Montessori school.

My own philosophy of teaching is similar in certain important respects to that of Montessori, trusting children to learn through practice and repetition. When a child has the freedom to discover activities of their choice, with plenty of encouragement, I understand that each child is really asking “please help me to do it myself”. My role in the child’s work environment was to provide assistance and continuous observation. I did not move to another activity until I had ensured that the child had mastered the previous activity. I created distinct, attractive, activity-responsive areas within the classroom, in which children could play and learn in comfort, individually, in pairs or in groups. Classroom stories and handmade materials were arranged on shelves close to the child and accessible throughout the classroom. I tried to teach real-life tasks as far as possible (such as opening and closing doors, washing hands, nose blowing, and dressing) in order to promote greater independence. The tasks were chosen to fit the

child's abilities and interests; without realising what he was doing, the child started to move from having a need towards forming a habit of desired behaviour. I actually only used this approach when all the materials were available and the attention of children on that day meant they were ready. In other words, I did not use it regularly.

There have been few studies comparing the Montessori approach with other methods, although such studies are growing in number (Murray, 2010). One study which compared the development of preschool children in classic Montessori, supplemented Montessori, and conventional programmes found that following the original method, using the specified materials and timetabling was more closely associated with better outcomes than the alternatives (Lillard, 2012). However, on the spectrum of curriculum models suggested by Harbin (1979) which runs from experiential, through Montessori and Piaget to diagnostic-prescriptive and behavioural, the curricular model proposed by Montessori is almost at the opposite end to the kind of behavioural model that informs the ABA approach. This suggests that utilising Montessori materials and methods may work well up to a point in Saudi Arabia, although using them as add-ons to the Saudi curriculum and methods may be less effective than adopting the total approach.

Until recently, there has been little evidence-based research into Montessori, in particular regarding the comparative outcomes of Montessori with other approaches (Murray, 2010). However, there is one study (Lillard & Else-Quest, 2006) which reports that Montessori children were better able to adapt to change as measured by an exercise with changes of instruction in how to sort cards. Most of the reported findings regarding self-organisation and confidence were based on teacher assessments and parents' perceptions of the benefits for their child.

One of the key differences is that the Montessori philosophy is much more child-centred than Saudi Arabian education policies. Although both approaches value the development of the whole child (cognitive, emotional, physical and social), the Saudi Arabian emphasis on reducing defects and correcting inappropriate behaviour before addressing cognitive aspects of education is absent from Montessori's philosophy. SETs who were enthusiastic about Montessori spoke of the child's need for freedom. This may also indicate that the teachers themselves wanted more freedom in how they worked with the children. My own experience as well as theirs suggests that anywhere between 50% and 70% of class contact time is spent on correcting and managing behaviour which leaves little time for other learning experiences.

However, it is apparent that interest in the Montessori method is growing in Saudi Arabia, indicating an interest in a child-centred approach which may benefit children with ID and other disabilities. The existing pragmatic implementation of some of the elements when possible may point towards an evolution of educational thinking, away from a more obviously medical model of diagnosing and reducing or eliminating the disability, and towards a view of education in which supported independent learning is as important as teaching in the lifelong process to become and remain a good Muslim. This would assist children with ID as far as possible to fulfil in adult life their religious obligation of education as instructed in the Qur'an, which begins with the Arabic word for 'read' and means 'read, question and understand', in particular, to deepen knowledge of Islam and increasingly live according to its precepts.

5.4 Application of interventions and techniques to develop specific skills

In the process of answering the first research question, SETs indicated the skills that they targeted for development by using the various interventions. Depending on the

particular child, the SET chose to use any or all of a range of interventions to develop social skills. Thus, the same SET employed different interventions to develop skills according to the child, while different SETs used the same intervention to work on developing distinct skills. From my personal experience, I know that play with bubbles can be used for many purposes. For example, I used them with the objective of developing visual tracking skills with one child through following the bubbles, and for improving gross motor skills in another child through taking slow steps, running, and a combination of both. Eye/hand coordination objectives for a third child were achieved by practising dipping the wand in the bottle, blowing and then catching the bubbles. I also used bubbles in small group activities to practise turn-taking and keeping personal space, and subsequently to develop communication and language skills.

Participant responses indicated that they tended to associate and use specific methods and techniques, which they termed teaching strategies, with certain skills development targets, based on their experience of what worked for most children with ID. The benefits of interventions in terms of skills development are summarised in Table 5-2.

SET responses indicated that they considered the teaching strategies and the skills they addressed together with the individual child, asserting that the primary focus had to be on getting to know the child. This facilitated finding a good match between the child and selected interventions. In turn, this depended on “Trying to think about what the child is thinking through sitting with him/her for a long time. Go out with him/her and sit with his/her family for a long time to describe daily routine, daily life and identify a way to teach parents some activity to help them connect directly with their child” (SE9)

One SET explained the overall strategy for each child as follows:

“Focus on the child's ability – first teach them behaviours and basic habits that they are already aware of in order to ensure the child masters these things, then after that focus on teaching them new [basic] skills that they need. When they have mastered these new things through continuous practice so that they [have become] familiar, next help the child to gain and use social skills and try to follow their inclinations to develop. So if the teacher sees the child trying to do something, the teacher tries to encourage him to not move to another task until the child feels he can do that. Give the child with ID enough freedom. The very early years are critical - it is building a platform for the child's development before you begin to provide a suitable educational environment setting that evokes the child's interest” (SE8).

Within that overall strategic framework, SETs used interventions to develop particular skills as shown in Table 5-2. For example, depending on the child, the SET can choose to use any or all of a variety of interventions to develop social skills, including play, priming, and social stories.

5.5 Conclusion

In summary, SETs at the IDC centre in Jeddah utilised a wide range of practices and interventions to meet the educational, behavioural, emotional, social and cognitive needs of preschool children with ID and other impairments such as ASD and Down

syndrome. The overall emphasis appeared to be on the correction and improvement of behaviours and establishing communication as a precursor to learning other skills in a more manageable (controllable) classroom. However, SET practices indicated an uncomfortable tension between adult-led teaching and child-centred interventions such as play, incidental teaching and the freedom to choose activities in a suitably arranged classroom. This was the case even with communication skills, although their vital importance to life in a community was clearly understood. The reliance on behavioural techniques corresponds to a predominantly medical model of disability and SEN, which in turn relates to the idea that disability is a type of disease that can be cured. It is asserted in Islam in one of the hadiths that we learned from Prophet Muhammad that “There is no disease that Allah has created, except that He also has created its remedy” (Bukhari book 7, hadith 582, n.d.), and therefore it is very easy to assume that there is a cure for every disability, if only it can be found. This leaves the situation where the child is a patient or victim rather than a complete living person, a perception that can be carried over unintentionally by the teacher to the child, reducing instead of increasing the child’s self-confidence and any sense of independence.

Concern with behaviour at school is international, although expectations may vary. For example, school behaviour and discipline policies in Saudi Arabian primary schools typically refer to ‘obedience’ to teachers, while policies in English schools prefer to use terms like ‘respect’ and ‘dignity’ which are applied to everyone, pupils and teachers alike. Thus, definitions of acceptable behaviour can vary from one country to another, although in Islamic countries it could be argued that acceptable behaviour has been determined by Allah and transmitted to humankind through the Qur’an. However, in practice there are variations within countries and perceptions of acceptable behaviour do evolve over time, however little or slowly. A greater cause for concern is the use of

words like ‘challenging behaviour’ or ‘behaviour problem’ because it shifts attention from the whole child to the behaviour problem and can easily lead to seeing the behaviour as inappropriate and the child as the problem (Morrison, 2007). Classification and labelling reinforce the idea of the child as having a deficit of some kind, even though the behaviour could be a way of communicating feelings. For example, a child who simply does not like to be with other children may exhibit a disruptive behaviour as a way of gaining time out and escaping from the group situation.

More generally, children who cannot express their feelings or who are told ‘yes’ when they are saying ‘no’ for a good reason from their point of view, are unlikely to accept that they must exercise self-control. They are more likely to feel they are being controlled by their teacher or another adult, and perhaps feel they have even less control than they thought they did. In such situations, techniques such as ABA could reinforce rather than reduce behaviours considered undesirable by SETs, parents and wider society. In daily life, all children will be regularly reminded that they have to love and obey Allah, and to love and obey their parents and teachers as by doing so they show their love for Allah. This highlights a fundamental difference between a religious society and a secular one.

Moreover, as SETs acknowledged, each child is unique, with different characteristics and needs, and therefore some techniques will work better with certain children than with others. Moreover, needs and preferences probably change over time, implying a requirement for regular reviews of individual progress. Discussion has also shown that the quality of what Mesibov and Shea (2011) describe as evidence-based practice varies from one type of intervention or practice to another. Thus, SETs have to rely on their own experience to make judgements about what works for a particular child or group of

children. This can present them with challenges in their professional work. These and other challenges are explored in more detail in response to the second research question.

CHAPTER 6 DATA ANALYSIS AND FINDINGS: RESEARCH QUESTION 2

6.1 Challenges and barriers experienced

Following the analysis and discussion of SETs practices, educational interventions and methods in chapter 5, this chapter explores their responses to the second research question:

What challenges or barriers do Saudi special education teachers face when working with preschool children diagnosed with intellectual disabilities in an Intellectual Disability Centre?

Challenges and barriers which are not identified and addressed can prevent organisational improvement as well as negatively affect the motivation and performance of teachers. Thus, it is important to explore SETs perceptions of barriers and challenges before considering strategies for improvement. Moreover, they are important for any subsequent discussion of relevant issues and can help to ensure that any recommendations made are suitable and realistic.

As perceived by SETs in the present study, there were eight main groups of challenges and barriers that SETs have experienced in order to meet the educational needs of ID children. The challenges arose from the desire of SETs to do their very best for the preschool children with ID, to support their entry to and time spent in the IDC programme, in addition to their progression from the IDC to school. Perceptions of barriers concerned resources, including time, and relationships with some parents and teachers.

The rest of this chapter is structured under the broad categories which emerged from the analysis: (1) transition issues; (2) additional services; (3) lack of professional development; (4) challenges arising from the nature of ID; (5) problematic parental stances; (6) problematic teacher stances; (7) lack of time; and, as a consequence of these, (8) stress. The main themes are presented in Table 6-1, together with the following subthemes: lack of professional development; challenges arising from the nature of ID; and problematic parental stances.

6.1.1 Transition issues

Transition issues were considered as one of the major challenges faced by participants with regard to facilitating smooth transitions for ID children from home visiting services to preschool, from one classroom or teacher to another, and for those children leaving the IDC programme to start school.

SETs highlighted that for children with ID and their families, the first main transition occurs when they enrol in the IDC. Parents are often concerned when their children at age three are provided with early intervention services in the IDC. Before then, early intervention services are provided by specialists in the form of home visits; therefore, this stage may often be a frightening one for families, which can in turn produce a negative reaction which is reflected in the child's behaviour in the classroom and resulting in extra difficulty in adapting to the new environment. My participants also added that this transition is a vast challenge for children with ID, which is reflected in the child's behaviour. Moreover, the transition process can have multiple and complex effects on the children, their self-esteem and self-concept, and on their parents.

One SET (SE9) observed the following:

“Transition issues may be more exhausting for parents than for teachers and that could have a negative effect on the behaviour of children in new settings. Naturally, it affects SETs in the centre, all of them are connected with each other, for example when the child moves from home services based on the parents to centre services based on the child and SET” (SE9).

As summed up by another SET:

“It’s fundamental to provide suitable transitions, home services to preschool, also from classroom to classroom and teacher to teacher, for the reason that whenever time schedules change, children with ID are challenged by the change involved. That means changing part of the child’s daily life. Thus, I believe that is important to have suitable transitions, and that can be difficult for them, especially the first transition” (SE4).

Other SETs remarked that moving from classroom to classroom involves “transition into a completely different space” (SE5). This is due to the children usually having several SETs, and that they are more familiar with some of them than others, as well as having a favourite teacher: “In the first class they do not have many changes, but as they get older they have daily changes during the activities, with differences in SET personalities, expectations, rules, routines and teaching styles” (SE5). “All these changes imply a tremendous amount of adaptation to change for an ID child and so for us as teachers” (SE13). Thus, the role of the SET is central to the process of transition. I agree with my participants on this point and believe that transition issues can provide exciting challenges for all aspects of the educational process and the people involved, including SETs, parents and children.

My own experiences of rising to the challenges presented by transition issues suggest that collaboration and ongoing communication with parents and colleagues are key factors. I built good relationships with the children from the first meeting so that they became comfortable with me. I spent about 2 hours a day for 3 days with parents in order to help the children adjust to the new setting. I provided children with routines they used at home, ensured they had something familiar from home such as a toy or

blanket, then encouraged them verbally or with a tangible reward to play in their free time.

For all children and their parents, the transition from home to preschool is considered an important developmental milestone. There is a clear relationship between positive adjustment patterns in the early years and later school adjustment and attainment (Eckert et al., 2008). The first meeting with a child can affect the child's ability. In addition, it can highlight the importance of the teacher's attitude and control of the situation. This viewpoint is supported by Dunlop and Fabian (2007) who indicate that the method used in the first transition may have a significant impact on the child's capacity to adapt to the change, not only in the short term but subsequently. Thus, when providing support to ID children through transitions in the form of communicating what will happen, what the child will do, and how he/she will be expected to do it, as well as developing skills expected by primary teachers, SETs need to ensure that they know the children well enough to comprehend their needs. Moreover, SETs should make their own decisions at this point in order to assist children in the IDC to develop and improve their skills, with the objective of their readiness for mainstream primary school.

The first of the illustrative quotes suggests this could be quite a mechanistic process:

“Transition to mainstream primary school works by the child receiving the appropriate services in the centre, after which the teachers determine if she/he is eligible for attendance at a mainstream primary school” (SE6).

A typical view of SETs responsibilities in preparing the children for the possibility of an inclusive primary school was as follows:

“We are here in this centre to focus on learning to learn, and on [learning] behaviours... to accustom children to listen to the teacher and to sit for longer periods so that they are ready for the next stage” (SE1).

This also explains the strong emphasis on a behaviourist approach, because much of the teaching, even in inclusive primary schools, follows the traditional methods of listen, remember and practice, rather than small group activities. Primary classrooms, whether inclusive or separate for pupils with severe learning difficulties, are still set out with rows of desks, in contrast to resource rooms which usually have one or more small tables, more colours and pictures. In the US, one study found that whether a child had ID or not, there was a significant relation between their self-regulation at 36 months (as measured by the time delay in touching a toy they wanted) and their adaptation to primary school (McIntyre, Blacher & Baker, 2006). Social skills showed a similar significant relationship with adaptation, even after taking into account measures of adaptive behaviour and the child's IQ assessment. In a Montessori school, the variety of spaces in a single classroom may offer more scope and a much longer time for young children to adapt to spending more time working and listening while seated at a table.

One SET highlighted the need for transition to be smooth, but did not elaborate on what she meant by that, although I tried prompting her:

“The children are receiving early intervention services in this centre and then we are supporting them and ensuring a smooth transition for them to primary school when they reach 6 years old” (SE5).

In view of the fact that the transition in childhood in all its aspects is a critical period in a child's life (Gillan & Coughlan, 2010), SETs could perhaps consider other aspects of the skills that are required, such as curiosity and eagerness to learn.

SETs can include these and other transition requirements in the IEP to plan for teaching ID children essential skills. When SETs support transitions well, children can overcome the challenges more easily and be able to adapt as quickly as possible. Moreover, well-supported transitions assist children to develop their skills, confidence and their capacity to be flexible in dealing with any future changes in their lives. Well-supported

transitions to primary school may need to include parents: parents' own experiences of school have been shown to influence their children's reactions (e.g. Reichmann, 2012). Reichmann deduced that standard communications such as letters and parents' evenings were inadequate and that parents ought to be involved as equal partners in the transition process. This would apply to the primary school as well as the preschool.

In a review of early childhood transition studies, Rosenkoetter et al. (2009) commented on the absence of studies investigating the transition from early intervention services into preschool and focused on the transition to preschool at age 3. They noted that evidence-based findings were needed in order to identify if a particular practice or combination of practices could determine positive outcomes.

SETs perceptions of the importance of the challenges of transition are in agreement with Dyke et al., (2007) and Gillan and Coughlan (2010) who emphasised the critical point of transition to school for children with ID. The role of teachers in facilitating transitions and moving from class to class is a fundamental feature of successful educational programmes for children with ID (Iovannone et al., 2003). However, it is striking that participants emphasised the transition from home to the IDC, recognising its importance, but made no reference to the transition into primary school.

The transition issue in Saudi Arabia is said to require more in-depth studies because of its important role in the field of special education (Alnahdi, 2012). However, Alnahdi's study was limited to a consideration of the transition from school to employment or training, and little attention has been paid to earlier transitions in the child's life. This is partly because in Saudi Arabia it is assumed that almost all children start school at six years old, with a baseline entry level of behaviours and communication skills expected of all children. Thus, the SETs in this study were aiming to enable children with ID to

reach that baseline if possible. As preschool provision expands, with an emphasis on whichever early literacy model is adopted nationally, more children will be increasingly expected to have additional competences when they begin primary school.

The general skills of attention, communication, self-help and social interaction which have been seen as essential for children with ID to achieve success at school (e.g. Kemp & Carter, 2005) may no longer be sufficient. The Self-Learning Curriculum in mainstream state preschools from 1991 onwards includes a language and literacy component based on a reading-readiness approach; this focuses on the development of fine motor skills, audiovisual discrimination, hand-eye coordination and the ability to observe (Al-Othman et al., 2015). The new curriculum will provide greater weight to the development of literacy and numeracy and be based on different child development theories, probably Piaget or Montessori. Children with ID could be shocked by the demands placed upon them by the extent of the change unless their preschool provision takes this into account.

Having discussed the challenge of transition issues faced by SETs, and the importance of transition from home and/or home delivered services to the centre at preschool age as well as transitions from the IDC to primary school, the next section addresses one of the barriers which my participants considered prevented them from meeting the needs of children with ID.

6.2.2 Additional services

A second theme generated by most of the participants was the necessity for additional services and therapies for ID children. In general, SETs felt that insufficient occupational therapy, speech language therapy services and social skills training were creating a barrier for ID children. These therapies and services are the backbone of any

successful programme because they play an effective role in supporting SETs and ID children with highly specialised interventions. SETs observed that direct speech and language therapy for ID children were exceptionally efficient in assisting the development of children's communication skills. Moreover, they considered occupational therapy services to have been extremely useful to address fine motor delays and sensory problems. Some families expressed concerns that their children needed more therapy and that they did not receive sufficient therapy (SE8 and SE12). The type of therapy was not specified by the parents, and therefore it is probable that SETs as well as parents were concerned in a general sense and experiencing stress that they were not doing enough for the children. In fact, one SET sometimes advised parents that their children needed additional services and suggested they attend another clinic to complete their services, usually in speech therapy or occupational therapy (SE6). Children with disabilities and their parents encounter difficulty in accessing services, which leads to delays in receiving these services (Sloper, 1999). This is why my participants asserted that they needed additional support with greater availability of therapies and services.

This is illustrated by the following quotes:

“I like my job here in IDC, I love this programme and I believe what we are doing here it is great. Regarding my position as SET, I feel these children need more speech language therapy, I do not think there are enough therapists whether occupational therapists or speech therapists. One hour a week is not enough for them. I know that some parents go to private centres to get additional services, and that costs them financially” (SE12).

“As SETs, we need more sensory integration for our children, more occupational therapy, those kinds of things; we don't want to give up on this. Occupational therapy (OT) plays a key role to improve social skills of children through engagement in activities and social interaction with others. Also, OT supports us as SETs through adapting classroom tasks which related to buttoning, fine motor skills, zipping, laces, and

handwriting later on. The goals develop with age to personal space, self-regulation, emotional, and social relationships” (SE1).

“We need more social skills coaching for children with ID to help them with issues such as smiling when greeting people and talking, making frequent eye contact, and suitable social behaviour” (SE4).

SETs also reported a need to separate current resources regarding full and part-time programs. The separation of part-time and full-time attenders at the centre was related to the number of children accessing sessions in a single resource room, which could be more than 30 children in a single day. Additional resource room programs with suitable space were therefore required:

“It is too difficult to meet the children’s needs in a resource room where [there can be] 33 or more children cycling through a resource room during the day. Also, it is hard to execute suitable teaching methods for children with ID when such a large number of different children cases that demand different types of interventions and practices” (SE3).

“These services exist to meet children’s needs, so if there are not enough services or if there is a lack of carers, [these shortages] should be addressed in order to create an integrated team... The Directorate General of Special Education needs to be reevaluation in the light of exploring the provision of full services for children with ID” (SE4).

Participants’ perceptions reflect those of school-based SETs, who have identified the need for a level of support in terms of staffing, equipment and materials, and administrative support which they consider sufficient (Leatherman & Niemeyer, 2005). They also confirm the assertion by Merza (2012) that there was a shortage of special education services for young children with ID in Saudi Arabia. However, it is likely that there will frequently be a mismatch between services and the individuals who need them, for a variety of reasons. For example, the number of children may rise more rapidly than the number of SETs and other specialists trained, affecting teacher-to-child ratios and physical space available for children, materials, assistive technologies and classroom organisation. Improvements in services mandated by legislation, such as the involvement of a range of specialists in assessment and diagnosis, could highlight an

increased shortage of specialists. One SET (SE4) also pointed out that the services require reorganisation after they have grown for some years in order to ensure they are as efficient and effective as possible.

When resources are perceived as inadequate, frustration occurs and indeed increases over time if the situation continues. Professionals who are well supported may find it easier to cope with stress in contrast to those who have no support. Teacher stress has been researched across the world (e.g. Mearns & Cain, 2003; Travers & Cooper, 1996; Whitehead, Ryba & O'Driscoll, 2000), and various methods for alleviating stress have been proposed. These include suggestions for self-help, medical treatment for depression, counselling from a school psychologist and a professional development programme.

In this respect, participants in this study identified certain aspects of available professional development as another barrier that they faced.

6.2.3 Lack of professional development

Participants identified two types of barriers within this theme: one related to the lack of opportunities to meet their specific needs, while the other concerned the use of resources for professional development, in particular the direction of resources to university courses which were heavily biased towards knowledge with too little time spent on skills-based practical teaching. It was noticeable that although SETs talked about provision to meet their needs, they were almost all unable to state what those needs were, other than expressing a need for new teaching techniques or refreshing themselves. This is a major concern, because it implies that there are at best only informal mechanisms for discussing professional development.

Illustrative quotes were as follows:

“I need to refresh my teaching background, [because] ongoing development for teachers could have a positive impact on the progress of the children. However, I don’t have enough opportunities. The last seminar I attended was 3 years ago” (SE13).

“If senior management focus on providing regular professional development for teachers, which could help [us] to get more skills and knowledge in teaching, they could meet all the needs of teachers and also see improvements in children’s achievements, [Even when there are seminars or workshops]. I still need to wait on the waiting list” (SE14).

SETs reported that the quality of professional development could have a negative effect on their performance, both directly and cumulatively. This was highly demotivating for SETs who are at the very heart of the educational process that attempts to meet the needs of children with ID. There is a pressing need to provide professional development for teachers to gain new skills in order to improve children’s performance (Rodriguez-Arroyo & Loewenstein, 2013). My participants called for the recognition of an ongoing need for appropriate professional development, allowing SETs to gain and practice new skills over time, although most were unable to state what new skills or knowledge could help them in their teaching. Moreover, the interviewees indicated that the IDC system needs to offer long-term professional development for those who are working with children with ID. Children will stay in this environment for a number of years, transition from home services to preschool and SET to SET, a situation in which one SET might not have enjoyed the same level of professional development as another. Although some participants had benefited from professional development, most of them felt it had not succeeded in assisting them to improve children’s performance, as shown in the following section. They gave the following examples of recent workshops: How We Communicate with Special Needs Children, The Rights of Special Needs Children and Their Families, and Positive Behaviour Intervention Strategies. One SET also mentioned an International Conference on Intellectual Disability.

6.2.3.1 Insufficient professional development

One of the most deeply emergent themes in discussion with my participants was the requirement for additional coaching and knowledge to all staff engaged in addressing the needs of children. Much of the demand expressed by the study participants here related to specifics. For example, one SET longingly voiced a need to find out more regarding how to address pre-writing issues for ID children (SE7), while others wanted an exchange of situations encountered and best practice in terms of what actually worked well in addressing the situations. However, more than half the participants expressed the need in a very general sense, knowing only that they wanted something that would help.

In view of the significant increase in the number of children assessed as having ID in Saudi Arabia (Alnahdi, 2012), keeping pace with increasing demand for training has become an increasingly problematic. The necessity for knowledge and training regarding educating children with ID is exceptional, whether for SETs or all support team members. However, it was noted that little attention was paid by stakeholders to what actually takes place inside classrooms.

Moreover, the interviewees indicated that the IDC system needs to have long-term professional development arrangements for those dealing with ID children, in view of the fact that children will be moving between different teachers and specialists over a period of several years and that it will be helpful if all SETs have benefited from similar levels of support and coaching.

Participants specifically singled out coaching as a main component of efficient programmes for SETs working with ID children. They perceived a lack of coaching and knowledge to be one of the main factors obstructing further progress in meeting the

needs of ID children. One of the SETs commented that “coaching is crucial” (SE6) while another said that “coaching is massive; I think the need for knowledge is massive in light of the fact that the numbers are going up so quickly” (SE6). Coaching was needed “in short, to improve and develop instruction, teaching and [acquisition of] new skills” (SE12).

Bearing in mind that the participants had significant experience in the field, the following example quotes provoke much thought:

“I have not had enough coaching. Despite the fact that I feel good with the use of current methods and techniques, however, I feel I need more and more in working with these children.... We need more coaching. Completely, I believe that would be awesome. I really do. That would assist me and refresh me to be open to get more knowledge, skills and experience” (SE11).

According to another participant with long experience, the greatest barrier is “lack of experience, knowledge, and coaching.... I want to update myself and my brain, add new skills, see what other SETs do with their children, whether in other Jeddah centres or in the rest of the country” (SE14).

While another special education teacher (SE9) reported:

“[The greatest obstruction is the] lack of methodology, understanding, procedures, and knowing what makes a learning environment effective. Teacher coaching is a major need for me. I am exceptionally restricted in where I am with my involvement with ID children. This is definitely frustrating. I need to refresh my brain, information and gain new experiences, so I need training courses looking at new methods, new thoughts and new strategies that shall have a positive impact on the children” (SE9).

The following quote illustrates the need for all team members to receive coaching:

“The need for additional coaching extends beyond SETs to all IDC members who work with ID children... I believe that individuals in our centre who are working ID children ought to be trained continuously. Art educators, physical education teachers, librarians, even assistants who work in the canteen, all those individuals who are providing [the children] teaching and direct them, ought to have coaching on how to work with these kinds of children” (SE8).

Whilst most SETs felt strongly that long-term development for SETs should take into account that a child with ID might face difficulties in progressing from preschool to primary and secondary school, not all agreed about the usefulness of particular types of professional development. Some preferred in-service seminars, workshops or conferences on teaching children with ID; others found these less than helpful when they essentially covered the features of intellectual disabilities instead of addressing particular issues that a SET has with a certain child at that time. Several SETs who participated in this study had attended workshops which form part of a programme provided by the Directorate General of Special Education throughout the school year. Some found them useful, others did not:

“It was educational and helpful. However, not all of what you find in the workshop can be applied in our field. Most of the workshops revolve around what disability is; the kind of disability, not modern ideas or techniques that I can utilise in working with ID children. It’s true there were some suggestions and information. However, most of the workshops were providing you a lead-in to ID children and what it is about” (SE8).

In contrast, a SET who used sensory interventions throughout the day in the IDC for children with ID stated:

“The Directorate General of Special Education sent me to sensory training for disabled children in Slovakia in 2011. It was one of the value courses. I have attended. It was awesome; I learned many things regarding sensory intervention. I am still remembering that, and I utilise what I have learned till now” (SE12).

Two reasons were given for explaining why coaching is a more useful form of professional development than in-service workshops:

“There are noticeable development in the field of practices and interventions for ID children and other disabilities whether in research field or practices field makes one-off workshops and SET’ previous coaching outdated. Also, we need practical, pertinent, on job coaching, this gives chances for feedback as well collaboration to achieve the interest” (SE14).

SETs views are supported by the research of Knowles (1990) who stated that adult learners expect their learning to be directly useful in developing and improving their performance. In other words, SETs expected to be able to apply what they learned in a practical way in the classroom. Moreover, according to Knowles (1990), learners need to cooperate and engage among themselves and also appreciate frequent feedback as they gain proficiency in new skills. Coaching may be one way of achieving this, as well as relevant in-service training and communities of practice (Martinez-Beck & Zaslow, 2006). Research regarding young children with ID is developing so quickly that it is almost difficult for teachers to stay abreast of developments in the field without a planned programme of professional development, tailored to the individual as appropriate. However, the success of coaching or mentoring is dependent on the relationship between the person giving the coaching and the one receiving it (Sheridan et al., 2009).

To an extent, I would agree with my participants regarding the lack of professional development. However, individual SETs have the first responsibility for meeting their developmental needs and finding a way to access the skills and knowledge they need. Let me share with you some of my own experience regarding the lack of professional development. When I was working with ID children, I felt frustrated and wanted to refresh my mind and learn new things. I still remember taking part in a workshop entitled 'How can I deal with the disabled child' in the King Salman Centre for Disability Research in the Saudi capital. I paid for the workshop myself. I learned new research-based ideas which I implemented in my work with children.

SETs could rely on themselves to update their knowledge and skills through online courses and webinars instead of waiting for others to provide the workshops, as new developments in technology make this possible. In our culture, it is considered wisdom

(‘hikma’) if the teacher relies on himself to fulfil his need. This viewpoint is supported by Miller (2012), who states that according to his experiences as a teacher, he usually puts himself in the learner’s position instead of the teacher’s and looks for new and creative approaches. However, the Arabic word for coaching is also used for mentoring and I believe that SETs needed and wanted a variety of experiences, but because they had lacked the opportunity to explore the concept and practice of professional development, most of them were limited in their responses, even when I probed further.

According to Clutterbuck and Megginson (2005), time and effort have been wasted on trying to pinpoint the differences between coaching and mentoring when it could have been more useful to focus on the best way to help an individual’s development, for example by asking them what they wanted to improve, or whether they would prefer one or more short sessions or longer term support.

SETs knowledge regarding the range of options was almost wholly confined to their own experiences, based on the resources available for professional development and Initial Teacher Education in Saudi Arabia.

6.2.3.2 Resources for professional development for SETs

It was clear from the interviews and photographs of participants’ teaching and learning materials that the Directorate General of Special Education has provided numerous development opportunities for SETs on practices and educational interventions for children with ID. Workshops have been sponsored in the IDC, while interested SETs have attended off-site workshops, aimed principally at teaching methods, different developmental models to working with ID children, utilising ABA, and similarly themed workshops. In view of this, it is interesting that many of the study participants considered the lack of up-to-date practical knowledge to be a barrier. One possible

cause maybe that the considerable increase in the number of ID children currently progressing through the centre has made it difficult for the centre to keep up with the needs of all SETs professional development.

However, further probing revealed that all SETs considered that their university teaching courses were not useful because they barely touched on how to teach children with ID:

“Grievous, I did not receive enough practical coaching in university. I was surprised when I began teaching children with ID. I had learned theoretical things only. I had not done any practical activities with children. I had not got any formal coaching in intellectual disabilities. [The university course] should combine theory with practice to benefit us more” (SE6).

The university focus on theoretical aspects and a minimal practicum period meant that SETs learned more in the field through direct contact with children than they learned on campus. Achieving a balance between the theoretical and practical aspects of the profession can constitute a significant challenge (Hartocollis, 2005).

Practical workshops received most support, with clear favourites being Teaching Strategies and Use of Technology with disabled children. Feedback was positive from all SETs attending these workshops. For instance,

“I went to the Teaching Strategies, I have not attended any workshop more helpful and useful than this. It was a remarkable workshop. The other SET [who was the course leader] was very well-trained, having attended many workshops such as rehabilitation, playing and learning, and learning through drama. She was also trained in applied behavioural analysis and a developmental methodology” (SE13).

SE8 described another practical workshop in glowing terms:

“This workshop was wonderful. It was titled ‘How we can engage with the intellectually disabled child’. I was there for a week. Actually the group that I worked with were active. They were SETs who came from all over Saudi Arabia. We spent a week together from 8.00 am to 3.00 pm, sharing our experiences, benefiting from our different experiences

and experiments, Indeed, I learned a lot about hands-on methods. There were different workshops throughout the week, and I could just pick one and go. Actually, they were quite useful... I observed SETs teaching in these various environments. However, this is the only one like this that I have found during my working life” (SE8).

Two SETs clearly valued experience in the classroom as the best resource for professional development: “Greatly, I believe experiments are in some cases the best instructor in some ways, on the grounds that each child is so different.” (SE4). “I think the best practices come from experiences and coexistence with cases. Thus, learning, knowledge and awareness are part of daily life when dealing with ID children and number one source of information. Thus, the SETs are responsible for their own knowledge and development” (SE1).

In this respect, SETs at this IDC perceived the centre coordinator as a valuable resource of training and knowledge, someone who loved her work and covered sessions with children with ID if any SET was absent. She divided her time between teaching and consulting with SETs in this field, spending most of her time collaborating with SETs regarding solutions to challenging behaviours, behaviour improvement plans, and providing assistance with preparing visual schedules, responding to SET requests for suggestions and advice as needed.

Having explored the challenges and barriers related to professional development, the next section addresses the challenges posed by the very nature of intellectual disabilities.

6.2.4 Challenges arising from the nature of ID

The nature of intellectual disabilities itself generated a fourth strong theme identified by most participants as both a challenge and, in some instances, a hindrance to meeting the children’s needs. One main characteristic of intellectual disabilities identified by SETs

is the variety in terms of limitations in adaptive behaviour and in intellectual functioning, and the diversity of intellectual disabilities was perceived as hampering SETs to meet the children's needs. SETs face challenges in meeting these needs because they are often dealing with more immediate challenges in the form of behaviours such as aggression, noise-making, and mess-making, when many children have limited communication skills, as well as difficulties with memory recall, attention, conceptual skills, social skills, practical skills and problem solving.

In fact, the heterogeneity of intellectual disabilities is well known. There are many complex genetic causes (e.g. Vissers, Gilissen & Veltman, 2016) and diverse family settings and responses to the situation which interact with genetics and biological consequences (e.g. Seltzer, Floyd & Hindes, 2004). These further interact with cultural conditions to create additional disabilities arising from factors such as exclusion (Vygotsky, 1993). Moreover, these additional problems can change over time as the child is exposed to different experiences, and, according to Vygotsky (1993) are more capable of being alleviated or eliminated by education.

Of course, it can be said that no two children are the same, whether they have a disability or not, but the majority of children learn to respond in a specific and generally consistent way to various types of communication from their teacher. Thus, teachers may find it difficult and frustrating when the complexity and dynamics of intellectual disabilities mean that communication cannot be generalised or predicted in this way. The difficulties are exacerbated by expectations of social and educational institutions that many children with ID will be able to be normalised, presumably if SETs perform their work correctly. The majority of IDCs exist to reduce individual differences, rather than acknowledge and respond to them.

Example quotes concerning the challenges posed by the diverse nature of ID are as follows:

“Every intellectually disabled child is different; they have individual differences” (SE3).

“It’s been extremely disappointing. It’s very hard. Particularly as we learn that ID is huge, in terms of characteristics, individual differences, reasons for disabilities, kinds of disabilities, and abilities they have. There is not one child I have ever encountered that is similar to another child” (SE5).

This perception implies that children without intellectual disabilities are more similar to each other than those with ID. It could also imply that children with different disabilities, for example hearing or visual impairments, may be perceived as relatively homogeneous groups. Both these possibilities indicate a reflection of the pervasive idea of conformity, in which case some SETs may be stigmatising children who are different.

Moreover, many children with ID have more than one type of disability that makes arranging and planning successful educational interventions for them much more complex, from the processes of assessment and diagnosis, and Individual Educational Planning onwards:

“The children are all so distinctive. There are individual differences among them, the children I have are not only ID, they are also autistic spectrum. [They are] extremely delayed in all aspects and [have] some health issues. It is really complicated...I would tell you that rather than whatever [else], mental retardation makes it difficult. It is tough, a really huge matter” (SE5).

The use of the words ‘disappointing’ and ‘mental retardation’ do indeed suggest stigmatisation. The challenges posed by the varied characteristics of intellectual disabilities were raised in every interview and are therefore reported in greater detail in the following sections in terms of attention, aggression and related issues, and communication difficulties.

6.2.4.1 Attention

SETs reported that many children with ID are inclined to temper tantrums, also to sensory issues and repetitive behaviours and aggression. They added that tantrums are particularly likely to happen when ID children have trouble communicating their needs, sensory overload and activity overload. Also, there are too many and different difficulties in dealing with environmental requirements (SE4 and SE15). The limited attention span of many children with intellectual disabilities is associated with difficulty in receptive language (SE7).

The way in which SETs typically deal with this is illustrated by the following quotes:

“We help them through receptive language by [...] giving them an easy way, using suitable visual stimuli. Also, they have difficulty maintaining attention to tasks, so we give them time to do the activities, using lots of encouragement and reinforcement” (SE8).

“With children with ID who have attention difficulties, we first see if there are some extraneous stimuli that may affect the child’s attention and we try to remove them, then direct the child’s attention to a task or activity, and provide a stimulus for achieving it” (SE12).

“Concentration constitutes a challenge for intellectual disabilities children. Thus, I attempt to consistently utilise a lot of diverse teaching methods as much as I can. In this day, if I get on the mistake one, is a loss of their [the children’s] time and I will not be satisfied with myself. Hence, I show them a film on the YouTube or explain something on my laptop such as their favourite things speak to them about it. We simply do three or four distinctive things consistently every day” (SE7).

This last quote is interesting because the SET clearly understood that children’s concentration could be helped by providing variety as well as structure and consistency, although such variety of teaching methods is not widespread in Saudi Arabian primary schools.

6.2.4.2 Aggression, sensory problems, and causing confusion and mess

Most of the participants reported critical challenges in addressing the children’s educational needs related to dealing with aggressive behaviour, sensory problems, and

causing confusion and mess. Studies state that the prevalence of aggression is higher among intellectual disabilities children, ranging from 9 percent to 31 percent (Didden et al., 2006). Such behaviours can result in disruption to the child's learning.

Example quotes:

“One of the children in this centre spent most of the time screaming, disrupting the classroom activities, wandering off and getting up. The child affected the other children in the classroom. Listening was difficult for him and [he found] it hard to focus and stay still. The child never stayed long in one place [before he] had to be removed due to the confusion that he caused screaming” (SE5).

“I have one child with ID who has great auditory sensitivities so I have to be very cautious about my sound level with him. He shows problem behaviours in response for any noisy commotion whether in outdoor or in classroom. Some children with intellectual disabilities do not display visual or auditory vocalizations and sensitivities that can disrupt others. Other behaviours could be equally problematic such as hyperactivity, rocking in the seat, and other movements” (SE14).

“The most difficult challenge for me is the temper outburst. All things considered, the child in his nature feels as other children do, [but] probably the hardest one for me was the temper and outrage. When a child gets frustrated, he can't do the activities and affects other children in the classroom or in the playground” (SE7).

Concern to regulate and improve behaviour could actually work against the teachers. If children realise that behaving badly will attract the teacher's attention, they may be more likely to behave badly in order to get the attention. There could be other ways of giving the same children attention, for example by providing activities and materials that capture their interest, or simply involving them by name or looking for opportunities to say 'well done' more often. It has also been proposed that teacher perceptions of a child's behaviour reflect teachers' expectations of teaching and children (e.g. Dobbs & Arnold, 2009). Therefore, expectations of unacceptable behaviours may increase a teacher's perception, detection and correction of such behaviours. If, however, a teacher is focused on delivering lessons which engage all

children, he/she is more likely to improve the planned lesson in order to more fully engage their attention and motivate them to learn.

6.2.4.3 Communication difficulties

Children with intellectual disabilities may face difficulties with communication (Schalick, Westbrook & Young, 2012). It has been reported that some kind of disorder of speech and language was found in an estimated 90% of children with severe intellectual disability (McLean et al., 1999) and this has been attributed to children with ID having a deficiency in cognitive abilities compared to normal peers (Koul & Clapsaddle, 2006).

SETs in this study stated important challenges to meeting children's educational needs because of limited communication skills and difficulties with pre-writing skills resulting from the fine motor delays that are common basic attributes of ID. Early difficulties in holding and using a pencil are followed by struggles with colouring, drawing, copying and later writing, all of which may be sources of frustration for young children with ID and lead to resistance in finishing written tasks. This can be both a challenge and a barrier for SETs in terms of the negative effects on a possible transition to formal education in school:

“Children I have worked with have often had fine motor issues, such as simply attempting to keep it in the lines. Then the problem becomes ‘I am fed up with colouring’” (SE2).

“There is a critical link that often occurs between limited communication skills and anger outbursts with ID children. If the children have trouble expressing [themselves], they are not reading social cues and then [do] other kinds of activities like throwing things or hitting someone. That is their way of expressing themselves” (SE14).

The reported identification of multiple difficulties and disabilities has been increasingly recognised over the last twenty years, as highlighted by Lerner and Johns (2014), including those highlighted by the SETs in this study such as significant and qualitative

impairment in communication skills and fine motor delays, with associated writing problems, and a range of difficulties with attention.

My own experiences of frustration and burnout arising from the nature of intellectual disabilities were associated with the children's lack of progress in the early months. Recent research has shown that special education teachers are exposed to stress in their school (Mohamed, 2015). Frequent daily stress encountered by teachers can result in burnout (Mearns & Cain, 2003). Continued stress can lead to loss of interest and ultimately to leaving the profession. In my own case, I was gradually able to overcome my frustration through extensive reading, combined with gaining experience of accompanying children on field trips. These were educational activities organised and structured outside the classroom to learn in the real world. Trips changed the atmosphere for the teachers and children. More generally, in the context of inclusion, it is known that the level of disability teachers are required to accommodate within their classroom influences teachers' attitudes (Campbell, Gilmore & Cuskelly, 2003) and my participants' comments suggest that the same may be true in an IDC.

This section has examined the challenges arising from the nature of intellectual disabilities and has reinforced the importance of sufficient and appropriate professional development (pre-service practicum, coaching, mentoring and in-service seminars and workshops) which links theory and practice. This is an important issue which is examined further in the overall discussion and recommendations set out in Chapter 8. At times, challenges and barriers can result from other sources as discussed in the following sections on the problematic stances of some parents and of SETs.

6.2.5 Problematic parental stances

In general, the participants depicted their relationships in this study with parents of ID children as strong, positive, and collaborative. However, most of the SETs stated that at times they experienced challenges related to what they termed ‘difficult parents’ or ‘problematic parental stances’ (SE2, SE6, SE7, SE13). They felt that dealing with difficult parents added to the stress arising from the effort and stress involved in teaching the children. Several participants commented that the IDC was a place of learning and working, but that parents who spent too much time at the centre became a source of distraction for SETs and for the children in the classroom. The excessive involvement of some parents prevented SETs from carrying out their work efficiently which was another cause of distracted and unfocused children (SE2, SE6, SE7, SE13).

The use of terms like ‘difficult’ and ‘problematic’ may be due to the levels of frustration and stress experienced by SETs. However, it is understandable that parents who have a child with disabilities may also experience high levels of frustration and stress for a variety of reasons. These include exhaustion, depression and anxiety, accompanied by a lack of social support (Weiss, 2002), dealing with behaviour problems (Hastings, 2002) and the stigma associated with having a child with intellectual disabilities (Aldosari & Pufpaff, 2014). Moreover, they can feel that they lack time for their typically developing children as well as for their disabled child and for themselves (e.g. Benson & Dewey, 2008).

‘Problematic parent stances’ identified in SET responses can be assigned to two discrete categories which sometimes occur in the same family, even for the same parent: unrealistic desires and overprotectiveness. Within each category, SETs reported a variety of experiences that they highlighted as challenging for them to meet children's

educational needs. Unrealistic desires on the part of parents were associated with setting expectations that were too high for the child and his or her teachers, whilst an overprotective stance was associated with setting expectations for their child at a too low a level and fear for their child. The challenges involved assisting parents to come to accept, and find ways of dealing with, the nature of their child's disability. A delicate balance is required in supporting parents on the one hand, to accept their child's disability, and, on the other hand, not to underrate or undervalue the child's potential.

Two quotes illustrate these parental stances:

“From time to time, some parents constitute a challenge, regarding the desire and expectation about their children and what the SET could be providing versus what could [actually happen]. If their expectations are too high, that affects us and their children's progress. One expectation wants their child in normal school without any aids or support that's where they ought to be as well that's their child's prerogative. Or they may have the opposite expectations, not wanting their child to be out there in the normal school. ‘That's not appropriate for them’” (SE13).

“Often it is the families who need support. Some [have said] ... that I didn't move a child forward sufficiently, also, there are other families tend to push their children beyond the limits” (SE7).

These views point towards an insufficient acknowledgement of parental concerns, for their children and themselves, and may also indicate that some parents do not have as much information or support as they require. The fact that SETs term them ‘difficult’ may reflect the tradition of teachers as authority figures as well as suggesting that teacher training and experience does not equip teachers to deal with parents who do not easily agree with them.

6.2.5.1 Unrealistic desires

One SET identified the origins of unrealistic desires as denial, misunderstanding or confusion about developmental delay:

“Unreasonable expectations could originate from the absence of comprehension of the nature of the disability or denial. Also could originate from the absence of clarity around restrictions of children at a specific time” (SE2).

This perception of parents' views of their child's disability rejects the possibility that some mothers may develop and enjoy positive relationships with their child has been found in a study in the UK (Fisher & Goodley, 2007). Mothers can be as individual as their children in how they form relationships with their children and hold various views of disability. One ethnographic study (Madi, 2014) explored the voices of children with cerebral palsy and their mothers. Mothers tended to vary between proposing that their child was normal, although maybe developing later, and accepting that they had disabilities and difficulties. The sample size of 6 mothers used in the Madi (2014) study means that generalisations cannot be made, although the findings indicated that positive views and relationships were rarely mentioned. The dominant views were categorised as religious and cultural, experience, and attitude and support. The researcher concluded that the stigmatisation of disability was widespread in Saudi culture, but absent in Islam, although Alquraini (2011) notes that disability is often seen as a test or punishment from God. This was particularly true for mental disability [sic] which is feared and avoided in Saudi Arabian society. The combination of social isolation and religious beliefs led the researcher to conclude that “disclosure of mental or intellectual disability is considered to be totally shameful for the individual, his or her family, and in some instances, for his or her town” (Madi, 2014, p.184).

Another of my participants stated that the relationships with families in general were perfect. However, she also reported that families sometimes pressurise SETs to meet unrealistic desires. She provided the following example:

“In one case, the parents weren't dealing fine with their child; they weren't willing to do a few tasks that I recommended...The child has ADHD also very active whether at the centre or at home. The parents want their child to achieve all objectives at the centre in short time, when really this child was in need of a behaviour management class and more time. Those parents put pressure on SETs, but [both the child and ourselves] needed to take a step back. However, that was not an easy way for parents to hear” (SE6).

It may also be a hard thing for some teachers to hear that parents do not agree with them, possibly because they consider themselves to be qualified and experienced experts (in contrast to most parents they meet), or possibly because they do not share the daily experiences of stigmatisation and isolation by the mothers.

6.2.5.2 Overprotectiveness

In contrast to parents who are in denial or misunderstand the nature of their children's intellectual disabilities, some parents are perceived to be too protective and may prevent their children from developing to their full capacity. Such overprotectiveness is not surprising in a society which stresses the duty to care for the weak and vulnerable and in which, according to Al Thani (2006), people with ID are still sometimes considered a source of shame and likely to be treated as invisible. These pressures are additional to emotions such as love and guilt which parents may have and which make them afraid for their child's future:

“Fear is a fundamental problem for overprotective parents. The parents are so frightened to push their children and they are aware of their limited abilities, but they need to be aware as well that they should be stretched. For the child, it's a significant hindrance for him, since he truly could be something more” (SE7).

The experiences of SETs in this study are supported in the associated literature. For example, overprotectiveness has been associated with underperformance on a task (e.g. Clarke, Cooper & Creswell, 2013) and underachievement more generally (e.g. Russell, 2003). However, overprotectiveness in Saudi parents of a disabled child may not only be a natural desire to guard their child from a world that stigmatises disability but may

also be reinforced by Islamic teachings that parents must protect the child from harm and that disabled individuals deserve extra care.

I experienced similar challenges from time to time. Parents need more information about the causes, types and effects of disability, and also about the ways of dealing with children who have a disability, and what they can expect after interventions. I used to provide parents with feedback about the interventions used with their children in order to provide them with the chance to freely talk about the kinds of interventions that work for their children and which they find useful. In addition, I welcomed parental help with the centre, although I also gently advised them that such help should not involve their presence in the classroom because this distracted the children.

Unrealistic parental expectations have been found to lead in some instances to conflict between parents and teachers (Morris & Ellison, 2000). My findings suggest that some SETs may also have unrealistic expectations of parents.

In addition to the challenges posed by parents who are overprotective or have unrealistic expectations of their children, SETs found that the stances of some SETs could also present a challenge or act as a barrier, as discussed in the next section.

6.2.6 Problematic SET stances

Overall, participants in this study perceived SETs in IDC to be more patient, positive, caring, and willing to meet children's needs. However, more than two thirds of participants mentioned that from time to time they encountered problematic teacher stances in mainstream schools which created a barrier to meeting the children's needs after they left the IDC. Specific problems that they highlighted were a lack of flexibility towards the child with ID, a lack of acceptance, and an unwillingness to differentiate instruction.

The flexibility problem may be related to the traditional educational system in which all children learned the same thing at the same time and, if they fail to do so, they used to have to repeat the same year in school. A lot of participants reported that a ‘one size fits all’ mindset poses a barrier for some SETs in mainstream primary schools in meeting the educational needs of ID children. They realised a need for SETs who are ready to differentiate instruction, be flexible and capable of utilising a diversity of teaching strategies, in addition to taking into account the tailored requirements of the individual educational plan to meet the needs of children with ID (SE7, SE10). However, they encountered some SETs who struggled to accept the limitations and behaviours of a child with ID.

Examples of quotes regarding problematic SET stances are as follows:

“A number of SETs expect children with ID to come in, go back, stand up, sit down, do the work freely and independently, and not wriggle, and that is not going to occur. It is not possible to change these things immediately” (SE10).

A lack of acceptance could combine with workload-related stress to intensify the barrier:

“The workload remains a source of stress that [has a negative effect] on the SET’s performance. Of course, the mind-set poses a barrier for some SETs in preschools to meet the children’s educational needs” (SE5).

Stress, which can be a barrier in its own right to achieving performance standards, is discussed further in section 6.2.8.

One SET expressed frustration with some SET colleagues in primary schools:

“Some colleagues are resistant to receiving children with ID in their class. They find it very difficult to acknowledge the child’s limitations and take into account behaviours that cannot be changed. We try to do our best, however there is little change in some children” (SE5).

Another highlighted concern regarding inclusion, saying:

“I have attended a training course where they were discussing the idea that all children shall learn together, and I kept asking myself, ‘however can all children be expected to learn the same things? and be on the same track?’” (SE12).

The last word belongs to SE7 who pinpointed the contrast between the work of SETs in mainstream schools and that of SETs in the IDC:

“Actually, I sense that our responsibilities as SETs are to focus on children’s needs and support their development. We should structure the programme or plan to meet children’s needs instead of asking them to meet the structured programme” (SE7).

The perceptions of SETs in this study are in accordance with the findings of Abduljabbar and Masoud (2000) who asserted that general teachers had reservations regarding the inclusion of children with an IQ below 70 and those with behavioural difficulties. Furthermore, they agree with the findings of El-Ashry (2009) that familiarity, understanding and experience were important factors in general teachers’ acceptance of children with ID. Clearly, some of the SETs delivering pullout sessions or working in separate classrooms in general primary schools were dealing with general teachers and perhaps administrators who lacked the required familiarity, understanding and experience to accept either inclusion or the SETs role. Further reasons for the problems that cause SETs in mainstream schools to experience pressure from general teachers may be that they receive an additional salary payment of 30% and have fewer teaching hours than general teachers, as mentioned by Alnahdi (2014). In my view, SETs in primary schools and IDCs should share understanding of the situation and support each other. Within the highly centralised Saudi Arabian education system, this would almost certainly require intervention at the policy level, backed up by joint training events at regional and local levels.

In this section, I have discussed the problematic stances encountered by some SETs from others in mainstream settings. One of the few studies which investigated the issue of stress experienced by teachers of special educational children needs identified workload and feelings of inadequacy among other causes of stress (Antoniou, Polychroni & Kotroni, 2009). This study of 158 special education needs teachers in Greece identified some of the same underlying issues as this present study: inadequate training, lack of resources and equipment in schools, and time pressures. The following section discusses one of the specific stressors identified in the Greek study, the lack of time.

6.2.7 Lack of time

The penultimate barrier perceived by SETs was lack of time. SETs perceived two of the main reasons to be teacher workloads, in particular the number of problems they have to deal with on a daily basis, and too much paperwork, leaving teachers with insufficient time to meeting individual ID children's needs. Moreover, there was pressure from knowing that preschool children with ID were expected to be prepared for school. The lack of teacher time therefore became an overwhelming concern among SETs. As AlShahrani (2000) pointed out, special education teachers have many responsibilities and can often be seen working on parents' involvement in activities.

Participants cited high caseloads as the main cause of time pressure. Caseloads have grown considerably year on year in recent years (SE9). This barrier seemed almost to be an obsession for some SETs and was compounded by demands for paperwork from the Directorate General of Special Education and demands from parents as well as additional planning and preparation time. The following quotes illustrate this barrier:

“I think classroom numbers, absolutely one of the barriers if not the first. The numbers this year are higher; it's been [the] toughest [yet]. This year

is the hardest year due to the number of children. Designing a successful programme for children with ID needs a significant amount of intensive work, and one-to-one instruction” (SE2).

“The numbers of children have increased so much. For example, in my classroom I have twelve. Guess if we had 7-9 children! What do you think? I can arrange my time perfectly and get more structured learning during days’ school for each one. There are many skills that the SET needs to break down into really small steps with various children, for example an adaptive skill, such as brushing teeth. We may [have one child] finishing the entire process. Also, may work with another one on simply to get the toothpaste undone. Simply [so many] various steps you are working on, given that you need to break down skills [into such small steps] so that you could work more individually” (SE12).

One SET noted that additional pressure came from parents as the numbers of children increased and that it was difficult for the SET to balance the needs of different children:

“Caseload pressures increase because you have more children, and so more parents of ID children want the abilities of their children improved and developed. However, parents know the pressures that SETs faced in balancing between children in the class and are aware that SETs have 12 other children in the class. They realise we do the activities as [far as] possible, and they know there should be another SET in the class” (SE9).

The following three quotes illustrate the diversity of tasks which SETs felt left them without enough hours in the day:

On planning and paperwork:

“Children with ID need an intensive work, imagine that as an SET you have got to spend a lot of time with children and their families also with your colleagues and creating materials, and writing individual education plans. The main thing here is (time), think about it. SETs are aware of what to do; however, they cannot do all what they want to do. In general, I can say...not enough time” (SE9).

On trying to meet the children’s emotional needs as well as meet educational objectives:

“If we have a lot of children with so many different educational [behaviour and skills] needs, and we concentrate on priorities of children’s needs, teachers are already [hard] pressed to meet Individual Educational Plan hours, also objectives as required by the policies of the Directorate General of Special Education and supervisors. However, we are not just dealing with academic areas; we are also dealing with emotional needs. You can imagine that all that is being done by one SET

in the class with that number of children... What do you think?... is that enough?" (SE5).

On paperwork, meetings and interruptions:

"Each child has a portfolio or private file containing all data pertaining to their educational needs, as well as planned future targets. These files are filled out yearly and then SETs are writing in them continuously. Also, there are some reports that evaluate the child's progress...all these are killing me and taking a lot of time. Also, what disturbs me, when I want to begin to do the activity with children, then, someone knocks on the door and brings something to be done right away. I need to stop then... Also, we have twice weekly meetings with coordinators...ask yourself ...how much time do you need to do that.... don't forget break time...oh...oh" (SE3).

One of my participants (SE7) specifically mentioned the frustrations resulting from workload, while another summarised the workload as follows:

"We cannot deny the efforts made by SETs in the IDC. Each SET is responsible for meeting parents and children, writing IEPs, identifying needs and priorities, planning, preparing, implementing and evaluating [progress and IEPs]. SETs are also supposed to attend supervisor's meetings, monthly meetings with the coordinator and [complete] other paperwork. The required workload of SETs is high when you talk about it" (SE7).

One special education teacher emphasised the preparation time needed to be effective in the classroom:

"There is a lot of responsibility and huge demands [placed on] SETs in the classroom, such as utilising a diversity of teaching strategies, interventions and activities. In addition, they need to take into account the tailored requirements of the individual educational plan to meet ID children's needs. Inability to focus on a single approach or strategy leads to weakness of content, and too much time spent finding the appropriate intervention makes [SETs] feel frustrated and dissatisfied" (SE12).

My own experience indicates that the lack of time is alleviated somewhat by dividing the classroom into three groups according to their needs and capacities. I assigned specific activities and interventions to each group according to their needs, focusing on using one or two interventions or activities in depth, rather than multiple interventions in a single day. This helped to reduce the workload and improve my work satisfaction,

which in turn increased achievement. I also found that using a computer rather than paper copies for all my work reduced the workload. For example, progress reports can be accessed with one click and easily updated.

SET perceptions of the problems caused by paperwork are comparable to the results of a study by Alnahdi (2014). Alnahdi found that SETs in schools were managing the problem of producing IEPs for more than 8 pupils in a class by dividing the class into a higher and a lower group and creating two IEPs, one for each group. Although SETs stated that this was the only way to do the work, national policy and standards make it clear that each child with an intellectual disability must have his or her own IEP.

Lack of time has been identified as one of the greatest challenges for special education teachers in terms of preparing and teaching lessons and carrying out the IEP effectively (Sindelar et al., 2014).

The lack of time discussed in this section is associated with a variety of causes, including: class size; pressure from parents; administrative requirements including meetings and paperwork; supervision of break times; and interruptions. The population growth rate and increasing number of children in Saudi Arabia indicates that the number of children with disabilities shall also increase; this in turn implies that the number of SETs should also increase. Without a corresponding increase in the number of teachers, SETs are likely to experience even greater pressures of time and higher levels of associated stress. This problem appears to be widespread in teaching. For example, two studies in the UK (Galton & MacBeath, 2002; MacBeath et al., 2004) have reported increased workloads in terms of paperwork, pupil testing and changes to the curriculum; these have added several hours to the teachers' working week and reduced the time available for communication with other teachers and parents as well as for professional

development. Time pressure was one of a number of factors involved in the stress experienced by SETs. As such, the final section dealing with responses to the second research question will address the issue of stress.

6.2.8 Stress

More than two thirds of the participants mentioned feeling stress, frustration or disillusionment in the context of one or more challenges or barriers, such as caseload, workload, lack of appropriate professional development and the expectations of some parents or teachers. The workloads and consequent reductions in teacher performance remain a source of stress (SE5), as does the sense of inadequacy and frustration that SETs experience when they feel they are not doing enough to help children with ID and other disabilities (SE6). My participants also reported that they encountered difficulty in dealing with some ID children due to the nature of their disability with its associated behavioural and communication difficulties. Increasing their efforts to try to meet the workloads seems to have had a negative effect on performance, and further to have increased stress levels (SE7). Moreover, the presence and involvement of some parents in the classroom acted as a distraction which decreased the attention of the children in classroom (SE7), adding to the stress. The majority of SETs had derived little support through professional development.

I have experienced many of the same feelings as my participants regarding stress. However, I believe these challenges can be overcome, although different ways of dealing with stress will suit different individuals. In addition, it may be possible to tackle some issues which cause stress at the organisational level.

Recent research in an Arab context has confirmed that special education teachers are exposed to stress in their school (Mohamed, 2015). Exposure to challenging behaviours

has been shown to be linked to stress (Hastings, 2002). Other identified causes are associated with inadequate training, lack of resources and equipment in schools, (Antoniou et al., 2009). In Antoniou's study of 158 special education needs teachers in Greece it was found that the underlying issues were inadequate training, lack of resources and equipment in schools, and time pressures. Frequent daily stress encountered by teachers can result in burnout (Mearns & Cain, 2003).

Stress is not only experienced by SETs. Research into the experiences of parents of children with disabilities has shown that some avoided social activities in their community because of stares and comments if their child behaved badly (e.g. Mancil, Boyd & Bedesem, 2009). Moreover, experiences in adult life told by adults with disabilities suggest that many situations in everyday life cause stress, typically because interactions focus on limitations rather than abilities (e.g. Goodley & Lawthom, 2006). This can have a further negative effect on professionals and other staff who work with persons with disabilities. The traditional response to this in an Islamic society is to seek comfort and support in prayer and reading the Qur'an; Allah will provide healing or strength to the individual who needs it. In the context of an IDC, this applies to the children and their parents and teachers, since Allah will give everyone involved the necessary support throughout their lives.

6.2 Conclusion

In summary, my participants' responses to the second research question have highlighted the major challenges and barriers they face: transitional issues, insufficient appropriate professional development, problematic stances of some parents and SETs, pressures of class size and paperwork, together with the challenges they face as result of the nature of intellectual disabilities. Underlying issues are tensions between how

disability is understood in Islam and Saudi Arabian culture, and the apparent good fit between the medical model of disability and Islamic ideas of helping the weak and identifying differences in order to value strengths and correct weaknesses as a means to fulfilling potential, as well as the provision of a cure for every disease. However, the apparently good fit also permits ideas of a punishment or test from Allah and cultural stigmatisation to persist. One consequence is that inclusive primary schools may expect children with ID to be 'normal' at entry, which creates a further obstacle for SETs under existing arrangements and may push them deeper into a medical model approach.

The identification of barriers and challenges requires a consideration of how these can be addressed, in order to improve the existing situation for SETs and the children they teach. Potential strategies for improvement are therefore the subject matter of chapter 7.

CHAPTER 7 STRATEGIES TO IMPROVE PRACTICES AND EDUCATIONAL INTERVENTIONS: RESEARCH QUESTION 3

7.1 Introduction

The third research question sought to probe SETs perceptions of how practices and educational interventions could be improved to help meet the needs of children with ID in an IDC setting, with a focus on children from three to six years old. The question was framed as:

What strategies can be used in a Saudi Arabian Intellectual Disability Centre to improve practices and educational interventions in order to meet the educational needs of preschool children with intellectual disabilities?

SETs responses indicated that positive teacher relationships with children with ID were central to enabling future improvements. It follows from this that suggested strategies fell into four main categories: teacher development; relationships with colleagues; relationships with parents; and organisational issues.

7.2 Teacher development

Teacher development was seen as a first crucial pillar to improving practices and educational interventions. SETs identified two important aspects of teacher development. The first of these was to create positive relationships with children with ID as the foundation upon which to base any further progress and success. The second was to be able to develop themselves as SETs, increasing their skills and knowledge, even though most of them were not sure about what areas they needed to develop, and having opportunities to reflect on their experiences.

7.2.1 Establishing and maintaining positive relationships with children with ID

The majority of study participants described the establishment and maintenance of positive teacher relationships with children with ID as one of the crucial pillars for supporting improvement. My participants associated this with parents' hopes that SETs would provide acceptance, attention, care and continuous communication. Parents perceived positive relationships between the teacher and child to be a major feature of their children's educational programmes. Several SETs used the word 'love' and suggested they were like a 'mum' defending their child when the child was in their care in the centre. Participants considered that understanding the nature of intellectual disabilities enabled them to become more empathetic with the child, gain insights into their thoughts and feelings, and to rise to the challenges which could sometimes be very great indeed. SETs repeatedly depicted experiences with ID children which had forged strong bonds of emotion, support, and attention. SETs also saw establishing a positive relationship as necessary to enable the child to develop confidence.

This is illustrated by the following quotes from three SETs:

“I describe my relationships with children with intellectual disabilities as positive and relaxed. Because the nature of the disability, ID children could be hard to teach and could present huge challenges for SETs” (SE10).

“The SET should be close to these children to understand their needs. I think we should be like their parents...I am like their mum... I love them. When the parents see how you are dealing with them, they give you power and you like your work and you can add something [to their lives]” (SE2).

“To love your work with children, you try to build a relationship with them. The initial impressions can make the child [feel] close to you, so you have to make sure that you endear them to you. In other words, you try to be a friend” (SE5).

Example quotes regarding relationship and confidence-building are as follows:

“The first day when N came to my class, he hid under the desk. I came directly to him and sat for moment, then, he involved with us during playing. It was not easy...I spent much time [with him]. He came out from under the desk. In the end, I loved him and I played with him [using the opportunity] to let him know what he should do in the class” (SE13).

The first encounter is very important, but after that, strong teacher-child relationships with ID children are structured based on trust and acceptance:

“When you are working with ID children you have to put in your best efforts to gain their trust. I know that it will take some time and hard work to build trust, but then the child will be comfortable and [feel] able to do anything that you want them to do” (SE8).

My personal experience supports the views of SETs in this study. Initially, I thought I would easily understand the needs of children with ID and that they would feel close to me. However, I lacked sensitivity, resulting in considerable differences among my relationships with them. One incident, which occurred when I was in my local medical centre for a check-up appointment for my son, illustrates the importance of good relationships for the teachers as well as children. Sitting in the waiting area, I suddenly heard a boy calling me and come to hug me. This boy, who had intellectual disabilities and speech delay, had been in the centre until 5 months previously and I had worked with him for a long time. Now, he was nearly 7 years old, but his Dad told me he loved me and still remembered me. I felt happy and proud when I heard that.

These views are supported in the literature. For example, Rimm-Kaufman and Sandilos (2011) have asserted that children who have difficulties in their relationships with their teachers achieve lower levels of development and improvement than those children who have more positive, close and supportive relationships. Another recent study on primary school relationships between a teacher and the pupils found that closer relationships were related to higher gains in terms of the level of performance; in contrast, relationships which became less close were linked to lower gains in performance (McCormick & O’Connor, 2014).

Some studies have suggested that close and positive relationships between the teacher and child enhance good behavioural patterns as well as learning (Valiente et al., 2008). Moreover, good teacher-child relationships have been found to assist adjustment to elementary school (Baker, 2006). Poor relationships between children with ID and their teachers in regular schools have been described as a risk factor (McIntyre et al., 2006). Therefore, preschool SETs play a vital role in assisting children to develop positive relationships with teachers in addition to reducing inappropriate classroom behaviours.

Whilst relatively little research has been conducted specifically on relationships between teachers and young children with intellectual disabilities, one interesting study found that 3-year-old children with ID produced a positive response in teachers, leading the authors to propose a protectiveness which they attributed to some combination of empathy, greater teacher training or closer parent-teacher relationships. By the age of six, however, this was less evident and there was no significant difference between relationships between general teachers–students and SETs-students (Eisenhower et al., 2005). One possible reason for this could be that the desire to protect small and relatively helpless children reduces as the children grow older and are expected to ‘grow up’ or ‘grow out of it’ and become like typically developing children.

Whilst positive teacher-child relationships can provide a sense of security that enables the child to be more confident and thus make greater progress, a child who is too dependent on the teacher could have a bad reaction when adjusting to a primary school environment, for example, by becoming more withdrawn or aggressive when the familiar teacher is no longer there (Bergin & Bergin, 2009). Thus, SETs must respect professional boundaries so that the child does not become over-dependent, while at the same time loving him or her in line with teachings in the Qur’an.

In Western English speaking cultures, the word 'love' has a range of meanings (Vincent, 2016) and is not typically used in settings where personal emotions are expected to be separated from professional interactions (Smith, 2011). Western societies will refer to caring professions without difficulty and talk about teaching mindfulness in schools, but may struggle with using the word love. In Islam, as in Christianity, we are instructed to love one another with a pure heart, thereby avoiding conflicting definitions of love. Such love is not limited, and it does not challenge or try to substitute for a parent's love; it is love of another human being because he or she is created by Allah and does not have the same ties as the love of a parent. In a religious context, love can also be about serving others.

Noddings (1999) expressed a similar albeit secular idea that caring, rather than compassion or empathy, encouraged teachers to develop their own competences in order to give their students a better experience. She also highlighted that students can tell the difference between a teacher who exhibits caring behaviours and a teacher who makes them feel cared-for. Moreover, mothers want their child to be loved by other carers or teachers in a relationship that accords with what they need and want for their child, but not in a way that could be understood as a threat to their own relationship with their child (Page, 2011).

In the present study, love is conceptualised as religious love, love which should be given equally to every human being. In Islam, this is understood as loving for your brother or sister what you would love for yourself. The use of the words 'brother' and 'sister' includes Muslims, non-Muslims and people of all ages. Due to the age difference between preschool children and their teachers, the term 'mother' is a natural extension of the idea of the family. The term 'what you would love for yourself' refers

first of all to entering Paradise by living a life in accordance with the teachings of Islam; earthly and material considerations are secondary.

7.2.2 Professional development/ In-service training

The lack of professional development was highlighted in section 6.2.3, and therefore it is not surprising that the majority of study participants identified in-service training and professional development as an essential and substantial element of improvements to effective educational programmes for children with ID. Most SETs in the study expressed the need to update their knowledge and skills, saying that without renewal they felt stress and frustrations that could lead them to leave the job they love. As SE5 stated:

“We as SETs need to improve our existing skills and acquire new skills. I think it is very important to offer opportunities for further training and development and more in-service training. We hope to have more opportunities for in-service development and seminars which renew SETs’ commitment and enrich their experience and knowledge, [as well as] refreshing updating their skills. Sometimes I need to understand new teaching skills or simply see how other SETs teach” (SE5).

It is easy to assume that long experience makes excellence in teaching, but it is possible to be doing something badly in the absence of feedback, and a review of relevant research has identified that the quality of instruction has a strong influence on children’s outcomes (Coe et al., 2014). Another characteristic of great teaching identified in the review was termed ‘professional behaviours’ and included “reflecting on and developing professional practice, participation in professional development” (Coe et al., 2014, p.3).

Two quotes from SE3 and one from SE8 illustrate this:

“Often the knowledge, experiences and skills of SETs are out of date as well as not fitting with current practices. In particular, children with ID

need effective interventions based on research evidence which proves their effectiveness and SETs need to keep abreast of developments in this field” (SE3).

“We are in need of in-service training to stay alert, looking out for what is new, and engaged with new things, trends, and ideas based on proven practices” (SE3).

“In-service training can assist SETs to improve their professional skills and behaviours for the best. Also it’s a type of reinforcement that assists the teacher to overcome stress and pressure” (SE8).

Several SETs mentioned specific areas they would like to develop, as follows:

"We need to reinforce and develop our evidence-based practices, and apply these with children and parents in the form of practices or interventions" SE7.

“Ongoing professional development helps the SETs to meet their practical needs for knowledge, such as training in the use of technology to teach children with ID desirable behaviours” (SE15).

“[We need professional development regarding] administrative support, collaboration with parents and as a team. [We also need to] explore practices and interventions in terms of methods, structures, and delivery approaches” SE8.

Two SETs also mentioned leadership skills, while two others expressed a desire for greater knowledge concerning the diagnosis, assessment and implementation of plans. It can be seen that there is a strong emphasis on practical training, with some SETs recognising the importance of best practice and technology although they expressed their aims in the familiar language of implementing interventions and desirable behaviours.

It was suggested that in-service training should be open to all team members (SE8), although this implies increasing the quantity and availability of such training. In recognition of the fact that governments cannot be expected to provide all services for everyone, and in the light of various participants’ experience of training and professional development in other countries such as the USA and UK, some SETs proposed establishing other bodies to offer appropriate development opportunities.

As one SET proposed:

“We should create independent, voluntary bodies or local disability groups to provide training involving personal experiences and concerned with what is new in the disability field in terms of teaching strategies, [new] knowledge, new technologies, new effective interventions and behaviour management. [Training should] also identify new perspectives, approaches and skills needed to work with those children” (SE7).

My own experience of professional development during my practical attachment in the USA supports this viewpoint. At the end of each semester, the head of school sent a survey about proposed workshops to each teacher which was used to create a plan for the next semester and a schedule for each teacher indicating two to three workshops that should be attended during the semester. Topics included aspects of teaching, management, diagnosis and survey methods.

Moreover, I concur with the idea of working with other organisations to design a wider spectrum of professional development workshops and seminars for all staff who work with ID children. Based on participants’ criticisms of existing provision, professional development for SETs should be relevant to the classroom, as practical as possible, and should be delivered by highly qualified and experienced SETs who can pass on what they have learned and to facilitate the sharing of experiences among people attending the training events. Ideally, these will include people who have experienced methods such as Montessori and who have a different perspective on disability from the prevailing one, in order to encourage practitioners to read, think and form their own judgments about what more closely approaches the Islamic concept of equal-but-different. Many other possibilities such as webinars, online courses and videos of successful teaching sessions and techniques can be made available using new technologies.

It was evident that some SETs were seeking to provide their own professional development through their reading and experiments with classroom arrangements and session length and content. Provision of coaching and mentoring by the centre coordinator or other SETs with appropriate practical experience could enable SETs to gain some of the professional development they seek without waiting for particular workshops or seminars to appear on a plan. In my opinion, they would benefit from more general teaching methods and strategies, as well as exposure to some of the teaching modules delivered or proposed for kindergarten teachers, in particular the mainstream pilots under consideration.

Having discussed alternative ways of meeting the need for more appropriate and better planned and organised professional development, the next strategy highlighted by my participants was developing and improving relationships with colleagues.

7.3 Relationships with colleagues

Relationships with colleagues were seen as a second crucial pillar supporting improvements to existing services in an IDC. SETs in the present study talked about potential improvements relating to relationships with colleagues in two particular contexts. One, IEP team meetings, was very specific, whilst the second, collaboration and support, was more general.

7.3.1 IEP team meetings

IEP team meetings were considered to be essential to the successful delivery of educational programmes for children with ID. Despite the burden of paperwork identified, my participants endorsed IEP meetings as an important contribution to improving practices and interventions in the IDC.

Moreover, the IEP is the cornerstone of education for children with any form of disability, created by an interdisciplinary team effort and reviewed continuously so that each specialist knows what to do. Therefore, the IEP team meeting is potentially at the forefront of a diversity of effective strategies aimed at meeting the needs of children with disabilities (Alkahtani & Kheirallah, 2016). My participants also emphasised the responsibility of the IEP team to draw up clear plans for the child through taking account of the child's strengths and parental concerns, acknowledging that these were likely to change over time. SETs reported positive experiences with IEP meetings, stating that they promoted collaboration within the team and helped to ensure that IEPs were implemented. Two SETs termed the IEP 'the supreme guide' for educational interventions and programmes (SE1, SE6).

One of them reported:

“SETs are involved in the IEP team, working together to determine the child's current level of performance, strengths, weakness, concerns, needs and priorities. [The team also] writes a statement of measurable objectives, including short and long-term objectives, [and] a statement about how the child is progressing. All these are based on the child's needs” (SE1).

In addition, my participants considered that attendance at IEP meetings by all IEP team members was essential:

“In order to improve educational interventions, we should focus on IEP team meetings and make sure that all the members attend this meeting to make holistic plans to meet children's needs. The IEP meeting revises the plan as children progress from stage to stage. The meeting is essential to make sure the children's IEP is working for them in terms of identified weaknesses and strengths of the child's abilities. Thus, the IEP meeting is a factor essential to good educational interventions” (SE15).

Another participant endorsed the importance of attendance at the IEP team meeting for identifying positive recommendations:

“To succeed, an IEP team meeting needs all of the [team] members including parents to attend, to share thoughts and suggestions. The strengths and weaknesses should be clear in order to be able to provide

the specialist assistance the child could need in the centre. This allows the team to discuss and decide based on the list of recommendations” (SE12).

Each IEP team member has a potentially valuable role, bringing his or her own experiences, information, knowledge or skills that impact the team's capability, within the context of a common objective to meet the individual child's needs. In practice, meetings may be dominated by one or two members (Hartmann, 2016). One participant emphasised the necessity for all IEP team members to prepare for the meetings so that the children's needs could be correctly addressed:

“Good preparation for IEP meeting through reading about children’s cases, diagnosis, appropriate decisions, good planning and organisation [will] enable the children to develop and improve their skills in life” (SE10).

My participants also stressed the importance of IEP team meetings to determine eligibility for appropriate interventions and special education services through developing IEP planning and implementation as soon as possible after eligibility has been determined.

One SET expressed uncertainty about the value of the amount of paperwork required but asserted the value of having a clear plan for the child:

“I believe IEP meetings are important for the completion of paperwork. We are commanded to do this paperwork. It is a massive number of paperwork, which costs me a lot of time and takes me away from children. But I think it helps and facilitates [achievement] by giving a clear plan of all the teamwork. The discussion [promotes] understanding the strengths and weakness of the child, so that we can design the best plan for them” (SE9).

I personally have reservations about IEP team meetings which takes a great deal of time to complete all the criteria for one child. There are approximately 11 children in each class, which requires SETs to attend many IEP meetings at certain times in the year. The energy and time involved could perhaps be better spent with the children, since the

stress of meetings and associated paperwork can have an adverse effect on SET performance in the classroom.

It can be difficult to judge whether the IEP recommendations are appropriate for the child's needs and whether the outcomes are sufficiently clear to enable implementation. Thomson and Rowan (1995) support my perspective concerning the lack of clarity and appropriateness in the IEP. They reported that a significant number of the components of the IEP records and documents were unclear. Fifteen years later, the quality of IEPs prepared for ASD children with an average age of 6.1 years also showed poor links between objectives and selected interventions to achieve them (Ruble et al., 2010).

Nonetheless, the IEP has been described as a vital component of education for special educational needs pupils (e.g. Mitchell, Morton & Hornby, 2010; Rose et al., 2010; Rose et al., 2012), although it is acknowledged that its usefulness as an educational planning document can be confused by the fact that it is required to meet various purposes, including legal, placement and resource allocation (Shaddock et al., 2009; Mitchell et al., 2010). Some researchers have argued that in this situation the IEP is a required procedure which is separated from the processes of teaching and learning process (e.g. Yell & Stecker, 2003).

This view is disputed in a study which explored the experiences of 35 parents of children with disabilities regarding the IEP process (MacLeod et al., 2017). This study found that educators often ignored the parents point of view and concentrated too much on their child's deficits and not enough on strengths. They considered the IEP planning process to be invaluable in enabling teachers to gain a full picture of the child and develop meaningful plans, and were keen to contribute ideas as implementation of the IEP progressed. It should be noted that parents have been advocating for their children

with disabilities for some time in the US, in contrast to Saudi Arabia where most parents simply accept what is offered.

The IEP and planning meetings are specified in detail in the regulations governing the provision of services for children with disabilities in Saudi Arabia. Although the emphasis is on the procedure and completion of paperwork, they could equally well be interpreted and implemented as living documents. The IEP team meetings ought to place greater focus on the role of the IEP as an important contributor to the improvement of practices and educational interventions for ID children. The exact membership of the team can vary according to the availability of specialists, but the principle of creating a meaningful plan that can be implemented and amended as the child progresses (a living document) should always be observed.

Having discussed the role and usefulness of IEP meetings and of the plans themselves, the collaborative element of SET work is explored in greater detail in the following section.

7.3.2. Collaboration and support

Although some reservations were expressed regarding the usefulness of IEPs and associated meetings, there was no doubt that SETs considered collaboration, interdisciplinary teamwork and support to be vital to any future improvements. Participants reported collaboration, teamwork, and support to be one of the main factors not only for improvement but also for effective delivery of current practices and educational interventions. Indeed, they saw teamwork, collaboration, and support as prerequisites to ensure the success of any educational programme for children with ID. My participants endorsed teamwork and support between SETs or between SETs and other individuals employed by the IDC. The success of any programme and the

development of services requires teamwork, professional collaboration and interpersonal ingenuity (Welch & Tulbert, 2000). The majority of SETs in this study considered support from children's parents, the centre coordinator and head of centre, and the educational supervisor as factors that encouraged the successful implementation of practices and educational interventions in order to meet children's needs.

The next quote illustrates the importance of collaboration and support for the maintenance of encouragement and motivation to assist SETs to continue working in a positive way:

“As an SET, I need support and encouragement from staff around me such as the head of centre, coordinator, supervisor and my colleagues to [empower] me and help me to keep on the right track. That is absolutely reflected in my positive approach to working with these children. The encouragement from others enables me to continue and continue and continue....” (SE11).

Another quote shows how the significance of support from an external supervisor can be reflected in a SETs professional performance:

“On one occasion, the supervisor observed me implementing activities in the classroom when I was working with children. Then, she encouraged me with some words that made me happy about what I did and [made me feel empowered and energetic]. That encouragement helped me to put my ideas into practice and into interventions with children. And she invited me to go and discuss the teaching methods that I used in the classroom with other colleagues so they could benefit from my experience. I really loved that...” (SE14).

I agree with my participants that collaboration is helpful for assisting SETs and other professionals to provide effective interventions for ID children. A focus on collaboration among teachers during the school day is helpful to productivity (Gable, Mosert & Tonelson, 2004) as cooperation offers important support to teachers when working with children with special needs (Ritzman, Sanger & Coufal, 2006), whether in self-contained or in mainstream settings (Bruder & Dunst, 2005). Moreover, a goal shared by a multidisciplinary team working together in a cooperative and collaborative

way has been linked to long-term progress and improvement in services provided for children with disability (Bauer et al., 2010; Murawski & Hughes, 2009). The same researchers identified that a lack of cooperation among specialists had been proved to negatively affect the quality of practices and services in general for children with disabilities.

As one participant stated:

“Collaboration between all members is good for building relationships and benefiting from the experience of others. It creates opportunities to discuss what has happened with children during the school day, as well as for brainstorming and problem-solving. Meeting the educational needs of children with ID through collaboration is easier with feedback, knowing what I should do more of, and what to stop because it is not working for the children” (SE8).

Another participant summed up the benefits of collaboration:

“I think no one SET has all skills and knowledge to meet the needs of children with ID. The whole team of a child, parent, SETs and specialists is most efficient when [the way they work] fosters teamwork, collaboration” (SE5).

My own experience of strong collaborative relationships indicates that SETs, coordinators, and administrative staff can work together, reflecting on the children in our centre, to reach common objectives. A collaborative educational unit was created by mutual support in respect of the exchange of ideas, thinking experiments, professional knowledge, skills and division of tasks, whether during the school day or after the school day in our weekly centre staff meeting.

Weintraub and Kovshi (2004) pointed out that best practices in achieving goals of therapy require collaboration in order to make progress. Successful collaboration requires the presence of underlying factors which include a positive approach (Wiggins & Damore, 2006), confidence (Damore & Murray, 2009) and interpersonal skills (Welch & Tulbert, 2000), all of which can be associated with professional development

accompanied by a reduction in stress levels. However, existing organisational arrangements allowed no time for collaboration.

This section has highlighted the importance of collaboration with colleagues as a strategy for improvement. The involvement of parents in the IEP process has been briefly mentioned, but merits more extensive consideration.

7.4 Relationships with parents

SETs valued the knowledge and understanding of their children that parents bring to the IDC and the IEP process and considered that further development of relationships with parents could enhance the benefits which the IDC was able to offer to the parents as well as their children. Relationships with parents were considered a third crucial pillar for improving practices and educational interventions for children with ID, although some SETs considered themselves to be the senior partner in the relationship. SETs considered relationships with parents from two specific perspectives: regular communication; and the provision of a counselling service for parents.

7.4.1 Regular communication with parents

Another theme that was emphatically supported by participants as a means of improving services was regular communication with parents. Regular, ongoing communication was perceived to be essential to improving practices and educational interventions and to constitute a substantial element of efficient educational programmes for children with ID. Indeed, this one of the most frequently repeated themes to emerge from the data in this study.

SETs perceived their relationships with the vast majority of parents to be positive, well-established, strong and collaborative. They considered that these relationships created a

strong bridge through which practices and interventions could be improved. Examples of how SETs and parents have worked together, such as using picture schedules and PECS to improve outcomes, have been provided earlier (see section 5.3.6.2). Communication with parents can take on various forms: visiting the IDC (including formal parents' meetings); telephone calls; and notes sent to the home by the IDC or from home to the IDC. Frequent and regular communication seems to have contributed to higher rates of parental participation as well as advanced levels of parental contentment with their children's programmes.

Illustrative quotes are:

“I don't just write notes for parents about each child's day (activity, engaging and progress), but I also call parents during the day and at the end of the day to say, 'imagine what your child did today!'. They are really satisfied. My relationships with parents are one of the most important things in view of the need for regular communication. These relationships are major components of successful programmes for children with ID” (SE1).

“...to reach to the child's level, the best thing to do is to be close to their parents...you will really feel that...and to communicate with the parents in the morning and when they pick up their children. In my experience, I believe that it is important to have good communication, to write every day in the note for home and to leave space for parents to send me comments about their children's behaviours before school so that I can be aware. Each day I try to get more details about the children from their parents. This helps me and adds to my job satisfaction” (SE3).

“Ongoing communication with parents of children with ID is fundamental for me to develop relationships with parents. Before the children go to their home, often, I meet their parents and tell them about our day, so that all can be well for both parents and children, because the parent will see that the child will be comfortable and happy during the day, and then the children will be more comfortable” (SE8).

The same SET (SE8) reported the importance of getting feedback from families to help plan the child's programme. This also helped in building a programme that worked at home as well as in the centre, an approach that was also employed by other SETs:

“Each day in the morning, I try to communicate with parents before school begins, talking about their child and their behaviours in their home. I think this is a great way to begin the day, ask about their priorities and strategies that they might want to use in the home” (SE4).

A special education teacher (SE9) described how ongoing communication reinforces collaboration and work by a single team consisting of SETs and parents:

“SETs need to establish communication with parents to facilitate meeting the needs of the children. This is a good point. This link with parents has to be continuous. In this way, we are travelling the same path. So, you are part of the group and you feel like you are all working in the same direction. Finally, we are in one ship, each one helping the other” (SE9).

Moreover, communication with parents can help to develop a relationship of trust:

“My children’s parents trust me and the strategies I use in working with ID children. This encourages me to continue working with ID children” (SE14).

The importance of communicating and working closely with parents, in addition to the need to take an account of this in the training and development of teachers, has been recognised in the literature (Beard et al., 2007). The quality of communication between parents and educators, in particular the extent to which parents are involved with the education of their children, can predict whether students will achieve success in an educational programme (McCoach et al., 2010).

However, new SETs, and some experienced SETs, need to learn how to establish and maintain successful relationships with parents, either during their initial teacher education or through coaching or another form of professional development. In some cases, they need to find ways of incorporating parents’ views and of finding useful ways of encouraging their involvement in the classroom, as has happened in the UK with parent volunteers. Parents also need support to understand the nature of the disability of their children in order to identify and accept appropriate help. SETs in the present study considered that a counselling service for parents would be a particularly effective way

of improving SET-parent relationships in order to improve the effectiveness of IDC interventions and the programme as a whole.

7.4.2 Parent counselling service

Counselling for parents was considered to be another of the essential elements of effective educational programmes for children with ID. My participants endorsed the creation of a service for providing awareness, information and support for parents about disability and its causes, care of a child with disability, and preventive programmes. The counselling services should consist of a team effort to organise seminars and workshops, and produce publications for parents.

One participant stated:

“We should have a section in the IDC for counselling for parents who need it. I have faced some parents who did not know about disability and its possible causes. [They did not know] what diagnosis means, how to support and care for their children, where to find centres which specialise in disability. Having this [information] in our centre will have a positive effect on encouraging the parents to assist their child and identify the services and effective practices for children” (SE1).

Another participant understood the need to provide parents with emotional support:

“I endorse the existence of a counselling and guidance team for parents to give support and help, and at the same time to discuss their ideas, suggestions and experiences, because parents at this time are feeling stress, depression, distrust, and anger. It is important to find qualified specialists for these parents to help them deal with their emotions so that they can collaborate with us, it would enhance the improvements made by their children” (SE5).

The following quotes are illustrative examples that supporting this idea:

“The goal of counselling is to find ways of adjusting to the current situation, providing some kind of direction and continuous support, whether through meetings or awareness publications. It will reduce the pressure upon us and will allow us to focus on our children in classroom” (SE4).

“Some questions from parents make me embarrassed, because they are not related to my work in the classroom or their child’s behaviour, I don’t know how to respond to them. They need counselling about their situation and I have no answer for them. We really need to have an office here dedicated to [parent]. Counselling provided by a well-qualified expert with experience with families. That would assist parents to find answers to their questions and help their children’s progress” (SE8).

“I suggest creating an office or programme [where parents can consult] professional counsellors. [The service would offer] a continuum of services, family counselling and all [available] information about disability to help children reach their potential” (SE12).

“Some parents have low educational levels and don’t pay much attention to their children, for example not doing home activities that we suggest” (SE15).

My participants’ suggestions are consistent with the literature. Many researchers have reported that the parents of ID are faced with an increasing level of pressure and stress which, as Hastings and Beck (2004) point out in their review of earlier studies, can contribute to poor results from interventions with ID children. It has also been reported that professionals need a good understanding of the family in order to provide more effective help to ID children (Fiedler, Simpson & Clark, 2007). A programme developed and offered by the IDC team could assist in reducing these difficulties, especially as there is lack of knowledge, information and other resources for families of intellectual disabilities children in Saudi Arabia (Aldosari & Pufpaff, 2014). In my view, sessions should also be provided for parents to be able to discuss their experiences and feelings, if they wish to do so. One review of training interventions for families of children with developmental delays has also reported generally improved outcomes when parents were partners in delivering interventions (Matson, Mahan & LoVullo, 2009).

This section has discussed how to build more effective working partnerships with parents through ongoing communication and a specialist counselling service offered on IDC premises. Whilst a counselling service will require funds, training for specialists,

and consequently time to establish, ongoing communication regarding what a child has been doing and his or her achievements could bring about a more immediate improvement in parent-teacher relationships. There remains one final strategy for improvement highlighted by my participants, that of dealing with specific organisational issues.

7.5 Organisational issues

In practice, I believe there are a number of organisational issues that need to be addressed, including the provision of more activities outside the school such as field trips (as mentioned in section 6.2.4.3 and transcript in Appendix E). Outdoor play is not a major feature of children's lives in Saudi Arabia, partly due to the harsh climate and partly because children have tended to play inside the home, especially in houses in cities; many new facilities would be needed, such as cool greenhouse gardens in schools, to significantly increase the possibilities of outdoor activities. However, my participants pinpointed two issues in particular which impacted directly on their teaching: the need for classroom teacher assistants and greater flexibility in how SETs deliver the IDC programme.

7.5.1 Classroom teacher assistants

A further major strategy for improving practices and educational interventions from the perspective of my participants was to have a teacher assistant working alongside the SET in the classroom at the same time. Participants reported that a teacher assistant was not only important for future improvement, but also for the effective delivery of current practices and educational interventions as classes had increased in size. Assistants could play a key role in the education of children with ID under the direct supervision of the SET. Indeed, participants indicated that support from teacher assistants was a

prerequisite for the success of any educational programme for children with ID. My participants asserted that the presence of a teacher assistant in the classroom played a significant role through providing support, giving extra assistance and developing practices and interventions suitable for children with ID.

Illustrative quotes regarding the need for a teacher assistant are as follows:

“Definitely, two teachers in a classroom could provide services for all children, better see their needs, and help to develop their skills” (SE3).

“Children with ID require more support, attention and care. They are not like others; they need to be followed-up closely if possible... Two teachers could carry out all these duties, where the teacher assistant shares duties with the SET as part of the classroom team. That creates the capacity to provide more services, which will be directly reflected in improvements in the children’s progress” (SE14).

“The teacher assistant can work primarily with an individual child, or can work with several children, [doing everything] under the direct supervision of the SET. That will give children the right to individualised education and more flexibility” (SE15).

It is interesting that SETs lack a shared understanding of the role of a teaching assistant; one sees the assistant as another teacher, another sees the assistant as sharing duties, while the third emphasises direct supervision by the SET.

My own experience agrees with that of my participants regarding the advantages of teaching assistants working alongside teachers. When I was teaching, I found it difficult to work alone in a classroom because I was not able to provide all the children with appropriate activities and tasks in addition to evaluating their needs and progress. I remember discussing this situation with my coordinator (that one teacher in one classroom is not enough), and was fortunate to have a good relationship with one of the professors in the University who sent a student-teacher to undertake a practical graduation project in the centre. She applied her theoretical knowledge and at the same

time helped me. It was a wonderful experience. The student-teacher spent long periods of time in the classroom and her use of new methods helped to renew my enthusiasm.

An article reporting the outcomes of seven large studies indicated that education policies and teacher education are not enough to improve achievement by children in preschools, but are affected by other factors including the presence of classroom assistants, even when teachers are highly experienced and skilled (Early et al., 2007). The article also makes the point that this is certainly true when children 'at risk' for any reason, including intellectual or other disability, are more likely to be impacted in their subsequent school life.

However, research has indicated that the introduction of teaching assistants requires careful planning so that they are used to maximum effect for the benefit of the children. Such support can increase children's dependence if the assistant simply repeats what the teacher has covered or helps the child too much with the completion of tasks (Sharples, Webster & Blatchford, 2015). In contrast, teaching assistant support can alleviate teacher stress by reducing the overall workload as well as disruption in the classroom. Structured learning interventions which are strongly linked to the main lesson, supplementing it rather than repeating it, are recommended.

7.5.2 Flexibility

The interest in Montessori and experiments with classroom arrangement and greater flexibility in planning represent attempts to be more child-centred and to give children greater freedom to develop. Good planning facilitates flexibility because it incorporates options.

As one SET said:

“I planned for short and long term experiences. I usually began by identifying long term objectives that have to be achieved at the end of the school year. Then I planned for the short term, for one unit to one-week plan, step by step” (SE2).

Another participant emphasised options for meeting objectives:

“In my class planning, I plan to have numerous activities and strategies that are appropriate for the children’s ages and their characteristics. I keep in my mind, really taking into consideration while planning for children with ID, their age and individual differences between them” (SE4).

Flexibility is needed to understand differences among the children. Moreover, the time needed to achieve objectives and complete activities for the class as a whole may be much longer, or sometimes shorter, than expected. Illustrative quotes are:

“In my classroom, I have flexibility in managing my planning. Even in the case of plans for short terms, and the following day, I may possibly choose to change some activity to be more appropriate with the children’s circumstances, so I go back and make the changes in my short and long term planning. For instance, sometimes I write down in the long-term plan that the first unit will take me two weeks. But in reality it might take me three weeks so I go back to my plans and modify and alter them” (SE7).

“I am flexible in following the school timetable that is provided by the school coordinator. Each classroom has a timetable for the whole week which we have to follow as SETs. However, sometimes the weather changes, and if it is very hot or raining we cannot go outside, so I am flexible about switching the timetable and changing what I think is appropriate for children. So, I think to have a successful programme and enhance learning, there is a need to give the SETs authorisation to be flexible” (SE9).

This may sound obvious, but the highly centralised education system in Saudi Arabia relies on following rules and procedures to ensure, as far as possible, that all eligible children receive the same services. Thus, increasing flexibility may pose a considerable challenge for some SETs and for some centres unless the issue is tackled at a national level. The introduction of a programme for classroom assistants would similarly require action at the national level, as would any reduction in the burden of administrative work

set out in the regulations. Thus, some of the proposed strategies for improvement will take longer to implement than others.

7.6 Conclusion

This chapter has presented and discussed strategies for improvement identified by SETs under the headings of teacher development, relationships with colleagues, relationships with parents, and organisational issues. In particular, it has highlighted key findings and themes which are explored further in the discussion and recommendations set out in Chapter 8. These are: an overreliance on behavioural techniques which can have the opposite effect to the intended one by increasing teachers stress and problem behaviours; the recognition by some SETs for a more child-centred approach; the need to address some of the main barriers faced by teachers by providing support, including professional development; and closer collaboration with parents and SETs in mainstream primary schools. These are discussed further and recommendations proposed in the following chapter.

CHAPTER 8 DISCUSSION OF ISSUES AND RECOMMENDATIONS

8.1 Introduction

The previous three chapters presented the findings for each of the research questions. The chapter begins with a summary of key points from those chapters, highlighting the focus on behaviours and the behavioural techniques employed to address problems; acknowledgement by some SETs that the children would benefit from a more child-centred approach; sufficient support for teachers; and closer collaboration with parents and SETs in mainstream primary schools. The main findings and issues are discussed in turn, drawing together strands from chapters 5, 6 and 7, and recommendations are made under each heading. The limitations of the research and my reflections on the process are included in order to set the findings and recommendations in context.

8.2 Summaries of answers to research questions

The first research question asked which practices, educational interventions and methods were perceived by SETs to be useful and effective in improving the skills and meeting the needs of children with intellectual disabilities. Their responses are summarised as:

- play as intervention was used to develop reciprocal social interaction and social skills, simple and more complex play skills, and language and communication
- priming, modelling, and role play were employed to improve social and communication skills

- social education stories helped to instill suitable social behaviours and skills, together with greater awareness of social cues
- structured teaching helped children to make transitions between activities
- a structured environment assisted skills of self-organisation
- sensory and motor/visual motor interventions helped through increasing quietness, concentrate and reduce atypical sensory responses, develop motor skills and fine motor coordination, and adaptive skills
- self-organisation, independence, confidence, cognitive skills were also found to be improved by implementing ideas adapted from the Montessori Method
- applied behaviour analysis was used to promote interaction for children with limited verbal abilities, imitation skills, improve socially behaviours, and develop joint attention skills
- augmentative and alternative communication methods including the utilisation of photos and specifically PECS were found to enhance communication skills (answering), making transitions and choices, and self-organisation, in addition to non-verbal communication skills and communication within the family
- a functional approach to problem behaviours was considered efficient in reducing unwanted behaviours, teaching new ones as well as strengthening target behaviours
- more generally, SETs adopted multiple approaches in intensive intervention depending on the individual child, his or her needs, and the methods selected

The second research question explored SETs' perceptions of the challenges or barriers they encountered when working with children with intellectual disabilities. Eight main areas were identified:

- transition from home services to the IDC
- shortage of services and therapies to meet the needs of all children
- insufficient professional development and associated resources
- challenges arising from the nature of intellectual disabilities (poor attention, aggression and disruption, sensory problems and communication difficulties) and the fact that no two children have exactly the same needs
- relationships with some parents whom SETs perceived to be overprotective or have unrealistic desires for their child to become 'normal'
- relationships with some SETs in mainstream primary schools who expected any child transferring from the IDC to learn like every other child
- carrying out all aspects of their work
- stress associated with all the above but a serious issue in its own right

The third research question probed SETs' perceptions of how practices and educational interventions could be improved. Responses were related to:

- teacher development, which consisted of the two broad areas of positive relationships with children with ID, and professional development
- relationships with colleagues, under two headings: IEP team meetings, and collaboration and support

- relationships with parents, in terms of regular communications and the provision of a counselling service
- organisational issues, namely classroom teacher assistants to make classes more manageable as well as more beneficial for the children, and greater flexibility in the timetable and curriculum.

In the following section, these findings from the three sets of answers are brought together and considered under the headings of: focus on behaviour and behavioural techniques, child-centred approaches and range of learning activities, support for teachers, and collaboration with parents and SETs in mainstream schools.

8.3 Focus on behaviour and behavioural techniques

The key findings regarding the practices, methods and educational interventions employed by SETs in the IDC revealed that participants used a diversity of teaching methods in their attempts to meet the developmental needs of every child. Overall, their teaching practices were predominantly related to goals of reducing undesirable behaviours, learning and increasing desired behaviours, and the use of behavioural techniques, supplemented by cognitive-behavioural techniques, to achieve those goals. These findings are in line with the importance attached to correct behaviour according to Islamic teaching and the meaning of the Arabic word for ‘education’ (section 2.1). Moreover, adults expect the rules and norms of behaviours to be followed with total obedience, especially outside the home (Dwairy, 2004). The dilemma for SETs is that the more children’s progress enables them to conform to social and cultural norms, the more they will be included in Saudi Arabian society and enjoy a greater sense of belonging that comes from inclusion, but at the same time they are more constrained in childhood than at least some of the SETs would like.

The focus on children's behaviours by SETs in the present study is supported by the literature addressing levels and styles of control in the Arab region. One study identified three styles that typified parenting in the Arab region in general: controlling (a mix of authoritarian and authoritative), flexible (a mix of permissive and authoritative), and inconsistent (which combined permissive with authoritarian) (Dwairy et al., 2006). According to the authors, high control by adults is accepted by children when it is expected within the culture (Dwairy, Achoui, Filus, Casullo, & Vohra, 2010). Saudi Arabian society is deeply conservative, with expectations that its rules of behaviour will be obeyed. Thus, SETs' focus on behaviour and techniques for changing behaviours to match cultural norms as closely is not surprising. As an SET and Saudi citizen, I feel I would have failed a child if he or she is not ready to join a mainstream school, because I want every child and their family members to feel included in their community and society, but I have to accept that it will not be possible for every child.

However, although society may accept high control and cultural norms of behaviour, many young children are liable to misbehave, for a variety of reasons, such as frustration, which form part of normal development. There is a risk that SETs see the problem behaviours rather than the child, which will almost certainly add to teacher stress and may encourage children to exhibit problem behaviours in order to get individual attention. Moreover, although progress may be seen in terms of communication skills as well as on-task behaviours, the ability to sit still and listen, and other desirable classroom behaviours, SETs risk becoming demotivated if they see little progress in children's skills of learning to learn.

Thus, not only are the ethics of normalisation open to question regarding the reduction and elimination of behaviours which may be coping strategies for the individual concerned (Hammond & Wellington, 2012; Milton, 2012), but behaviourist approaches

such as ABA may demotivate the teacher as well as the learner if they restrict the child and the child's learning too much.

The intensive efforts to modify behaviour may decrease opportunities for children to explore and learn about their world and to develop academic skills. There is a risk that the children will not be actively involved in enough tasks and activities aimed at developing either daily living or early academic skills. As new models of preschool aimed at developing early literacy are implemented, children with ID who attend an IDC may find they do not have time to reach the new expectations of children starting primary school. Even if they have the same teaching and learning materials, they will experience different instructional methods and, as a consequence, be less ready for school than they are now. SETs could find that some levels of achievement which were considered successful before the widespread implementation of preschools will be considered failures when mainstream primary school expectations are raised. Crucially, in such a situation, stigmatisation of children with ID could increase, as Murray and Lawson (2007) have suggested, leading to a corresponding growth in ID preschools or centres which will possibly leave greater numbers of children at a disadvantage in society, unless IDCs are able to respond to the changes.

From the perspective of Western (in particular European) approaches, SETs' focus on improving behaviours can be seen as meeting the needs of teachers and the school rather than those of the child (Thomas & Loxley, 2001). From the Saudi Arabian perspective, the needs of the child are understood rather differently because of the duty placed on parents and other adults to guide the child into the right way of living, in accordance with their faith. However, as children with ID grow to become adults, the extent to which they are able to live independent lives, and to educate themselves throughout

their lives as Islam instructs, will be linked to some extent with both their ability for self-regulation and their capacity to learn independently.

The overriding concern associated with a strongly behaviourist approach runs the risk of producing children who appear completely normal to the outside world but do not learn as others do. Therefore, they continue to struggle at school and in later life and the associated ethical dilemma of whether a parent's informed permission for their child to receive therapy or treatment is sufficient. Moreover, SETs may face an ethical dilemma because they are using treatments and therapies, which themselves imply a medical context and the possibility of cure or relief of a disorder, without having appropriate and up to date professional qualifications or being bound by an ethical code of conduct.

In an article focused primarily on people with autism, Milton (2016) observes that individuals with significant intellectual impairments are not only powerless but can become so marginalised and stigmatised in society that they are almost considered 'non-human', especially if they considered to have both intellectual impairment and social deficit. This is a deeply un-Islamic view of human beings, and so we have to be careful to value children with ID as children and emerging members of a society in which they will participate as adults.

Thus, it is recommended that there should be a rebalancing of behaviourist and constructivist approaches to improving behaviours contained within a wider range of learning activities. In this case, more opportunities for discovery are included and learning is increased to the child's capacity by giving them specific skills which they can apply to a greater or lesser extent. Following rules and obedience can be changed using behavioural techniques, but in Saudi Arabia adult Muslims are expected to make correct choices themselves as far as possible; for this reason, self-regulation should be

encouraged. Alternative approaches should be considered, in particular self-correcting learning materials and increasing the focus on opportunities for self-regulation in terms of activities which require peer interaction and offer scope for peer modelling. In traditional Montessori schools, self-correcting learning materials only allow the materials to be used correctly in one way (Lillard, 2013), and so the child using them learns to think about the correct way to do things more generally and more independently.

The recommendation for increased focus on interaction with peers is based on research which indicates that active engagement with classroom activities and other children can improve behaviour through the development of self-regulation skills (e.g. Williford, Vick Whittaker, Vitiello, & Downer, 2013), although the whole picture involves the effect of engagement with teachers, peers and classroom activity, as well as individual children's tendencies to show higher or lower engagement in the classroom situation.

A review of teaching strategies for use with special needs pupils in inclusive classrooms by Davis and Florian (2004) found evidence that using multiple methods approach appears to produce stronger effects than a single strategy alone. This indicates that the issue of a predominantly behaviourist approach to tackling behavioural problems is linked to a wider issue, which is the extent to which the curriculum for preschool children with ID should be more child-centred. The various proposals for mainstream preschool curricula in Saudi Arabia are more child-centred than the centres for children with disabilities, and I believe IDCs should adopt as much of the finally selected mainstream curriculum as possible. Strategies such as those used in the Montessori approach which focus on giving the child the skills to perform a particular task and then allowing the child as much time as they need to complete the task, and repeat it several times if they wish, offer possible alternatives.

8.4 Child-centred approaches and range of learning activities

In the present study, one-third of the SETs wanted a more flexible approach within which they could give a child more freedom. There was a particular interest in the rearrangement of the classroom to provide children with more choice of activities, which in turn could promote hands-on learning and self-discovery. Several SETs had taken opportunities to experiment with such flexibility and reorganisation when the opportunities arose. They also exercised some discretion in following the formal timetable when the weather, children's mood or other circumstances required a change of planned activity. There were very few mentions of the use of computers in the IDC in Jeddah; computers were seen as a play intervention for children who preferred solitary play, mostly as a reward or positive reinforcement, and only once referred to as enhancing learning through greater engagement with the activity.

The importance of teaching techniques that give an intensive and focused support for children with special needs is recognised (e.g. Norwich & Lewis, 2001). However, teaching strategies such as peer tutoring and cooperative learning have been seen to promote both social inclusion and academic learning (Davis & Florian, 2004). In Saudi Arabia peer tutoring for students with ADHD (Abaoud, 2016) has been accepted to a greater extent than co-operative learning even though the latter has been promoted as policy in the move towards knowledge based society (Alsabti, 2012).

The willingness in Saudi Arabia to test and accept a range of methods may offer scope to those SETs who seek more effective ways of helping children with ID. It is proposed that allowing children to make their own choices and develop their own sense of learning and communication and learning increases motivation and therefore engagement by following the child's interest; examples include individual children

choosing to learn to be a pirate and make a robot (Rose & Rogers, 2012). These offer opportunities for motor skills, play, communication and early literacy and language learning, among others. Moreover, they encourage children, with and without ID, to make choices and decisions, to be creative and to solve problems.

Organisation of classrooms into distinct areas for different types of activity, as used occasionally by SETs in the present study, can assist self-organisation in children, and provide plenty of opportunities to compare how different parts of their school world are organised. This is in line with classroom layout for the Creative Curriculum and Montessori pilots in mainstream preschools, and increasing numbers of primary schools are adopting more flexible classroom arrangements. Children with ID would benefit from earlier exposure to enable them to adapt to change within a small structure; this would also help with transition to primary school.

Plowman and Stephen (2005) noted that using computers for free play was not necessarily productive and that some three and four-year-old engaged in solitary play gave up very quickly when then encountered a problem. They proposed that other technology, for example, digital cameras, could be more easily employed in collaborative learning. However, there is evidence that an appropriate and active use of computers and media extends as well as supports skills development, including cognitive and social skills (Association for the Education of Young Children & the Fred Rogers Center, 2012). Some computer-based activities support specific educational skills, such as maths, where young children are able to manipulate shapes more easily and accurately than they can use their hands (Clements, 2002). Two or three children working at a single computer can be involved in collaborative learning which also promotes communication and social skills. Thus, computers can be used for a much wider range of activities than free play or reinforcement of basic skills such as knowing

the alphabet. These activities can be based around the child's interest or teacher-directed but taking into account a child's love of colour and animation.

These recommendations do not require SETs to abandon tried and trusted teaching methods, but rather to extend their professional range. Consideration of support for SETs is therefore the next logical step.

8.5 Support for teachers

SETs expressed a clear need for greater support in terms of professional development and additional teachers or teaching assistants. However, they were not clear about what type of professional development they might need although they expressed a strong preference for practical workshops, especially those focused on teaching strategies and the use of technology. Moreover, there was a lack of legibility regarding the role of teaching assistants. Although some parents and indeed some SETs working in mainstream primary schools were seen to cause difficulties, no SET mentioned a need for professional development in the field of collaboration with either group. In fact, regarding parents, a need was perceived for an education and counselling service to deal with information (which took up SETs teaching and preparation time) and questions for which SETs had no answers. Parents spending too much time in the classroom were perceived as disruptive, although in my view they could have been involved in a useful capacity to assist the teachers, provided that there was agreement not to spend their time with their own child who would be the responsibility of the teacher.

8.5.1 Professional development

Above all, SETs wished to refresh themselves and update their knowledge. One-third of participants offered specific ideas of what they would wish to learn: evidence-based practices and interventions to use with children and parents, using technology to teach

appropriate behaviours, improving teaching methods and exploring different approaches, and collaboration with parents and the team. Leadership skills and self-reflection were also mentioned. In fact, SETs may have multiple professional development requirements, some relating to their desire to make immediate improvements in their classroom practices, some related to consideration of their role as early childhood educators, and others related to understanding the wider changes that are happening in the education system, such as inclusion, the potential of technologies and the spread of preschools and associated early literacy experiments. Existing workshops and seminars appeared to take account of some but not of these; from SETs responses, there was no evidence of professional development targeted at early childhood educators.

However, professional development of early childhood educators is perceived as essential because it determines the quality of children's experiences (Martinez-Beck & Zaslow, 2006). It has been argued that more consideration should be given to evaluation of processes and approaches to delivery as well as structure and methods, with stronger links between theory and practical expertise in order to have a positive effect on future plans and delivery (Sheridan et al., 2009). Moreover, it is significant to understand which types of professional development provide better support for teachers (Sheridan et al., 2009), in relation to their morale as well as their performance in the classroom.

In line with SET views, professional development is most useful when it is classroom-based and practical, both during the initial formal course and in-service, according to a report by Barber and Mourshed (2007). Moreover, in agreement with SET views, research has shown that teachers involved in coaching and mentoring develop a clearer focus and greater flexibility in their teaching, and traditional expert-led professional development has been shown to have less effect on teacher practices or student progress

(McLeskey, 2011). Although methods such as peer coaching have been shown to improve classroom effectiveness, the context in Saudi Arabia expects expert providers, thus expert practitioners, as seen in one workshop mentioned by an SET in the present study, could be a way forward.

Professional development also requires follow up and maintenance in order to ensure that SETs apply any new effective practices (Cordingley, Bell, Thomason, & Firth, 2005). When teachers have more input into deciding the direction of their professional development, they are more likely to say their knowledge and skills have improved (Cordingley et al., 2005). However, the practice of continuous professional development has not yet been incorporated into the education system in Saudi Arabia, and will require policy initiatives as well as leadership from managers (Barber & Mourshed, 2007).

Four specific recommendations which follow from this are: advance planning of seminars and workshops which takes into account both the views of SETs and developments across the education system; identification of expert practitioners to run seminars and workshops; practical classroom experience offered; professional development for centre co-ordinators to enable them to implement continuous professional development in their centres. Topics that I consider particularly appropriate and urgent are covered in the following sections: new education initiatives, in particular the findings of mainstream preschool pilots and inclusion in primary schools; joint working with other SETs and pre-service general teachers; and effective communication and collaboration with parents. These will help not only to refresh SETs and their knowledge and skills, but will also help them in their work, and in understanding the changing context of their work. It will be essential to deliver the training in a participatory way, for example using case studies and their own experiences, in order to

avoid SETs feeling even more demotivated because their work is out of date and not valued.

I would further recommend that in readiness for the future, when most primary schools will operate on the basis of partial if not full inclusion, that all preschool teachers receive the same initial teacher education for general teachers with additional modules for general teachers to enable them to be effective in an inclusive preschool and for SETs to enable them to understand individual children better through understanding their disabilities and knowing how to meet their additional needs. I make this recommendation because all teachers of preschool age children will be aiming to promote their development in order to ensure a successful transition to primary school.

8.5.2 Teaching assistants

Most SETs in the present study considered that classroom teacher assistant was essential for any programme for children with ID, not only to support their own teaching. They considered that assistants could play a key role in providing support, giving extra assistance and developing practices and interventions suitable for children with ID.

The literature indicates that teaching assistants may not always bring expected benefits, unless their role. In a major study of pupil progress in mainstream schools in the UK (Blatchford et al., 2009), teachers were found to interact more with pupils who required less support and, worryingly, children who had the most support from teaching assistants made less progress than similar children who received less teaching assistant support. Therefore, extra support from teaching assistants may not increase children's progress, whereas checking that children who can work more independently remain on task could be more useful, leaving the SET with the necessary skills to work with

children who have greater support needs. In many, possibly the majority of centres, this would have implications for the arrangement of classrooms and the design and sequencing of tasks. Recruiting and training support staff is not an easy option, and deploying them appropriately could be even more difficult. SETs need to be confident in their own knowledge and skills before trying to supervise teaching assistants.

There are therefore two recommendations which relate to classroom teaching assistants at this stage in the development of special education needs services and preschool education. Firstly, the practicum for at least some pre-service teachers in both those areas should take place in centres similar to the one in Jeddah. The practicum should be well planned by the centre in order to benefit the student teacher and the SET. Secondly, with the suggestions and support of the centre co-ordinator, SETs should find ways of working with at least some of the over-enthusiastic parents, for example through parental involvement in a different classroom from that of their child.

8.6 Collaboration with parents and SETs in mainstream schools

SETs indicated that relationships with parents could in some cases be difficult, due to what they perceived as overprotectiveness or unrealistic expectations of their child. Tensions were seen when parents did not carry out recommended activities in the home or when they appeared to invade the SET's area of authority. Nonetheless, there was almost a complete agreement that SETs needed the co-operation and ideally the involvement of parents in order to understand the individual child and his or her needs. SETs in the centre also experienced difficulties in relationships with some SETs who were employed in mainstream schools and who expected children with ID to arrive from the centre able to learn and work in a way that general teachers expected of both the children and the SETs in the mainstream school.

It has been shown that early involvement of parents helps all children and also the entire family (Dunst, 2002). However, research supports the view that parent involvement is not straightforward even in special education centres which provide training for parents (Murray & Mandell, 2006). Moreover, it is asserted that parents and professionals should have a relationship and shared role in decision-making that is founded on mutual respect, but this can be difficult to achieve when parents face specialists and there are inequalities in knowledge and power (Hodge & Runswick-Cole, 2008). The proposal by SETs in the present study to provide parents with information about their child's disability and what the IDC actually does therefore has some benefits in helping parents to feel better informed and more able to talk to professionals as equals, although individual SETs still have to make the effort to treat parents as equals.

In Western societies, parents have typically been expected to control and monitor the behaviours and activities of their children (Clarke & Churchill, 2012). Expectations include participation in sessions regarding support at home for curriculum changes in school, family learning and parenting classes. However, participation could be adversely affected by teachers' negative attitudes towards parents (Seligman, 2000). In the context of inclusion in UK schools, Special Education Needs Coordinating Officers have played an active role in encouraging as well as providing training for collaboration working with families (Lewis et al., 2010). I know from my own experience as a parent with children in school in the UK that schools provide many more activities for parents to be involved, such as special assemblies, displays of children's work and certificate presentations, even graduation ceremonies when a child completes preschool.

In the US and UK, parents of intellectual disabilities children have been putting pressure on governments to improve services for their children and, more recently, to demand a greater role in determining what services should be provided and the language

used to describe these services and their beneficiaries (e.g. Leiter, 2004). However, Western history demonstrates that the parents' rights movements, like other rights movements, took decades to reach this point.

In Saudi Arabia, responsibility is traditionally divided between initial moral and religious education provided by parents in the home, school teachers who teach literacy, numeracy and other subjects, and teachers in Qur'an schools. Collaboration between SETs and parents requires a different kind of relationship, which not everyone will be able to establish without help or training. The starting point will need to be more open and equal communication between SETs and parents in order to build understanding and trust. Since the SETs are regarded as the professionals, they should in my view be given the responsibility for establishing and maintaining appropriate relationships with parents, provided they are also given the skills to do this, either in their initial teacher education or their professional development. This is my first of three recommendations for improving teacher-parent collaboration.

The second is that parents who want to be more actively involved with the centre should be found an appropriate role and given the training or other support they need to be able to do this. The centre co-ordinator or an SET with a particular interest in parent-teacher collaboration could take this role.

The third recommendation is the parent counselling service proposed by the SETs in the present study, although I would separate the counselling service from straightforward information giving. Counselling should be available for those parents who seek it, and they should be relatively easy to identify from the kinds of questions and problems they bring for which SETs have no answer or where they lack the counselling skills to be able to give the answer in an acceptable and productive way. Such services have been

provided in various countries including France, England, the United States and Nepal, with differing forms of implementation and settings according to country context.

Collaboration with other SETs who work in mainstream settings could be promoted through exchange visits with groups of children as one element of transition services from the IDC or any preschool to primary school. My personal experience indicates that competition rather than collaboration is a feature of professional educational life in Saudi Arabia and elsewhere, which means that I recognise that collaboration will not be easy to achieve. However, there are shared goals of achieving the best possible outcomes for each and every child, in line with Islamic instructions for how to live our lives, and if seminars and workshops can be made available for teachers from a variety of backgrounds they will have opportunities to meet and discover how they can achieve some of their personal goals more effectively by working with others. For example, practical workshops on the transition from preschool, IDC or other type of centre would benefit special education and general teachers from preschool providers and primary schools, and activities should be arranged in a way that would require them to work together to achieve the objectives of the activity.

This approach is supported by the literature. For example, collaboration is more likely to work well when there are common goals to be achieved such as teaching approach (e.g. Venianaki & Zervakis, 2015), joint problem-solving such as accommodations to the mainstream curriculum (e.g. Conderman & Johnston-Rodriguez, 2009) and initiatives such as inclusion in countries where these are new (e.g. Al-Natour, Amr, Al-Zboon, & AlKhamrah, 2015).

8.7 Summary for Teachers and Parents

Educational services for preschool children assessed as having intellectual disabilities are relatively new in Saudi Arabia and based on policies and methods adopted from the US. The context is important; the main aims of Saudi Arabian education policy are to fully understand and disseminate Islam, its values and precepts. However, tensions exist between Islamic acceptance of disability as an integral part of the person and the stigmatisation of disability which is still seen in Arab culture. The meaning of 'education' in Arabic encompasses concepts of guiding to maturity, acceptance of and compliance with social and moral rules, and the acquisition of knowledge. This study is one of the first to explore what special education teachers actually do in a centre which specializes in helping these children. It is important for the future development of the services to understand how they are meeting the needs of children at present. The study therefore examines teachers' practices and the challenges they face, and identifies strategies for improvement of the services they provide.

Within the overall framework of a qualitative, interpretive study, semi-structured interviews were used to collect data which were analysed using thematic analysis. 15 experienced special education teachers were asked which practices, educational interventions and methods they perceived as effective and useful in meeting the children's needs. They were also asked to identify any challenges or barriers they faced, and to suggest ways of improving services. Answers to the first question showed that, overall, teachers focused on the development of communication, play and social skills in a highly structured environment which helped children to be more organized and deal with changes more easily. Methods considered effective were: interventions using play, which could develop many skills; adult modelling of behaviours, social education stories, and Applied Behaviour Analysis for behaviour improvement; Augmentative and

Alternative Communication methods, signs, photographs, especially the Picture Exchange Communication System, for communication skills at the centre and at home; and a range of interventions aimed at reducing children's hypersensitivity to their environment, while increasing their calm and concentration as well as their coordination. Teachers utilised multiple approaches in intensive intervention depending on the individual child's needs and preferences.

Responses to the second research question identified eight challenges and barriers. Challenges involved the family's transition from home services to the IDC, the diverse difficulties resulting from intellectual disabilities, and building and maintaining effective relationships with some parents and primary school teachers whose expectations of the child were different from their own. Barriers were defined in terms of a general shortage of services and therapies to meet the needs of all children, a lack of time to complete all the tasks required of a special education teacher, insufficient professional development, and the serious issue of stress associated with all of these.

Teachers identified 4 key areas for improvement: continuous professional development, relationships with colleagues in mainstream schools, relationships with parents (in terms of regular communications and the provision of a counselling service) and better support (classroom teacher assistants, greater flexibility in the timetable and curriculum, and more freedom for children). These led to four specific recommendations. The first was that professional development should aim to bring special and general education preschool teachers together in workshops and seminars, and, for beginning teachers, in initial teacher education. The second recommendation was to enlist the help of pre-service teachers and volunteer parents in providing additional support in the classroom, in order to deal more effectively with groups of 12 preschool children diagnosed with intellectual disabilities or autistic spectrum disorder. Thirdly, centres should provide an

information and counselling service for parents who request it. Finally, a more child-centered approach based on the same philosophy behind emerging preschool provision, would offer more engaging and interesting activities. Moreover, a clearer focus on valuing each child and less emphasis on correcting deficits would be more in line with the teachings of Islam.

8.8 Limitations of the study

There are certain limitations which are found in almost all interpretive qualitative research which investigates a particular situation. The findings cannot be generalised because the sample size is comparatively small and is based on a purposive sampling technique supported by snowball or convenience sampling. Moreover, IDCs' programmes vary in line with the needs of individual children in a particular centre during a specific academic year, thus the phenomenon being explored is highly specific. The situation with regard to the education system in Saudi Arabia is one of continuing change which means that the wider context regarding mainstream preschools, with or without inclusion, may look quite different in five years' time.

There were limitations within the literature and methodology. Firstly, in the literature review and discussion, because most of the literature addressing the views of teachers concerning practices and interventions for ID children are based on cultures that are neither Arab nor Islamic. In terms of the methodology, the limitation is associated with the use of semi-structured interviews to collect data, in the sense that the participants' responses expressing their personal perspective were not supported by observations. This may have over-emphasised the part played by behaviour correction techniques in the lives of teachers in the classroom because participants were focusing on help for children with intellectual disabilities as distinct from children in general or children

with different types of disability. Therefore, the findings and interpretations of my study are to be seen within the particular situation.

8.9 Reflexivity and reflectivity

I described my positionality in chapter 1 where I set out my experiences and motivation that could have impacted the research process, in particular the interpretation of my findings. Reflexivity requires me to be critically aware of how my personal and professional identity may have influenced every stage of the research process (Hennink et al., 2011; Pillow, 2003). Reflection, to paraphrase Dewey (1998), involves looking back at what I have done in order to identify and understand the most important points and meanings which I can learn from now and apply in the future; “It is the heart of intellectual organisation and disciplined mind” (p.110).

The first point for me was my position as ‘insider’. This helped me to gain access and the trust of participants, but I had to try not to impose my own viewpoint on the whole research by not assuming from the beginning what I would find in the data and looking for it. I thought at the start that I would find the best techniques to help children with ID overcome their behavioural problems, but gradually came to realise as I listened to my participants that individual children responded differently to various techniques. I am aware that asking questions in the interviews about children with ID could have pointed my participants too much to think about the difficulties of ID rather than the child. However, as an insider I found it difficult to challenge participants about their views, partly because I shared many similar experiences, but mostly because they would have been less open in their responses. The conservatism in Saudi society translates into defensiveness in individuals when they perceive their way of life as a professional may be under attack, and therefore I considered being more challenging but on balance

decided it was more appropriate to allow them to state their real viewpoints rather than risk forcing them to say something more defensive. Some SETs talked about getting close to the child, getting down to the child's level, and the need for children to have more freedom; therefore, I believe that participants felt sufficiently comfortable to express their individual viewpoints and that my status as insider did not affect their responses too much. Moreover, I have presented these and other differences in my data analysis.

I can see the influence of my religious and cultural background in the way I have considered the literature and the data. I was striving to critically examine the extent to which Western concepts and theories are compatible with Saudi Arabian concepts of education, but at the same time I applied the same critical approach to examining how far practices were in agreement with Islamic precepts. In particular, I have limited my recommendations to those which I think could actually be implemented and make an important difference, resisting the temptation to present the full, long list of recommendations that I would like to see as an SET myself. I found this very difficult, but am aware that it has helped me to keep to a minimum any probable bias that may result from my background as an SET.

Reflecting on my whole research journey has made me realise how far I have travelled, from the seed of an idea planted by supervisor in my Master's degree to the completion of this thesis. My supervisor during the present study has encouraged me to reflect on my work and thoughts at the start of each new phase of the research. My objective when I first started to read literature was to discover topics that harmonised with my own ideas but offered a more organised and academic approach than my own. I needed to read a great deal in the first year of my PhD programme and needed the guidance and encouragement of my supervisor. He made me think about my subject from various

angles and prompted me to reformulate my ideas to align them with reality whenever I went off track. Importantly, research training at the School of Education in the University of Sheffield gave me a whole new skill set which I learned how to apply.

The study has developed my capacities as a qualitative researcher. I learned many lessons, which ranged from using the Endnote programme for references, through project organisation including time and task management, and understanding of the importance of ontology and epistemology, to generation and presentation of ideas. Finally, this research journey improved my ability to write, read and review in a critical and academic way. At times I felt I was climbing an impossible mountain and would never reach the top, but now that I can look around and see the view, I can say it was worth the struggle.

8.10 Conclusion

This chapter has focused on discussing the key findings and issues from the data analysis, namely: the concentration of effort on shaping behaviours, the emerging search for a more child-centred approach, improved support for SETs, and closer collaboration with parents and SETs in mainstream primary schools. Appropriate recommendations have also been made. Finally, I have indicated the main limitations of the present study and examined how my own positionality could have affected the research process and outcomes in order to assist readers to form their own opinions of the validity and usefulness of this research.

As preschools are developed and implemented to include early literacy, and primary schools continue to evolve with the use of ICT, SETs in an IDC will have to respond to higher expectations of children starting primary school. In order to avoid further stigmatisation of (or pity for) children with ID, and to support them later in their adult

life, SETs should review the balance between behaviourist and constructivist approaches to improving behaviours and place greater emphasis on a wider range of learning activities that can encourage self-regulation. These should include self-correcting learning materials and peer interaction in order to increase engagement in learning, and should wherever possible be based on the child's interest to stimulate motivation to learn.

These recommendations are in line with the desire of some SETs to be able to give children more freedom of choice and increased flexibility in their teaching. There is a scope to extend the ways in which technology is used and to organise classrooms differently, with the aim of better preparation for children with ID to lead relatively independent lives and to cope with transitions as they move through the education system towards adulthood.

Relevant professional development was shown to be of paramount importance, but the need to prepare and support its implementation was also shown to be essential. Classroom teaching assistants could also provide support for SETs, although careful consideration should be given to their role and its implementation in order to benefit children with ID. Pre-service teachers and potentially some parents should also be used to support SETs. Well-designed professional development which allowed teachers with varying backgrounds but similar developmental needs to share workshops could help to improve collaboration among professionals. Specific events in transition arrangements for children moving from an IDC to mainstream primary school could also assist in fostering positive relationships.

CHAPTER 9 THESIS CONCLUSION

9.1 Introduction

In this final chapter, I summarise and highlight the key points of the complete study, after which possible future directions for research are proposed. The exploration of the practices used by special education teachers in a centre for preschool age children with intellectual disabilities in Jeddah has taken into consideration the teachers' perceptions of obstacles and challenges they face and the strategies which they believe could improve their practice and thus enable them to better meet the needs of the children. The findings have shed light on the role of and emphasis on behaviourist teaching methods which reflect the importance attached to correct behaviour that conforms to Islamic precepts and Arab cultural norms, an increasing interest in child-centred approaches to education, professional development and support for SETs, and collaboration with parents whose children attend the centre and SETs in mainstream primary schools.

9.2 Background to the study

The Saudi Arabian context described in Chapter Two highlighted the importance of correct behaviour according to Islamic precepts and the three meanings contained in the Arabic word for education: guiding people to maturity, acceptance and observation of social and moral rules, and teaching new information. These were reflected in the three stages through which children in an IDC are expected to pass, the first two of which include learning appropriate behaviour, in line with Ministry of Education requirements. The separation of mainstream education from special education was examined, noting the potential widening of a gap between children leaving and IDC and entering an inclusive primary school at the same time as children without disabilities who have

acquired early literacy skills. Against this backdrop, the methodology was designed to explore the reality of the existing situation through the eyes of a sample of SETs from an IDC in Jeddah.

9.3 Methodology

Within an interpretive qualitative approach, semi-structured interviews were utilised to explore the SETs views of the reality in order to ensure that individual differences of experiences and perceptions could be captured. Data were analysed using a thematic approach in the sense that I started with some ideas about themes gained from the literature and then added new themes from key words in the transcripts until there were no more to be found. The analysis of findings chapters incorporated discussion of the themes, after which I discussed the combined findings and recommendations for all three research questions. The limitations of the research and the possible effects of my positionality as a researcher followed the overall discussion and recommendations so that readers could better interpret the outcomes. Extensive quotes from SETs were provided in the analysis chapters in order for participants' voices to be clearly heard.

9.4 Key findings and recommendations

All SETs in the present study used a variety of methods and techniques they considered to be effective in order to meet the children's needs. The particular combination of methods used depended on the child, his or her needs and the SET, although there was majority agreement that adult-led and teacher-centred techniques, supported by clear structure in the environment and timetable, were successful in addressing most needs. Knowledge, policies, procedures and techniques had originated in the US. The main methods highlighted as effective were: play as intervention (in particular to develop communication and social skills); Picture Exchange Communication System together

with manual signs and gestures (to facilitate and improve communication); social educational stories, priming, modelling, role play (for social skills); Applied Behaviour Analysis and functional approach to problem behaviours (antecedent-based interventions and positive reinforcement (for learning and improving behaviours); sensory and motor interventions; and some ideas adapted from Montessori.

Techniques aimed at correcting and improving behaviour were predominant, partly in accordance with religious, social and cultural expectations and partly due to SETs understandings of the special needs of children with intellectual disabilities. One third of the SETs in the sample considered that these approaches did not go far enough in seeking to meet the needs of the children as children, whom they felt needed more freedom and choice. They had carried out limited experimentation with rearrangement of their classroom to allow more choice of activity in distinct areas and there was a growing interest in Montessori based on one particular SET's enthusiasm.

Turning to the challenges and barriers experienced by SETs, reported challenges were dealing with transition-related issues, mainly the transition from home to the IDC, and the nature of ID (the characteristics themselves and the heterogeneity of the children. Barriers were identified as lack of time, shortage of supporting services and therapies, insufficient professional development, and stress. SETs also identified problems in communications and relationships with some SETs in mainstream primary schools and some parents; these could be viewed as problems or challenges depending on the SET concerned.

All participants felt they needed more coaching and training, mainly in teaching strategies and techniques that would make them more effective and result in children making greater progress. Almost none of the SETs had received training about

developments in the general education system that would affect their work in the future. Only one SET mentioned receiving training on inclusion, expressing disbelief that it could work. Several referred to training on the use of technology. None mentioned the planned expansion of preschool provision, nor the early literacy pilots. Staff resources were also considered a barrier to improvement; more specialists were required to provide sufficient hours of various types of therapy in meeting the children's needs at the centre, and classroom teaching assistants were needed in order to provide every child with the support he or she required.

SETs also stated they faced difficulties when dealing with some parents and with a number of SETs employed in mainstream schools. Difficulties arose, according to the SETs, from overprotectiveness or unrealistically high expectations on the part of the parents, and they also felt that SETs in mainstream primary schools were unrealistic about the standards of behaviour and attention that children with intellectual difficulties could be expected to attain before starting inclusive education at the age of six. Transition issues presented challenges as a child moved from home-based services to the centre, while lack of time and stress created obstacles to improving teacher performance and learner outcomes.

The strategies identified for improvement were related to teacher development (professional development and positive relationships with children), relationships with colleagues (team meetings and collaboration), parents (regular communication and the provision of a parent counselling service), and wider organisational issues (classroom teaching assistants and greater flexibility in the curriculum and timetabling). It is not possible to address all of these within a short or even a medium time frame, because of the rate of expansion and change in the system of education in Saudi Arabia.

Recommendations have therefore focused on key areas where implementation in the short term is possible, if the political will exists and sufficient priority can be given to their implementation.

The most important findings concern SETs need to adopt a more child-centred perspective in order to enhance their skills development at the same time as providing more opportunities for self-regulation. This would maintain consistency between the approach education and the religious and cultural framework in Saudi Arabia, while working towards a more engaging and active experience for the children, which in turn could help to reduce instances of unacceptable behaviour. Future provision of a shared programme of initial teacher education for all general and special education needs teachers of preschool age children would help to achieve this. Considered together, the recommendations represent a different way of looking at an Intellectual Disability Centre, seeing it from the start of a child's time in the centre more from a viewpoint of early childhood education than from the perspective of correcting defective or abnormal behaviour.

9.5 Directions for future research

This study has revealed the importance attached by SETs to evidence-based research which supports their use of particular techniques. In some ways, this reflects an underlying hope for specific solutions to problems and issues; the search goes on. It is proposed that future studies should explore and evaluate the outcomes of more child-centred approaches, beginning with the comparison of the preschool early literacy pilots in order to establish whether there are lessons from these pilots which are relevant to special education. For example, if typically developing children make greater progress in certain domains and skills, identification of the relationship between their progress

and the teaching and learning methods employed in the particular pilot could provide evidence for adopting some of those methods within IDCs in Saudi Arabia.

A second major direction for future research is the impact of an appropriate use of technology to develop children's skills and not only their behaviours. However, SETs require practical training in how to combine teaching with technology while also supporting children's learning, otherwise the research would simply be investigating whether computers are used for play or as a visual aid.

Moreover, future research should aim to compare gains made in areas which are more difficult to measure, such as creativity, which could be assessed through storytelling using PECS, purposeful activity, and the extent to which the children are happy and relaxed in both the learning environment and at home.

9.6 Final thoughts

This research has yielded a unique insight into the educational interventions made by SETs in a preschool setting in an IDC in Jeddah. It has revealed the importance they attach to correcting behaviour through the use of predominantly behaviourist methods before they move on to what are more usually considered educational interventions in Europe. Moreover, it has contributed to discussions about teaching and learning in special education, together with the most appropriate way to view the child within an Islamic society. It has shown that within this society, some SETs consider that children with intellectual disabilities need, and would benefit from, greater freedom in the educational setting of an IDC, recognising that they are children first and foremost. For these reasons, it can be said that this research has introduced new ideas to debates about the role of special education and the relationship between special and general education

in Saudi Arabia, where religion is the driving force behind educational policy and practices.

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APPENDIX A: SPECIAL EDUCATION TEACHER TRAINING

MODULES

Course Descriptions: Department of Special Education, description of special education teacher training modules. Retrieve 12, December,2016 (<https://education.ksu.edu.sa/en/node/1987a1>)

MODULE	AIMS
SPED 100 Introduction to Special Education (4 credit-hours)	The goal of this course is to give the student an overview of the historical development of the field of special education and to understand the concept of special education and exceptional children. The content of this course covers different categories of disabilities such as mental retardation, visual impairment, hearing impairment, physical disability, emotional and behavioural disorders, learning disability and communication disorders. Also, this course provides information regarding modern techniques of services delivery, and education for each category.
SPED 151 Assessment a Diagnosis in Special Education (4 credit-hours)	This course is designed to give the student the skills and the basic understanding of the assessment process. It also covers the conditions required to use the assessment methods and the explanation of their results and how to make appropriate educational decisions.
SPED 160 Physical Handicaps (3 credit-hours)	This course is designed to introduce students to the area of physical disability; its causes, classification, and the unique characteristics and needs of physically disabled individuals.
SPED 170 Emotional Disturbance for Exceptional Children (3 credit- hours)	The course is designed to give students a basic knowledge of the area of emotional disturbance among exceptional children and it causes, classification, and diagnosis. It also covers certain aspects of emotional disturbance such as aggressive behaviour, hyperactive behaviour, and autistic behaviour as well as services for this these children.
SPED 180 Introduction to Rehabilitation of the Handicapped (3 credit-hours)	This course is designed to introduce students to the concept of rehabilitation and its relationship with special education. It covers subjects such as the importance of rehabilitation, the role of the rehabilitation specialist, and new developments and trends in the area of rehabilitation.
SPED 201 Behaviour Modification (3 credit-hours)	This course is designed to introduce the student to the concept of behaviour modification, it historical background, and its theoretical basis. It teaches how to use different behaviour modification methods that can be used to teach new behaviours or reduce inappropriate behaviours.

MODULE	AIMS
SPED 202 Speech Disorders (3 credit-hours)	This course is designed to introduce students to the concept of speech disorder; its types, characteristics, diagnosis, and treatment.
SPED 260 Public Awareness of Handicapping Conditions (3 credit-hours)	This course aims to provide the student with the following: the media used in the transmission of awareness among different sections of society. The focus will be mainly on early diagnosis and assessment procedures
SPED 295 Aids and Prosthesis for the Handicapped (3 credit-hours)	This course aims to provide students with the following knowledge: 1) The different aids and prosthetics suitable for the various types of handicapped conditions. 2) The principles of selection. 3) The methods of utilization.
SPED 371 Curriculum Development for Exceptional Children (3 credit-hours)	This course is designed to provide students with theoretical and practical background in the area of curriculum development for exceptional children.
SPED 385 Educating Exceptional Children in Regular Schools (3 credit-hours)	This course aims to provide students with the main principles of educating certain types of handicapped students in regular schools. This could include such topics as; 1) The concept of mainstreaming and its different methods and problems, 2) The programmes by which special education services can be introduced in regular schools for example resources rooms, peripatetic teachers and teacher consultants, 3) The advantages and limitations of different systems, 4) The specific role of each regular and special classroom teacher in educating handicapped students.
SPED 390 Working with Families of Exceptional Children (3 credit-hours)	This course is designed to give students a background concerning the reaction of families toward different disabilities, guidance and counselling methods, and the needs of families.
SPED 392 English Texts and	This course aims to provide the student with the basic terminology used in the field of special education. This would be achieved by

MODULE	AIMS
Terminology (2 credit-hours)	reading selected English texts.
MAJORS COURSES	
SPED 251 Introduction to Visual Impairment (3 credit-hours)	This is designed to introduce students to the visual system; what it is, what it does and how it works. It familiarizes them with the terminology, etiology, incidence, prevalence, prevention and treatment of visual impairment. It also helps students achieve a better understanding of visually impaired children through the exploration of the physical, intellectual, motivational, emotional and social characteristics of these children throughout their different stages of growth and development. The needs of visually impaired children are highlighted together with the approaches available to meet such needs. This course provides a good theoretical background on the impact of visual loss on the individual and his life in society, so that students are better able to study the educational and rehabilitative programs related to visually impaired children.
SPED 261 Braille (1) (3 credit-hours)	This course has the following purposes: 1- To provide students with the basic skills in Braille reading and writing so that they can communicate in writing with the blind child, read his written work and correct it. 2- To familiarize students with the equipment and devices used in Braille writing. 3- To provide a brief history of the development of reading and writing for the blind. 4- To introduce some of the problems associated with teaching Braille reading and writing to the blind, and offer some suggestions for dealing with such problems.
SPED 301 Braille (2) (3 credit-hours)	This course is designed to help the student achieve the following objectives: 1) Mastery of Arabic Braille symbols 2) Mastery of Braille reading and writing with simple as well as complex contractions 3) Mastery of mathematical symbols use in elementary grades in the Institutes of Light according to the British code 4) To become familiar with the new methods used in Braille reading, writing and production 5) To become familiar with the problems commonly encountered in teaching Braille reading and writing to the blind, and with the suggestions offered to overcome such problems.
SPED 351 Orientation and Mobility and Daily Living Skills for the Visually Impaired (3 credit-hours)	The purpose of this course is to provide students with a basic understanding of the process involved in helping visually impaired individuals develop orientation and mobility skills, as well as daily living skills. Techniques and factors influencing this process are discussed and, in the meantime, practical training is provided in this course.

MODULE	AIMS
SPED 401 Teaching Methods for the Visually Impaired (3 credit-hours)	This course has the following purposes: 1) To familiarize students with the different educational approaches, programs, strategies and theories along with thorough examination of their efficiency in teaching various subjects. 2) To train students to use the new technological devices used in the field of visual impairment. 3) To familiarize students with the problems and difficulties encountered by teachers in teaching visually handicapped children. 4) To help students acquire the necessary skills which not only enable them to assess and critique available materials, but also provide them with the ability to engage in innovative and creative activities that can ultimately lead to more effective methods, approaches and programs, and offer useful solutions, suggestions and alternatives which can be utilized in teaching visually handicapped children.
MINORS COURSES	
SPED 252 Introduction to Hearing Impairment (3 credit-hours)	This course aims at introducing students specializing in this area to the concepts and nature of hearing impairment, its classification, causes, and identification and diagnosis methods. Special emphasis is put on the characteristics and needs of the hearing impaired, in addition to appropriate care services offered for them.
SPED 262 Language Development for the Hearing Impaired (3 credit-hours)	This course aims to introduce students to the basic concepts and definition of language and its development, together with the processes of language acquisition, development stages, and their implications for helping the hearing impaired acquire language skills. Special emphasis is put on the psycho-educational theories of language development, and consideration of system in both oral and total communication philosophies.
SPED 302 Oral Communication Methods (3 credit-hours)	This course aims at realizing the following: The understanding of the communication process and its components with concentration on techniques for aiding development of intelligible speech in individuals with severe and profound hearing loss.
SPED 352 Total Communication Method (3 credit-hours)	This course emphasizes the development of skills in total communication for use in educational service delivery systems. It provides practice in simultaneous use of speech, finger spelling and the language of signs.
SPED 253 Introduction to Mental Retardation (3 credit-hours)	The course aims to provide students with basic knowledge in the field of mental retardation that includes basic definitions, causes, classification system as well as characteristics and needs. The course also focuses on increasing students' understanding of various services delivery systems and their historical development.

MODULE	AIMS
SPED 263 Mental Retardation in the Perspective of Different Theories (2 credit-hours)	This course is designed to discuss the concept of mental retardation from the perspective of different theories. Emphasis is placed on learning theories and their application in educating and training mentally retarded students.
SPED 303 Educating the Educable Mentally Retarded (EMR) (2 credit-hours)	This course aims to introduce students to special curricula, and educational programs for EMR with emphasis on the current trends of such programs.
SPED 313 Educating the Trainable Mentally Retarded (TMR) (2 credit-hours)	The main goal of this course is to emphasize the rights of this group in educational and rehabilitational process through the introducing the students to the types of appropriate educational alternatives as well as educational and vocational curricula for TMR.
SPED 353 Adaptive Behaviour Skills for Mentally Retarded (2 credit-hours)	Topics covered in this course include the concept of adaptive behaviour and the dimensions of adaptive behaviour skills as well as types of maladaptive behaviour problems and treatment procedures. The other purpose of this course is to train students on the application of adaptive behaviour scales to identify the degree and level of adaptive behaviour of mentally retarded children.
SPED 403 Teaching Methods for the Mentally Retarded (3 credit- hours)	This course aims to provide students with the learning principles as they relate to instruction processes for the mentally retarded. Emphasis is placed on the individualized education programme for MR as well as other teaching strategies such as behaviour modification, and task analysis.
SPED 254 Introduction to Learning Disabilities (3 credit-hours)	The goal of this course is to study the field of learning disability from a historical point of view, introduce students to the characteristics and needs of students with learning disabilities including physical developmental, psychological, emotional, social, and academic characteristics of these students.
SPED 264 Learning Disabilities in Reading and Writing	The goal of this course is to introduce the student to the nature of reading and writing, the types of learning disabilities in reading, writing and their connections.

MODULE	AIMS
(3 credit-hours)	
SPED 304 Developmental Learning Disabilities (2 credit-hours)	The goal of this course is to introduce the student to the developmental learning disabilities in preschool level, and its different types (cognitive, social, emotional and motor). It also covers the methods used to evaluate the disabilities and take remedial action.
SPED 314 Learning Disabilities in Perspective of Different Theories (2 credit-hours)	This course presents the historical development of theories related to learning disabilities and the effect these theories and the consequent research have on understanding the nature of learning disabilities. It also presents the concept of learning disabilities in the light of theory and the applications of these theories to teaching students.
SPED 354 Case Study in Learning Disabilities (2 credit-hours)	The goal of this course is to: <ol style="list-style-type: none"> 1. Study in a comprehensive and precise way a student who has learning disabilities. 2. Evaluate and identify his disabilities. 3. Analyse the student's skills and develop an educational plan which contains the goals and skills that will be presented to the student.

Yellow indicates allocation of time and content to developmental disabilities in preschool children.

APPENDIX B: PARTICIPANT INFORMATION SHEET

Participant Information Sheet

An Exploration of Special Education Teachers' Needs in Preschool Children with Intellectual Disability in Saudi Arabia

It is my great pleasure to invite you to participate in a PhD study. Before deciding, it is essential for you to know the purpose, the nature of the research and what it involves. Thus, it is recommended and appreciated if you could take some time and read carefully the following information. If anything is not understandable or not clear, please let me know so that I will elaborate it for you. Your participation in this research will make a difference! Thank you.

What is the purpose of the project?

The purpose of the current qualitative study is to explore the diverse experiences and needs of Special Education Teachers in an Intellectual Disability Centre in Jeddah, Saudi Arabia. Additionally, this study will attempt to look at the challenges that Special Education Teachers may face when they attempt to meeting the ID children's educational needs. By revealing these findings that will permit me to identify some of the strategies, this will hopefully improve Intellectual Disability Centres in Saudi Arabia. Thus, it is hoped that the results of this research will make the Saudi Ministry of Education aware of any challenges faced by Special Education Teachers and improve Intellectual Disability Centres in Saudi Arabia.

Why have I been chosen?

I think you have some unique insights and special contributions to make to this study. You are one of the Special Education Teachers in this Centre.

Do I have to take part?

You are one of the Special Education Teachers in this Intellectual Disability Centre. Your participation in this study is totally voluntary. Thus, it is completely your choice if you to take part or not. If you want to participate in the research, this information sheet will be given to you, and I will ask you, as part of the university regulations; to sign a consent form to prove that you have voluntarily consented to participate in this study. However, if at any time or for any reason you feel you want to withdraw or do not want to participate, you are free to do so. You do not have to give any reasons for withdrawing.

What will happen to me if I take part?

After your permission, you will be requested to participate in a face-to-face interview, there may be some follow up questions. Through the interview, I shall ask you warm up questions regarding your experiences, thoughts, also viewpoints concerning strategies that may improve services in Intellectual Disability Centre. Furthermore, questions such as SETs' teaching methods and practices in relation to children with Intellectual Disability will be addressed. In addition, challenges and barriers you face, as well as,

how you see your interactions with others in order to meet children's needs of these students.

What do I have to do?

You will be optionally requested to take part in face-to-face interview that aim to explore points of view and your needs in this centre.

What are the possible disadvantages and risks of taking part?

There are no possible dangers or risks of participating in this study. However, if any unexpected discomforts or risks arise during the research, please let me know immediately.

What are the possible benefits of taking part?

It can be confirmed that no immediate benefits can be gained for anyone takes part in this research, but it is hoped this study may offer some exploratory insights about the needs of Special Education Teachers in Saudi Arabia.

What happens if the research study stops earlier than expected?

If this is the case, the reason (s) will be explained fully.

What if something goes wrong?

If you feel unhappy about any aspect of my research at any time, please let me know immediately. I will address any concern as soon as possible. Feel free to contact me on 00966541237777 or on fhalgahtani1@sheffield.ac.uk. In the event of you still not being satisfied, your enquiry can be investigated by my supervisor Prof. Dan Goodley at D.Goodley@sheffield.ac.uk. In the case you feel disappointed and your enquiry has not been dealt with up to your satisfaction, please contact the University of Sheffield Register and Secretary Office.

Will my taking part in this project be kept confidential?

None of the information that I collect in this study will be disclosed. None of the participants (under any circumstances) will be identified in any publications and reports. Furthermore, the data will be stored in secure places. If at the conclusion of the project you would like your data to be erased, please inform me.

What will happen to the results of the research project?

The results of this research will be used purposely for my doctoral thesis, which will be available at the University of Sheffield library and as an e-thesis after completion. It may also be that some parts of the thesis will be published in a peer review academic or professional publication. Reports on the research may also be shared at conferences or for additional or subsequent research projects. You or your university will not be identified in any such publication.

Who is organising and funding the research?

The research is part of my doctorate scholarship granted by University of Jeddah, Saudi Arabia.

Who has ethically reviewed the project?

This study has been reviewed ethically in accordance with the University of Sheffield Ethics Review Procedure as operated in the School of Education.

Contact for further information

The contact point for further information: Prof. Dan Goodley. The University of Sheffield, The School of Education, 388 Glossop Road, Sheffield S10 2JAfield, room 8.05, 388 Glossop Road, Sheffield, S10 2JA, Tel: (+44) (0)114 222 8185, email: D.Goodley@Sheffield.ac.uk.

APPENDIX C: CONSENT FORM

**Title of Project: An Exploration of Special Education Teachers' Practices in a Preschool
Intellectual Disability Centre in Saudi Arabia**

Name of Researcher: Faris Algahtani

Participant Identification Number for this research:

Please initial box

- I confirm that I have read and understand the information sheet dated () for the above project and have had the opportunity to ask questions.
- I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.
- I agree to voice the interview.
- The procedures regarding confidentiality have been clearly explained (using the digital recording and anonymising my name and school) to me.
- I understand that my responses will be anonymised before analysis. I give permission for members of the research team to have access to my anonymised responses.
- I agree to take part in the above research project.

Name of Participant

Date

Signature

Lead Researcher

Date

Signature

To be signed and dated in presence of the participant

APPENDIX D: INTERVIEW GUIDE

Introduction

Thank you very much for agreeing to take part in this interview. My name is Faris Algahtani and as you have already read in the information sheet I am a PhD student from the University of Sheffield doing research about an Exploration of Special Education Teachers' needs in preschool children with Intellectual Disabilities in Saudi Arabia. I will be using this voice recorder to record our interview, but if you are unhappy about it, I can switch it off. This interview might take about between 45-50 minutes. You can also withdraw from this interview at any time without mentioning any reasons.

Switch on voice recorder

Warm-up questions

Can you please briefly describe your professional background?

Can you tell me how long have you been working in this centre?

Have you worked in another centre before?

Subsidiary questions

Can you share with me your experiences as SET in terms of everyday work and routines?

Can you please tell me how many children with intellectual disabilities you are teaching? What about their ages? And educational level?

Please tell me what the term "disability" means to you.

How have you gained your training and knowledge? Could you talk about the training you have gained and how?

Can you please tell me about the kinds of educational intervention you are involved in to help children with intellectual disabilities? What methods do you use to teach children with intellectual disabilities?

Which interventions and methods do you think are effective? Why? Why not?

What approaches or methods do you utilise to encourage children with intellectual disabilities to explore learning opportunities?

Have you experienced any barriers or challenges in trying to meet the needs of ID children?

Which of the challenges obstruct SETs the most in meeting the children's educational needs?

If you were given the chance to do anything to improve the educational interventions and services for ID children, what would you do? If you could only change one thing, what would it be?

Based on your experiences what would you want me to focus on when I write up this interview?

Conclusion

I think we have covered all the interview questions today; do you have anything you would like to add?

Do you have anything you want to ask me about?

I highly appreciate your contribution for this study and as I already mentioned everything will be very confidential and anonymous. I would also be very happy if you agree to contact in future regarding any clarifications about our interview topics.

Now I will switch off the voice recorder

APPENDIX F: ETHICS APPROVALS AND PERMISSIONS

1. Copy of University of Sheffield ethical approval



Downloaded: 07/03/2017

Approved: 17/11/2015

Faris Algahtani
Registration number: 130113609
School of Education
Programme: Education Programme

Dear Faris

PROJECT TITLE: An Exploration of Special Education Teachers Needs in Preschool Children with Intellectual Disability in Saudi Arabia

APPLICATION: Reference Number 006502

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 17/11/2015 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 006502 (dated 13/10/2015).
- Participant information sheet 1012571 version 2 (13/10/2015).
- Participant consent form 1012572 version 2 (13/10/2015).

If during the course of the project you need to [deviate significantly from the above-approved documentation](#) please inform me since written approval will be required.

Yours sincerely

David Hyatt
Ethics Administrator
School of Education

3. Copy of permission from University of Jeddah

Kingdom of Saudi Arabia Ministry of Education University of Jeddah Faculty of Education	 جامعة جدة University of Jeddah	المملكة العربية السعودية وزارة التعليم جامعة جدة كلية التربية
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لئن يهمله الأمر

السلام عليكم ورحمة الله وبركاته وبعد ...

نفيد سعادتكم بأن الزميل المبتعث الأستاذ فارس حسين محمد القحطاني قد أنهى

رحلته العلمية في مدينة جدة بناءً على الخطاب رقم ٣٧/٢٦٦٤ د وتاريخ ٢٦/٢/١٤٣٧هـ

من تاريخ ٨/٣/١٤٣٧هـ إلى ٧/٤/١٤٣٧هـ ، وقد تم الإشراف على سير رحلته العلمية .

والله ولي التوفيق.

رئيس قسم التربية الخاصة


د. نوري بن عبد الله

Encl.: الترفقات، Date: التاريخ، Ref.: الرقم،

