

Impact of the Current Educational Services on Learners with Autism Spectrum Disorder in Dubai, UAE

أثر الخدمات التعليمية الحالية على المتعلمين الذين يعانون
اضطراب طيف التوحد في دبي، الإمارات العربية المتحدة

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ABSTRACT

This research seeks to explore, examine and highlight the current availability and appropriateness of educational provisions for learners with Autism Spectrum Disorder (ASD) in Dubai, United Arab Emirates (UAE) and its implications on their learning and development. Learners with ASD as well as parents, special educators, general class teachers, occupational, behavioural and speech therapists participated in this mixed research method of study. Classroom observations, interview-based questionnaires and documentary evidences have been capitalized upon for rich insights into factors that influence and impact the educational development of learners with ASD.

The study findings indicate a dearth of key elements for the set up of a comprehensive and efficient education system that includes and caters to the needs of such learners. This research highlights and confirms the need to plug the gaping loopholes in educational provisions and empower learners with ASD to cope better with their disability and society. Significant and interesting facets relating to the needs and potentials of such learners have been observed and participants' viewpoints have been given a voice here. This research concludes with a number of recommendations that can possibly enhance the learners' potentials and eventually pave their way towards attaining a rightful place in mainstream society.

Key words: Autism Spectrum Disorder, Autism, Special Educational Needs, Inclusion

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One of the most important and crucial contributions have been from the learners with ASD themselves who were keenly observed as part of this research. Parents, teachers, therapists and other staff at the centres, mainstream school and a support group participated in this study. Though the names of the individuals have been kept anonymous for ethical reasons, their supportive role in this investigative study truly deserves to be acknowledged and appreciated.

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ABBREVIATIONS

AAC	Augmentative and Alternative Communication
ABA	Applied Behaviour Analysis
ASD	Autism Spectrum Disorder
ADEC	Abu Dhabi Education Council
BUiD	British University in Dubai
CHAT	Checklist for Autism in Toddlers
CARS	Childhood Autism Rating Scale
CAST	Childhood Asperger Syndrome Test
DAC	Dubai Autism Center
DSIB	Dubai Schools Inspection Bureau
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Plan
KHDA	Knowledge and Human Development Authority
NCLB	No Child Left Behind
PECS	Picture Exchange Communication System
PDD-NOS	Pervasive Development Disorder – Not Otherwise Specified
SEN	Special Educational Needs
SENCO	Special Educational Needs Coordinator

SFS	Special Families Support
SAATHI	Society for Advocacy & Awareness towards Holistic Inclusion
TEACCH	Treatment and Education of Autistic and Communication Handicapped Children
UAE	United Arab Emirates
ZHO	Zayed Higher Organization for Humanitarian Care and Special Needs

CHAPTER 1

INTRODUCTION

Autism Spectrum Disorder (ASD) has been acknowledged as one of the most widely researched health concerns. Global efforts to widen the knowledge base and understanding of ASD are on-going (Eldar, Talmor & Wolf-Zukerman 2010) with discussions related to autism often outstripping “all other developmental disabilities in children put together” (Perera 2008, p. 72). This focussed attention can be justified by the alarming increase in the identification and prevalence of ASD in recent years. According to latest estimates, ASD affects nearly one in every 88 children and the disability is found to be nearly five times more common in boys than girls (Centers for Disease Control and Prevention 2012). Therefore, the deeper and wider the research on ASD, the more beneficial it will be to seek answers pertinent to this disability. These answers are crucial in order to effectively address and attend to the increased ASD prevalence, which is estimated to have increased five-fold since the past decade (Dybvik 2004).

1.1 An Overview

This alarming rise calls for appropriate diagnostic services as well as effective interventions and treatment to address the needs as well as to enhance the learning and development of such individuals (Levy, Mandell & Schultz 2009). Increased knowledge has raised the understanding and public awareness levels, while improved services have led to a larger number of individuals with ASD being treated and catered to. Adequate and appropriate provisions are, however, crucial to meet the growing educational needs of such learners.

Autism is a highly disabling condition with life-long functional impairments and a significant burden of care (Perera 2008). It can be aptly defined as “a complex developmental disability that typically appears during the first three years of life” (American Autism Society cited in Willis 2006, p. 14). Sinclair (1993, p. 2) further explains that “Autism isn’t something a person has, or a ‘shell’ someone is trapped inside. There is no normal child hidden behind the autism... Autism is a

way of being.” This disability is referred to as a spectrum as the individual might fall along a continuum between very severe and very mild and by determining his/her place along the spectrum the educational plan can be customised to suit the individual’s interest and needs. For the purpose of this study these individuals will henceforth be referred to as learners with ASD.

1.2 Addressing Exceptional Learning Needs

Such learners have exceptional learning needs wherein their “physical, mental or behavioural performance is so different from the norm –either higher or lower that additional services are needed to meet the individual’s needs” (Slavin 2009, p. 365). Given their varying needs and extent of disability, these learners are either placed in mainstream schools, special schools or specialised centres. Quite often a mainstream school environment does pose a challenge for learners with ASD and “unless pupils are helped to make order from the chaos, they are not likely to learn effectively” (Jones 2002, p. 30). Though the successful inclusion of such learners in mainstream schools does pose a daunting challenge, it is definitely not impossible to achieve. An inclusive environment relates to “the full-time placement of children with disabilities in a classroom with typically developing peers” (Leatherman 2007, p. 594). This definition clearly indicates that schools and its teachers are largely responsive to meet the educational needs of all children (Mittler 2000). Inclusive education has thus proved to be an efficient means to address the United Nations ‘Education for All’ strategy in countries across the globe (Forlin 2011).

1.3 The UAE Context

Along with the rest of the world, the UAE too has witnessed an increase in the identification and prevalence of ASD. The country is committed to “meet the educational, social, emotional and vocational needs of individuals with special needs” by providing them “equal access to a quality education” (UAE Ministry of Education Special Education Department n.d., p. 7). In fact, His Highness Shaikh Mohammad Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai regards education as “the right of every child in the

UAE. Spreading education and its development is a priority for the development process and a general humanitarian principle and basic right that cannot be overlooked” (Gulf News 2012, p. 2). Bolstered by such strong political will and support of key stakeholders, the country can forge ahead in planning, allocating and implementing services that will enable such learners to lead more independent and fulfilling lives. The time is definitely ripe to critically review the achievements made so far in the field of special education and to further explore the barriers that must be overcome for successful inclusive practices to be realised. This research study thus, attempts to examine the adequacy and appropriateness of the current provisions, and to delve deep into its impact on learners with ASD in Dubai, an emirate of the UAE.

The UAE is a rich nation that strongly upholds the Islamic principles of equality in all spheres of life regardless of race, religion, abilities or needs. The Islam religion encourages tolerance and respect among its people and advocates “disability as bliss not a hindrance” (Abdullah 2011). Bradshaw, Tennant and Lydiatt (2004), therefore, expect the education system and the general public to be more receptive and tolerant to the diverse needs and abilities of individuals. Along with the UAE government, private centres, mainstream schools as well as support groups have exerted efforts to provide for and accommodate learners with special educational needs (SEN), including those with ASD. Furthermore, the recently released inspection handbook by the Dubai Schools Inspection Bureau (DSIB) calls upon mainstream schools to improve the quality of educational services and successfully integrate learners with SEN in their education settings. “Our pursuit of high-quality education for all children in Dubai will continue and we will spare no effort in raising schools’ awareness of how this goal can be achieved” (Al Muhairi cited in Shahbandari 2012, p. 4).

By the year 2013 the UAE proposes to create an inclusive educational environment for all its learners regardless of their abilities and needs in over 60 per cent of its mainstream schools (Zaman 2010). Though the proposal seems impressive it does raise pertinent concerns about the capacity of the education system to include such learners and effectively provide differentiated instruction

in mixed-ability classrooms. While there is no denying that sincere efforts are being extended to address and cater to the needs of learners with ASD in Dubai, the increased prevalence leaves no room for complacency. The past decade has seen a 78 per cent increase in the number of individuals diagnosed with ASD in Dubai alone (Gulf News 2012). Thus, the timeliness and significance of undertaking this research study cannot be overemphasised.

1.4 Research Purpose

As the country takes rapid strides in the direction of inclusive educational practices, this study can prove beneficial by providing an overview of the existing educational services for learners with ASD in Dubai and highlighting challenges that need to be surmounted to successfully embrace inclusive educational practices. In this piece of work educational services are seen as the provisions that impact the individual's learning and development. For the researcher this study holds relevance as she works closely with learners with ASD at a special needs centre in Dubai and looks forward to their successful integration within a mainstream learning environment. In order to obtain a clearer picture of the status of ASD in Dubai and the impact of the educational development on such learners, this research investigates the following questions:

1. Are the educational services adequate and appropriate in meeting the needs of learners with ASD in Dubai?
2. What is the impact of the increased demand for services on the education of individuals with ASD?
3. What can be recommended for future improvement and further research?

1.5 Scope of work

For a wider and deeper perspective into the gamut of issues confronting such learners, the researcher will record classroom observations of 6 learners with ASD admitted in a specialised centre, two special need centres, an early intervention centre as well as in an inclusive education programme initiated by a centre within

a mainstream private school campus. The activities conducted by a support group for such learners in Dubai will also be included. These observations will be supported by documentary evidences of the learners' class performance and current level of development. In addition to that, interview-based questionnaires will be administered to parents and pertinent professionals working in the field. Furthermore, this research also seeks to explore and highlight key issues concerning learners attending afternoon sessions at these centres as well as those currently home-schooled.

1.6 Structure of the Study

This study comprises of five sections detailing the methods and procedures adhered to in order to investigate and arrive at relevant findings on the issue under study. As mentioned earlier, the Introduction section highlights the study purpose, the rationale behind the topic selection and the research questions to be investigated.

The Literature Review chapter provides an overview of the global status of learners with ASD narrowing down to the UAE scenario and eventually to the educational provisions for such learners in Dubai. The Present Study section outlines the methodology and research design utilised in collecting data in an ethical manner. The collated data are analysed and presented in the Research Findings and Discussion chapter. These findings are linked to relevant issues raised in the Literature Review chapter. Relevant concerns that can enhance learning and development as well as the scope for future research and development are presented in the Conclusions and Recommendations section.

CHAPTER 2

LITERATURE REVIEW

This section aims at analysing and synthesizing relevant research related to the concerns raised in the study. While the systematic review will help establish the context of the research topic, it will also demonstrate the comprehensive understanding of ASD and its complexities and justify as well as support the research questions to be investigated later in the study. This review will provide a global outline of the educational services, its impact on learners with ASD and further elaborate on its current status in UAE and Dubai.

Drawing attention to the complexity of the disorder, Willis (2006) notes that additional research on ASD often leads to further learning about an unknown aspect of the disability. According to Jones (2002, p. 1), “professionals now attempt to understand autism from an ASD perspective, rather than solely speculating from the outside on why individuals behave as they do.” This could be a plausible explanation given that, “learning about autism is not about a product” but “it is about a process of gathering information and making informed choices based on the needs of the individual child” (Wall 2004, p. 33).

2.1 Global Scenario

With an improvement in the early identification and diagnostic services, recent years have witnessed a larger proportion of individuals identified with ASD than previously estimated. The increase has been attributed to the availability of improved diagnostic services as well as an actual increase in the number of cases (Velasquez-Manoff 2012). Jones (2002, p. 14) observed that the proportion of individuals “who are more able or with less severe autism being identified and diagnosed” has increased. Quite often there is a difference between individuals with ASD in terms of the severity of the disorder and their intellectual capacity (Appendix 1). Highlighting a key facet of the fascinating world of autism, Shore (in Baker et al. 2010, p. 41) explains that “When you have met one person with autism, you have met one person with autism.” Thus, keeping this uniqueness in

mind, Jones (2002, p. 2) warns against “assumptions on the ASD population as a whole.”

Simpson et al. (2003) informs that while there is a global call to create an inclusive society, very few successful educational models for individuals with ASD are currently available. Policies such as the No Child Left Behind Act of 2001 (NCLB) and the revised Individuals with Disabilities Education Act of 2004 (IDEA), among others, have spurred the global inclusive movement asserting that learners with disabilities must be adequately skilled to seek gainful employment in mainstream society (Friend & Bursuck 2002). Chandler-Olcott and Kluth (2009) further explain that by adopting appropriate interventions, these skills can be effectively taught to learners with ASD in an inclusive education setting alongside their typically developing peers.

2.2 ASD Characteristics

There are variations in the characteristics not only between individuals along the autism spectrum but also differences in the same individual over a period of time. Jordan and Jones (1998, p. 4) elaborates that the disability is often “characterised by aspects of development that are missing or abnormally delayed, but the way the pupil’s behaviour reflects these developmental difficulties will vary from one individual to another.”

2.2.1. Social Interaction:

While social interaction is the most obvious characteristic of an individual along the spectrum, individual variations still persist. For instance, some individuals might be excessively dependent on a particular familiar adult or might appear completely withdrawn with no interaction with anyone. Quite often learners with ASD might appear very sociable but they are unable to interact with others and this makes them look awkward (Willis 2004).

2.2.2 Communication:

Nearly half the individuals with ASD do not develop functional speech and such learners often tend to take the language literally and not in the context in which it is communicated (Jordan & Jones 1998). Therefore, it is felt that despite language ability, learners with ASD often struggle with the usage of language for communication. Sharing their experiences with others is a challenge and this inability impacts their communication and social development skills (Velasquez-Manoff 2012).

2.2.3 Flexible thinking and behaviour:

Such individuals also find it difficult to generalise the learning to new or different situations and to enjoy pretend play games that is characteristic of early childhood (Jordan & Jones 1999). While individuals with ASD find it difficult to produce something unique and creative from their imagination there have been instances of exceptional artists producing exemplary work in the field of art and culture.

2.3 ASD Classifications

While ASDs may set in between 18 to 36 months of age and last a lifetime, certain symptoms of the disorder may improve with age. The Centers for Disease Control and Prevention (2012) classifies ASDs into three types, which are as follows:

2.3.1 Autistic Disorder:

Individuals exhibit significant social and communication delays and behavioural concerns, many of who might have intellectual disability.

2.3.2 Aspergers Syndrome:

Under this classification, individuals exhibit milder symptoms of the disorder and have normal to above normal intelligence. Sometimes they learn new skills faster

than their peers without ASD. However, they may still exhibit difficulty with coordination and develop unusual behavior and interests.

2.3.3 Pervasive Developmental Disorder – Not Otherwise Specified (PDD-NOS):

Individuals exhibit certain autistic disorder or Asperger syndrome characteristics, but not all of them may be diagnosed with PDD-NOS. These individuals have fewer and milder symptoms than those with autistic disorder and they might face certain social and communication challenges.

2.4 Types of Intervention programmes

Looking at the above-mentioned characteristics and classifications, “specialised interventions that address comprehensive skill development, including social and communication skills, task engagement and work skills, as well as adaptive, cognitive and motor skills” (Ruble et al. 2010, p. 1466) are needed to enhance the learning potentials of individuals with ASD. While there is no established cure for ASD (Willis 2006), there are various therapeutic and behavioural interventions capable of enhancing the lives of learners along the spectrum.

2.4.1 Applied Behaviour Analysis (ABA):

This programme follows a simple formula. Since behaviour is generally learned, it is possible to encourage positive behaviour by rewarding it and ignoring the not-so appropriate ones. Sicile-Kira (2004, p. 230) further explains that, “if you know basic ABA, you will be more effective in applying these other strategies and with practice will be able to adapt techniques and curriculum for all types of children.”

2.4.2 Treatment and Education of Autistic and Communication Handicapped Children (TEACCH):

Aimed at capitalising on the learner’s visual strengths to help understand what is required, Jones (2002) explains that by providing visual instructions on a daily basis, the learner eventually learns to independently work on assigned tasks. This

strategy encourages parental involvement and the learning can be further reinforced at home for better outcomes to be achieved.

2.4.3 Makaton and Picture Exchange Communication System (PECS):

The Makaton and Picture Exchange Communication System (PECS) have gained recognition as effective alternatives to encourage individuals with learning difficulties to communicate with others (Wall 2004). As Augmentative and Alternative Communication (AAC) systems, the Makaton Programme encourages the development of functional communication, language and literacy skills by using “manual signs and/or graphic symbols accompanied by speech” (Rubina 2010, p. 120), while PECS supports learners in expressing their needs through the use of pictorial images and thus promotes communication with others.

2.5 Challenges for ASD Services

2.5.1 Diagnosis and Identification

There is a worldwide call to strengthen and accelerate diagnostic services and provide timely interventions. In the UAE public education system, the provision for special education “presently appears to focus on an early intervention system” (Bradshaw, Tennant & Lydiatt 2004, p. 52) wherein Emirati learners at the kindergarten and grade one level are identified by the school and later assessed by professionals. Once these formalities are complete, the child is either enrolled in a special class or is provided additional support within the public schools. The responsibility to seek appropriate education finally rests with the parents.

Unfortunately the process is not so straightforward. A clear-cut diagnosis sometimes proves difficult as “there is no medical, biochemical or psychological test and there is much diversity in population” (Jones 2002, p. 16). Furthermore, the diagnosis can get further complicated if alongside ASD additional problems are also detected. Since such individuals might also experience learning difficulties alongside difficulties in behaviour and communication, the potentials of a misdiagnosis is quite high (Wall 2004). Screening instruments, such as

Checklist for Autism in Toddlers (CHAT), Childhood Autism Rating Scale (CARS) and the Childhood Asperger Syndrome Test (CAST) have been globally developed to support ASD identifications. For a complete diagnosis to take place, these instruments need to be coupled with observations of the child in natural settings, an examination of his/her medical records that chart early developments as well as in-depth interviews with the parents (Jones 2002).

So far, there is no official record of PDD prevalence rate in the UAE. The absence of a central data collection system makes it difficult to estimate ASD prevalence in the country. Based on a random sample of nearly 700 three-year olds in the country, Eapen et al.'s (2007) study estimates the prevalence rate to be around 29 per 10,000 children. In fact, prior to this study many of the children identified with PDD had not been diagnosed with the disability. Mostafa (2011) admits that while this figures does not appear worrisome as it is relatively lower than those in developed countries, it should not be taken lightly. A recent project undertaken by Zayed Higher Organization for Humanitarian Care and Special Needs (ZHO) in Abu Dhabi aims at assessing children under the age of two years to identify developmental concerns and extend support to parents in tackling the disabilities (Sherif 2011). Sartawi (1999) asserts that alongside improving screening procedures, research potentials must be harnessed for a comprehensive overview of the needs and concerns facing such individuals in the country. Appropriate diagnosis and interventions are expected to “increase the probability of a good outcome whereas delayed intervention compromises child’s quality of life” (Perera 2008, p. 72).

Although school teaching staff does not make the diagnosis per se, they often might be the first to raise concerns of a learner facing difficulty in coping with the inclusive school environment. In the UAE, the existing provisions reflect the “inability of specialized people to make identifications of not only the most alarming exceptional learning needs but fail to adequately assess those children with hidden special needs” (Gaad 2004, p. 163). Gaad and Thabet (2009) recommend a nation-wide screening scheme inclusive of SEN indicators that can enable school teachers to identify learners with SEN in primary schools and

inform relevant authorities to initiate appropriate assessments and interventions. According to Mostafa (2011) doctors in the Arab world are not as experienced as their Western counterparts in appropriate identification and diagnosis of individuals with ASD. Parents too are often unaware about ASD and its symptoms and they fail to seek timely medical help. To a large extent the prevalence of ASD is not effectively diagnosed and reported and, therefore, not adequately addressed in the Arab world (Mostafa 2011). Drawing lessons from an Iranian case study, Samadi and McConkey (2011) noted that despite the increased prevalence, lack of adequate diagnosis and interventions have a significant impact on individuals, families and community.

2.5.2 Linking diagnosis to interventions and provisions

Research clearly indicates that there is little point in early diagnosis if it does not lead to educational provisions for the individual and therapeutic support for the family (Levy, Mandell & Schultz 2009; Perera 2008; Webb & Jones 2009). Moreover, a single intervention or approach will not prove effective in meeting the needs of all individuals with ASD as the wide range of needs within the spectrum must be given due consideration. These interventions have distinct strengths and weaknesses that must be borne in mind while planning educational provisions (Jones 2002).

Siegel (1996, p. 163) admits that “there is no one way to educate a child who has autism or PDD, any more than there is only one right way to educate a non-disabled child.” At the same time every child has a right to education. Theodorou and Nind’s (2010) case study of a child with ASD in England reiterates the importance of play in early years, especially for those under the spectrum, in meeting dual objectives of social inclusion and academics. Seach (2007), however, argues that the benefits of play for such children depend largely on adult support and intervention. Verte et al.’s (2006) study on children with ASD in Belgium concludes that the educational curriculum must be directed towards developing language skills with key emphasis on pragmatic communication. As students with special needs learn at a slower rate and have difficulty in

generalizing the learning, it is important to maximise their time in school by teaching specific skills which will help them in adult life (Jessie & Kay-Cheng 2005). Individualised educational plans (IEP) are prepared to suit the learners' needs and maximise their potentials. The learning takes place on a one-to-one basis or sometimes with the help of a shadow teacher in a mainstream school setting. Since majority of such individuals are visual learners, they can be encouraged to communicate more effectively by using a wide range of tablets and smartphone applications (Nazzal 2012). Since the iPad is visually stimulating, Daly (2012) affirms its effectiveness in "establishing new skills across to these learners and then generalising the same on paper." Gross and White (2003) thus advocate that the learner's potentials can be maximized when their needs are assessed, recorded and responded to appropriately.

In practice, addressing the needs of a learner with ASD can be quite daunting. Farrell (2004) emphasises upon introducing flexibility in the curriculum so that the learner's varying needs and potentials are reasonably met. Collaborative parent-teacher relationship also goes a long way in enhancing learning and improving social and classroom participation, as Mortier et al.'s (2009) study in Belgium points out. Looking at the scenario within the Arab world, Al-Shammari's (2006) research work in Kuwait reaffirms that preservice and inservice training can help hone teacher's skills in adopting diverse teaching techniques. Interestingly, MacBeath et al.'s (2006) UK study also indicates the need for further professional development and teacher training programmes to address the wide needs of these learners.

Support groups have also proved helpful for families struggling to come to terms with the ASD diagnosis and for those seeking guidance and sometimes just a comforting word along this slippery and challenging journey (Siegel 1996). Brown's (2010) study which explores the burden experienced by families of such individuals in Canada recommends increased support services to address learners' needs and promote social inclusion. Consolidating this statement, Glazzard and Overall (2012, p. 37) note that while parents have different experiences in raising learners with ASD, a majority of them expressed "low level of support from

agencies and professionals.” It is indeed heart-warming to note that such parents often believe that their child with ASD has positively influenced their outlook towards life which they feel would otherwise not have been possible (Jones 2002).

2.6 Status of Educational Services in UAE

In the UAE, there has been an encouraging expansion in the provisions for individuals with SEN, including ASD. Initially these services were restricted to individuals with “mental, physical, sensory, cognitive or behavioural condition” and it now includes other SEN concerns as well (UAE Ministry of Education Special Education Department n.d., p. 13). Gaad (2010) states that the education services for individuals with SEN in the UAE are extended either via public and private mainstream schooling or through privately-run centres and government initiatives referred to as Centres for People with Special Needs. Interestingly, this government service is restricted to Emiratians with SEN (Gaad 2001). While doctors do guide parents to seek admission at the nearest centre for special education, Gaad (2004, p.160) notes that the “registered numbers of birth cases of children with disabilities and exceptional learning needs is less than those attending full time schooling.” Appropriate diagnosis of these children during the early years might have proved difficult and, therefore, they remain largely unidentified and untreated (Gaad 2004). Sheriff (2011) advocates that early diagnosis coupled with timely interventions can empower such individuals to maximise their growth potentials. During a recent visit to an Autism centre in Abu Dhabi, General Shaikh Mohammed Bin Zayed Al Nahyan, Abu Dhabi Crown Prince affirmed that the education and development of learners with ASD was the joint responsibility of relevant departments (Gulf News 2012).

Today’s classrooms are highly diverse and the different cultures, backgrounds, religion, needs and abilities of the learners and teachers must be carefully considered. As more learners with SEN are expected to be accommodated in mainstream schools, teachers with diverse cultural and teaching backgrounds must be empowered to effectively teach the multi-ability class settings (Gaad & Khan 2007). Training is vital for the teachers to appreciate the similarities and

differences among their learners and the common factors among them as well. Teachers must be able to ‘accommodate’ and ‘modify’ interventions in order to encourage and challenge the learners to succeed (Price & Nelson 2011, p. 105). For the learning outcome to be effective, O’ Meara (2010, p. 74) emphasises that “the selection of the instructional strategy is as important as the selection of the content and materials used.”

In the UAE efforts are being extended to address and accommodate the needs of learners with SEN. Nearly 50 Centres for People with Special Needs have been set up to meet the needs of around 3200 such Emirati learners in the country (Naidoo 2011). It is heartening to note that in the year 2012 the admission of learners with ASD at these Centres has risen to 589 (Ministry of Social Affairs n.d.). Private centres have also mushroomed to contribute towards addressing this pressing need. Unfortunately, the existing demand far outstrips availability of services. For instance, the Dubai Autism Center (DAC) that can accommodate only 48 learners with ASD owing to space and facility constraints has nearly 200 learners on its waiting list (Pathak 2012). Even the afternoon programmes initiated by the Center for those awaiting admissions does not provide much solace to parents as they find it too high priced to sustain on a regular basis (Saber 2012). Parents, therefore, express the need for additional educational institutions to be set up to cater to the increasing demand for these services. Those parents who have already sought admission in Centres worry about their child’s future as they are compelled to seek other educational alternatives when the individual turns 18 years old (Choudhury 2012). Currently very few centres in Dubai cater to learners with ASD beyond this age limit. Baker (cited in Choudhury 2012, p.17) warns that, “without regular training and therapy, the individual is likely to regress.” Thus, efforts are being made to extend vocational training to these learners so that they can be gainfully employed in mainstream society (Pathak 2012). Working along similar lines, The Mawaheb for Beautiful People Art Studio Centre in Dubai hones the artistic skills of such learners while simultaneously working on their life skills (Moussly 2011).

Until additional specialised centres are set up, learners with ASD will be compelled to remain home-schooled or enrolled in centres for special needs, which Al Emmadi (cited in Saberi 2011, p. 1) considers incorrect as these learners “tend to copy other children” with SEN at the centres. Furthermore, Farooq (2007, p. 72) highlights the importance of updating the skills of SEN professionals and states that learners in centres that were provided “proper support” showed encouraging improvement in their development in comparison to those who did not receive adequate intervention measures. Thus, in the absence of appropriate education, specialised training and social interaction, the condition of such children may “deteriorate” (Pathak 2012, p. 6). The recent news report announcing plans for a new specialised centre that can accommodate over 270 learners with ASD in Dubai has been warmly welcomed by parents and professionals alike (Saberi 2012). In support of the government initiative to promote inclusive practices, a number of non-government organisations have been set up in Dubai. For instance, the Society for Advocacy & Awareness towards Holistic Inclusion (SAATHI), an umbrella organization of non-government organizations in Dubai conducts the “children-for-children inclusion programme” (Thekkepat 2011, p. 19). This endeavour encourages as many as 90 mainstream learners to interact with around 40 learners with SEN for a few hours every two weeks. Furthermore, support groups such as the Special Families Support (SFS) have “empowered many families” by encouraging interaction between families of individuals with special needs as well as organising talks on topics of mutual concern (Pathak 2012, p. 8).

2.6.1 Socio-cultural influences

The general attitude of the public towards SEN-related concerns is largely driven and influenced by socio-cultural issues dominant in the country. In the UAE, public acceptance and attitude has a deep impact on the educational provisions made for such learners to reach their potential. The socio-cultural values are so profoundly embedded that it even impacts teachers’ selection of special needs as their field of specialisation (Gaad 2004). Moreover, class teachers are also apprehensive about their ability to address the needs of such learners in a

mainstream class environment owing to the lack of adequate training, skills and experience (Alghazo & Gaad 2004). Earnest efforts to generate public awareness about ASD and its characteristics and thus encourage acceptance (Connector 2011) is often marred by the “callous attitude of a few” (Pathak 2012, p. 5). Inadequate understanding of the unique needs of these learners often “exposes them to a risk of isolation, inappropriate behaviour, academic underachievement and depression” (Pathak 2012, p. 2). Crabtree’s (2007) study in the UAE also highlights the plight of families, especially mothers in raising children with disabilities. In the absence of government support, the situation for expatriate parents with such children is more challenging as they are forced to depend on the private sector for their child’s educational services. While the UAE is tolerant to all individuals regardless of their needs and abilities, the stigma related to SEN will take a while to be completely erased.

2.6.2 Multisectoral Approach

The onus of encouraging learners to achieve their maximum potential is not the sole responsibility of the teachers. Besides teachers, collaborative work between schools, therapists, support groups, government and the community is essential (Baker et al. 2010). Gaad (2010) points out that relevant government bodies must be integrated for the effective functioning of the SEN services as the placement of education under two separate ministries proves a major impediment to inclusive practices. Currently, the Ministry of Education and Youth is responsible for all education institutions, while all SEN centres fall under the Ministry of Labour and Social Affairs (Gaad 2001).

2.6.3 Legal process

Concerned about the development of all its’ people, the UAE ratified the UN Convention on the Rights of Persons with Disabilities in the year 2008 (Gulf News 2008). The country had earlier introduced the Federal Law No. 29 of the year 2006 to ensure that all individuals regardless of their differences have access to equal educational opportunities (Gaad 2010; Appendix 2). Unfortunately, guidelines and procedures have not been clearly delineated and the Law remains

largely ineffective (Gaad 2010). To a certain extent, learners with physical disabilities, visual as well as hearing impairment are accepted within mainstream settings while centres for special education address the educational needs of learners with intellectual disabilities.

There is no clear-cut Special Educational Needs Coordinator (SENCO) policy incorporated in the UAE mainstream schools. Mittler (2000) asserts that these coordinators play a key role in ensuring that learners with SEN have equal access to the school learning experience. In fact, the ‘School For All’ programme outlines schools to admit such learners and to ensure that “the best possible services and programs for each student with special needs” is made available (UAE Ministry of Education Special Education Department n.d., p. 39). So far these guidelines do not seem to be strictly adhered to in the UAE schools. The news report of a two-year-old boy being refused nursery admission in Dubai for having mild autism (Sankar 2010) is a valid case in point here. Given the current situation, parents of such children are compelled to leave the country when their child is unable to obtain appropriate school admission (Ahmed 2010).

Till date, the inclusion process has proved ineffective as a “code of practice” (Gaad 2004, p. 163) to guide general class teachers in identifying issues concerning learners with SEN and referring them to specialists for further investigations is not in place. In a recent move to boost inclusive practices, preparations for a special education law are under way to look into the curriculum modifications, exam rules and assessments. Furthermore, nearly 70 mainstream schools are expected to be shortly prepared to accept and integrate learners with SEN in their settings (Shahbandari 2012). Along with appropriate policies that are conducive to inclusive education, a “supportive framework” that includes key stakeholders must be collaboratively developed (Szwed 2007, p. 96) to accelerate the momentum towards inclusive education.

2.6.4 Inclusive Practices

Increased knowledge and public awareness regarding ASD has led to better provisions to accommodate these learners in mainstream schools (Eldar, Talmor

& Wolf-Zukerman 2010). Since the past two years around 20 private schools in Dubai have gradually begun embracing inclusive educational practices (Pathak 2012). While such practices are being welcomed, there is a noticeable tilt in favour of admitting individuals with physical challenges rather than those with severe learning disabilities such as ASD (Gaad 2004). In the UAE, the Abu Dhabi Education Council (ADEC) has identified certain challenges and is currently persevering towards bridging these “gaps that hamper inclusion” (Ahmed 2011, p. 12). Cultural influences, beliefs and attitude towards learners with SEN do impact and influence teachers functioning in an inclusive mainstream school setting. Kite (2008) observed that teachers’ inadequate knowledge and training, their inability to apply differentiated learning styles and dearth of adequate support staff adversely impact their attitude towards inclusive educational practices. Fortifying the recent DSIB initiative to promote inclusive practices, the provision of quality special education services in mainstream schools is a key parameter in the Knowledge and Human Development Authority (KHDA) school ratings (Shahbandari 2012).

While provisions for inclusion have improved, ASD-related characteristics bring forth concerns about the adaptability and suitability of the learner in a mainstream school environment. Parents also often worry whether inclusion is the best option in terms of the learners’ emotional and social development and the schools capacity to cater to their unique needs and abilities (De Boer, Pijl & Minnaert 2010; McGregor & Campbell 2001). Despite these challenges, Gaad (2004, p. 164) believes that parents of learners with ASD and those with typically developing ones can benefit from inclusion provided “safety, effectiveness and fair allocation of resources for their children” are assured. Preparatory centres do extend “customised programmes” for such learners alongside medical services to ensure their smooth transition into mainstream settings (Dhal 2011, p. 8). Farrell (2004) informs that in a few countries inclusive education is so effectively practised that even learners with severe SEN are appropriately supported in mainstream environments. He is quick to add that collaborative teamwork by the school, parents and local governing bodies has been integral in achieving success in these settings. Adams (2012, p. 2) asserts that, “only when attitudes are

inclusive will classrooms naturally follow.” The UAE recently took a bold initiative to integrate 110 learners with ASD from nine private autism centres alongside other typically developing learners from 13 public schools in the annual races organised by ZHO in Abu Dhabi (Sherif 2012). Similarly, the Reaching U Family Fun Day in Dubai is a striking example of integrating mainstream learners and those with SEN for a fun-filled day together. This annually held event sensitises the public towards such learners and emphasises that though their ways are different, they belong to the same society (Dyes 2012).

These research-based deliberations thus highlight the global and local concerns that relate to the growing prevalence of ASD. The forthcoming section will employ research tools to investigate the appropriateness and adequacy of the educational services in Dubai and consequently its impact on the individuals’ learning outcomes.

CHAPTER 3

THE PRESENT STUDY

For the purpose of this investigative study, the mixed research method that combines the qualitative and quantitative approaches has been found most appropriate as it is expected to, “provide a better understanding of the research problem and question than either method by itself” (Creswell 2012, p. 535). This study probes deep into the educational services currently available to learners with ASD in Dubai by using qualitative-based observational studies and documentary evidences and quantitative interview-based questionnaires.

3.1 Methodology

The mixed method of research is strongly influenced by the pragmatism approach that identifies and selects options best suited to undertake a particular study (Punch 2009; Johnson & Onwuegbuzie 2004). Under this approach the framing of the research questions precede the selection of the method – qualitative, quantitative or mixed and the method found most appropriate to the purpose of the study is selected. As Robson (2002, p. 224) aptly said “the selection of a method or methods is based on what kind of information is sought, from whom and under what circumstances.” The multiple databases collected under the mixed approach draw on the advantages of both the qualitative and quantitative methods and offset the weaknesses of the other (Creswell 2012). Highlighting the close relationship between qualitative and quantitative approaches, Long (2000) elaborates that majority of the quantitative research involves qualitative decisions, and qualitative approaches also often leads to a quantitative analysis. Therefore, a blend of the two research methods has been adopted to yield a deeper and richer insight into the educational services available for learners with ASD in Dubai and its influence on their development. A number of previous researches have also opted for the mixed research method in the exploration of ASD and its complex characteristics and concerns (Jonathan & Katy 2012; Julia & Martha 2010; Whitney 2012).

In a mixed research study, the “data collection is extensive and varied” (McMillan & Schumacher 2010, p. 345), which helps enhance the “trustworthiness” of the research findings (Locke, Silverman & Spirduso 2010, p. 218). In this study, the observations and documentation collated from different educational settings helps gather rich qualitative “information about the context or setting” (Creswell 2008, p. 558), while the interview-based questionnaire intentionally comprises of both close and open-ended questions so as to seek and draw out information that “describes” as well as “explains why things are the way they are” (Munn & Drever 2004, p. 5). Thus, the mixed design provides for a quantitative result of the research study alongside a qualitative explanation of the reason behind it. In fact, this research method encourages qualitative and quantitative researchers to work together “to promote a shared responsibility in the quest for attaining accountability for educational quality” (Johnson & Onwuegbuzie 2004, p. 24).

Furthermore, since the study is supported by more than one source of evidence, it “facilitates the validation of data through triangulation” (Denscombe 2007, p. 45). Triangulation of data, which means to, “simultaneously collect both quantitative and qualitative data, merge the data, and use the results to understand a research problem” (Creswell 2008, p. 557) takes place in this study. McMillan and Schumacher (2010) explain that triangulation increases the validity and reliability of the research findings by enhancing the strengths of both forms of data collection. In a study, which explored the attitude of primary mainstream school teachers’ towards inclusive education in Dubai, Gaad and Khan (2007) also used data triangulation with semi-structured interviews, documentary evidences and questionnaires.

3.2 Research Instruments

The qualitative observational studies and documentary evidences have been selected as research tools along with quantitative interview-based questionnaires. In this study, qualitative data (observation) has been collected first “to explore the topic with participants at sites” (Creswell 2009, p. 206) and then gradually expanded to include quantitative data (questionnaire) as well. By adopting

“multiple measures of the same phenomena” (Neuman 2011, p. 164), relevant data has been collated within a stipulated time frame.

3.2.1 Observational Studies

This investigative study includes descriptive field observations of learners with ASD in a number of educational settings; a centre’s inclusive education initiative in collaboration with a mainstream private school, special needs centres, a specialized centre, learners attending afternoon sessions at these centres as well as those currently awaiting admission into a centre or school. This form of qualitative data collection helps record information in natural settings and it has been found apt for studying such individuals “who have difficulty verbalizing their ideas” (Creswell 2008, p. 222). The learners’ interaction with his/her peers and teachers have been keenly observed alongside their responses to the different school activities and their engagement in the same. These observations have been restricted to schools and centres that granted permission to undertake the research.

For a better and deeper understanding of the impact that educational services have on learners with ASD, the researcher “carefully observes, systematically experiences, and consciously records in detail the many aspects of the situation” (Glesne 2011, p. 67). The observations have been carefully conducted and recorded as it can reveal certain features about individuals or organisations that may not be easily sought through other means (Bell 2010). These observations are conducted in “structured and unstructured situations across different areas of the curriculum” (Hayden & Jordan 2007, p. 29) including play time, speech and occupational therapy sessions, class group activities as well as during break time. Thus, by observing the individual learner through the entire school time period, it is possible “to record information as it occurs in a setting” (Creswell 2008, p. 221) and explore the different aspects of the learner’s school life experiences. Furthermore, sincere effort has been made to play the role of a non-participant observer in order to “record in as objective way as possible and then to interpret the data” that is gathered (Bell 1999, p. 158). The recorded field notes are a running description of the events that have taken place during the observation

sessions and the researcher does not limit the data collection to any system with checklists or categories. These descriptive notes are expected to encourage the recording of valuable events as it unfolds during the period of field observations (Robson 2002) and effectively organized, these observations can inform and enhance classroom work procedures in future (Wragg 1999).

3.2.2 Documentary evidences

Along with observational studies, documentary evidences have also been effectively used to qualitatively support and strengthen the research findings as it “represents a good source for text (word) data for a qualitative study” (Creswell 2008, p. 231). An analysis of the collated documents help “fill in some of the missing data pieces” (McEwan & McEwan 2003, p. 82) and raise new concerns related to the accuracy of the observations and interpretations. On certain occasions, this also led to additional interviews and observations conducted to clarify information related to the study.

Rich insights into the educational services were obtained by collating and critically examining the individuals’ school records and activity sheets. The documentation largely comprised of the learners IEP and samples of the worksheets and activity work done by them at the centres. While undertaking the study, the researcher did realize that “it can never be assumed, of course, that because documents exist they will be available for research” (Bell 2010, p. 126). An analysis of the workbooks and activity sheets helps “supplement information obtained from other methods” (Bell 1999, p. 106) and it also provides valuable evidence about the implementation, progress and future challenges that will need to be addressed for the learners. Moreover, the learners’ IEP helps comprehend the customized planning undertaken to address their specific needs. Additionally, the mission and vision statements of educational institutions regarding inclusion and SEN practices have also been carefully studied (for examples see Appendix 7.6; 9.5; 10.6).

3.2.3 Interview-based Questionnaires

Along with observations and documentary evidences, interview-based questionnaires are administered to SEN teachers, general class teachers, occupational therapists, speech therapists, behavioural therapists, local advocacy groups and parents across the selected centres. These interviews largely comprise of close-ended questions to draw out vital and standardized information from the respondents (Munn & Drever 2004). Bell (1999, p. 137) states that “the more standardized the interview, the easier it is to aggregate and quantify the result.” An added advantage of the direct interview is that the response situation can be well controlled by the skilled researcher (Robson 2002). Moreover, face-to-face interviews elicit better responses as majority of the respondents prefer to “talk more easily than write” (Gillham 2000, p. 13).

However, questionnaire data is sometimes considered “superficial” since all the possible responses can be determined prior to the interview itself, thus, reducing the scope of exploration in the study (Munn & Drever 2004, p. 9). To offset this drawback of producing “bland and sterile answers” (Swetnam 2000, p. 61), open-ended questions have been intentionally included to encourage respondents to organize his/her thoughts and respond appropriately and effectively to the posed questions (Mears 2009). Bell (1999, p. 139) warns that without a structured format “you may end with a huge amount of information, no time to exploit it and still without the information you need.” Munn and Drever (2004, p. 20) thus sum up the designing process of the interview-based questionnaire as, “enjoyable, interesting and frustrating.”

3.3 Issues for Consideration in Research Design

Research tools have their intrinsic strengths and limitations and it is important to be aware of them so that some of the defects, to the extent viable, can be mitigated or at least eased so that it does not hinder the successful outcomes of the research study (Gillham 2000). Ultimately it rests upon the researcher to “weigh up the advantages of a particular method in relation to the research questions you want to ask and the claims about your findings you want to make” (Munn & Drever 2004,

p. 11). Mixed method has its fair share of advantages and limitations. This empirical method incorporates the strengths of the quantitative and qualitative approaches “for a more comprehensive picture of what is being studied, emphasizing quantitative outcomes as well as the process that influenced the outcomes” (McMillan & Schumacher 2010, p. 396). On the flip side, this method demands the collection of relatively larger amount of data than either qualitative or quantitative approach separately and thereby, requires additional time and resources (Punch 2009).

3.3.1 Ethical Considerations

Ethics are of key concern to any kind of research study that “involves collecting data from people and about people” (Punch 2009, p. 49). Therefore, it is the responsibility of the researcher to ensure that the rights of the study participants are well protected. Ethical issues must be carefully considered while planning and preparing the general framework of the research, especially when children are its key focus. These considerations need to be constantly attended to - before the study commences, during the process as well as after the research has been completed. Multiple issues such as the worthiness of the research, informed consent as well as confidentiality and anonymity of participants (Punch 2009) have been duly considered and adhered to in this study.

The centres that granted permission to undertake part of the research study in their premise were presented a letter of support from the British University in Dubai (BUID) stating the purpose of the study and establishing the credibility of the researcher (Appendix 3). In addition, letters along with an informed consent form were sent to parents via the centres. This letter briefed parents about the research study and its relevance and sought parents’ permission to partake in the study (Appendix 4). The anonymity of the learners, respondents, centres and school as well as confidentiality of information gathered right from the initiation of the study to the writing of the research report and beyond has been assured and strictly maintained.

3.3.2 Validity and Reliability

Bell (1999) advocates the importance of critically assessing the validity and reliability of the data collated for research purpose. In Orlich et al.'s (2013, p. 179) words reliability relates to the “consistency of the test results” while according to Bell (2010, p. 119) validity refers to “whether an item or instrument measures or describes what it is supposed to measure or describe.” Nenty (2009, p. 28) further explains reliability as the “stability, repeatability and consistency of the results of our measurement or observation.” As mixed method of research comprises of combining the strengths of the qualitative and quantitative methods and offsetting its inherent weakness, Johnson & Onwuegbuzie (2006, p. 60) notes that “assessing the validity of findings can be particularly complex—yielding a problem of integration.” To maintain the quality and validity of the study findings, the first responsibility of all research should be “honesty and openness” (Wellington 2000, p. 56). This research meticulously provides details of the logical flow right from the research purpose, to the data collection, analysis and concluding remarks so as to establish the transparency of the study and its evidences.

3.3.3 Bias

Since the researcher is not directly involved with the study participants, the potential of bias influencing the interpretation of the collated data is largely eased. However, caution has been exercised so that the interview bias does not affect the collection of reliable and valid data. Since the interview-based questionnaires are conducted single-handedly rather than by a team, Bell (1999, p. 139) suggests that the bias brought into the data analysis may be “consistent and therefore go unnoticed.”

3.3.4 Accessibility

Gaining access to schools and centres to undertake the research involves a lot of time, effort and perseverance. These approvals stretched from a couple of weeks to nearly six months. There were instances of schools and centres that initially

granted permission for the study but later withdrew their support. Additional institutions had to be contacted to complete the research.

3.3.5 Feasibility

Furthermore, a study that combines quantitative and qualitative methods requires certain skills and experience on the part of the researcher. Competences in both designs are needed as planning for the data collection and analysis can be quite complex and tedious. Therefore, appropriate knowledge is a requisite to ensure that the findings are valid and credible (McMillan & Schumacher 2010). Munn and Drever (2004, p. 2) admit that “a common mistake in interviewing is underestimating the amount of time needed to analyse the range of views expressed.” However, once these hurdles are efficiently dealt with, the mixed research method is expected to effectively “increase the scope, depth and power” of the research study (Punch 2009, p. 295).

3.4 Data Collection

Prior to initiating the study, local newspapers and magazines were scanned, related websites browsed and word of mouth was relied upon to get familiar with the services currently provided for learners with ASD in different educational set ups in Dubai– mainstream private schools, centres for special needs, specialized centres as well as support groups. Based on this preliminary study, the next task was to contact the concerned authorities via e-mail and telephone. Majority of these centres were personally visited a number of times in order to meet and brief relevant authorities about the research study and seek permission to undertake a part of the research study in their institution.

While awaiting approval from centres and schools, a set of standardised questions (closed as well open-ended) were prepared keeping in mind the purpose of the study and the key research questions to be addressed. With the support letter prepared by BUiD on the researcher’s request, permission was sought to undertake observations of learners with ASD in a classroom setting, as well as to collate documentary evidences such as the learners’ IEP, school worksheets etc.

Moreover, approval for conducting interviews with teachers (general and special educators), therapists as well as parents was requested in order to comprehend their experiences and views regarding the educational services for learners with ASD in Dubai and its influence on the learners' development. This process was found tedious and highly time-consuming as different institutes have their own set of formalities to be completed prior to granting permission for the research study.

A majority of the institutions that were approached, excluding mainstream private schools, were largely receptive to the purpose of the research study. The support group was most forthcoming in granting permission for the study. Parents of learners with ASD across educational settings- specialised centre, special needs centre, those attending afternoon sessions and within a mainstream school were interviewed on a one-to-one basis (for examples see Appendix 6.3; 6.4; 6.5). Similarly, professionals that attend to such learners in different educational settings were also interviewed through a slightly modified questionnaire to suit their profile and contribution to the learners' development (Appendix 6.1; 6.2).

Furthermore, parents who home-school their children for want of an admission in these centres preferred to respond to the questionnaire via telephone (Appendix 6.6). Their preference to participate through this mode was respected and a letter explaining the purpose of the study was e-mailed (Appendix 5) and a phone call was made to them at a later date. Once permission for the study was granted, class observations were conducted, documents collated and mutually convenient time with the respondents were sought and questionnaires administered to therapists, teachers and parents via face-to-face interviews. These interviews were conducted within the school/centre premise itself before or after school working hours.

3.5 Study Participants

Since an overview of the existing educational services in Dubai is the focus of this research, the study subjects are not restricted to any particular school or centre. Six learners with ASD as well as 20 teachers and therapists (special education teachers, general class teacher, occupational and behavioural therapists as well as speech therapists) from centres for special needs, specialized centres, a

mainstream school as well as those currently being home-schooled have been included in the study (Table 1). Ten parents of such learners, including two who have not yet sought admission in any institution here have contributed to this study. Only one of the learners observed in this study is a girl.

This research has selected learners across different age groups and nationalities in an attempt to seek a richer and more comprehensive picture of the educational status of such learners within Dubai. The learners observed in this study aged between four and ten years and they are from India, Syria, United States of America and the UAE. The teachers and therapists hail from India, Pakistan, Egypt, South Africa, Ireland, Lebanon and Philippines.

Table 1. Sources of Evidence			
INSTITUTIONS	OBSERVATIONS	QUESTIONNAIRES	DOCUMENTS
Specialised Centre (full time)	Mohammed	1 parent, speech and occupational therapists, class teacher, head teacher	IEP, worksheets and art work
Specialised Centre (afternoon session)	Imran	1 parent, speech and occupational therapist and SEN teacher	Worksheets and activities
Centre for SEN 1	Harish	1 parent, class teacher, occupational and speech therapists	IEP, worksheets and art work
Centre for SEN 2	Asma	1 parent, class teacher, occupational and speech therapists and senior teacher of section	IEP, worksheets and art work
Early Intervention Centre	Khaled	1 parent, behavior and occupational therapists	IEP, worksheets and art work
Centre's Inclusive Education Programme in a Mainstream School	Mathew	1 parent, inclusive teacher, general class teacher, occupational and speech therapists	IEP, worksheets and art work
-	-	2 parents of children who are home-schooled	-
Support Group	Group of learners	2 parents	-

3.5.1 Learner at the Specialised Centre (full time)

Ten-year-old Mohammed is a friendly boy who loves to establish a bond with others by holding on to their hand. However, he can get very agitated if things do not go his way and he vents his anger by biting or pinching others. His compliance level has, however, improved in the past year and he can now follow simple instructions and perform the assigned tasks satisfactorily (Appendix 7.4). His fine motor skills have also developed well as is displayed in his art work (Appendix 7.5).

3.5.2 Learner at the Specialised Centre (afternoon session)

Imran fails to maintain eye contact for more than a few seconds and needs to be verbally and physically prompted to do so. Though Imran's focus on any activity is limited, the seven-year-old has comprehended the tasks assigned by the therapists and he is able to accomplish them within the stipulated time-frame. The therapist shuffles the position of the object and the images a couple of times and Imran is able to match the object to the correct image effortlessly (Appendix 8.3). He enjoys upturning toy cars and rolling its wheels and also looks forward to playing in the sand during break time (Appendix 8.1).

3.5.3 Learner at the Centre for SEN 1

Harish generally likes to participate in the class activities whether it is during circle time or group therapy sessions. He claps for his friends when they perform the assigned task well but often loses interest in the activity by the time his turn arrives (Appendix 9.1). He is learning to trace letters and is being encouraged to use the pictorial images to communicate his needs (Appendix 9.3). During break time, he is able to dip the idlis (rice cakes) into sambhar (Indian curry) with a fork and eat it independently. He, however, needs to be reminded to place the snack box back in the bag after he has finished eating.

3.5.4 Learner at Centre for SEN 2

Nine-year old Asma likes to hold the hand of her classmate when they walk along the corridors of the centre but she sometimes leaves the hand and attempts to run off (Appendix 10.4). Asma eats independently and is also able to indicate her need to visit the toilet by pointing to the pictorial images. She can follow simple instructions but sometimes needs a couple of reminders before she responds. When she is not in the mood to partake in the class activities she snuggles in the little space adjacent to the classroom door and it is often difficult to get her back into her seat (Appendix 10.1). She does not look forward to the Sunday assembly at the centre as she does not like loud sounds. She covers her ears with her hands and waits for the assembly to end (Appendix 10.1; 10.4).

3.5.5 Learner at Early Intervention Centre

Enrolled at the Intervention Centre since November 2011, four-year-old Khaled has begun to communicate his needs by taking a familiar person to the object he wants. He can independently play with his stacking cups, puzzles and magnetic numbers. Though he willingly carries out the tasks assigned to him, he needs to be regularly prompted to remain on task. He looks forward to be reinforced with puzzles or edibles for completion of the assigned task (Appendix 11.1; 11.3). Khaled spends most of the day at home and regularly visits the Centre for the intervention sessions. He sometimes plays with his twin sister and other two siblings at home and imitates their actions.

3.5.6 Learner in an inclusive programme in a Mainstream School

Four-year-old Mathew enjoys playing with his peers of kindergarten 1 in the mainstream school during break time as much as he loves watching Thomas Engine episodes on YouTube during class hours. He attends the English and Music lessons with these peers in the mainstream setting along with a teaching assistant. Mathew is social and is able to communicate his needs fairly well (Appendix 12.1). While he is capable of completing his tasks, he gets distracted easily and needs to be reminded to stay on task. Visual cues are sometimes

prepared to guide him in performing and accomplishing the tasks scheduled for the session. His fine motor skills need to be further strengthened and activities are regularly conducted at the centre to improve his grip over the writing instrument (Appendix 12.5).

The qualitative and quantitative data relevant for the research study have thus been collated and the next task is to codify and analyse the data to draw out valid findings about the impact educational services have on learners with ASD in Dubai.

CHAPTER 4

RESEARCH FINDINGS AND DISCUSSION

The research concerns raised in this study have been investigated through qualitative observations and documentary evidences as well as by quantitative interview-based questionnaires administered to parents, teachers and therapists in centres and a mainstream private school in Dubai. Keeping the intention behind the study in clear focus, the collated data has been carefully analysed to obtain pertinent answers to the research questions posed in this study. Care has been taken to preserve the authenticity of the collated data and maintain reliability of the research findings (Creswell 2008). The findings on the impact of educational services provided for learners with ASD in Dubai have been presented in a coherent and logical manner to enable easy reading and quick comprehension. These findings will be further elaborated in the discussion section.

4.1 Research Findings

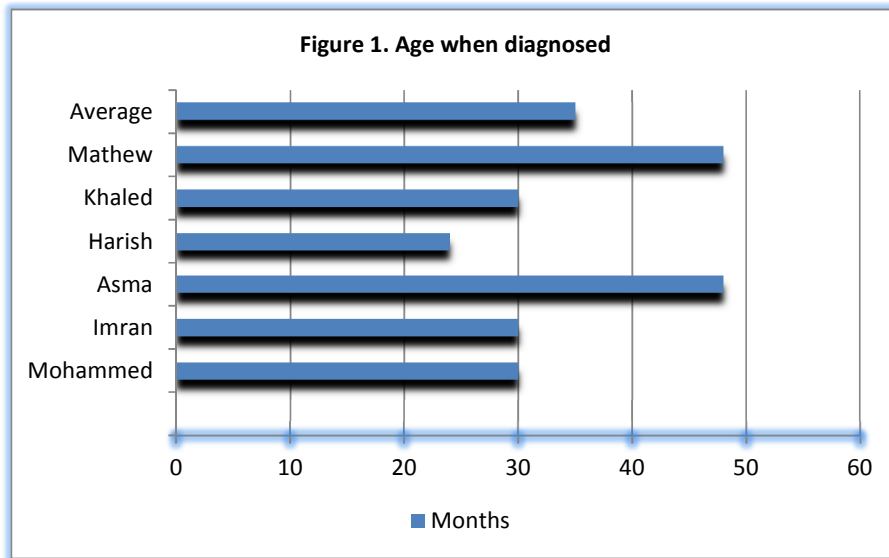
A closer and more critical look at the research evidences reveal interesting insights into the existing provisions that impact the performance and development of such learners. The findings gathered from the qualitative and quantitative data have been presented in two separate sections, and an overlap in the findings is highly probable. These sections are as follows:

Quantitative Findings

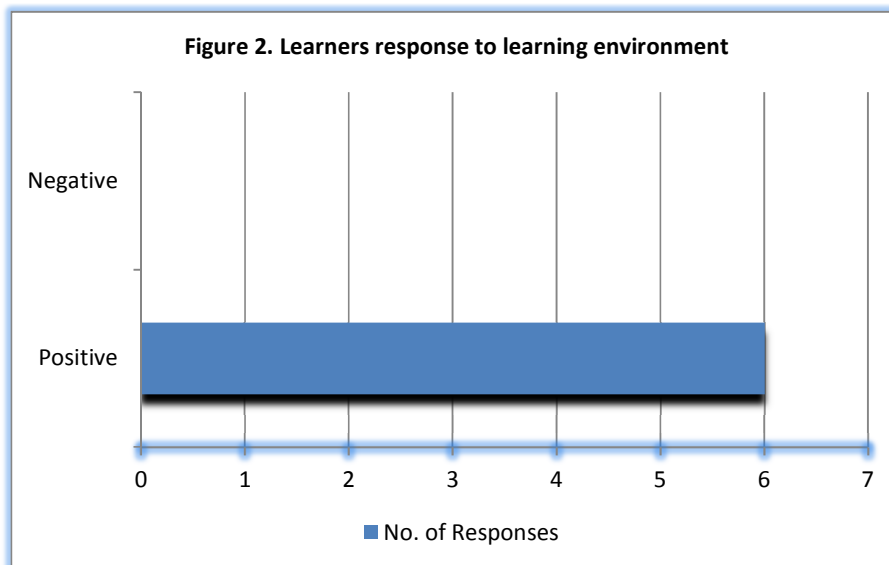
Qualitative Findings

4.1.1 Quantitative Findings

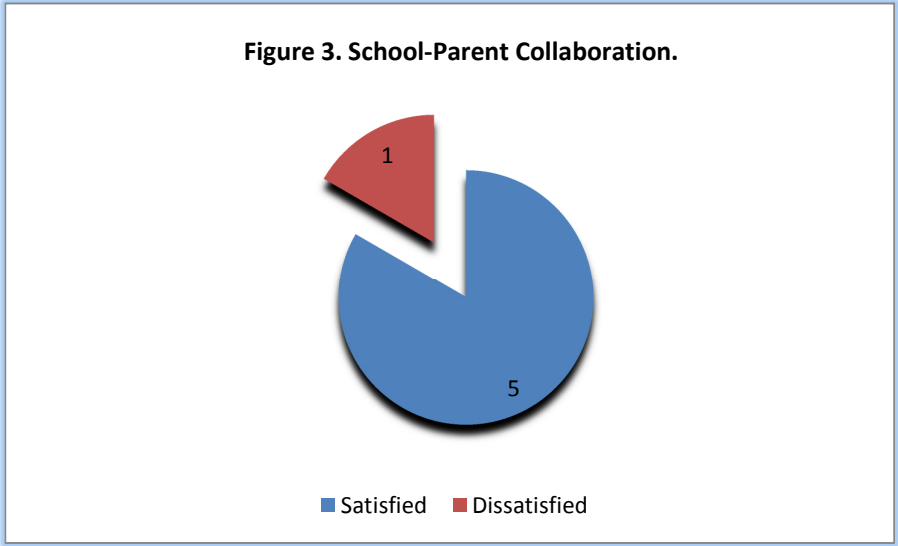
This section highlights the findings from the close-ended questions administered in the interview-based questionnaire. These questionnaires have been slightly modified to cater to the different stakeholders and the responses obtained from parents, teachers and therapists have been presented below. Figure 1 indicates that the learners under study were diagnosed with ASD at approximately 35 months of age.



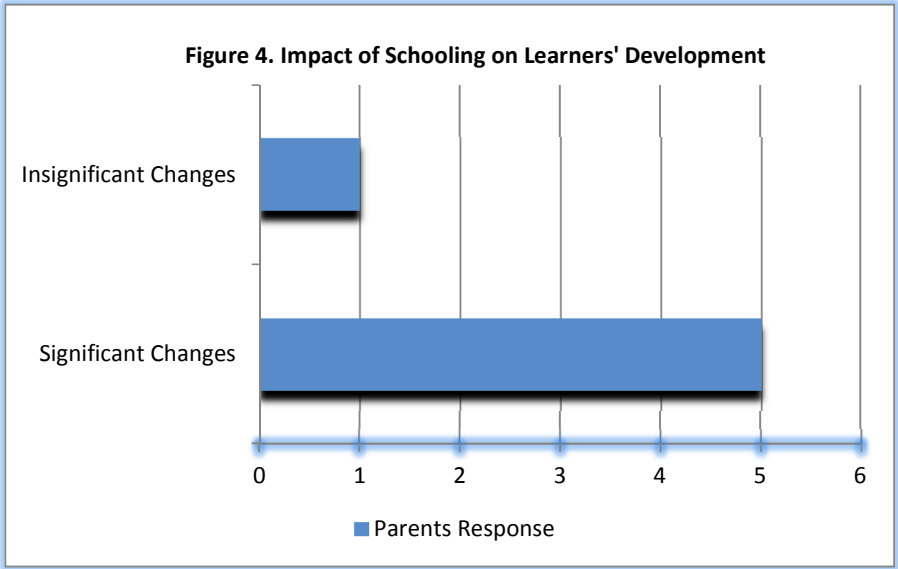
Following the diagnosis of these learners, interventions were sought by their parents in separate educational settings. Figure 2 points out that the learners with ASD look forward to attending their centre or school every morning and enjoy the learning environment provided to them, as stated by their parents.



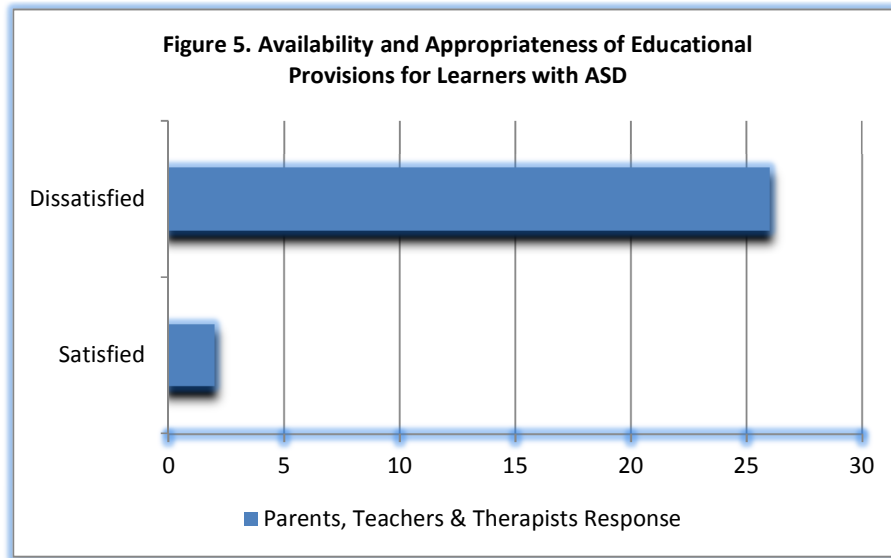
A key reason for the positive response from the learners has been the establishment of strong school-parent collaboration and communication, as displayed below in Figure 3. Majority of the parents appreciated the efforts extended by the teachers and therapists in attending to and addressing the needs of their child.



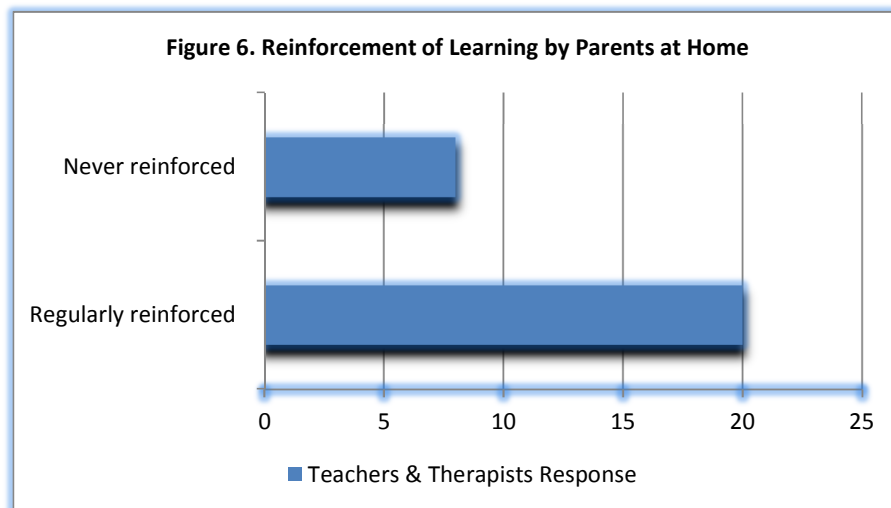
The effective relationship between parents and schools has impacted the learners' development. Parents expressed that after joining the respective centres or school their child with ASD has developed positive behaviour and gradually begun to comply with and follow simple instructions, as reflected in Figure 4.



In spite of the positive impact that the learning environment has on learners admitted in different education settings, a majority of the teachers, therapists and parents, as shown in Figure 5, stated that the current educational services are inadequate to meet the needs of all such learners in Dubai.



Parents affirmed that training was provided by the centres to equip them in adopting similar interventions at home, thus reinforcing the learning and intervention strategies beyond the school premises. However, teachers and therapists stated that in some instances these strategies were not effectively reinforced at home, as projected in Figure 6.



Moreover, with regards to professional development programmes conducted to widen the knowledge base and upgrade their skills, teachers and therapists felt the need for additional such programmes to be conducted. This is shown below in Figure 7.

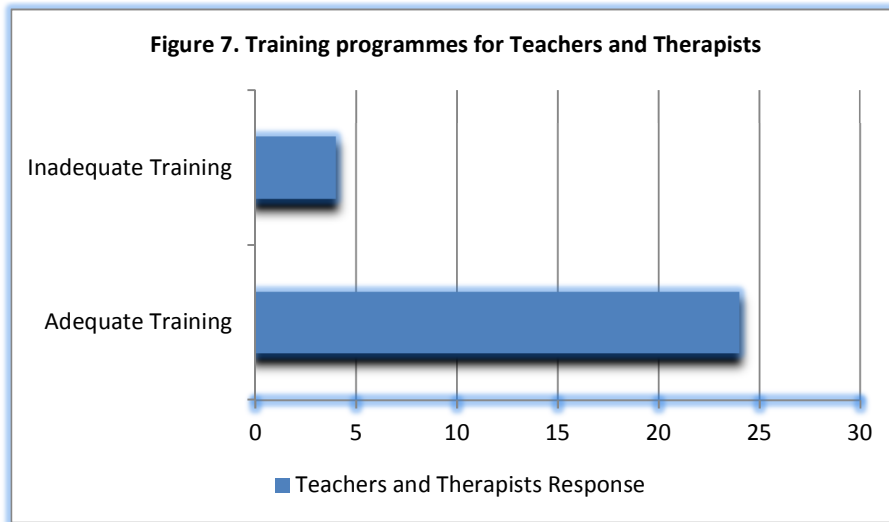
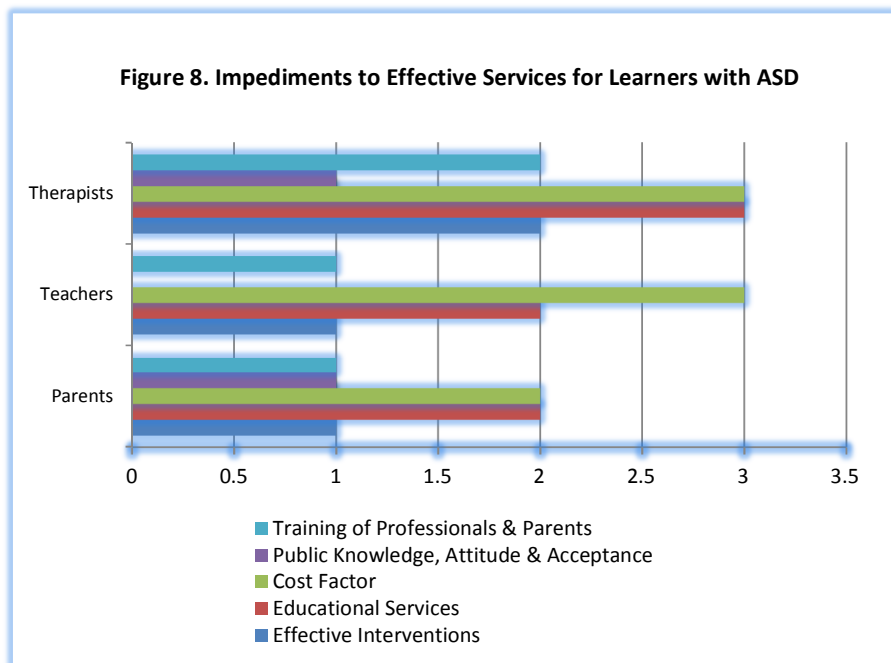
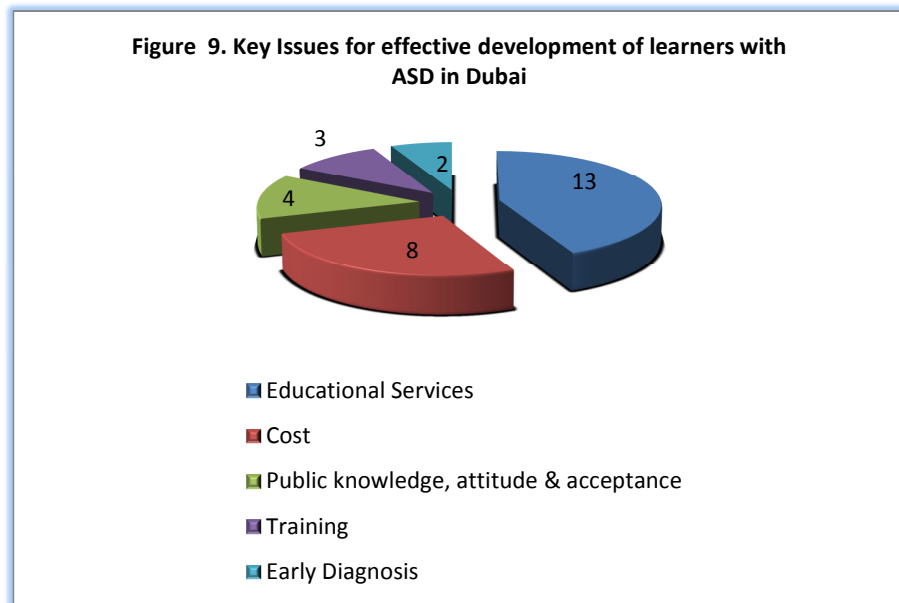


Figure 8 highlights the viewpoints of the study participants (excluding the learners themselves) on a wide gamut of issues that must be tackled in order to enhance the educational services and further enrich the lives of learners with ASD.



According to participants, the lack of adequate access and availability of educational services at affordable costs are key impediments that must be surmounted to extend quality services. The significance of training SEN

professionals and general teachers has also been recognised here. This has been presented below in Figure 9.



4.1.2 Qualitative Findings

This section highlights the qualitative findings obtained from classroom observations, documentation as well as open-ended questions that were intentionally incorporated in the interview-based questionnaires to probe deeper into the reasons behind some of the responses. The analysed data has been systematically categorised to represent nine themes. Direct quotes from the respondents have been included to ensure that their voices and concerns are duly heard and acknowledged.

4.1.2 (1) Screening and Identification

The study recognises early diagnosis and identification as the initial yet most integral step in helping learners with ASD. A special educator at a specialised centre expressed that, “*early diagnosis is of high significance in helping a learner with ASD. When the diagnosis gets delayed the child misses out on early interventions that could help in their speedy development*” (Appendix 9.2). Mathew’s mother also agreed to this viewpoint stating that her son’s diagnosis

was delayed as the medical doctors she was consulting failed to pinpoint the disability during the early years (Appendix 12.2). A mainstream general class teacher stated that the earlier a child is diagnosed with ASD, the sooner the interventions can be introduced to support the child's development (Appendix 12.3).

4.1.2 (2) Provisions for intervention

Interestingly, parents, teachers and therapists alike expressed the urgent need to improve and extend adequate educational services in order to address and attend to the growing rise in the number of learners diagnosed with ASD. A parent revealed that her daughter was admitted at a centre for special needs four years ago and within a short span of a few months she noticed positive changes in her. *“Asma’s compliance level has improved drastically. In the past four years we have seen significant improvement in her development. She is now more confident and maintains better eye contact than ever before. She has grown more social in the presence of other people. She likes to go out and is now more disciplined and polite”* (Appendix 10.2). Another parent (Appendix 8.2) who was not so fortunate confides that, *“Imran was diagnosed with mild autism around four years back and he has yet to obtain a seat in any of the centres in Dubai.”* It is only recently that he has begun to attend the afternoon sessions in the specialised centre and it has proved very beneficial to him. *“As a result of the special education and therapy sessions I can see tremendous improvement in Imran’s behaviour, especially his capacity to sit at one place, listen to and follow instructions and perform an assigned task.”* A combination of different behavioural and therapeutic interventions is being adopted at these centres to improve the learning and development of such individuals. The ABA approach, TEACCH along with PECS and Makaton programmes have been largely capitalised upon to optimise the learning outcomes. Teachers and therapists assert that the development of many of these learners would have been far more significant provided they had early access to appropriate interventions (Appendix 8.3; 9.2; 11.2).

The study also revealed the stress and anguish experienced by parents in dealing with the needs of such a child as well as providing for their educational needs without adequate expert guidance and training. In the absence of a school routine, parents who are currently home-schooling their children find it difficult to establish a structured routine for their learning on a daily basis. *“I am unsure about how to teach him at home. I try engaging him in some educational activities but I find it difficult to sustain his interest and attention for more than a few seconds. Until Imran began attending the afternoon sessions at the specialised centre twice a week, his life has often been restricted within the four walls of the house as he never used to follow instructions given to him nor behave in a socially appropriate manner in public places”* (Appendix 8.2).

4.1.2 (3) Cost of Education

Along with the need for additional educational institutions within the city, the cost of educational services is another crucial factor that impedes access to services for all learners with ASD. Quite often expatriate learners cannot seek admission to private special needs centres owing to the high fee structure and they are compelled to home-school their child. *“When my child was diagnosed with ASD in Dubai and I learnt about the fees to these Centres I knew that I would not be able to sustain her education here. Two to three years was the waiting period for admission into the Centre at that point of time,”* stated an expatriate parent who finally sent his wife and daughter back to Sri Lanka five years back (Appendix 14). His eight-year old daughter did not receive appropriate interventions back home and today she fails to respond to any form of communication and cries aloud whenever she needs something. *“I feel bad to see my daughter in this state but I cannot bring her back to Dubai because I will not be able to afford her treatment.”*

4.1.2 (4) Quality of Teaching and Learning

The teaching and learning in all the centres under study were found to be based on individualised plans designed to cater to the needs, abilities and interests of the specific learner (for examples see Appendix 7.3; 10.3; 12.4). The classroom

settings can be construed as conducive to learning and the teachers and teaching assistants endeavour to establish a warm and secure ambience (for examples see Appendix 7.1; 11.1; 12.1). During the observations, it was found that the teachers and their assistants would encourage the learners to respond to the posed questions and would only prompt the answer as the last resort. The teachers ensured that all learners engaged in the class activities and they encouraged the learners', according to their abilities, to participate and contribute in the activity or discussion (Appendix 7.1; 9.1).

4.1.2 (5) Training programmes

Study respondents, especially teachers and therapists assert the need for additional training at regular intervals to keep them abreast of the latest developments in the field of ASD. While in-service training and continuing education programmes are being conducted by the centres, the professionals point out that these programmes are not as frequently organised as they would like it to be. *“At times it has been difficult to obtain mutual dates that are convenient to the experts as well as the Centre and budget constraints also restrict the number of training programmes held,”* expressed an occupational therapist working at a centre (Appendix 7.2).

Moreover, many of the teachers and therapists bemoan the dearth of qualified and experienced staff in effectively handling the learners. *“The city must attract qualified professionals to enhance the development of these children”* expressed a behavioural therapist at the early intervention centre (Appendix 11.2). *“ABA is an effective line of treatment for learners with ASD but we are unable to attract such super specialised therapists because they are expensive and their services are scarcely available in Dubai”* expressed a special educator (Appendix 8.3). Training programmes for parents at the centres are conducted at least once a year and additional training is provided as and when the need for it is expressed by the parents. Such training programmes help parents reinforce the school learning at home as well and thus improve the learning outcome (Appendix 9.2; 11.2).

4.1.2 (6) Supportive Environment

It is heart-warming to note the dedicated efforts of the teachers, therapists and support staff towards the development of these learners. This was evident during the classroom teaching (for examples see Appendix 10.1; 12.1) as well as in their responses to the interview-based questionnaire. Their commitment towards the learners' development was further acknowledged by the parents (Appendix 8.2; 10.2; 12.2). From a greeting to each of the individual learners every morning to the entire working of the school day, the teachers and therapists focussed their efforts towards introducing diverse teaching strategies to meet the learners' education goals. Mohammed, Imran, Harish and Asma are encouraged to use the pictorial images placed in their classroom to communicate their needs and interact with others (Appendix 7.5; 8.4; 9.4; 10.5), while during his 1:1 session with the therapist, Khaled is being taught to mouth the word for the objects that he wants to have such as 'juice,' 'open,' 'cheesies' (Appendix 11.1). Summing up their dedication towards these learners, one of the special educators expressed, "*All these children are special and they must be given due importance*" (Appendix 8.3). Each therapist that entered the class to take a particular learner for the therapy sessions wore a broad smile as they greeted the learner and guided them to their respective rooms for the session to take place (Appendix 7.1; 9.1).

Along with the special educators and therapists at the centres, general teachers at the mainstream school also felt that an inclusive learning atmosphere helps a learner with ASD develop faster and at the same time it also benefits the typically developing learners. "*I have seen positive changes take place in front of my own eyes. Such children can benefit greatly by being a part of the mainstream system and learning alongside their typically developing peers. Sometimes they become noisy and tend to distract the class but I have managed to tackle such situations quite well,*" expressed a general class teacher in a private school with 17 years teaching experience (Appendix 12.3).

4.1.2 (7) Parent-School Communication

A strong parent-school relationship is evident between the school staff and the parents of learners with ASD at the centres. Many of the parents would regularly communicate with the teacher for a few minutes while dropping off or/and picking up their children from the centre (Appendix 11.1). The teachers and therapists also expressed that parents were encouraged to meet with them and express their concerns or queries regarding their child's development. The teachers informed that majority of the parents were supportive to the needs of their child and regularly responded to their (teachers) queries/concerns conveyed through the school diary (Appendix 10.2). However, it was found that parents did not always follow the instructions or interventions recommended by the centres/schools. *"This sometimes causes a delay in the development and reinforcement of positive behaviour in the child,"* noted an occupational therapist (Appendix 7.2).

4.1.2 (8) Significance of Support Groups

Families look forward to the support group gatherings as well as the outings planned by such groups on a regular basis. *"This is one place where the child can be herself/himself and we do not have to worry about people staring at our child's behaviour"* revealed a parent who has a child with ASD (Appendix 13.2). Parents interviewed in this study have been associated with such support groups for a number of years and they believe that these gatherings have contributed to their child's development. They expressed that their child enjoyed these gatherings as the group organisers are very welcoming and the volunteers engage them in varied activities (Appendix 13.1). Parents also look forward to these gatherings to meet others with such children and exchange their concerns as well as enjoy a few lighter moments with them (Appendix 13.2).

4.1.2 (9) Public awareness and attitude

Many of the respondents agree that effort has been exerted in increasing public awareness about ASD and thereby, injecting a change in attitude among the

informed public. However, the awareness levels have not shown drastic improvement, as parents still encounter difficulties and embarrassing moments, while taking their child with ASD to public places. *“When our child throws a tantrum in a shopping mall, people just stare at us as if to question our parenting skills. The public sometimes fail to understand that the child has a genuine problem and their behaviour is a manifestation of that problem”* (Appendix 8.2).

At the same time, parents did narrate instances when complete strangers would walk up to them and express their understanding of the situation by either helping manage a child throwing a tantrum in a mall or by just patting their shoulder. *“People are definitely more aware about special needs in Dubai than way back home. The billboards placed on bus stops and petrol stations helps to build the awareness of the disability and gradually the acceptance level increases”* (Appendix 13.2).

4.2 Discussion

The research findings of this study raise a number of fundamental concerns about the existing gaps in the educational services for learners with ASD in Dubai. The study clearly indicates that the availability of such services, or rather the lack of it, needs to be urgently addressed. The research does highlight the efforts extended towards providing improved and quality services for learners with ASD. However, it also admits that much more needs to be accomplished in order to “ensure that children with autism are not left out in the cold” (Theodorou & Nind 2010, p. 104). Therefore, the above-mentioned findings deserve careful consideration while planning educational provisions for such learners.

The main concerns highlighted and deliberated upon in this study are not unique to Dubai. Given the country’s socio-cultural and legal stance, the themes mentioned below do indicate, to an extent, the key challenges that must be surmounted to effectively provide for learners with ASD. This study has been undertaken to investigate and comprehend the existing educational services and its impact on learners with ASD in Dubai. Keeping the research questions in key focus throughout the investigation process, these discussions will further elaborate

upon the study findings and its links to relevant concerns raised earlier in the literature review section.

4.2.1 Early Diagnosis and Identification

This study re-emphasises the importance of early screening and timely interventions for individuals with ASD in order to maximize their growth potentials. In line with Wall's (2004) recommendation, this study also gives prominence to continuous observations and assessments during the early years that must be followed alongside interventions and treatment. Parents in this study concurred with Siegel's (1996) view that early diagnosis and interventions benefit the individual and his/her family to cope better with the disability and to overcome it to the optimum level possible. Perera's (2000) claim that early detection of ASD followed by a well-structured intervention system can enhance the individual's quality of life has been well reiterated in this study. Highlighting the need for immediate action to improve diagnostic services, McCulloch and Martin (2011, p. 27) warn that, "nothing is going to change if we accept the status quo." Effective diagnosis must, therefore, be followed by educational services that are, "highly specialized, structured and intense and target multiple domains of developmental deficits" (Perera 2008, p. 72).

4.2.2 Educational Services

The dissatisfaction of parents, teachers and therapists towards the current availability of educational services for learners with ASD has been strongly highlighted here. Similar to Glazzard and Overall (2012) as well as Ruble et al.'s (2010) findings, this study also stresses upon the need to improve the quality as well as the availability of appropriate educational services for those with ASD so as to optimise their learning potentials. In spite of an increase in the country's ASD prevalence, it has been found that neither adequate provisions to accommodate the large number of learners awaiting admissions at centres nor regular training programmes for teachers and therapists have taken place here. Furthermore, a large number of expatriate parents of such learners cannot afford the exorbitant fees required for admission into such centres (Pathak 2012). In the

face of such circumstances, parents of such individuals are either compelled to home-school their child or send them back to the home country.

The study also draws attention towards the recent demands laid on special educators and general classroom teachers to successfully update and modify the curriculum and employ diverse teaching strategies in specialised centres as well as inclusive settings. Since ‘the one size fits all approach would not work’ for learners with ASD (Merry cited in Naidoo 2011, p. 7), there is a need to customise the teaching and learning strategies to suit the learners’ needs even within a special needs set up. Thus, by differentiating instructions these learners can be encouraged to learn and develop at their own pace and this motivates them towards new learning, explains Scigliano and Hipsky (2010). The importance of play in enhancing the academic and social skills of early learners was observed in the selected centres and mainstream school setting, as pointed out in Theodorou and Nind’s (2010) study. However, in this study play has been observed to be more beneficial to learners only as long as an adult intervened and provided them with ample opportunities to play and learn (Seach 2007).

All the selected centres and mainstream school were found to have customised individual plans to effectively address the unique needs of the learners and monitor their progress. Curriculum planning for such learners has been found to be “forward looking, giving due consideration to the students’ current and future needs” (Jessie & Kay-Cheng 2005, p. 6). The centres and school under study here have capitalised on the IEP as a ‘functional tool’ to plan and design customised educational programmes (Ruble et al.’s 2010, p. 1467). However, the availability of appropriate and adequate facilities and equipment such as open space for free play as well as swimming pools to train learners within the premise itself rather than transport them to another venue for the swimming sessions were lacking in some of these set ups.

4.2.3 Professional Development and Training

Training required to enhance the skills and knowledge of teachers and therapists is

another key area of concern raised in this study as “effective teachers are the core of every student’s learning” (Smith et al. 2010, p. 27). As asserted by Gaad and Khan (2007) and Leatherman’s (2007) research findings, this study also elaborates upon the need for qualified and trained professionals adept at assessing learners’ behaviour, potentials and readiness as well as their ability to employ appropriate interventions, modify the curriculum and accommodate the individual in the learning environment. While teaching professionals are dedicated in their work with learners along the spectrum, they do require regular in-service training to develop and adopt latest teaching strategies and interventions to improve the learning outcome of the individuals, as expressed in this study. These training programmes serve to enhance their knowledge and expertise so that every IEP includes “teaching strategies that complement each individual’s learning-style strengths” (Wamba & Dunn 2009, p. 7). The urgency is understandable as appropriate teaching strategies can lead to enhanced learning and enable some of these learners to be included in mainstream educational settings at the earliest (McCulloch & Martin 2011). While general class teachers express satisfaction at their contribution in imparting differentiated instruction in a mixed-ability classroom, they admit that additional training can enhance their teaching and lead to better learning (Gaad & Khan 2007; Horne & Timmons 2009). In order to achieve this end, strong emphasis has been laid on training professionals to identify the disability and adequately provide for such learners. Further reiterating the need for additional training, Farooq’s (2007) research in Dubai indicates that learners within certain SEN centres showed more progress than others. The same experience did find reflection in this study.

4.2.4 Attitude and awareness

While awareness levels regarding ASD and its symptoms have risen in the UAE in recent years, Maseeh (cited in Ahmed 2012, p. 20) asserts that “we are still light years behind where we want to be.” With increased knowledge and understanding of the complexities that engulf ASD, this study notes that parents and teachers are expected to be better equipped to cope with and provide for the educational needs of these learners. Efforts are being made to generate public

awareness, such as through the distribution of information leaflets outlining a child's development pattern till the age of four years (Dubai Autism Center 2012). Similar to Pathak's (2012) news report, the study participants expressed that the general public is not fully aware of the needs and characteristics of these learners and their ability to learn and develop certain skills. A positive outlook towards the learner and his/her disability can lead to their greater acceptance in mainstream society. McGregor and Campbell (2001, p. 202) rightly point out that, "positive attitudes and commitment are likely to follow good provision rather than precede it." This study supports Mesibov et al.'s (2006) assertion that although service provision still lags behind its demand, the increased public awareness and acceptance coupled with expertise in identifying individuals with ASD has positively impacted early diagnosis and intervention.

4.2.5 Parent-School Collaboration

The success of any SEN-related programme depends largely on the close collaborative ties between its key stakeholders. The same sentiment has been highlighted in this study. Literature demonstrates that the benefits of involving parents in the planning process for the child's education are colossal since they (parents) provide invaluable information and insight into the child and his/her life outside the school premise (De Boer, Polu & Minnaert 2010; Leatherman 2007; Hornby & Witte 2010). Blamires, Robertson and Blamires (1997) consider the parent-school collaboration crucial to set inclusive practices in motion. This study highlights the important role played by parents in the teaching and learning process, also taking into account their experiences in dealing with the disability on a day-to-day basis. Mortier et al. (2009, p. 351) adds that although parents might hail from different backgrounds "they were never an obstacle to becoming fully participating members of the collaborative team." While parents gain school support in addressing the needs of their child, schools on their end too are enriched by the diverse interests, needs as well as abilities that an inclusive setting brings with it (Farrell & Ainscow 1997). Baker et al. (2010) argues that such collaborative relationships can prove to be a winning proposition to all concerned wherein strong leadership brings together skilled professionals and adequate

resources for optimising the understanding and potentials of learners with ASD. This study also draws attention to the dual purposes that can be met through support groups – to encourage individuals with SEN to freely mingle with each other as well as provide parents the much-needed platform to share experiences and sometimes even vent their frustrations regarding the challenges of addressing the needs of their child.

4.2.6 Inclusive Practices

In this study it has truly been experienced that when inclusive practices are effectively implemented, every child can feel like “an equally valued member of society” (Eldar, Talmor & Wolf-Zukerman 2010, p. 98). While many of the parents are keen to place their child in a mainstream setting, they did voice their apprehensions about the effectiveness of the inclusive setting for their child with ASD, echoing McGregor and Campbell’s (2001) work. Despite these challenges, parents of learners with ASD and those with typically developing ones can benefit from inclusion, provided the advantages of a cohesive learning atmosphere for both, learners with SEN and their typically developing peers are well highlighted. Like Theodorou and Nind (2010), Kaweski (2011, p. 23) also advocates integrating such learners in mainstream set ups and argues that segregated placement “intensifies challenging behaviour and increases autistic symptoms.” Jones (2002, p. 15) promotes the creation of an environment “in which the pupil can feel valued and safe, and within which s/he can succeed and progress to enjoy a good quality of life as an adult.” Such a proactive environment can help the learner reach his/her potential and “prepare them for the real world” (Jessie & Kay-Cheng 2005, p. 17).

This study also observed that the interaction of learners with a disability in a mainstream class is much lower in comparison to their typically developing peers, which is synchronous to Dukmak’s (2010) findings. A plausible explanation in this case can be that the learner, Mathew shares only a few lessons with these peers while a large part of his learning takes place at the SEN centre placed within the school premise. Acknowledging the importance of embracing inclusive

practices in a rapidly expanding multicultural city like Dubai, Gaad (cited in Ahmed 2011, p. 4) urges schools to “re-evaluate their environment and ready themselves for welcoming learners with disabilities.” Siegel (1996, p. 334) succinctly explains that “in his or her own way each child with autism needs love, and understanding as well as treatment.” Strong parent-school collaborative relationships can also help foster successful inclusive learning environments.

The final section will summarise the concluding remarks about the study and the significance of the research findings. In this chapter, the research study limitations will be presented, the scope for future research highlighted and recommendations to optimise learning opportunities for individuals with ASD in Dubai will also be put forth.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This research study examines the current educational services in the city and explores its impact on the development of learners with ASD in Dubai. Given the ever-changing nature of the education landscape, the study concludes that the existing provisions for learners with ASD needs to be regularly improvised, updated and monitored for optimum teaching and learning to take place. The study also proposes recommendations that can enhance and expand the provisions in order to effectively address and benefit a wider number of such learners.

5.1 Concluding Remarks

This study critically examines the existing services for learners with ASD and concludes that the “unmet needs” (Brown 2010, p. 29) of such learners can no longer be subverted nor ignored. With the ASD prevalence on a rise in Dubai as in the rest of the world, the education system is currently overwhelmed by the increasing demand for additional services. The six learners under study here have sought admission in different educational settings and benefitted from the intervention measures and multi-disciplinary services. Unfortunately there are only a handful of specialised centres and centres for special needs in the private and public sectors that address the needs of such learners in Dubai and the mainstream schools are in the process of getting geared towards creating an inclusive learning environment for all (Gaad 2010).

Alongside the availability of educational provisions, this study also examines the appropriateness of the teaching and learning strategies adopted to address the needs and abilities of such individuals within the city and its impact on their development. The expertise of teachers and therapists in imparting customised learning has also been duly recognised and the significance of conducting regular training sessions to equip teachers and therapists with necessary knowledge and skills has been highlighted here. Policy makers and key stakeholders in society have a crucial role to play in increasing the supply of trained special education

professionals (Smith et al. 2010). Furthermore, greater collaboration with schools has also been stressed upon to ensure that “training programmes are actually meeting the real needs of teachers in heterogeneous classrooms” (Forlin 2011, p. 10). The scope of enhancing teaching and learning strategies rather than directing efforts towards improving “individual deficits” needs to be further explored (Isaksson, Lindqvist & Bergstrom 2007, p. 78). Willis (2006, p. 12) asserts that with “structured early intervention, consistent behaviour management, and speech and language interventions, many individuals with autism lead productive lives.” Bolstered by appropriate training, the general teachers can also address and accommodate learners with SEN, including those with ASD within the mainstream education setting. Furthermore, the future for learners with ASD does appear optimistic as the application of latest intervention measures are expected to help maximise their learning potentials (Mesibov et al. 2006).

The research study also examines the impact of the increased demand for services on the development of such learners. The study demonstrates that inadequacy of services coupled with exorbitant fee structures impede easy access to such provisions and thereby impacts the learning and development of such learners. MacBeath et al. (2006, p. 64) attributes good provision to “flexibility, pragmatism, continuous monitoring and optimum creative use of local and national expertise.” Despite the colossal task on hand, learners with ASD have much to hope for in Dubai. The UAE acknowledges this rising concern as it “is a very caring and generous nation that is dedicated to making the lives of its disabled persons as comfortable and as easy as possible” (Gaad 2001, p. 202). Therefore, it is only a matter of time before the government is able to bring together a collaborative team of qualified educators and professionals, along with a wealth of resources to effectively and efficiently address the needs of such learners. To achieve the above, one thing is understandably clear. Schools and the education system cannot be isolated from each other. They reflect the society in which we live and in most cases, schools also extend support to families in encountering the trials and tribulations of parenting a child with ASD (Siegel 1996). Without a supportive school culture, such learners will find it difficult to thrive and grow in a mainstream education setting.

Inclusion must be placed in the school's agenda and "fundamental changes in educational thinking about children, curriculum, pedagogy and school organisation" must be incorporated (Slee 2011, p. 110). To exercise such practices, Gaad (2010) advocates that the education of all learners must fall under the purview of a single ministry. In addition to that, Forlin (2011, p. 81) notes that significant barriers to inclusive practices are often imposed by the community itself owing to the public's "fear of the unknown." Inadequate knowledge, awareness and understanding about issues concerning SEN does pose serious impediments in the movement towards a more equitable and inclusive society. Public awareness and advocacy campaigns can also help mobilise new ways of thinking and encourage the informed public to embrace inclusive practices. Jones (2002, p. 89) points out that "attitudes and values are as important as knowledge and skills" for whole-hearted acceptance of such learners.

A "comprehensive policy to pack inclusive education" is required in the UAE as inclusion in mainstream education settings are found to be on a "conditional basis" (Gaad 2004, p. 164). It is incorrect for any education system to shrug off the responsibility of admitting a child with ASD as "this is all that we can do for now" (Siegel 1996, p. 209). Equal access and participation in the educational and social activities of the school helps promote successful inclusive experiences. Referring to inclusive education as a "developmental process" Wah (2010, p. 107) recommends that the strengths in the system must be capitalised upon to overcome the existing barriers that impede inclusive practices.

The study concludes with a call for a dialogue among relevant stakeholders in society – government, schools, organizations, centres, teachers, therapists, parents and general public to address and arrive at corrective and practical measures in meeting the growing concerns of individuals with ASD in Dubai. Equal access to quality education has been placed on the DSIB's agenda and Al Muhairi stresses that schools must be responsive to the needs of all its learners, including those with special needs. "They are required to make sure that all students achieve their potential" (cited in Gulf News 2012, p. 2). Such efforts will definitely boost the momentum towards inclusive practices and positively impact the availability and

appropriateness of services provided to learners with ASD. It is time that effective and appropriate action is taken to educate, train and develop such learners as productive members of society.

5.2 Recommendations

The third research question that has been investigated in this study relates to the recommendations for future improvement of services and the scope for further research in this field. In light of the research findings, a number of recommendations have been put forth to suggest improvements in the educational services for learners with ASD and to encourage their acceptance and participation in activities related to mainstream society. These recommendations have not been presented in priority order. In fact, all the below-mentioned suggestions are considered pivotal in successfully addressing the needs of learners with ASD.

5.2.1 Surveillance System: An effective surveillance system must be established to ascertain the disability prevalence in the country (Eapen et al. 2007). Precise reporting of ASDs can help comprehend the magnitude of the concern and facilitate in planning appropriate and adequate provisions for such individuals.

5.2.2 Diagnostic Services: There is a need to develop early diagnostic and screening services in order to identify and report ASDs and for effective intervention measures to be adopted for the child to develop his/her potentials (Samadi & McConkey 2011).

5.2.3 Additional Centres: There is an urgent need to set up additional centres that cater to and address the needs of learners with ASD. By doing so, learners on the waiting list at centres in Dubai can avail of full-time schooling experience (Pathak 2012). Such set ups can improve the educational outcome of the learner and also reduce the parents' financial burden of employing private therapists and the stress of handling the learners at home in the absence of formal schooling.

5.2.4 Cost of Services: Educational provisions for such learners must be made more affordable (Pathak 2012) so that parents from diverse economic backgrounds can avail of the services best suited for their child's development without being compelled to either home-school them or send them back to the home country to avail of similar services there.

5.2.5 Inclusive Schooling: To include such learners in the mainstream settings and address their needs satisfactorily, schools need to be equipped with adequate and appropriate provisions, expertise and a stronger collaborative relationship with parents (Shahbandari 2012). Sincere efforts must be extended in accepting and including such learners within the mainstream learning environment at the earliest.

5.2.6 Professional Development: The shortage of skilled teachers and therapists currently ailing the education system must be urgently addressed. The special needs centres and mainstream schools must employ trained and experienced practitioners in the field of special education. The successful training of 21 teaching assistants to support learners with Down Syndrome in public schools (Hosn 2012) can be replicated for ASD and other SEN-related areas as well.

5.2.7 Collaboration: Key stakeholders in society including policy makers have a crucial role to play in creating a national plan of action (Smith et al. 2010) that will deliberate upon effective ways to address the increasing needs of learners with ASD and follow it with adequate action. Moreover, a strong support system that includes specialists such as early interventionists, special education teachers, speech pathologists, and occupational therapists must be developed in specialised centres, centres for special needs as well as mainstream schools. Only by working as a cohesive unit can professionals succeed in treating and educating learners with ASD. This support should be extended to include the family of the learner as well. In short, the means for furthering international dialogue and cooperation must be a priority in the coming years (Samadi & McConkey 2011).

5.2.8 Resource Sharing: A resource bank with up-to-date information about the range of services currently available in the city can greatly benefit parents in

selecting services best suited for their child (Talwar 2005). This initiative can include sharing of resources and expertise between centres and agencies to improve the learning and development potentials of those with ASD. Built on the foundation of strong collaborative ties between agencies and educational services, this endeavour can help parents seek appropriate and timely interventions.

5.2.9 Public Awareness: Mass media campaigns, including the television, print media, display of posters and banners as well as distribution of pamphlets must be capitalised upon for generating greater public awareness regarding ASD and its symptoms. The existing public awareness campaigns that are displayed on bus stops in the city must be intensified to other sites with high public visibility as well.

5.3 Study Limitations

This research study that examines the current educational provisions for learners with ASD has its fair share of limitations, which are as follows:

5.3.1 Access issues:

The researcher is not currently employed in any school or centre and therefore, seeking and gaining approval from educational institutions took a while, as was anticipated at the commencement of the study. Moreover, in two of the centres under study the authorities were reluctant to divulge the learners' records and parents too expressed reservations in providing their child's medical records and reports that could have further validated the study.

5.3.2 Limited Generalisation:

Though the study does provide, to an extent, certain insight into issues impacting learners with ASD, the sample size is not large enough to generalise the findings to the city's population. Moreover, the study is limited to Dubai emirate alone and, therefore, the concerns deliberated upon are not necessarily representative of the country's educational status of individuals with ASD.

5.4 Potentials for Future Research:

This research study has attempted to examine the current availability of services for learners with ASD in Dubai and its impact on their overall development. While it is hardly possible to draw out concrete conclusions based on this study of six learners placed in special need centres and a mainstream school, the richness of the collated data provides deep insights into the existing educational provisions for learners with ASD and its influence on their learning and development. As this research is conducted in Dubai only, a wider study that includes all seven emirates can help arrive at a more comprehensive and realistic representation of the status of ASD in the country and the current availability of its educational services. Furthermore, the research possibility of including more schools and centres for a greater representation of the issues that affect learners with ASD in Dubai itself can also be considered.

An in-depth analysis of the long-term socio-economic benefits of accessible and affordable educational services on the economy also needs to be tapped into. Such a study can help highlight the costs and benefits involved in providing educational services for such learners. Experiences of parents in dealing with children with ASD in Dubai as well as their expectations from the support services is also worthy of investigation. This study can also look into the support extended to the individual and family in terms of counselling and appropriate interventions at the completion of the ASD diagnosis. The increased demand on general teachers to include such learners within the mainstream class settings and their capacity in terms of knowledge, skills and attitude to cope with the pressure also requires further investigation.

This research study concludes that while efforts are currently on-going to improve the educational services for learners with ASD in Dubai, there is much more that needs to be accomplished. Concerted efforts by stakeholders including the government, schools, parents and society as a whole can reach out to a wider number of such learners and help them reap the benefits of early intervention programmes and optimise their potentials. These initiatives can provide the much-

needed impetus to smoothen the difficult journey towards integrating such learners into mainstream society. If we jointly persevere, we can definitely make this happen.

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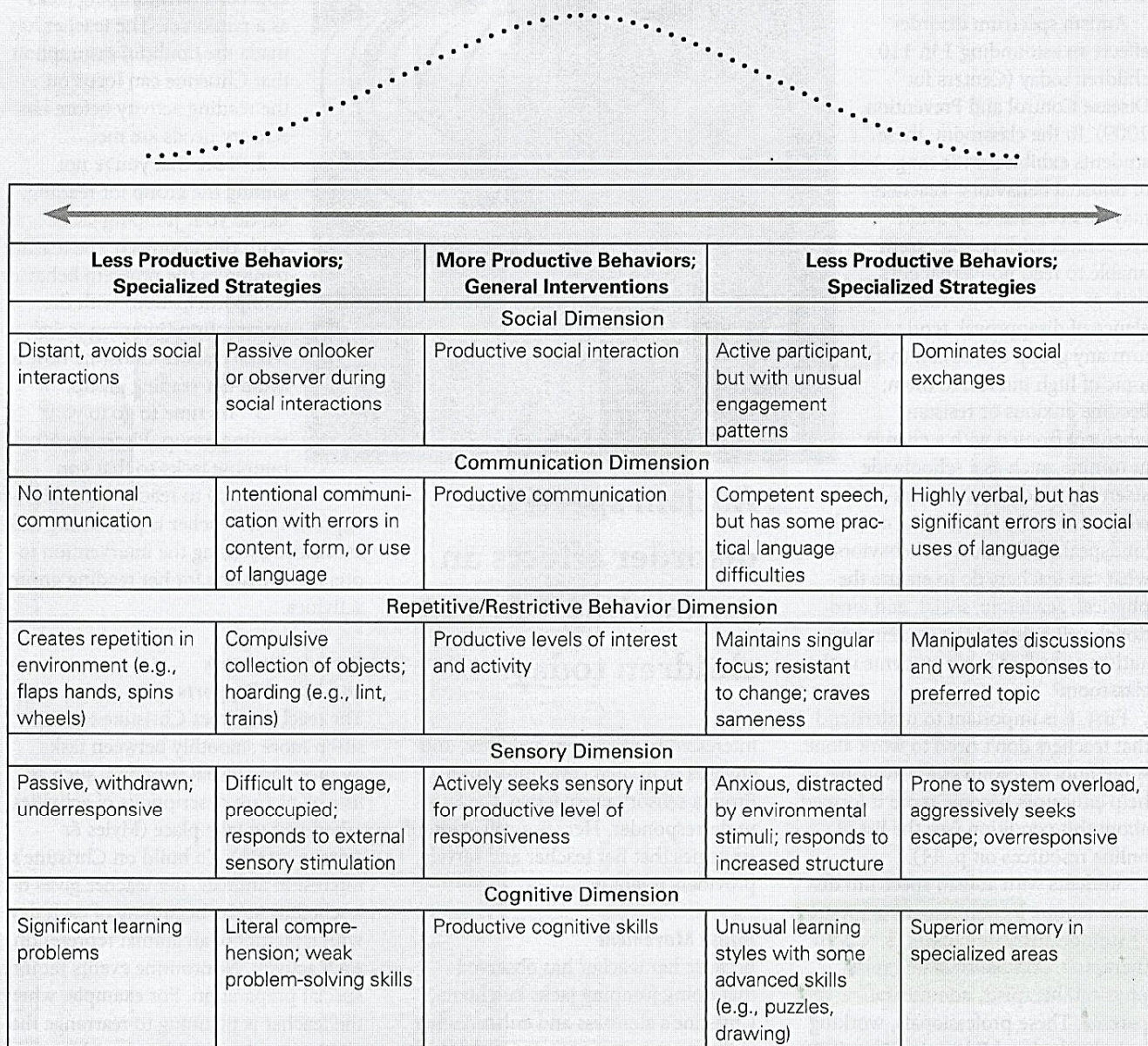
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APPENDIX 1

FIGURE 1. Dimensions of the Autism Spectrum

Individuals on the autism spectrum exhibit a wide range of behaviors. This figure shows the continuum of characteristic behaviors—from disengaged on the left side to hyperengaged on the right side—in five dimensions. As the bell curve indicates, more individuals fall into the productive realm (requiring general, less intensive interventions) than into the extreme ends of the spectrum.



The goal is to keep students with autism spectrum disorder as productively engaged with class content and their peers as possible. So, if a teacher sees a student starting to disengage or becoming hyperengaged, he or she can use specialized strategies to move that student back into a more productive mode.

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APPENDIX 2

Federal Law No. 29 of 2006 In Respect of The Rights of People with Special Needs

We, Khalifa Bin Zayed Al-Nahyan , President of the United Arab Emirates,

Upon reviewing the constitution,

The federal law No. 1 of 1972 in respect of the competences of ministries and powers of ministers and the laws amending it ,

The federal law No. 11 of 1972 in respect of the mandatory education,

The federal law No. 12 of 1972 in respect of regulating the clubs and associations operating in the field of the youth welfare,

The federal law No. 4 of 1976 in respect of establishing and organizing the United Arab Emirates University and the laws amending it,

The federal law No. 9 of 1976 in respect of the delinquent and the homeless juvenile,

The federal law No. 8 of 1980 in respect of regulating the work relationships, and the laws amending it,

The penal law promulgated under the federal law No. 3 of 1987 and the laws amending it,

The law of penal procedures promulgated under the federal law No. 35 of 1992 and the laws amending it,

The law of pensions and social insurances promulgated under the federal law No. 7 of 1999 and the laws amending it,

The federal law No. 21 of 1995 in respect of traffic and driving,

The federal law No. 25 of 1999 in respect of the general authority of Youth and Sports.



And pursuant to the proposal of the minister of the social affairs, the approval of the council of ministers, and the endorsement of the supreme federal council,

We have promulgated the following law:

Section One
General Provisions
Article (1)

Definitions:

In the implementation of the provisions of the present law, the following words and expressions mentioned therein shall have the meanings shown opposite each of them , unless otherwise is required by the context:

The State:	The United Arab Emirates
The Ministry:	The Ministry of Social Affairs
The Minister:	The Minister of Social Affairs
The Concerned Authorities:	The federal and local authorities concerned with the implementation of the provisions hereof.
A Person with Special Needs:	Every person suffering from a temporary / permanent, full /partial deficiency or infirmity in his physical, sensational, mental, communicational, educational or psychological faculties to an extent decreasing the possibility of satisfying his ordinary requirements in the conditions of people without special needs.
The Card:	The personal card granted by the ministry to the person with special needs which is considered as an official document indicating that its holder is a person with special needs. This card guarantees for its holder the rights and services shown herein, and in the bylaws and decisions issued in implementation hereof.

The Distinction:

Any discrimination, exclusion or restriction due to special needs which cause damaging or denying recognition of any rights prescribed under the legislations applicable in the state, enjoying them or practicing the same equally.

Article (2)

This law aims to guarantee the rights of the person with special needs and to provide all the services within the bounds of his abilities and capacities. The special needs may not be a reason to hinder the person with special needs from obtaining such rights and services especially in the field of welfare and social, economic, health, educational, professional, cultural and promotional services.

Article (3)

The state guarantees for the person with special needs the equality with people without special needs and non-discrimination due to special needs in all the legislations. It also guarantees to observe the same in all the policies and programs of economic and social development, and to take the appropriate procedures to prohibit the discrimination based on the special needs.

Article (4)

The ministry, in coordination with the concerned authorities, prepares programs to educate the person with special needs, his/ her family and local environment in all what concerns the rights provided for under this law and the other legislations, as well as the services provided for him.

Article (5)

Any judgment, standard or practice based on a lawful basis shall not be considered as a discrimination. The state guarantees to take all the necessary procedures to enable the person with special needs to enjoy his rights and liberties, and prohibit any infringement upon him or depriving him of them abusively.



Article (6)

The state guarantees the legal assistance for the person with special needs in all cases where his liberties are restricted for any legal reason. Upon issuing any decision restricting the freedom of a person with special needs, the following should be taken:

1. Treating him humanely, taking into account his condition and his needs as a person with special needs.
2. To provide the necessary information and data which are connected to the reasons of restricting his freedom.
3. To provide the appropriate assistance in case he is unable to pay the legal fees, expenses or fines, as stipulated under a resolution issued by the council of ministers.

Article 7

The state guarantees for the person with special needs to practice his right of expression and giving the opinion by using Braille, the language of sign and the other methods of communication, and his right in requesting, receiving and transmitting the information equally with others.

Article 8

The law guarantees for the person with special needs the necessary protection of his correspondences, medical records and personal matters. The executive bylaw of this law determines the regulations and mechanisms of the said protection.

Article 9

The ministry shall – in cooperation with the competent authorities- establish centers, establishments and institutions for taking care of and training the people with special needs and qualifying them. Such centers, establishments and institutions shall undertake the following tasks:

- A. To qualify the people with special needs to adapt themselves and integrate in the community.
- B. To provide the special education for people with special needs.
- C. To provide the professional training programs for the people with special needs.
- D. To train the families of people with special needs how to deal with them.

Section Two
Rights of People with Special Needs
Chapter One: Health and Rehabilitation Services
Article 10

Each UAE national person with special needs has the right to benefit from the health and rehabilitation services and the support services at the expense of the State, including:

- A. All surgeries whether resulting from a special need or not such as transplantation, treatment of ulcers, the anaplasty, the treatment in specialized centers... etc whether for intensive or normal treatments. This includes providing all the equipment and materials ...etc , and all the requirements for the success of the operation, whether permanent or temporary.
- B. To provide the medical examination and treatment at: general practitioners, specialists, consultants, dentists, the psychological evaluation, the audiography, radiography, lab tests, and medicines.
- C. Rehabilitation and Specialized Treatments: The internal and external, including : the physiotherapy, work therapy, phoniatics, treatment of hearing and the psychotherapy.

- D. The technical aids and the assisting equipment such as the mobile and fixed replacement equipment (limbs, audiphones, artificial oculus etc) corrective forms, movement aids (wheelchairs, walking sticks, canes and crutches), and for the prevention from ulcers and all the drugs used in the surgeries.

Article 11

Under a resolution by the council of ministers, a committee named “The Specialized Committee For Health And Rehabilitation Services For People With Special Needs” shall be established. Such committee shall be chaired by the undersecretary of the ministry of health with members representing the concerned authorities. The minister of health shall set forth the committee work system and meetings.

The committee shall specifically carry out the following functions:

1. Providing the diagnostic, treatment and rehabilitation services and developing the existing health programs and services to improve the conditions of the people with special needs.
2. Establishing the programs of early detection, diagnostics, raising awareness and health education, and providing the means of early and specialized intervention in the area of special needs.
3. Providing human cadres specialized in the field of different kinds of special needs and train and rehabilitate them.
4. Preparing the national studies to identify the reasons leading to the special needs, their consequences and the ways of prevention, and circulating such studies among the concerned authorities in the State.
5. Submitting periodic reports to the minister preparing the ground to present the same to the council of ministers to take the appropriate actions in this concern.

Chapter Two: Education

Article 12

The State guarantees for the person with special needs equal chances in education in all the educational and pedagogical institutions, the vocational qualification, teaching of adults, the continuous teaching in the regular classes or in special classes; if necessary, with providing the curriculum in the language of sign or Braille and any other methods as necessary.

The special needs do not constitute intrinsically an obstacle hindering from applying to enroll, join or enter any educational institution whether governmental or private.

Article (13)

The ministry of education and the ministry of higher education and scientific research shall take the appropriate procedures in cooperation with the concerned authorities to provide the pedagogical diagnosis, the curriculum, and the simplified means and techniques for the purposes of teaching. Moreover, it endeavors to provide alternative methods to communicate with people with special needs, and to establish alternative strategies for learning, and simplified material environment and other means necessary to guarantee the full participation of students with special needs.

Article 14

The ministry of education and the ministry of higher education and scientific research should – in cooperation with the concerned authorities- provide the academic specialties to prepare the employees working with people with special needs and their families whether in the areas of diagnosis, early discovery, the educational, social, psychological, medical or professional rehabilitation, and guarantee providing the training programs during the service to provide the employees with the modern knowledge and expertise.

Article 15

Under a resolution issued by the council of ministers, a committee named “The Committee Specialized In The Education Of People With Special Needs”. Such committee shall be chaired by the undersecretary of the



ministry of education, with members representing the concerned authorities. The minister of the education shall set forth the work system and meetings of the committee.

The committee shall specifically carry out the following functions:

1. Setting forth the executive programs to guarantee equal chances in the education for people with special needs since the early childhood in all the educational institutions in their regular classes or in the specialized educational units.
2. Developing the methodological structure of the educational programs and preparing the pedagogical plans which are in line with the contemporary time and the technical development and which are consistent with the growth and psychological features of people with special needs.
3. Organizing all the matters related to the education of the people with special needs such as the programs, procedures, methods and conditions of joining the regular classes and sit for examinations.
4. Laying down policies of rehabilitating and training the educational and teaching human cadres working in the area of people with special needs.
5. Providing advice and technological, technical and educational assistance to all the educational institutions which would like to receive people with special needs, and studying the financing requests related to the equipment and techniques and qualifying the educational institution environment.
6. Submitting periodic reports to the minister preparing the ground to present the same to the council of ministers to take the appropriate actions in this concern.

Chapter Three: Work

Article (16)

The UAE national person with special needs enjoys the right to work and occupy the public positions, for which the special needs , in themselves , do not constitute an obstacle hindering from applying and being selected for jobs. Special needs shall be taken into account upon undergoing the tests of competency to have the job for people concerned with the provisions of this law.

Article 17

The ministry may enter into contracts with other entities to execute projects for rehabilitation of people with special needs. The minister shall determine the terms, conditions and regulations necessary for that.

Article (18)

The legislations issued inside the country show the procedures to be taken to guarantee the person with special needs holding positions in the governmental and private sectors, the working hours, the vacations and the other terms related to the work of people with special needs, including the necessary regulations to terminate the services and the entitlement to the end of service benefits or the retirement pension.

The council of ministers determines –based on the minister’s proposal- the percentage of the jobs to be allocated for the people with special needs in both governmental and private sectors.

Article (19)

Under a resolution by the council of ministers, a committee named “The Specialized Committee For The Employment Of The Person with Special Needs”. Such committee shall be chaired by the undersecretary of the ministry, with members representing the concerned authorities. The minister shall set forth the committee work system and its meetings.

The committee shall specifically carry out the following functions :

1. To lay down the policies necessary for the employment of the person with special needs and the requirements to realize the optimal competence along with guaranteeing the continuity of the employment for the longest possible period.
2. To encourage and support people with special needs who are qualified to establish projects with economic profitability and feasibility, and to provide the information about the available donations and facilitated loans and how to obtain the same.
3. To provide the information about the labor market, the available vacancies and its prospective.
4. To prepare studies about the occupations and jobs in a manner consistent with the technological developments and the labor market needs.
5. To encourage and orient the private sector to train, qualify and employ people with special needs and to provide the appropriate support within the bounds of the available resources.
6. To propose the necessary procedures to protect people with special needs from all kinds of exploitation at the work.
7. To submit periodic reports to the minister preparing the ground to present the same to the council of ministers to take the appropriate actions in this concern.

Chapter Four : General and Cultural Life and Sports

Article (20)

The State shall take the necessary procedures to make the person with special needs participate in the cultural, sporting and entertainment life as follows:

1. To develop the creative, artistic and intellectual abilities of the person with special needs and to invest the same in order to enrich the community.
2. To provide the literary and cultural materials for the person with special needs in all available forms, including the electronic texts, the language of sign, the Braille, and in audio and multimedia formats etc.
3. To enable the person with special needs to benefit from the media programs and means, theatrical shows and all the cultural activities, and to enhance his participation therein, with the fees exemption rules.
4. To enhance the participation of the person with special needs in the sports activities organized on the national, regional and international levels.
5. To submit periodic reports to the minister preparing the ground to present the same to the council of ministers to take the appropriate actions in this concern.

Article 21

Under a resolution by the council of ministers, a committee named "The Committee Specialized In Sports, Culture And Recreation For People With Special Needs" shall be formed . Such a committee shall be chaired by the secretary general of the youth and sports authority with members representing the concerned authorities, The minister shall set forth the committee work system and its meetings.

The committee shall specifically carry out the following functions :

1. To lay down the policies which guarantee the integral development of the person with special needs and providing the opportunity to practice the sporting , cultural and recreational activities which are characterized with fun , safety and consistency with his abilities, and to provide the appropriate conditions to practice them basically like his peers having no special needs.

2. To expand the base of practicing the sporting, cultural and recreational activities among people with special needs and to ensure that the sport of people with special needs whether “ sport for people with mental special needs or people with physical and sensational special needs” is contained within the educational programs of the specialized institutions.
3. To set programs to prepare the human cadres qualified to work with people with special needs in the sporting, cultural and recreational fields.
4. To encourage integrating people with special needs with their healthy peers in the sporting and cultural centers, sporting clubs and camps and to provide the appropriate games and activities for them.
5. To submit periodic reports to the minister preparing the ground to present the same to the council of ministers to take the appropriate actions in this concern.

Chapter Five: The Qualified Environment

Article 22

Each person with special needs has the right to be in a qualified environment, and to reach the place where the others can reach.

Article 23

The concerned authorities shall – in coordination with each other- determine the engineering standards and specifications of the facilities and public utilities for which a resolution shall be issued by the council of ministers based on the proposal of the minister. Such resolution shall determine the necessary regulations to apply these standards and specifications and the exclusions mentioned in respect thereof. All this in relation to fitting the facilities to be used by the person with special needs, his need and the requirements of his safety and avoiding any harm against him.

The provisions of this resolution shall apply to both governmental and private sectors, except those excluded under a certain provision therein.

Article 24

The council of ministers shall issue the regulation and conditions to obtain a governmental house by the UAE national person with special needs, as well as the specifications of the house, the rules to own it and the other rules regulating the governmental house affairs.

Article 25

1. The necessary technical specifications should be observed in the roads, public vehicles, land, air and maritime means of transport in order to be used by the person with special needs.
2. Under a resolution, the council of ministers shall determine the requirements of obtaining a driving license by the person with special needs, and the regulations thereof. A new category concerning the people with special needs shall be added to the driving license categories mentioned in the traffic and driving law. The necessary description shall be mentioned therein as per the type of special needs.

Article 26

Each insurance company shall insure the vehicles owned by the person with special needs whenever he requests the same.

Section Three EXEMPTIONS Article 27

The vehicle allocated for the use of the person with special needs shall be exempted from all taxes and fees, based on a handicap certificate issued by the ministry. This exemption may not be given for another vehicle unless after the elapse of five years from the previous exemption or the damage of the vehicle. In case of disposing of the vehicle during that period, the prescribed fees and taxes shall paid.

Article 28

The vehicles of the people with special needs shall be exempted from the prescribed Car Parking fees .

Article 29

The means of transport of the associations and centers of people with special needs specified by the council of ministers shall be exempted from the licensing fees.

Article (30)

The council of ministers shall specify the associations and the centers of people with special needs which shall be exempted from the fees imposed on the applications for building permits submitted by them for the construction of buildings for their use, based on a certificate issued by the ministry in this regard.

Article 31

The cases filed by people with special needs related to the implementation of the provisions hereof shall be exempted from the legal fees.

Article 32

All the correspondences of the person with special needs or the associations or centers of people with special needs specified by the council of ministers shall be exempted from the post fees and charges, including the books, newspapers and magazinesetc.

Section Four

PENALTIES

Article 33

Without prejudice to the any strictest punishment provided for under any other law, everyone using the card of the person with special needs without a



legal requirement shall be punished by fining him an amount not less than One Thousand Dirhams and not exceeding Five Thousand Dirhams, without prejudice to the civil responsibility whenever necessary. Such punishment shall be multiplied in case of repetition.

Section Five
FINAL PROVISIONS
Article 34

The ministry shall approve the logos of the people with special needs and circulate them to the authorities supervising the utilities or those which publish booklets and printed materials and prepare programs containing such logos.

Article 35

The person with special needs shall not be required to show any evidence of his special need except for the card issued by the ministry in this regard. The conditions to obtain such card shall be determined under a resolution issued by the minister.

Article 36

The ministry shall license the nongovernmental institutions which take care of educating, training and rehabilitating the people with special needs. No natural or corporate person may establish any of such institutions unless a license is obtained from the ministry.

The conditions, regulations and fees of licensing such institutions in addition to their obligations and the penalties imposed on them in case of violations as well as the other provisions regulating their business shall be determined by a resolution by the council of ministers.

Article 37

The minister shall issue the necessary bylaws and decisions to implement the provisions hereof.



Article 38

All the provisions contradictory to or in conflict with the provisions hereof shall be cancelled.

Article 39

This law shall be published in the official gazette and shall be applicable effective from date of its publication.

Khalifa Bin Zayed Al Nahyan
President of the United Arab Emirates

Issued at the Presidency Palace, Abu Dhabi:
On 19 Rajab 1427 H
Corresponding to 13/8/2006 G.



APPENDIX 3

BUID LETTER



4 June 2012

[REDACTED]
Dubai.

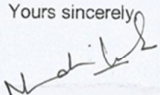
This is to certify that [REDACTED] (Student ID: 100111) is a registered student on the **Masters of Education – Special and Inclusive Education** programme in **The British University in Dubai** since January 2011.

As part of her course requirements, [REDACTED] is required to collect data by observing a learner with special educational needs. She also will require the centres to provide documental evidence such as samples of the learner's assessment tests, worksheets, progress report etc to help draw out the impact of the learning process.

We kindly request you to assist her in this matter, so that she can conduct her visit as appropriate.

This letter is issued on [REDACTED] request.

Yours sincerely,


Nandini Uchil
Head of Student Administration



www.buid.ac.ae

P O Box 345015, Block 11, 1st & 2nd Floors, Dubai International Academic City, Dubai, United Arab Emirates
Tel. +971 4 391 3626, Fax +971 4 366 4698

APPENDIX 4

2 June 2012

Dear Madam/Sir,

Subject: Parental Permission for research study

I am pursuing my Master's degree (Special and Inclusive Education) from the British University in Dubai. As part of my study, I am undertaking research on, "Impact of the Current Educational Services on Learners with Autism Spectrum Disorder in Dubai, UAE." Through this research study I intend to examine and highlight the needs of such learners by observing them in centres for special needs, specialised schools and a mainstream school in Dubai.

The purpose of this letter is to seek your permission in undertaking an observation of your child in the class setting as well as to have access to relevant documentation (e.g. IEP, learner's worksheets etc.) to support and validate the observations. Furthermore, I would like to seek your permission for an interview so as to highlight parental concerns towards improving educational services in Dubai. I completely understand your concerns regarding confidentiality of information relating to your child. Please be assured that anonymity of the child, the school he/she attends as well as the documentation material will be strictly adhered to in this study. Please feel free to contact me on [REDACTED] or at [REDACTED] if you need any clarifications. I am sure you will consider the study positively and grant your permission.

Thanking you in anticipation.

Yours Sincerely,

[REDACTED]

Student of British University in Dubai

Consent to Participate

Dear [REDACTED],

We have read the above letter and agree to allow our child to participate in the study entitled “Impact of the Current Educational Services on Learners with Autism Spectrum Disorder in Dubai, UAE.” We are also willing to share our viewpoints on the existing provisions available for our child in Dubai.

Parent’s Name:

Parent’s or Guardian’s Signature

Date:

APPENDIX 5

9 October 2012

Dear Madam/Sir,

Subject: Parental Permission for research study

I am pursuing my Master's degree (Special and Inclusive Education) from the British University in Dubai. As part of my study, I am undertaking research on, "Impact of the current educational services on learners with Autism Spectrum Disorder in Dubai, UAE."

As part of this study, I am keen to highlight issues that confront parents whose child with ASD is currently being home-schooled as they await admission in specialised centres or schools or for some other reason. In this regard I seek your permission for an interview (face-to-face, email or via telephone) in order to highlight parental concerns towards improving educational services in Dubai.

I completely understand your concerns regarding confidentiality of information relating to your child. Please be assured that anonymity will be strictly adhered to in this study. Please feel free to contact me at [REDACTED] or [REDACTED] if you require any further clarifications.

I am sure you will consider the study positively and grant your permission.

Thanking you in anticipation.

Yours Sincerely,

[REDACTED]

Student of British University in Dubai

APPENDIX 6

SAMPLE QUESTIONNAIRES

APPENDIX 6.1

INTERVIEW-BASED QUESTIONNAIRE

IMPACT OF THE CURRENT EDUCATIONAL SERVICES ON LEARNERS WITH AUTISM SPECTRUM DISORDER IN DUBAI, UAE

Respondent: Occupational Therapist/ Speech Therapist/ Behavioural Therapist/
Special Educator

Date of interview:

1. Employment Title:

2. Nationality:

3. Since how long have you been working in your field of specialisation?

4. How many years of service have you completed in Dubai?

5. Do you share a strong collaborative relationship with parents at the centre?

☐ Yes ☐ No

6. Is any training given to parents during the school academic year? ☐ Yes ☐ No

7. Do the parents reinforce the school teaching at home as well? ☐ Yes ☐ No

8. Does the centre provide training to teachers and therapists during the
academic year? ☐ Yes ☐ No

9. Are you satisfied with the training sessions? ☐ Yes ☐ No

--

10. As a specialist do you think the existing services are adequate for these learners? ☐ Yes ☐ No. Please elaborate.

11. What is required to improve educational services for learners with ASD?

- ☐ Early Diagnosis
- ☐ Effective Interventions
- ☐ Timely Treatment
- ☐ Educational Services
- ☐ Public knowledge, attitude and acceptance
- ☐ Others

12. What, according to you, is the most important of the above issues?

13. Do you think the lack of or the availability of the above-mentioned issues have impacted learners with ASD in Dubai? ☐ Yes ☐ No. Please elaborate.

APPENDIX 6.2

INTERVIEW-BASED QUESTIONNAIRE

IMPACT OF THE CURRENT EDUCATIONAL SERVICES ON LEARNERS WITH AUTISM SPECTRUM DISORDER IN DUBAI, UAE

Respondent: General classroom teachers

Date of interview:

1. Employment Title:
2. Nationality:
3. Since how long have you been working as a general class teacher?
4. How many years of services have you completed in Dubai?
5. Do you share a strong collaborative relationship with the parents? ☐Yes ☐No
6. Is any training given to mainstream teachers during the school academic
year in dealing with children with special needs? ☐Yes ☐No
7. As a class teacher do you think the existing services are adequate for such
learners? ☐Yes ☐No. Please elaborate.

--

8. Can you elaborate on your experiences – challenges and successes?

9. What is required to improve educational services for learners with ASD?

- ☐ Early Diagnosis
- ☐ Effective Interventions
- ☐ Timely Treatment
- ☐ Educational Services
- ☐ Public knowledge, attitude and acceptance
- ☐ Others

10. What, according to you, is the most important of the above issues?

11. Do you think the lack of or the availability of the above-mentioned issues

have impacted learners with ASD in Dubai? ☐Yes ☐No. Please elaborate.

APPENDIX 6.3

INTERVIEW-BASED QUESTIONNAIRE

IMPACT OF THE CURRENT EDUCATIONAL SERVICES ON LEARNERS WITH AUTISM SPECTRUM DISORDER IN DUBAI, UAE.

Respondent: Parent of a child with ASD admitted in a mainstream private school.

Date of interview:

1. At what age and where was your child first diagnosed with ASD?
2. Was the diagnosis followed by immediate interventions? ☐Yes ☐No

If not, why?

--

3. For how long has your child been attending this school?
4. Does your child look forward to attending school regularly? ☐Yes ☐No
5. Is the school supportive of your concerns and needs related to your child?
☐Yes ☐No
6. Does the school effectively communicate and update you about your
child's developments? ☐Yes ☐No
7. Has your child attended any school prior to this? ☐Yes ☐No. If yes, which
one, and for how long?

8. Do you think the existing services are adequate for your child? ☐Yes ☐No

9. Do you think these services have impacted the life of your child and family? ☐Yes ☐No. Please elaborate.

10. What is required to improve educational services for learners with ASD?

- ☐ Early Diagnosis
- ☐ Effective Interventions
- ☐ Timely Treatment
- ☐ Educational Services
- ☐ Public knowledge, attitude and acceptance
- ☐ Others

11. What, according to you, is the most important of the above issues?

12. Do you think the lack of or the availability of the above-mentioned issues has impacted learners with ASD in Dubai? ☐Yes ☐No. Please elaborate.

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APPENDIX 6.4

INTERVIEW-BASED QUESTIONNAIRE

IMPACT OF THE CURRENT EDUCATIONAL SERVICES ON LEARNERS WITH AUTISM SPECTRUM DISORDER IN DUBAI, UAE

Respondent: Parent of a learner with ASD attending a SEN centre

Date of interview:

1. At what age and where was your child first diagnosed with ASD?
2. Was the diagnosis followed by immediate interventions? ☐Yes ☐No

If not, why?

--

3. For how long has your child been attending this centre?
4. Does your child look forward to attending the centre regularly? ☐Yes ☐No
5. Is the school supportive of your concerns and needs related to your child?

☐ Yes ☐No
6. Does the school effectively communicate and update you about your child's

developments? ☐Yes ☐No
7. Has he/she attended any school prior to this? If yes, which one, and for

how long? ☐Yes ☐No

8. Do you think the existing services are adequate for your child? ☐Yes ☐No

9. Do you think these services have impacted the life of your child and family?

☐Yes ☐No. Please elaborate.

10. What is required to improve educational services for learners with ASD?

☐ Early Diagnosis

☐ Effective Interventions

☐ Timely Treatment

☐ Educational Services

☐ Public knowledge, attitude and acceptance

☐ Others

11. What, according to you, is the most important of the above issues?

12. Do you think the lack of or the availability of the above-mentioned issues has impacted learners with ASD in Dubai? ☐Yes ☐No. Please elaborate.

APPENDIX 6.5

INTERVIEW-BASED QUESTIONNAIRE

IMPACT OF THE CURRENT EDUCATIONAL SERVICES ON LEARNERS WITH AUTISM SPECTRUM DISORDER IN DUBAI, UAE

Respondent: Parent of a learner with ASD attending an afternoon session at a SEN centre

Date of the interview:

1. At what age and where was your child first diagnosed with ASD?
2. Was the diagnosis followed by immediate interventions? ☐Yes ☐No. If not, why?

3. How long has your child been waiting to be enrolled at a centre?
4. How many centres have you sought admission to?
5. In the absence of an admission, how do you engage him/her in learning and development?
6. Has he/she attended any school prior to this? ☐Yes ☐No. If yes, which one, and for how long?

7. Do you think the existing services are adequate for your child? ☐Yes ☐No.

Please explain with reasons.

8. What is required to improve educational services for learners with ASD?

- ☐ Early Diagnosis
- ☐ Effective Interventions
- ☐ Timely Treatment
- ☐ Educational Services
- ☐ Public knowledge, attitude and acceptance
- ☐ Others

9. What, according to you, is the most important of the above issues?

10. Do you think the lack of or the availability of the above-mentioned issues
has impacted learners with ASD in Dubai? ☐Yes ☐No. Please elaborate.

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APPENDIX 6.6

INTERVIEW-BASED QUESTIONNAIRE

IMPACT OF THE CURRENT EDUCATIONAL SERVICES ON LEARNERS WITH AUTISM SPECTRUM DISORDER IN DUBAI, UAE

Respondent: Parent whose child is awaiting admissions into a Centre and is currently home-schooled.

Date of interview:

1. At what age and where was your child first diagnosed with ASD?
2. Was the diagnosis followed by immediate interventions? ☐Yes ☐No. If not, why?

3. How long has your child been waiting to be enrolled at a centre?
4. How many centres have you sought admission to?
5. In the absence of an admission, how do you engage him/her in learning and social development?

6. So far has she/he ever attended any school? If yes, which one, and for how long? ☐Yes ☐No

7. Do you think the existing services are adequate for your child? ☐Yes ☐No

8. If no, then what more would you like introduced for your child?

9. What is required to improve educational services for learners with ASD?

☐ Early Diagnosis

☐ Effective Interventions

☐ Timely Treatment

☐ Educational Services

☐ Public knowledge, attitude and acceptance

☐ Others

10. What, according to you, is the most important of the above issues?

11. Do you think the lack of or the availability of the above-mentioned issues have impacted learners with ASD in Dubai? ☐Yes ☐No. Please elaborate.

APPENDIX 6.7

INTERVIEW-BASED QUESTIONNAIRE

IMPACT OF THE CURRENT EDUCATIONAL SERVICES ON LEARNERS WITH AUTISM SPECTRUM DISORDER IN DUBAI, UAE.

Respondent: Parent of a child with ASD who attends a Support Group

Date of interview:

1. At what age and where was your child first diagnosed with ASD?
2. Was the diagnosis followed by immediate interventions? ☐Yes ☐No. If not, why?

3. For how long has your child been attending these group gatherings?
4. Does your child look forward to attending these sessions? ☐Yes ☐No
5. Is the group supportive of your concerns and needs related to your child?
☐Yes ☐No
6. Does the group provide adequate platform for you to communicate your concerns and share ideas and experiences with other like-minded parents?
☐Yes ☐No
7. How long has your child been at the current centre?

8. Has your child attended any school prior to this? If yes, which one, and for how long? ☐Yes ☐No

9. Do you think the existing services are adequate for your child? ☐Yes ☐No

10. Do you think these services have impacted the life of your child and family?

☐Yes ☐No. Please elaborate.

11. What is required to improve educational services for learners with ASD?

- ☐ Early Diagnosis
- ☐ Effective Interventions
- ☐ Timely Treatment
- ☐ Educational Services
- ☐ Public knowledge, attitude and acceptance
- ☐ Others

12. What, according to you, is the most important of the above issues?

13. Do you think the lack of or the availability of the above-mentioned issues
has impacted learners with ASD in Dubai? ☐Yes ☐No. Please elaborate.

APPENDIX 7

SPECIALISED ASD CENTRE (FULL TIME)

APPENDIX 7.1

OBSERVATION NOTES

SPECIALISED ASD CENTRE (FULL TIME)

Name of the learner: Mohammed	Class: 4
Date: 10 June 2012	Time: 8 a.m. to 12:30 p.m.
Age: 10 years	Nationality: Syrian

Description of the Classroom in the Specialised Centre

The classroom wears a bright and colourful appearance. The walls are painted with vibrant colours and the walls are adorned with educational posters and art work. The room is fairly large-sized for the four learners in the class. The room has been carefully divided into sections for conducting different activities. Separate sections have been dedicated for circle time, independent and individual work as well as a section for computer work. A white board has been set up against one of the larger walls and a semi-circle table and chair arrangement has been placed in front of it to seat the learners. A few extra chairs have been placed in the classroom against one of the walls. There are plastic boxes placed at one end of the room that contain activity-based games and toys customized to the need of the learners. Four pictorial-cum-textual schedules have been placed on the cupboards for the easy access of the learners.

On the far end (that faces a large window) a semi-enclosed area has been created by placing two shelves containing the learners' activity sheets and reading books adjacent to each other. The teachers generally capitalize on this space when the learner is having a tantrum and needs some quiet time away from the others.

Class Period: Circle Time	Place: Classroom
Time: 8:00 a.m. - 8:30 a.m.	Teachers: Two Class Teachers (Female and Male)

Mohammed is seated at the arc shaped table with his classmates but he suddenly rises from his seat and paces up and down the length of the room. One of the teachers' asks him to be seated but he refuses to comply. The male teacher gets up and holds Mohammed's hand and directs him back to his seat. As soon as the class teacher attends to another learner entering the class, Mohammed rises from his seat and is once again pacing up and down the room. When the teacher looks at him, Mohammed smiles back but does not get back to his seat. The teacher is forced to get up and repeat the previous exercise. He pulls a chair next to Mohammed so that he can keep a closer watch over him. Mohammed is visibly unhappy by this gesture and tries to wriggle out of his seat but is not able to do so. He begins to bang his feet and cry out loud in anger. The teacher remains unperturbed and continues talking to the other three children in the class.

Mohammed increases the volume of his screaming and removes off his shoes and socks in protest. The teacher insists that he sits down and participates in the day's activity but Mohammed has absolute no interest in doing so. He struggles to sit through the class period. Mohammed's whines and tantrums have visibly disturbed the class learning and the rest of the learners also do not partake in the circle time activities of singing and identifying objects and days of the week class as per the routine schedule.

Subject: Rehearsal for concert	Place: Adjacent classroom
Time: 8:30 a.m. - 9:00 a.m.	Teacher: Male Class Teacher

Mohammed has to go for the annual concert practice session to another classroom. He is one of the butterflies in the concert. While the girls are taken by the female teacher for the rehearsal, the male teacher takes the two male learners for their separate session held in another classroom. When they enter the other classroom it is already filled with learners from the other classes who are participating in the concert. The tables and chairs have been moved to one end of the room to provide ample space for the rehearsal. As the children wait for learners from one last class to arrive, the teachers place their students in separate corners of the room while some of them are kept engaged with the toys placed in one side of the room.

As soon as the remaining learners arrive, one of the teachers puts on the music, while the other teachers lead the learners towards their respective positions to begin the rehearsal. When one set of learners complete their dance they are led to their seats by the teachers, while the others are brought forward on to the temporary stage. Mohammed is one of the butterflies and he is expected to flap his hands and flit around the learners. He is physically prompted and guided by his class teacher as he practices his moves for the concert. He giggles through the

practice session and seems to thoroughly enjoy the activity. After practicing the dance steps three times, the teachers tell the learners that they had done well and the teachers clap for them. Some of the learners are excited at being commended for their work, while many of them just look away. Mohammed is escorted back to his class along with his classmate.

Class Period: Break	Place: Canteen
Time: 9:30 a.m. – 10:00 a.m.	Teacher: Male Class Teacher

The female learners have not yet returned from their practice session and after waiting for them for around five minutes, the male teacher decides to allow the boy to take their break. “Collect your snack boxes and bottles and let us go for our break.” The boys immediately respond by moving towards their bags and getting out their boxes and bottles. They are all set to eat their snack. The male teacher takes them to their respective day schedules and prompts them to pull out the picture that depicts snack time and place it in the little box below their schedule. They follow his instructions. The teacher places a picture image indicating snack time on the little window designed in the door as he closes the door and they walk towards the canteen. He holds the hands of both boys and takes them to the canteen on the first floor.

Mohammed seats himself and opens his snack box but suddenly grows unruly. He kicks off his shoes and tries to grab hold of his classmate’s food who in turn tries to protect his food. The class teacher does not encourage Mohammed’s behaviour and tells him to eat his own food. This frustrates Mohammed and he gives vent to his anger by wailing loudly and kicking about in the air. Learners and teachers from the other tables seem disturbed by this sudden outburst. To ease the situation, the class teacher asks the two boys to pack up their boxes and they return to their class. Mohammed tries to put up a fight but the male teacher is in control of the situation and guides them back to their classroom.

Class Period: Self-help skills	Place: Classroom
Time: 10:00 a.m. to 10:30 a.m.	Teachers: Two Class Teachers (Female and Male)

When the boys enter the class, the female learners have not yet arrived from their break. Once the learners are all back in the class the teacher lets them do their own thing while he tries to play soothing music in the background so that the classroom atmosphere grows calm and peaceful. But Mohammed is not keen on calming down at all. He keeps whining and raising his voice until the male teacher forcefully takes him to the bathroom to brush his teeth, which is a routine after break time for all learners.

Before he leaves the classroom, he ensures that there is another teacher in class to mind the single male learner who seems disturbed with the loud shouting. The teacher takes Mohammed to the bathroom and with much resistance the brushing session is complete. By this time the female teacher is back in class and she takes

over the class while he takes the other male learner for brushing his teeth. The same process is then repeated for the female learners as well.

Class Period: Outdoor Play	Place: Classroom
Time: 10:30 a.m. – 11:00 a.m.	Teachers: Two Class Teachers (Female and Male)

Once all the learners have finished brushing their teeth, the teachers get ready to take them outside to play for a while on the trampoline or to cycle along the paved path. The learners are all enthusiastic about going out. Mohammed refuses to wear his shoes and he is not allowed to leave the room until he wears them on. The female teacher allows the others to leave with the male teacher as their escort while she waits with him in the classroom.

When he finally wears his shoes, she reminds him to place the pictorial image of play time on the door before he leaves. He follows her instructions but the outdoor play is cut short as Mohammed throws a tantrum on the trampoline. Moreover, the sun is getting hot at this time of the day and the class returns to the classroom before the end of the class period.

Class Period: Group Speech Therapy	Place: Classroom
Time: 11:00 a.m. - 11:30 a.m.	Teachers: Speech Therapist with assistance from the Class Teachers (Female and Male)

As Mohammed quietens down, the speech therapist enters the room and greets all the learners with a broad smile. The class does not reciprocate her greetings but she continues to talk to them about the planned schedule for the day. She places her tray of books and activities next to her seat and gathers the four learners around the arc-shaped table so that she can start her session.

The class teachers sit in between two of the learners each so that they can prompt them to take part in the activity. The speech therapist asks Mohammed to choose the book that he would like her to read aloud and he points towards the Old Mac Donald book. She picks it up and encourages the others to sing along with her and follow the actions. She gives each learner a turn to identify the animals on the pages and to imitate the sounds it makes. Mohammed is happy with this activity and participates in it completely. Once the book has been read, the speech therapist asks them to name an animal and to imitate the sounds it makes. She stops to prompt the learners who are not verbalizing to look at her mouth and to speak out the words.

She places the book back in the tray and pulls out a puzzle box for matching objects. She begins with one of the female learner who is able to do the matching easelessly. Mohammed cannot wait for his turn and he begins to intrude the activity by pulling it towards himself. By the time it is actually his turn he is again

in a foul mood and he has to be verbally and physically prompted to complete the activity.

At the end of the session, the speech therapist asks Mohammed to pull out the group speech therapy image and place it in the box below his schedule. He goes up to the schedule and without looking pulls out the next activity and places it in the box. The speech therapist makes him look at the image and then place the correct image in the box. She then gathers her activities and books into the trays and waves goodbye to the class before she leaves.

Subject: Group Activity	Place: Classroom
Time: 11:30 a.m. - 12:00 noon	Teachers: Two Class Teachers (Female and Male)

By the time the speech therapist collects her tray filled with books and activities and waves goodbye, two of the learners have already begun pacing up and down the room. The teachers tell them that if they sat properly they would be making soup for them in class. One of the female learners is happy and repeats the word, soup, continuously. The male teacher leaves the room to collect the burner, kettle, soup sachet and the utensil to make the soup. The teacher places pictorial images of the sequence of events that would lead to making soup. He explains the process to the learners who then gather around him as he begins the process. He tells them to keep away from him as the water from the kettle is hot and he keeps explaining the process as he goes along making the soup. The female teacher is physically keeping the learners away from the kettle and is watching them keenly as they get closer to the kettle and the burner. The male teacher gives each of them turns at stirring the soup while keeping a close watch that they do not hurt themselves. Once it is prepared the learners are given the soup (slightly warm) in disposable glasses to enjoy with a spoon. They sit around the table and relish the soup that they have made together.

Subject: Occupational Therapy	Place: Occupational Therapy room
Time: 12:00 noon - 12:30 p.m.	Teacher: Occupational and Movement Therapists

The occupational therapist arrives to pick up Mohammed for his joint session with the movement therapist that will take place at the occupational therapists room. Mohammed giggles on seeing her and walks along with her but as she directs him to the occupational therapy room, he runs in the opposite direction and watches gleefully as she chases him. She holds his hand firmly and escorts him to the room.

Mohammed is asked to sit at the table across the occupational therapist and he moves in the direction of the balls placed on one side of the room. The therapist tells him that once he finishes an activity he can go and play with the ball but his eyes are fixed on the ball and he moves in its direction. The therapists try to bring him back to his seat but he gets angry and begins to pinch one of them. The occupational therapist ensures that he sits where he was told to but he is now

uncontrollable. He tries to hit her and throws off his shoes and socks in anger and cries out aloud. The therapists wait in patience for a while and then tell him to put his shoes and socks on. With a lot of resistance he does put on his shoes. The occupational therapist and the movement therapist make him do some identifying activities but he just knocks things down from the table. He is made to pick the pieces and place it on the table. After the activity is complete he is made to trace dots on a line which he does with complete disinterest.

The therapists then give him a break and allow him to play with the balls. They inform him that “you must get back to the activity after your break.” Once the break time is over, he is reluctant to get back to his tasks and is pulled out from the pile of balls and made to roll on the vestibular ball and walk like a frog from one end of the room to the other. He tries to avoid it by running towards the balls but the therapists struggle to make him complete the assigned tasks before the session is over.

APPENDIX 7.2

INTERVIEW-BASED QUESTIONNAIRE

SPECIALISED ASD CENTRE (FULL TIME)

Date of interview: **10 June 2012**

1. Employment Title: **Occupational Therapist**
2. Nationality: **Indian**
3. Since how long have you been working in your field of specialisation? **9 years**
4. How many years of services have you completed in Dubai? **2 and a half years**
5. Do you share a strong collaborative relationship with the parents? ☒ **Yes** ☐ **No**
6. Is any training given to parents during the school academic year? ☒ **Yes** ☐ **No**
7. Do the parents reinforce the school teaching at home as well? ☐ **Yes** ☒ **No**
8. Does the centre provide training to teachers and therapists during the academic year? ☒ **Yes** ☐ **No**
9. Are you satisfied with the training sessions? ☐ **Yes** ☒ **No**

These trainings are generally held only once or twice a year which is inadequate to develop our skills as professionals working in the field of ASD. At times it has been difficult to obtain mutual dates that are convenient to the experts as well as the Centre and budget constraints also restrict the number of training programmes held. The lack of adequate training on latest developments and strategies does impact the services that we render to our children. Despite the training extended to them by the Centre, all parents do not regularly reinforce the learning strategies/interventions at home. This sometimes causes a delay in the development and reinforcement of positive behaviour in the child. From our end, we regularly update the parents about the child's progress or related concerns through the school diary.

10. As a specialist do you think the existing services are adequate for the learners.
☐ **Yes** ☒ **No**. Please elaborate.

For effective therapy to take place the existing facilities need to be improved and the frequency of these interventions increased. We also need additional equipment and open space within the premise to enable us to carry out educational activities for our learners. For example, we do not have ample ground space for them to play around and we have to take them elsewhere for their swimming sessions. The process of transporting them to and fro is very demanding. Moreover, training programmes for the existing practitioners need to be regularly conducted to update and acquaint them with the latest developments in the field.

11. What is required to improve educational services for learners with ASD?

- ☐ Early Diagnosis
- ☐ Effective Interventions
- ☐ Timely Treatment
- ☒ **Educational Services**
- ☐ Public knowledge, attitude and acceptance
- ☒ **Others. Training the existing practitioners**

12. What, according to you, is the most important of the above issues?

Educational services

13. Do you think the lack of or the availability of the above-mentioned issues

has impacted learners with ASD in Dubai? ☒ **Yes** ☐ **No.** Please elaborate.

Definitely. The kind of services provided to individuals with ASD does affect their growth and development. For instance, if many of these learners who attend this centre had been provided such services during their early years, then their development would have been much faster and they would have benefitted deeply from early intervention programmes.

APPENDIX 7.3
IEP: SPECIALISED ASD CENTRE
Individualized Education Plan 2011/2012

Students Name: [REDACTED]	CLASS: 4
Speech Therapist: [REDACTED]	

Current level of performance:

Professional	Type of Assessment	Level Of Performance
Speech Therapist	Informal- Classroom Observation and Individual observation	<p>Participation:-</p> <ul style="list-style-type: none"> • [REDACTED] appears to present a portrait of a sociable child. He has self-identification and is co-operative for speech sessions. His pre-linguistic skills like eye-to-eye contact (10 seconds) is limited for face to face activities & during group sessions or unstructured sessions as he has to be verbally or visually prompted to attend to the speaker. • [REDACTED] attention span is good for task at hand but tasks of increasing complexity and structure she needs to be prompted and follows the instructions well. • He is interactive during speech sessions but joint attention is limited for non preferred task. • He has good auditory and visual memory as he is able to recollect and retrieve concepts of language taught to his earlier. • [REDACTED] has good awareness of routines and transitions as he checks schedule very promptly in class. • He is able to follow the visual strategies used in [REDACTED]

Individualized Education Plan 2011/2012

	<ul style="list-style-type: none">• He is able to requests in simple 2-3 words like 'I want' and requires verbal prompts to use it.• [REDACTED] is able to request for items she wants from a choice of 2-3 items given at a time• He has difficulty in requesting for items as he is used to getting what he wants. He physically grabs the items she wants to get or pull others hand.• he protests by saying "No"• He has limited motivation to communicate as she prefers playing in the computer, or playing with toys.• He has limited generalization skills for words learnt	
	<p>Social communication:-</p> <ul style="list-style-type: none">• [REDACTED] is sociable with people.• He is able to respond to greetings with verbal prompt, he responds 'fine' when asked How are you?• [REDACTED] has good awareness of self but limited awareness for others.• He is able to carry out 'turn-taking' during individual sessions and group sessions by providing visual prompt.• He has limited joint attention.• [REDACTED] is able to comprehend and respond to simple 'Wh' questions like 'what is the boy doing?', with minimal verbal prompt• He is able to take part in 'give and take' activities	

Individualized Education Plan 2011/2012

		<ul style="list-style-type: none">class and during sessions.He enjoys the company of the communication partner during his preferred tasks and his joint attention is better while carrying out preferred tasks and is limited during all other times██████ is able to respond his name and simpler verbal commands within the contextHe is able to exchange greetings in a group or individual sessions when he is verbally prompted <p>Understanding of Language:-</p> <ul style="list-style-type: none">██████ has a good receptive vocabulary inventory of almost all the lexical items involving Nouns, verbs and simple adjectives.He has difficulty in comprehending few verbs and common objects.██████ can follow simple and complex commands and situational directions as well.He has difficulty in comprehending Prepositions and emotions.He has good Auditory and Visual Memory.He can discriminate between 2-3 pictures and make choices <p>Use of Language:-</p> <ul style="list-style-type: none">In structured situation: ██████ is able to name objects and verbs, nouns in pictures.He is able to use content words while describing a picture when he is verbally prompted.██████ is able to respond to simple wh questions with prompts in a single word phrase
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Individualized Education Plan 2011/2012

		<ul style="list-style-type: none">• when visually and verbally prompted.• [REDACTED] has limited interaction with peers• [REDACTED] has good imitation skills as he is able to copy sounds and actions.• He can answer Yes/no questions most of the time• [REDACTED] is able to sequence cards of 3-4 steps. <p>Speech:-</p> <ul style="list-style-type: none">• Although [REDACTED] speech is quite clear he does have some articulation errors in word level.• Oral speech musculatures appear to be normal in structure and function• Facial symmetry at rest and during movement <p>Alternative Augmentative Device (AAC) Usage :</p> <ul style="list-style-type: none">• [REDACTED]'s interest and Skills in the usage of an AAC device will be assessed this year formally
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IEP-Speech & Communications Unit

Domain	Annual Goal	Short-term objectives
Participation	<ul style="list-style-type: none"> To initiate greetings To improve shared attention To increase interaction with peers 	<ul style="list-style-type: none"> █████ will be to use of social greetings spontaneously with adults and peers █████ will be able to participate in sessions jointly with the therapist and teachers with the usage of Visual strategies with 75% accuracy and minimal verbal prompt. █████ will be able to participate in activities with peers with decreased need for prompt
Understanding of language	<ul style="list-style-type: none"> To improve his comprehension of Verbs To be able to develop comprehension of simple "where & when" questions To improve comprehension of basic emotions of daily life To improve comprehension of intermediate language concepts like adjectives To improve his skills on sequencing activities. To develop the comprehension of associated pictures 	<ul style="list-style-type: none"> █████ will be able to identify certain verbs like Riding, cycling, smiling, and driving etc with 75% accuracy with minimal verbal prompt █████ will be able to answer "where & when" questions regarding activities and items found in the community █████ will be able to comprehend basic emotions like happy, sad and angry with 75% of accuracy with minimal verbal prompts █████ will be able to select between two similar items that vary on one dimension like old / new , fat / thin █████ will be able sequence 4-6 step sequencing with 75% accuracy with minimal prompt █████ will be able to select an item from the display which is used with the item being presented (e.g. select a bat when shown a picture of ball
Use of Language	<ul style="list-style-type: none"> To improve his requesting skills. 	<ul style="list-style-type: none"> █████ will be able to make 5 different requests that contain two or more words (not including I want). For e.g. Go Fast/My turn/Pour water)

IEP-Speech & Communications Unit

Domain	Annual Goal	Short-term objectives
	<ul style="list-style-type: none"> To improve his usage of prepositions. To improve his usage of phrases. To improve communication with the usage of PECS 	<ul style="list-style-type: none"> will be able to use prepositions during conversations with 65% accuracy with minimal verbal prompt. will be able to use the verb-noun combinations in speech with 75% accuracy with minimal prompt. will be able to request and comment on objects and actions in the surroundings using the 5th and 6th stage of PECS like 'I see', 'I hear' with 75% accuracy with minimal verbal prompt.
Social Communication	<ul style="list-style-type: none"> To respond to familiar and unfamiliar questions consistently To improve body language 	<ul style="list-style-type: none"> will be able to respond independently to familiar questions consistently in 2-3 word sentences will be able to maintain appropriate eye contact, distance from the speaker, facial expression during Individual and group sessions.
Speech	<ul style="list-style-type: none"> To improve articulation of sounds To increase self-awareness of volume of voice 	<ul style="list-style-type: none"> will be able to produce sounds like /l/, /r/, /v/, /m/, and /s/ across all the positions with 70% accuracy with minimal verbal prompt will be able to identify loud versus soft sound will be able to respond to single verbal and sign prompt to decrease volume
Augmentative and Alternative Communication AAC	<ul style="list-style-type: none"> To use an AAC device 	<ul style="list-style-type: none"> will be able to develop interest and improve her communication skills with the usage of an AAC device after proper formal assessment and observation.

Speech therapist

APPENDIX 7.4

TEACHER'S COMMENTS

<u>Student's Name:</u> [REDACTED]	<u>Class:</u> 4
<u>Teacher's Names:</u> [REDACTED]	

General comments	
Special Educator	<p>[REDACTED] is making progress this year in terms of compliance, focusing and expressing his needs and wants. These factors have greatly benefited him as he is now ready to listen and perform tasks being presented to him. Using words in requesting for his needs has greatly reduced his apprehension as it is also allowed him to make choices and utter his refusal/negation over items or activities that he doesn't want. However, [REDACTED] requires constant revisiting of concepts necessary for reading, writing and Math [REDACTED] is an outgoing boy who enjoys socializing with the staff .He has good eye contact and maintains the eye contact when communicating with an adult .In the fine motor domain [REDACTED] has commendable skills in threading and holding the pen in the proper way .He has good gross motor skills evidenced by his ability to climb up the rope area in the out door play area .His gait is also good as observed when he walks around the school area .His intra verbal communication improved this academic year. He does copy some given numbers. Sociodramatic play will also play a role in ensuring that he is aware of his peers and engages them in meaningful play as doctor to patient or shop keeper. Social stories will be used in trying to have him express his emotions in the proper way instead of screaming.</p>

Education Unit	
Domain	Progress

Pre-Requisite Skills	<p>1. During individual session, [REDACTED] can work for intermittent reinforcement (after 1 acquisition, then 3 maintenance, for a tangible). He simply anticipates the reinforcer at the correct intervals during work sessions.</p> <p>1. [REDACTED] can respond within 3 seconds when given instruction. Eg [REDACTED] open the door .pick up the pen and give it to me.</p>
Cognitive skills	<p>1. [REDACTED] can match 3 pictures of body parts in associate matching, upon instruction. Given picture of chin he is able to match when requested.</p> <p>2. [REDACTED] can match 5 opposite pictures, picture to the correct picture with two distracters. "e.g. hot-cold, big-small, day-night" .</p>
Imitation Skills	<p>1. [REDACTED] can imitate speed of 3 ongoing actions (shaking a tambourine, tapping table, rolling hands, etc). He does this so beautifully during music sessions</p> <p>1. [REDACTED] can imitate a 4-5-word phrase when instructed.eg [REDACTED] say after me.The boy is running.The dog is barking</p>
Academic Skills	<p>2. When presented simple words, [REDACTED] can read the words upon request .boy , [REDACTED] ,Car</p> <p>3. When presented with letter cards, [REDACTED] can give the sounds associated with letter eg a ,b c ,d etc.</p>
Academic Skills (cont)	<p>1. When presented with 1-5 objects, [REDACTED] can count objects in random order.</p> <p>2. When presented a number card 1-5, [REDACTED] can match the numbers with the same amount of items and vice versa with minimal help from teacher.</p>
Self Help Skills	<p>1.After snack time [REDACTED] can pack away all his things in his bag after eating on instruction.</p> <p>2. When requested, [REDACTED] can to pour a liquid from a pitcher without spilling.</p>
Social Emotional Skills	<p>[REDACTED] can sit in a small group teaching situation without disrupting others (e.g. attempt to leave the group, distracting repetitive behaviour, making non-task related noises) for 10min .Especially during circle time his compliance has been pleasing.</p> <p>1. 2. [REDACTED] can wait for his turn during small work .This has been noted in most activities especially during game playing situations where he has to wait for his turn.</p>
Classroom Routine	<p>1. [REDACTED] can check daily class room activities on the visual schedule independently when asked to</p> <p>2. [REDACTED] can work independently on non-educational or leisure type activities. Eg .working on play dough.</p>

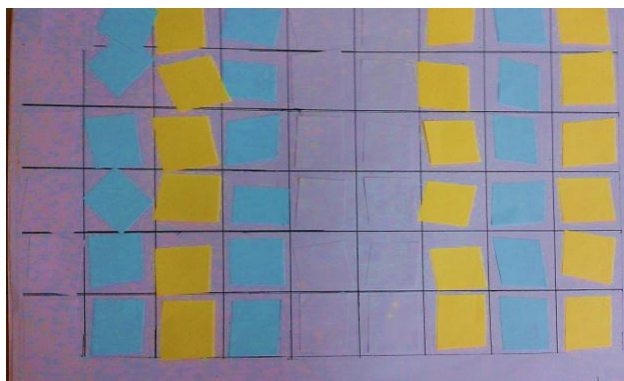
Education Unit	
Domain	Progress

Play and Leisure Skills	When presented with toys, [REDACTED] can actively play with the toys. We are now targeting interactive play with his peers.
Gross motor skills	1. When on the playground, [REDACTED] can pump his legs while swinging. 2. When instructed, [REDACTED] can kick a slowly rolling 8 inch ball in the direction of a specified target area.
Language and Communication Skills	1. Requesting . When item is needed to complete a task, [REDACTED] can ask for the missing item (e.g. given a marked paper to color without a crayon).
Language and Communication Skills (cont)	1. Receptive [REDACTED] can walk across the room to deliver an item to a specified person. eg Give this pen to Laura 2. When shown two identical objects with opposite size (big-small), [REDACTED] can select the specified object upon request. Show me the big elephant. 1. When the instructor points at a body part and [REDACTED] is asked "what is this?" [REDACTED] can label the specified body parts (cheek, tummy, elbow etc.) 2. When presented with a picture of a boy and a girl performing action, and was asked "what do you see?" [REDACTED] is able to label the picture with a carrier phrase "I see...gender and the action."
Fine-motor skills	1 When instructed, [REDACTED] is can cut out shapes with scissors eg Cut out triangle ,square ,rectangle etc 2 When instructed, [REDACTED] can pick up at least 12 small objects using pincer grip 3 When requested, [REDACTED] can watch someone fold a piece of paper and then imitate the model

APPENDIX 7.5

SAMPLES OF CLASS WORK

SPECIALISED ASD CENTRE (FULL TIME)



Cutting and pasting coloured paper.



Pictorial images of the soup-making sequence.



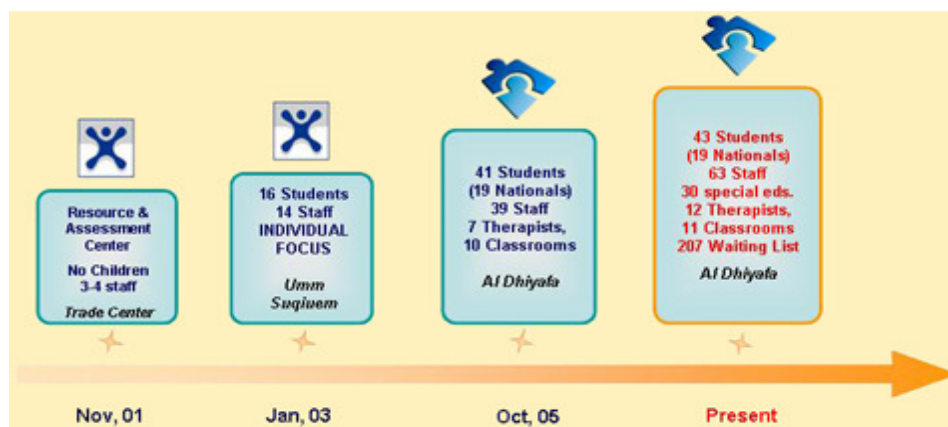
Fingerprint art work done by Mohammed.

APPENDIX 7.6

VISION AND MISSION STATEMENTS

SPECIALISED ASD CENTRE (FULL TIME)

Founded in 2001, this specialised Center is the largest, most innovative and comprehensive non-profit organization in the United Arab Emirates serving children with Autism Spectrum Disorders. After the issuance of the decree on the 18th of November 2001, from the late Ruler of Dubai, H.H. Sheikh Maktoum Bin Rashid Al Maktoum, the Center has begun the creation of its various services targeted towards encouraging a better understanding of Autism and providing specialist services for people with Autism and those who care for them.



Our Vision

A center of excellence having highly trained professionals to provide accredited programs to support individuals with Autism and their families, to be an internationally recognized Autism consultancy center for the region.

Our Mission

To successfully integrate children with Autism into the community through our holistic approach to intervention and therapies, together with our focused efforts to create social awareness about Autism.

Source: Information obtained from the Centre's website.

APPENDIX 8

SPECIALISED ASD CENTRE (AFTERNOON SESSION)

APPENDIX 8.1

OBSERVATION NOTES

SPECIALISED ASD CENTRE (AFTERNOON SESSION)

Name of the learner: Imran	Class: -
Date: 11 June 2012	Age: 7 years
Time: 2:30 p.m. to 4:30 p.m.	Nationality: Indian

Description of the Classroom in the Specialised Centre

The classroom is large-sized and huge windows cover the left end of the room. An array of chairs has been neatly positioned against the wall near the entrance door. The walls are well decorated with art work created by the learners and colourful posters stuck on the walls add to the brightness of the room. A Happy Birthday banner has been hung on the wall facing the room entrance. Desks and chairs have been haphazardly scattered around the room without any order as the full day session at the Centre has just got over. The room has been clearly demarcated into sections for conducting different activities. There is a separate space designated for circle time, individual work, computer work as well as a section for independent work. Against one of the large walls is a white board and 'Happy Birthday' has been beautifully written on it in pink-coloured chalk.

On the far end of the room (next to the windows) is a foam matted area which is partially enclosed by two long shelves. The shelves are filled to its brim with board games, puzzles and toys. One of the shelves is attached to a cupboard wherein the individual folders of each learner as well as books for reading are stored. Six pictorial-cum-textual schedules of the class learners have been placed along the lower portion of the walls so that they (learners) can easily access it. A chart with pictorial images has also been stuck on the wall to encourage the learners to communicate their needs.

Class Period: Special Education	Place: Classroom
Time: 2:30 p.m. - 3:30 p.m.	Teacher: Special Educator

Imran arrives at the Centre holding his mother's hand. He carries his knapsack on his back. On seeing him enter the Centre, the special educator walks towards him and greets him. She enquires about how he was doing but she receives no response. Instead he looks elsewhere. She gently cups his head in her hand and tries to make him look her in the eye. He does this briefly for a few seconds and then looks away. She holds his hand and directs him towards the classroom and tells him to wave goodbye to his mother. Imran lifts his hand and gives a half-hearted wave to his mother and walks away with the special educator for his session.

Once inside the room the special educator asks him to place his bag next to his chair. He follows the instruction and sits down. The special educator sits facing him and begins to sing songs to him. She sings songs like, 'When you are happy and you know it...', 'Good Morning, Mohammed' etc. She lifts his hands in an attempt to make him do the actions. Once the songs are complete, she outstretches his hands and applies cream on it. She keeps talking to him as she massages the cream on to his hands. He just stares in front of him and does not react to the lotion application. She then hands him a toy car that he is very fond of. After two minutes, this reinforcer is gently taken away from him and the special educator guides him to another table that has a box filled with activities already placed next to it.

The special educator begins the session with an activity. She pulls out a piece of thick paper from the box and gives him clothespins to pin along the edges of the paper. She demonstrates what needs to be done and then asks him to do the same. Thrice he manages to do the task well and she reinforces him with a squishy toy reminding him not to place it in his mouth. After squeezing the ball a bit he puts it in his mouth. She warns him, "I will take it away if you put it in your mouth again." He plays with the toy properly and then she keeps it away to carry out the next activity.

The special educator places a four-piece puzzle in front of him. She asks him to look at the complete picture on the cover of the puzzle box and to put the pieces together. He completes the task well and the educator praises his work with "Bravo", "Excellent work". Imran is made to do the puzzle three times. He is then allowed to play with the car for the next two minutes. He places the car upside down and enjoys rolling its wheels forwards and backwards.

A wooden board with gaps to fill in cylindrical wooden blocks is placed in front of him and the car is gently pulled away. The special educator asks him to use the toy hammer to knock the pegs into the designated gaps. He is not able to understand the instructions and she demonstrates it to him. He holds the hammer but is not able to pin the pegs in properly as he does not maintain eye contact with the board. She keeps reminding him to look at his work but he is unable to

maintain contact for more than a few seconds and then he automatically looks away. Finally he manages to do it and she gives him a high five as a reward.

The special educator then asks him to open his bag and pull out his bottle of water and packet of chips. He does so and she asks him to place it on the table. “Which would you like – water or chips?” He grabs both. She tells him to choose one and he opts for the bottle of water. She asks him to drink water but he needs physical help in opening the bottle. She helps him and he slowly pours it into his mouth. She then pulls out a pictorial image of a bottle of water and places the bottle and the packet of chips on the table. She asks him to match the bottle to the correct image. Initially Imran is unable to identify and point at the correct image as he does not look in the direction of the objects and the images. With a lot of prompting and by physically directing his eyes to the activity he gradually picks the picture and places it next to the bottle. “Good Job, Imran” she tells him and lets him play with the car that he likes.

She then takes him to the bathroom and on returning asks him to pack his bag. He places the water bottle and chips in the bag and zips it up. She takes him to play outdoors on the swing for ten minutes which he enjoys a lot. He is all smiles while sitting on the swing and walking through the sandpit. They then return to the class to wait for the next session to commence.

Subject: Occupational Therapy	Place: Occupational Therapist’s room
Time: 3:30 p.m. - 4:30 p.m.	Teacher: Occupational Therapist

The occupational therapist walks into the classroom and greets Imran asking him how his day was. He does not bother to look at her but she goes close to him and tries to establish eye contact with him. He looks at her for a few seconds and then looks away. She holds his hand and takes him to the occupational therapist’s room. He follows her obediently. He gets very excited on seeing the ramp that is placed at a corner of the therapists’ room. She allows him to run up and down the ramp a couple of times and then calls out to him to start the session. He is happy on the ramp and does not follow her instructions. The occupational therapist physically brings him to the huge vestibular ball. He is asked to sit on the ball and jump on it. He is made to do this ten times and he does so. This is followed by an exercise to lie on the ball and roll forward and backward till the occupational therapist counts to ten. “Great work. Give me a high five”. He does not bother to respond and keeps looking towards the huge window that faces the parking area of the Centre. The therapist has to keep prompting him to look at her or the activity that is being done but his attention is always directed towards the window.

Imran is allowed to run along the ramp as reinforcement for completing the previous activities, while the occupational therapist readies the next activity. She then calls him towards her and asks him to throw three flat red, blue and green rings on to a stand. He is unable to do so as he has lost interest in the activity and prefers to stare in the direction of the window. With some difficulty the activity is finally completed. She then asks him to sit next to the bubble column to stimulate his sensory abilities. She presses a button on the column and demonstrates the

changes that can take place in it. He presses the button a few times but is soon bored and he looks away from it. She hands him a squishy ball and asks him to squeeze it hard. “Harder, press harder” she tells him but Imran just plays with it in his hand and when he finally releases it, the ball falls on the ground.

The occupational therapist places a wrist band with some weights attached to his right hand. She guides him in lifting his hand with the weights. She does it for both hands, five times each. She then pulls out a bottle of lotion and massages his hands with cream. Though his gaze is fixed towards the window, Imran seems to enjoy this part of the session as he giggles through the cream application process. She asks him to drink water from his bag which he does with some assistance from her. The occupational therapist then escorts him back to the main building where his mother is waiting for him. The therapist briefly speaks to Imran’s mother about the day’s session and then waves goodbye to him. He holds his mother’s hand and moves towards their car to head homewards.

APPENDIX 8.2

INTERVIEW-BASED QUESTIONNAIRE

SPECIALISED ASD CENTRE (AFTERNOON SESSION)

Date of Interview: **11 June 2012**

Respondent: **Parent of a learner with ASD attending the afternoon session at the Specialised Centre**

1. At what age and where was your child first diagnosed with ASD? **2 and a half years, India.**
2. Was the diagnosis followed by immediate interventions? ☐ Yes ☒ **No.** If not, why?

I was in a complete state of shock and denial of the disability and it took me a while to recover from it and begin to accept the situation. We did not introduce Imran to any kind of interventions during this period. He used to spend the whole day at home. When I began to accept the situation, we began to look for suitable centres for him in Dubai but I was unable to seek appropriate admission for him. Imran was diagnosed with mild autism around four years back and he has yet to obtain a seat in any of the Centres in Dubai. He has been attending the afternoon session for the past year.

3. How long has your child been waiting to be enrolled at a centre? **3 years**
4. How many centres have you sought admission to? **1**
5. In the absence of an admission, how do you engage him in learning and social development?

After I complete the day's chores, I sit with him and try to do some educational activities like they do in this centre. Frankly, I am unsure about how to teach him at home. I try engaging him in some educational activities but I find it difficult to sustain his interest and attention for more than a few seconds. Until Imran began attending the afternoon sessions at the specialised centre twice a week, his life has often been restricted within the four walls of the house as he did not comply with instructions given to him nor behave in a socially appropriate manner in public places. After undergoing the sessions here three times a week, I notice a marked improvement in his behaviour.

The quality of the educational services is good and the therapists at the Centre are dedicated to their work. As a result of the special education and therapy sessions I can see tremendous improvement in Imran's behaviour, especially his capacity to sit at one place, listen to and follow instructions and perform an assigned task. This is something he has never been able to do all these years.

6. Has he/she attended any school prior to this? If yes, which one, and for

how long? ☐ Yes ☒ No

7. Do you think the existing services are adequate for your child? ☐ Yes ☒ No

Please explain with reasons.

It is obvious that if there were adequate facilities then my son would have been admitted in a Centre specialised in ASD a long time ago. I am keen that he seeks appropriate interventions in a specialised centre and, therefore, I am looking forward for the new premise to be set up so that Imran can experience full day schooling rather than be restricted to the afternoon sessions.

8. What is required to improve educational services for learners with ASD?

- ☐ Early Diagnosis
- ☐ Effective Interventions
- ☐ Timely Treatment

☒ Educational Services

☒ **Public knowledge, attitude and acceptance**

☐ Others

9. What, according to you, is the most important of the above issues?

Adequate educational centres.

10. Do you think the lack of or the availability of the above-mentioned issues

has impacted learners with ASD in Dubai? ☒ **Yes** ☐ No. Please elaborate.

Yes it has. Imran would have developed much faster if had he been introduced to appropriate education services earlier on. He is now seven years old and he is yet to experience a full day schooling process. With the current interventions itself I see a marked improvement in his behaviour. I am confident that full day schooling can help him learn basic life skills and communicate better with others.

When our child throws a tantrum in a shopping mall, people just stare at us as if to question our parenting skills. The public sometimes fails to understand that the child has a genuine problem and the child's behaviour is a manifestation of that problem.

APPENDIX 8.3

INTERVIEW-BASED QUESTIONNAIRE

SPECIALISED ASD CENTRE (AFTERNOON SESSION)

Date of interview: **11 June 2012**

1. Employment Title: **Special Educator**
2. Nationality: **Filipino**
3. Since how long have you been working in your field of specialisation? **7 years**
4. How many years of services have you completed in Dubai? **4 years**
5. Do you share a strong collaborative relationship with the parents? ☒ **Yes** ☐ **No**
6. Is any training given to the parents during the school academic year?

☒ **Yes** ☐ **No**
7. Do the parents reinforce the school teaching at home as well? ☒ **Yes** ☐ **No**
8. Does the Centre provide training to teachers and therapists during the

academic year? ☒ **Yes** ☐ **No**
9. Are you satisfied with the training sessions? ☐ **Yes** ☒ **No**

Training programmes are conducted but the frequency of these sessions must be increased. We need to be regularly acquainted with the latest research developments and intervention measures so that we can help our children develop faster.

10. As a specialist do you think the existing services are adequate for the

child? ☐ Yes ☒ No. Please elaborate.

Much more is needed to be done for quality services to be rendered to our learners in Dubai. For instance, ABA is an effective line of treatment for learners with ASD but we are unable to attract such super specialised therapists because they are expensive and their services are scarcely available in Dubai. We know that with early interventions, these learners can maximise their potentials and develop faster and yet our services are not keeping pacing with these needs. All these children are special and they must be given due importance.

11. What is required to improve educational services for learners with ASD?

☐ Early Diagnosis

☐ Effective Interventions

☐ Timely Treatment

☒ Educational Services

☒ Public knowledge, attitude and acceptance

☐ Others

12. What, according to you, is the most important of the above issues?

Educational services

13. Do you think the lack of or the availability of the above-mentioned issues

has impacted learners with ASD in Dubai? ☒ Yes ☐ No. Please elaborate.

Absolutely. The waiting lists at the centres in Dubai reflect the dearth of adequate facilities here. With adequate provision, such learners can develop their skills and potentials at an early age itself.

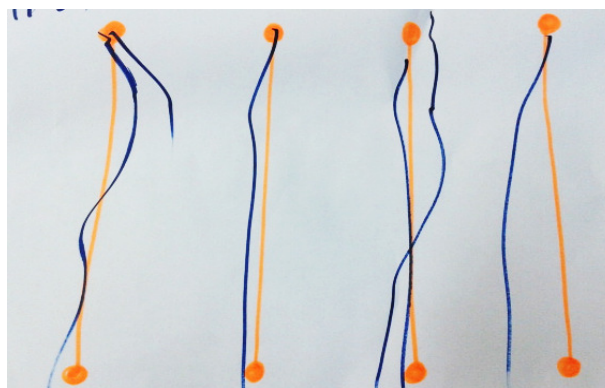
APPENDIX 8.4
SAMPLES OF CLASS WORK
SPECIALISED ASD CENTRE (AFTERNOON SESSION)



Matching the bottle to the pictorial images presented.



Images used to promote communication.



Imran's attempts at tracing straight lines.

APPENDIX 9
CENTRE FOR SPECIAL NEEDS 1

APPENDIX 9.1

OBSERVATION NOTES

CENTRE FOR SPECIAL NEEDS 1

Name of the learner: Harish	Class: Junior 1B
Date: 14 June 2012	Time: 8:00 a.m. to 12 noon
Age: 10 years	Nationality: Indian

Description of the Classroom in the Centre for Special Needs

The classroom is a rectangular room tucked at the end of the first floor of the Centre for Special Needs. Its size is just about adequate to accommodate the ten learners. The room is well lit and has three large windows with roman blinds drawn to keep away the glares of the sunlight. The room has a desk for the assistant teacher adjacent to the class entrance and a big bulletin board displaying the weekly schedules and the birthday calendar of the learners placed close to it.

There is a huge display of the learners' art work placed next to the class teacher's computer table at the other end of the room. The walls are coloured a pleasant yellow and attractive educational posters adorn the walls. The tables are equally colourful - yellow, green and red. A chart that displays the performance and behaviour of the learners is placed on the walls with a number of star stickers stuck close to the respective names of the learners. Pictorial images of a toilet, lights switched on/off as well as an image illustrating silence have been placed on the wall near the classroom door to encourage the learners to communicate their needs.

Class Period: Circle time	Place: Classroom
Time: 8:00 a.m. - 8:30 a.m.	Teachers: Class Teacher, Teaching Assistant and two helpers

Harish is seated along with his classmates in a circle and the assistant teacher is singing songs and prompting all the learners to join her. Suddenly Harish gets up from his seat and stands in the centre of the circle. When the assistant teacher asks him what he wants to do, he replies incoherently that he would like to sing 'Twinkle, Twinkle' nursery rhyme. The assistant teacher allows him to sing and he does so with the actions visually prompted by her. The assistant teacher claps and some of the classmates also do so with physical prompts by the helpers. Thrilled with the response, Harish bursts into singing 'Ba Ba Black Sheep' rhyme. He is then told to sit in his place which he does obediently flapping his hands continuously. As the songs continue to be sung, he walks out of the circle and looks out of one of the windows. The assistant teacher asks him to get back to his seat and after a while he returns to his seat.

At this point the teacher intervenes and explains to the learners that, "each of you must stand in the centre and help me identify your friends and things in your class." When it is Harish's turn, he enthusiastically stands in the centre and awaits the commands. He is asked to jump and close his eyes and he manages to follow the instructions. Then he is told to switch on and off the light and then to touch the computer. He looks lost and stares blankly at the different objects in the room. The teacher fetches the pictorial image of a computer. He looks at it and then points in the direction of the computer placed at the end of the room. He is reminded with visual demonstrations that he needs to touch the computer. Then he slowly moves towards the computer and touches the monitor. The teacher praises his effort.

As the other learners have their turn at identifying objects, Harish keeps himself amused by playing with the teacher's hair who repeatedly tells him to stop doing it. He persists in doing so until he himself gets bored of the activity. At the end of the session the teacher picks up the pictorial chart and points to the circle time image and states that, "Circle time is over."

Subject: Group Activity	Place: Classroom
Time: 8:30 a.m. - 9:00 a.m.	Teachers: Class Teacher, Teaching Assistant and two helpers

The class continues to be seated in a circle and the teacher calls the learners one by one to the centre of the group. She throws the plastic ball at the learner and they attempt to catch and throw it back to her. She throws it from different angles to ensure that they are paying attention. She then asks them to direct the ball into an empty cardboard box after demonstrating the activity to them. Each learner gets three chances to do so. Harish enjoys watching the others play with the ball and claps for them when they succeed in throwing the ball into the box. Harish loves this activity and pays full attention during his turn. He is told to bounce and catch the ball. With the help of the teachers' demonstration and some prompting

he is able to bounce and catch the ball ten times. He is then told to dribble the ball but he does it so fast that the ball slips off his hand before the teacher can complete counting till ten. When he is asked to sit back for others to have their turn, he rocks and flaps his hands. After a while he begins to suck his thumb. The assistant teacher reminds him to remove his thumb from the mouth but he continues to do so. The teacher then sits next to him to keep him from sucking his thumb.

Class Period: Group Occupational Therapy	Place: Classroom
Time: 9:00 a.m. – 9:30 a.m.	Teachers: Two Occupational Therapists, Teaching Assistant and two helpers

The occupational therapists enter just as the last learner is having her turn with the ball. Some of the learners have already diverted their attention to other things and the entry of the therapists distracts them even more. As the therapists greet the learners they watch with excitement at the box they have brought with them. The therapists continue to hold conversation with the learners as they join together two tables at the centre of the circle and they place a shallow bucket at its centre. While keeping a keen eye on the bucket, they show the learners three paper boats that they have prepared in advance. They place one boat in the water and demonstrate how it begins to move when air is blown on the boat. The therapist asks the learners who would like to start first and immediately a learner raises her hand. She blows at the boat well and smiles when the therapist tells her, “Good Job.” Each learner gets a turn to blow at the boat and for a while Harish sits patiently on his seat. Then he begins to walk around the room. When he is told to sit at his place, he does so but promptly places his thumb in the mouth. While conducting the activity for each of the learners’ one of the therapists keeps a watch over Harish to ensure that he does not suck his thumb. When his turn comes he is initially not able to blow well. The therapist coaxes him to try again. This time he takes a deep breath in and blows out with force. He is happy to see the boat move in the water. The therapists then take out the bottle of bubbles for them to enjoy. Some of the learners enjoy doing it, while some suck in the air instead. Harish is able to blow a number of bubbles but he does not bother to burst them like some of his classmates do. He just stares at the bubbles floating in the air.

The next activity is blowing the flame off a tea light. A number of learners find the yellowish-red flame attractive and they attempt to extinguish it. The therapists work together to ensure that the learners do not get hurt. At the same time they give each of the learners a turn at blowing the tea light. The last activity for the session is blowing the party poppers. Some of them blow hard into it till it makes a loud, screeching sound while some of them are not able to figure out how to do it. Harish blows the party popper well and in the excitement of his performance he blows into it twice.

Class Period: Music	Place: Music room
Time: 9:30 a.m. to 10:00 a.m.	Teachers: Music teacher, Class Teacher, Assistant Teacher and two helpers

The teacher looks at the time-table for the day and informs the class that they have music class now. She asks some of them to repeat the word “music”. Some of them manage to do so with a little difficulty, the others do not even try. The class gets ready to leave for music class and they place the music pictorial image on the little glass window of the door to inform others about the activity that they have left the classroom for. The class teacher has a meeting to attend and so the assistant teacher along with the helpers escort the learners to the music room located on the same floor. Two teachers walking along the corridor greet the learners. The music teacher is already seated at the piano and she greets the class with a big smile. “Good morning everyone. How are you all doing today?” Hardly perturbed at not getting any response from the learners, she helps the assistant teacher to seat the learners on the chairs which are already placed in a U-shape so that all the learners face the music teacher.

Once the class settles down on their respective chairs the music teacher begins the session with the ‘Good Morning’ song by individually incorporating each learners name into the song. This is followed by the names of the teachers. The learners seem to enjoy this song as they beam when their names are called out. Harish begins singing enthusiastically but soon loses interest in the song and rocks and looks around the room. He has to be physically and verbally reminded to sing along with the others. The music teacher sings a couple more songs and uses her hand to show the action (one hand on the piano keys) and the assistant teacher and the helpers assist the learners in imitating the actions while singing the songs. Haresh sings a bit but he gets distracted easily. He sits quietly with his thumb in the mouth till one of the teachers makes him pull it out. One learner cries through most of the music session and the learner next to her soothes her by rubbing her thigh.

The music teacher then brings out an ocean drum. The drum has a printed picture of marine life placed inside along with loose beads that makes for interesting sounds of the ocean waves. The music teacher rocks the drum for each learner to see and hear the movement of the beads and then bangs it hard. The drum produces a sharp loud sound. Some learners cringe on hearing the sound and place their fingers in their ears, while some are fascinated with the sound. After showing them how to use the ocean drum, the music teacher then hands over the drum to them so that they can independently look and roll the drum. And while they do this one by one, she plays soft music on the piano.

Once the ocean drum has been seen closely by each learner, the music teacher sings the ‘Good bye’ song to them and while most of them do not sing with her they do follow her actions. As the session draws to an end, the class teacher reminds them to tell her good bye, which they promptly obey and they form their groups and leave the music room.

Class Period: Break time	Place: Classroom
Time: 10:00 a.m. - 10:30 a.m.	Teachers: Class Teacher, Teaching Assistant and two helpers

Once the learners settle down into their seats, the teacher picks up the image that indicates break time and shows it to the class. She asks them to get their food and settle back on their tables. They all seemed hungry as they obediently followed her instructions. They picked their boxes placed it on their respective tables and then took out their plates from the drawer. Some have difficulty opening their boxes while others skillfully open their boxes and sit down to eat. Harish needs some help in breaking his idlis (rice cakes) into pieces and the assistant teacher helps him place the chutney onto the plate. The assistant teacher is keeping an eye on Harish as he dips his idlis with a fork into the chutney and eats it. Once finished he is reminded to keep his box back in the bag and bring his bottle of water. He follows the instructions but needs assistance in opening the bottle and drinking water.

Class Period: Speech Therapy	Place: Speech Therapy room
Time: 10:30 a.m. - 11:00 a.m.	Teacher: Speech Therapist

The teacher tells Harish that he has to go for speech therapy and reminds him to take his folder with him. He follows the instructions and walks out of the class along with the helper. He enters the speech therapy room and places his folder on the table. The speech therapist tells him to get a chair from the other end of the room and to place it near the table. He walks towards the huge windows and looks out into the garden space below. He has to be reminded to get the chair near the table. Once seated the speech therapist asks Harish to tell her how his day was. “Was it nice?” He nodded in agreement and verbalized, “nice” but he seems to look right through her. The therapist has a box full of activities placed next to her and she begins the session with a mix and match exercise. She places a plastic glass and a plate on the table. She takes out corresponding images and places it on the table. She asks Harish to match the pictures to the glass and plate. He stares at them. Then she removes the plate and asks him to match the two similar objects. With the help of a few initial prompts he is able to match the glass to the image. Then she does the same exercise with the spoons and the image of the glass.

Once he has accomplished the task, the speech therapist asks Harish what he would like to do. “Would you like to play with beads?” “Yes,” he answered. She fetches a big box of multicolored beads and asks him to sort out the red ones. In the process of trying to pick out the red beads he roughly flings a few beads onto the floor. The speech therapist makes Harish get up from his seat and pick up the balls that he has dropped on the floor and place them back in the box.

After he completes sorting the beads, she makes him draw some straight lines (freehand) on a sheet of paper. She makes him do this a couple of times and encourages him to draw the lines till the end of the page. Holding his hand she also makes him trace out his name. She dates the sheet of paper and places it in

his folder. She then tells him that he has done well during the session and asks him to pick his folder. One of his class helpers arrive and guides him back to his class.

Subject: Library	Place: Library
Time: 11:00 a.m. - 11:30 a.m.	Teacher: Class Teacher, Teaching Assistant and two helpers

The class teacher greets him as he enters the classroom and reminds him to place the folder back in its place. She announces that it is time to go to the library and she shows the corresponding image to them. They place it on the little window of the door and are escorted to the library by the teachers and helpers in groups of twos and threes. As soon as the learners enter the library, they are reminded to greet the librarian. They then settle down on their seats and grab books placed at the centre of the table. The teachers and helpers sit with the kids as they look at the different pictures. The librarian also sits with a learner and reads aloud to her. The class teacher divides her time between another learner and Harish, telling them little stories and asking them to identify objects illustrated in the books. Harish loses interest in the book at hand and grabs another. After a while he begins to play with the hair of the librarian. She then reads out to him aloud and asks him to point out the images of fruits in the book. At the end of the class period, the learners thank the librarian and leave the library to return to class.

Subject: Computer Time	Place: Classroom
Time: 11:30 a.m. - 12:00 noon	Teacher: Class Teacher, Teaching Assistant and two helpers

Back in the class room, the class teacher and the teaching assistant place the chairs in a semi-circle close to the computer so that the learners can watch some music videos. The learners settle down in their seats and some sway to the music. Harish is sitting next to the computer and stares very close into it. The class teacher tells him to move back, but instead he moves closer to the screen. The teacher then moves his chair slightly away from the screen. Two learners have already lost interest in the videos and one of them has her hands on her ears. Harish suddenly gets up and begins pacing up and down the classroom. He is asked to sit down in his chair but then he begins flapping his arms and gradually relaxes with his thumb in his mouth for the rest of the session.

APPENDIX 9.2

INTERVIEW-BASED QUESTIONNAIRE

CENTRE FOR SPECIAL NEEDS 1

Date of interview: **14 June 2012**

1. Employment Title: **Speech Therapist**
2. Nationality: **Indian**
3. Since how long have you been working in your field of specialisation? **3**
years
4. How many years of services have you completed in Dubai? **2 years**
5. Do you share a strong collaborative relationship with the parents?
☒ **Yes** ☐ **No**
6. Is any training given to them during the school academic year? ☒ **Yes** ☐ **No**
7. Do the parents reinforce the school teaching at home as well? ☒ **Yes** ☐ **No**
8. Does the Centre provide training to teachers and therapists during the
academic year? ☒ **Yes** ☐ **No**
9. Are you satisfied with the training sessions? ☒ **Yes** ☐ **No**

<p>At our Centre regular training is provided to the therapists and teachers. Every month, sometimes twice a month, training workshops are held to acquaint us with different aspects of SEN and ways to effectively address the issues. We are often sent for seminars by the Centre and are informed to benefit from specific Webinars held.</p>

10. As a specialist do you think the existing services are adequate for the
child? ☐ **Yes** ☒ **No**. Please elaborate.

<p>Dubai does have educational institutions and programmes for individuals with ASD but the provisions are not adequate. We need to have better and more facilities for such individuals. We also need to</p>
--

increase the public's knowledge and understanding about ASD so that they are more open to accepting them when they see them in public places like the shopping malls. Moreover, early diagnosis is of high significance in helping a learner with ASD. When the diagnosis gets delayed, the child misses out on early interventions that could help in their speedy development.

11. What is required to improve educational services for learners with ASD?

- ☐ Early Diagnosis
- ☐ Effective Interventions
- ☐ Timely Treatment
- ☒ **Educational Services**
- ☒ **Public knowledge, attitude and acceptance**
- ☐ Others

12. What, according to you, is the most important of the above issues?

Educational services

13. Do you think the lack of or the availability of the above-mentioned issues has impacted learners with ASD in Dubai? ☒Yes ☐No. Please elaborate.

Yes of course. Availability of appropriate services does greatly help in the development of learners with ASD in Dubai as in the rest of the world. Unless adequate provisions are made available it is not possible to effectively address the needs of such learners. For instance if many of these learners who attend this centre had been provided such services during their early years, then their development would have been much faster and they would have benefitted deeply from early intervention programmes.

APPENDIX 9.3 CENTRE FOR SPECIAL NEEDS 1

Student Details

Name: [REDACTED] Date of Assessment: 09-10-11
 Date of Birth: 03rd July 2002 Student File No: 0796/2009E
 Unit/Class Jr 1 B
 Diagnosis: Autism
 For academic year: September 2011 June 2012
 TDA Team members: [REDACTED]

1. Do statement/goal from the curriculum:
2. Condition/s including adaptations/modifications, stimuli, etc:
3. Criterion for achievement:
4. How will it be measured /assessed/observed/checked

CBAR-Curriculum-based Assessment Record

CBI- Classroom-based Intervention; II- Individualized Intervention; HBI- Home-based Intervention; CommBI- Community-based Intervention

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S. No.	CBAR No.	IEP goal	Recommended but not restricted to the following settings: CBI/ HBI/ II/CommBI
1.	18	Domain: Academics Strand: A - Writing IEP goal: [REDACTED] will do pattern writing (See C1) independently when required in the classroom and at home based on worksheets completed and observation 100% of the time.	CBI HBI
2.	19	Domain: Academics Strand: A - Writing IEP goal: [REDACTED] will trace lower case letters (seeR3) independently when required in the classroom and at home based on worksheets and observation 100% of the time.	CBI HBI
3.	20	Domain: Academics Strand: A - Writing IEP goal: [REDACTED] will copy lower case letters (see R3) independently when required, in the classroom and at home, based on worksheets and observation, 100% of the time.	CBI HBI
4.	21	Domain: Academics Strand: A - Writing IEP goal: [REDACTED] will write lower case letters (seeR3) independently when required in the classroom and at home based on worksheets completed and observation 100% of the time.	CBI HBI

1. Do statement/goal from the curriculum:
2. Condition/s including adaptations/modifications, stimuli, etc:
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5.	25	Domain: Academics Strand: A - Writing IEP goal: [REDACTED] will trace numbers 1 to 10 independently when required in the classroom and at home based on worksheets completed and observation 100% of the time.	CBI HBI
6.	26.	Domain: Academics Strand: A - Writing IEP goal: [REDACTED] will copy numbers 1 to 10 independently when required in the classroom and at home based on worksheets completed and observation 100% of the time.	CBI HBI
7.	37	Domain: Academics Strand: A - Writing IEP goal: [REDACTED] will trace own name independently when required in the classroom and at home based on observation 100% of the time.	CBI HBI
8.	38	Domain: Academics Strand: A - Writing IEP goal: [REDACTED] will copy own name independently when required in the classroom and at home based on observation 100% of the time.	CBI HBI
9.	9	Domain: Academics Strand: B - Reading IEP goal: [REDACTED] will identify/name familiar persons independently when required across all settings based on observation 90% of the time.	CBI HBI

1. Do statement/goal from the curriculum:
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3. Criterion for achievement:
4. How will it be measured /assessed/observed/checked

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10.	12 4 & 5	Domain: Academics Strand: B – Reading/Science IEP goal: ■■■ will identify/name fruits and vegetables (R4) independently when asked across all settings based on observation 100% of the time.	CBI HBI
11.	13 8& 9	Domain: Academics Strand: B – Reading/Science IEP goal: ■■■ will identify/name animals, birds and flowers (R4: level 1 and 2) independently when asked across all settings based on observation 100% of the time.	CBI HBI
12.	14 5	Domain: Academics/CLAS Strand: B – Reading/Basic Math/Semantics Receptive IEP goal: ■■■ will identify/name shapes independently when asked across all settings based on observation 100% of the time.	CBI HBI
13.	15	Domain: Academics Strand: B - Reading IEP goal: ■■■ will identify/name colors independently when asked across all settings based on observation 100% of the time.	CBI HBI
14.	16	Domain: Academics Strand: B - Reading IEP goal: ■■■ will identify/name pictures of actions (R4) independently when asked across all settings based on observation 100% of the time.	CBI HBI

1. Do statement/goal from the curriculum:
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15.	19	Domain: Academics Strand: B - Reading IEP goal: ■■■ will identify/name letters of the alphabet (lower case) independently when asked at class and at home based on observation 100% of the time.	CBI HBI
16.	20	Domain: Academics Strand: B - Reading IEP goal: ■■■ will know the sounds of the letters of the alphabet (phonic association) independently when asked at class and at home based on observation 100% of the time.	CBI HBI
17.	22	Domain: Academics Strand: B - Reading IEP goal: ■■■ will match 3 letter words independently when asked at class and at home based on observation 100% of the time.	CBI HBI
18.	26	Domain: Academics Strand: B - Reading IEP goal: ■■■ will recognize his name independently when asked at class and at home based on observation 100% of the time.	CBI HBI
19.	1	Domain: Academics Strand: D – Basic Math IEP goal: ■■■ will demonstrate an understanding of relational concept: right/left independently when asked across all settings based on observation and worksheets 100% of	CBI HBI

1. Do statement/goal from the curriculum:
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		the time.		
20.	3	<p>Domain: Academics</p> <p>Strand: B – Basic math</p> <p>IEP goal: [REDACTED] will separate one from a group of objects independently when asked at class and at home based on observation 100% of the time.</p>	CBI HBI	
21.	7	<p>Domain: Academics</p> <p>Strand: D – Basic Math</p> <p>IEP goal: [REDACTED] will match group to group independently when instructed in class and at home based on observation and worksheets 100% of the time.</p>	CBI HBI	
22.	8	<p>Domain: Academics/Vocational Training</p> <p>Strand: D – Basic Math/Pre vocational</p> <p>IEP goal: [REDACTED] will sort objects by colour, shape and size independently when instructed in class and at home based on observation and worksheets 100% of the time.</p>	CBI HBI	
23.	10	<p>Domain: Academics</p> <p>Strand: D – Basic Math</p> <p>IEP goal: [REDACTED] will continue sequence patterns using objects (beads, blocks, etc) independently when asked at class and at home based on observation and worksheets 100% of the time.</p>	CBI HBI	
24.	11	<p>Domain: Academics</p> <p>Strand: D – Basic Math</p>	CBI HBI	

1. Do statement/goal from the curriculum:
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		IEP goal: [REDACTED] will match rows of shapes independently when asked at class and at home based on observation and worksheets 100% of the time.	
25.	12	Domain: Academics Strand: D – Basic Math IEP goal: [REDACTED] will recognize written numbers from 1 to 10 independently when asked at class and at home based on observation and worksheets 100% of the time.	CBI HBI
26.	14	Domain: Academics Strand: D – Basic Math IEP goal: [REDACTED] will count objects from 1 to 10 independently when asked at class and at home based on observation and worksheets 100% of the time.	CBI HBI
27.	3	Domain: Academics Strand: I – Science (RB) IEP goal: [REDACTED] will name healthy food independently when asked at class and at home based on observation 100% of the time.	CBI HBI
28.	4	Domain: Academics Strand: J – Social Studies IEP goal: [REDACTED] will name country of origin independently when asked across all settings based on observation 100% of the time.	CBI HBI
29.	5	Domain: Academics Strand: J – Social Studies	CBI HBI

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		IEP goal: [REDACTED] will tell name of school, teachers, helpers, classmates and head of institution independently when asked at school and at home based on observation 100% of the time.	
30.	6	<p>Domain: Academics</p> <p>Strand: J – Social Studies</p> <p>IEP goal: [REDACTED] will identify/name pictures of community workers (R4) independently when asked in class and at home based on observation 100% of the time.</p>	CBI HBI
31.	8	<p>Domain: Academics</p> <p>Strand: J – Social Studies</p> <p>IEP goal: [REDACTED] will identify/name pictures of transport (R4) independently when asked in class and at home based on observation 100% of the time.</p>	CBI HBI
32.	12	<p>Domain: Adaptive</p> <p>Strand: B – Advanced Eating</p> <p>IEP goal: [REDACTED] will scoop with fork independently when required in class and at home based on observation 100% of the time.</p>	CBI HBI
33.	13	<p>Domain: Adaptive</p> <p>Strand: B – Advanced Eating</p> <p>IEP goal: [REDACTED] will raise fork to mouth independently when required in class and at home based on observation 100% of the time.</p>	CBI HBI
34.	14	<p>Domain: Adaptive</p> <p>Strand: B – Advanced Eating</p>	CBI HBI

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3. Criterion for achievement:
4. How will it be measured /assessed/observed/checked

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		IEP goal: [REDACTED] will return fork to plate independently when required in class and at home based on observation 100% of the time.	
35.	16	<p>Domain: Adaptive</p> <p>Strand: B – Advanced Eating</p> <p>IEP goal: [REDACTED] will clean up table independently when required in class and at home based on observation 100% of the time.</p>	CBI HBI
36.	18	<p>Domain: Adaptive</p> <p>Strand: B – Advanced Eating</p> <p>IEP goal: [REDACTED] will mix food and eat with little or no spilling independently when required in class and at home based on observation 100% of the time.</p>	CBI HBI
37.	21	<p>Domain: Adaptive</p> <p>Strand: B – Advanced Eating</p> <p>IEP goal: [REDACTED] will peel fruits (banana and orange) independently when required in class and at home based on observation 100% of the time.</p>	CBI HBI
38.	22	<p>Domain: Adaptive</p> <p>Strand: B – Advanced Eating</p> <p>IEP goal: [REDACTED] will cut soft foods with knife/fork/spoon, spreads using knife independently when required in class and at home based on observation 100% of the time.</p>	CBI HBI
39.	12	<p>Domain: Adaptive</p> <p>Strand: C - Drinking</p>	CBI HBI

1. Do statement/goal from the curriculum:
2. Condition/s including adaptations/modifications, stimuli, etc:
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		IEP goal: [REDACTED] will communicate thirst independently when required in class and at home based on observation 100% of the time.	
40.	14	Domain: Adaptive Strand: C - Drinking IEP goal: [REDACTED] will open and drink from a can /bottle/ carton independently when required in class and at home based on observation 100% of the time.	CBI HBI
41.	13	Domain: Adaptive Strand: D - Dressing IEP goal: [REDACTED] will identify front and back of clothing independently when needed in class and at home based on observation 100% of the time.	CBI HBI:
42.	14	Domain: Adaptive Strand: D - Dressing IEP goal: [REDACTED] will know inside and outside of clothing independently when needed in class and at home based on observation 100% of the time.	CBI HBI
43.	21	Domain: Adaptive Strand: D - Dressing IEP goal: [REDACTED] will put footwear on correct feet independently when instructed in class and at home based on observation 100% of the time.	CBI HBI
44.	3	Domain: Adaptive Strand: E – Toileting	CBI HBI

1. Do statement/goal from the curriculum:
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		IEP goal: [REDACTED] will use toilet appropriately (EC)(C3) independently when required across all settings based on observation 100% of the time.	
45.	4	<p>Domain: Adaptive</p> <p>Strand: F - Grooming</p> <p>IEP goal: [REDACTED] will wash and dry face (C5) independently when required across all settings based on observation 100% of the time.</p>	CBI HBI
46.	6	<p>Domain: Adaptive</p> <p>Strand: F - Grooming</p> <p>IEP goal: [REDACTED] will brush teeth independently (C7) when required in class and at home based on observation 100% of the time.</p>	CBI HBI
47.	8	<p>Domain: Adaptive</p> <p>Strand: F - Grooming</p> <p>IEP goal: [REDACTED] will comb or brush hair independently (C8) when required in class and at home based on observation 100% of the time.</p>	CBI HBI
48.	9	<p>Domain: Communication, Language and Speech</p> <p>Strand: B – Semantics (Receptive)</p> <p>IEP goal: [REDACTED] will identify pictures of verbs independently when asked in individual sessions, class and at home based on observation 100% of the time.</p>	CBI HBI II
49.	11	<p>Domain: Communication, Language and Speech</p> <p>Strand: B – Semantics (Receptive)</p>	CBI HBI

1. Do statement/goal from the curriculum:
2. Condition/s including adaptations/modifications, stimuli, etc:
3. Criterion for achievement:
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		IEP goal: [REDACTED] will identify objects by function (R2) independently when instructed in individual sessions, class and at home based on observation 100% of the time.	II
50.	12	<p>Domain: Communication, Language and Speech</p> <p>Strand: B – Semantics (Receptive)</p> <p>IEP goal: [REDACTED] will respond to location commands involving objects independently when instructed in class and at home based on observation 100% of the time.</p>	CBI HBI
51.	13	<p>Domain: Communication, Language and Speech</p> <p>Strand: B – Semantics (Receptive)</p> <p>IEP goal: [REDACTED] will identify pictures of objects by function independently when instructed in individual sessions, class and at home based on observation 100% of the time.</p>	CBI HBI II
52.	14	<p>Domain: Communication, Language and Speech</p> <p>Strand: B – Semantics (Receptive)</p> <p>IEP goal: [REDACTED] will identify adjectives independently when instructed in class and at home based on observation 100% of the time.</p>	CBI HBI
53.	16	<p>Domain: Communication, Language and Speech</p> <p>Strand: B – Semantics (Receptive)</p> <p>IEP goal: [REDACTED] will follow two-step commands independently when instructed in individual sessions, class and at home based on observation 100% of the time.</p>	CBI HBI II
54.	17	<p>Domain: Communication, Language and Speech</p> <p>Strand: B – Semantics (Receptive)</p>	CBI HBI

1. Do statement/goal from the curriculum:
2. Condition/s including adaptations/modifications, stimuli, etc:
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		IEP goal: [REDACTED] will follow one-step command involving two objects independently when instructed in individual sessions, class and at home based on observation 100% of the time.	II
55.	20	<p>Domain: Communication, Language and Speech</p> <p>Strand: B – Semantics (Receptive)</p> <p>IEP goal: [REDACTED] will follow prepositional commands with 'in', 'out', 'on', and 'under' independently when instructed in individual sessions, class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
56.	21	<p>Domain: Communication, Language and Speech</p> <p>Strand: B – Semantics (Receptive)</p> <p>IEP goal: [REDACTED] will follow "Where" questions involving objects independently when instructed in individual sessions, class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
57.	22	<p>Domain: Communication, Language and Speech</p> <p>Strand: B – Semantics (Receptive)</p> <p>IEP goal: [REDACTED] will follow "How many" questions (upto 5) independently when instructed in individual sessions, class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
58.	1	<p>Domain: Communication, Language and Speech</p> <p>Strand: C – Syntax (Receptive)</p> <p>IEP goal: [REDACTED] will differentiate between 'my and your' independently when asked in individual sessions, class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
59.	2	Domain: Communication, Language and Speech	CBI

1. Do statement/goal from the curriculum:
2. Condition/s including adaptations/modifications, stimuli, etc:
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		Strand: C – Syntax (Receptive) IEP goal: ■■■ will respond to two word phrases with objects/pictures (R14) independently when instructed in individual sessions, class and at home based on observation 100% of the time.	HBI II
60.	3	Domain: Communication, Language and Speech Strand: C – Syntax (Receptive) IEP goal: ■■■ will comprehend affirmation (is) and negation (is not) independently when instructed in individual sessions, class and at home based on observation 100% of the time.	CBI HBI II
61.	2	Domain: Communication, Language and Speech Strand: D – Semantics (Expressive Skills) IEP goal: ■■■ will express single words independently and readily when required across all settings based on observation 100% of the time.	CBI HBI
62.	3	Domain: Communication, Language and Speech Strand: D – Semantics (Expressive Skills) IEP goal: ■■■ will use kinship terms independently when required across settings based on observation 100% of the time.	CBI HBI II
63.	4	Domain: Communication, Language and Speech Strand: D – Semantics (Expressive Skills) IEP goal: ■■■ will name common objects (R8) independently when instructed across all settings based on observation 100% of the time.	CBI HBI II

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64.	5	<p>Domain: Communication, Language and Speech</p> <p>Strand: D – Semantics (Expressive Skills)</p> <p>IEP goal: [REDACTED] will name pictures of objects (R10) independently when instructed in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
65.	7	<p>Domain: Communication, Language and Speech</p> <p>Strand: D – Semantics (Expressive Skills)</p> <p>IEP goal: [REDACTED] will name actions independently when instructed in individual sessions class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
66.	8	<p>Domain: Communication, Language and Speech</p> <p>Strand: D – Semantics (Expressive Skills)</p> <p>IEP goal: [REDACTED] will name pictures of verbs independently when instructed in individual sessions, class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
67.	9	<p>Domain: Communication, Language and Speech</p> <p>Strand: D – Semantics (Expressive Skills)</p> <p>IEP goal: [REDACTED] will name man, woman, boy, girl, baby independently when asked across all settings based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
68.	10	<p>Domain: Communication, Language and Speech</p> <p>Strand: D – Semantics (Expressive Skills)</p> <p>IEP goal: [REDACTED] will name items of clothing independently when asked in individual sessions, class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>

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69.	1	<p>Domain: Communication, Language and Speech</p> <p>Strand: E – Syntax (Expressive Skills)</p> <p>IEP goal: [REDACTED] will use ‘ _ing’ verb forms independently when asked in individual sessions, class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
70.	3	<p>Domain: Communication, Language and Speech</p> <p>Strand: F – AAC (R20)</p> <p>IEP goal: [REDACTED] will take turn independently when required across all settings based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
71.	4	<p>Domain: Communication, Language and Speech</p> <p>Strand: F – AAC (R20)</p> <p>IEP goal: [REDACTED] will locate stimuli on communication device independently when required in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
72.	5	<p>Domain: Communication, Language and Speech</p> <p>Strand: F – AAC (R20)</p> <p>IEP goal: [REDACTED] will identify pictures or symbols independently when asked in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
73.	7	<p>Domain: Communication, Language and Speech</p> <p>Strand: F – AAC (R20)</p> <p>IEP goal: [REDACTED] will associate symbol pictures/symbols/signs with meanings independently when asked in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>

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74.	3	<p>Domain: Communication, Language and Speech</p> <p>Strand: H - Pragmatics</p> <p>IEP goal: [REDACTED] will acquire adult attention by calling name independently when required across all settings based on observation 100% of the time.</p>	CBI HBI
75.	6	<p>Domain: Communication, Language and Speech</p> <p>Strand: H - Pragmatics</p> <p>IEP goal: [REDACTED] will say/indicate yes/no independently when required across all settings based on observation 100% of the time.</p>	CBI HBI
76.	16	<p>Domain: Communication, Language and Speech</p> <p>Strand: H - Pragmatics</p> <p>IEP goal: [REDACTED] will follow directions independently when asked across all settings based on observation 100% of the time.</p>	CBI HBI II
77.	6	<p>Domain: Communication, Language and Speech</p> <p>Strand: I - Speech</p> <p>IEP goal: [REDACTED] will produce vowels and diphthongs in word and sentence (R23) independently when asked in individual sessions, class and at home based on observation 100% of the time.</p>	CBI HBI II
78.	7	<p>Domain: Communication, Language and Speech</p> <p>Strand: I - Speech</p> <p>IEP goal: [REDACTED] will produce consonants at word and sentence (R23) independently when</p>	HBI CBI II

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		asked in individual sessions, class and at home based on observation 100% of the time.	
79.	6	<p>Domain: Community Orientation, Personal safety and Welfare</p> <p>Strand: Travel (School bus)</p> <p>IEP goal: [REDACTED] will demonstrate appropriate school bus usage by using the seatbelt when travelling in the bus independently based on observation 100% of the time.</p>	CommBI
80.	22	<p>Domain: Fine Motor Skills</p> <p>Strand:-</p> <p>IEP goal: [REDACTED] will make isolated finger and thumb movements independently when instructed in class and at home based on observation 100% of the time.</p>	CBI HBI II
81.	24	<p>Domain: Fine Motor Skills</p> <p>Strand:</p> <p>IEP goal: [REDACTED] will turn knobs and lids independently when instructed in class and at home based on observation 100% of the time.</p>	CBI HBI
82.	25	<p>Domain: Fine Motor Skills</p> <p>Strand: -</p> <p>IEP goal: [REDACTED] will turn one page of a book at a time independently when instructed in class and at home based on observation 100% of the time.</p>	CBI HBI
83.	6	<p>Domain: Gross Motor</p> <p>Strand: B – Advanced Gross Motor Skills</p> <p>IEP goal: [REDACTED] will stand on 4-inch balance beam independently when instructed in class</p>	CBI HBI

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		based on observation 100% of the time.	
84.	7	<p>Domain: Gross Motor</p> <p>Strand: B – Advanced Gross Motor Skills</p> <p>IEP goal: [REDACTED] will walk on 4-inch balance beam independently when instructed in class based on observation 100% of the time.</p>	CBI HBI
85.	28	<p>Domain: Gross Motor</p> <p>Strand: B – Advanced Gross Motor Skills</p> <p>IEP goal: [REDACTED] will throw a ball independently when instructed in class and at home based on observation 100% of the time.</p>	CBI HBI
86.	29	<p>Domain: Gross Motor</p> <p>Strand: B – Advanced Gross Motor Skills</p> <p>IEP goal: [REDACTED] will throw a ball to a specified target independently when instructed in class and at home based on observation 100% of the time.</p>	CBI HBI
87.	30	<p>Domain: Gross Motor</p> <p>Strand: B – Advanced Gross Motor Skills</p> <p>IEP goal: [REDACTED] will bounce a ball independently when instructed in class and at home based on observation 100% of the time.</p>	CBI HBI
88.	34	<p>Domain: Gross Motor</p> <p>Strand: B – Advanced Gross Motor Skills</p> <p>IEP goal: [REDACTED] will kick a stationary ball independently when instructed in class and at home</p>	CBI HBI

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		based on observation 100% of the time.	
89.	2	<p>Domain: I.T. Skills</p> <p>Strand: A – Pre-IT Skills</p> <p>IEP goal: [REDACTED] will maintain on-seat behavior in front of computer with music and graphics (eye coordination with screen) independently when instructed in class based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
90.	5	<p>Domain: Self awareness Program</p> <p>Strand: A – Body Awareness</p> <p>IEP goal: [REDACTED] will identify the external body parts and their uses independently when asked in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p>
91.	1	<p>Domain: Sensory Perception</p> <p>Strand: B – Auditory Perception</p> <p>IEP goal: [REDACTED] will focus attention on sound independently when required across all settings based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
92.	2	<p>Domain: Sensory Perception</p> <p>Strand: B – Auditory Perception</p> <p>IEP goal: [REDACTED] will respond to sound independently when required across all settings based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
93.	4	<p>Domain: Sensory Perception</p> <p>Strand: B – Auditory Perception</p>	<p>CBI</p> <p>HBI</p>

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		IEP goal: [REDACTED] will locate source of sound independently when required in class and at home based on observation 100% of the time.	II
94.	5	<p>Domain: Sensory Perception</p> <p>Strand: B – Auditory Perception</p> <p>IEP goal: [REDACTED] will match sound and source independently when required in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
95.	8	<p>Domain: Sensory Perception</p> <p>Strand: B – Auditory Perception</p> <p>IEP goal: [REDACTED] will respond to speech commands independently when required in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
96.	9	<p>Domain: Sensory Perception</p> <p>Strand: B – Auditory Perception</p> <p>IEP goal: [REDACTED] will attend to speech in the presence of background noise independently when required in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
97.	2	<p>Domain: Sensory Perception</p> <p>Strand: C – Visual Perceptual Motor Skills (II – Visual Discrimination)</p> <p>IEP goal: [REDACTED] will respond differentially to unfamiliar visual stimulus independently when required in class based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
98.	4	<p>Domain: Sensory Perception</p> <p>Strand: C – Visual Perceptual Motor Skills (II – Visual Discrimination)</p> <p>IEP goal: [REDACTED] will discriminate primary colors independently when required across all</p>	<p>CBI</p> <p>HBI</p>

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		settings based on observation 100% of the time.	II
99.	3	<p>Domain: Sensory Perception</p> <p>Strand: C – Visual Perceptual Motor Skills (IV – Figure-Ground Perception)</p> <p>IEP goal: [REDACTED] will identify background elements in a visual field independently when required in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
100.	4	<p>Domain: Sensory Perception</p> <p>Strand: C – Visual Perceptual Motor Skills (IV – Figure-Ground Perception)</p> <p>IEP goal: [REDACTED] will integrate foreground with background independently when required in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
101.	5	<p>Domain: Sensory Perception</p> <p>Strand: C – Visual Perceptual Motor Skills (VI – Visual Memory)</p> <p>IEP goal: [REDACTED] will reproduce pattern beside pattern independently when required in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
102.	3	<p>Domain: Sensory Perception</p> <p>Strand: C – Visual Perceptual Motor Skills (VIII – Form Constancy)</p> <p>IEP goal: [REDACTED] will identify objects when rotated independently when required in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p> <p>II</p>
103.	12	<p>Domain: Socialization</p> <p>Strand: A – Interpersonal Skills</p> <p>IEP goal: [REDACTED] will initiate social communicative behavior with peers independently when asked in class and at home based on observation 100% of the time.</p>	<p>CBI</p> <p>HBI</p>

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104	14	Domain: Socialization Strand: A – Interpersonal Skills IEP goal: [REDACTED] will begin to be helpful by putting things away independently when required in class and at home based on observation 100% of the time.	CBI HBI
105	8	Domain: Socialization Strand: C – Emotion and Conflict Related Skills IEP goal: [REDACTED] will accept 'No' or refusal for an answer independently when required in class and at home based on observation 100% of the time.	CBI HBI
106	1	Domain: Socialization Strand: D – Task – Related Classroom/School Skills IEP goal: [REDACTED] will remain in own seat area independently when required in class based on observation 100% of the time.	CBI HBI
107	9	Domain: Socialization Strand: D – Task – Related Classroom/School Skills IEP goal: [REDACTED] will follow simple rules in the classroom (R1) independently when required in class based on observation 100% of the time.	CBI HBI
108	11	Domain: Socialization Strand: D – Task – Related Classroom/School Skills IEP goal: [REDACTED] will stop an activity and look at the person in response to name independently when required in class based on observation 100% of the time.	CBI HBI
109	13	Domain: Socialization Strand: D – Task – Related Classroom/School Skills IEP goal: [REDACTED] will accept delays in reinforcements independently when required in class	CBI HBI

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		based on observation 100% of the time.	
110.	22	<p>Domain: Socialization</p> <p>Strand: D – Task – Related Classroom/School Skills</p> <p>IEP goal: ■■■ will remain with group during small group activities (less than 6 students) independently when required in class based on observation 100% of the time.</p>	CBI HBI
111.	23	<p>Domain: Socialization</p> <p>Strand: D – Task – Related Classroom/School Skills</p> <p>IEP goal: ■■■ will stay on task till completion independently when required in class based on observation 100% of the time.</p>	CBI HBI
112.	25	<p>Domain: Socialization</p> <p>Strand: D – Task – Related Classroom/School Skills</p> <p>IEP goal: ■■■ will work without disruption independently when required in class based on observation 100% of the time.</p>	CBI HBI
113.	26	<p>Domain: Socialization</p> <p>Strand: D – Task – Related Classroom/School Skills</p> <p>IEP goal: ■■■ will take care of task materials independently when required in class based on observation 100% of the time.</p>	CBI HBI
114.	27	<p>Domain: Socialization</p> <p>Strand: D – Task – Related Classroom/School Skills</p> <p>IEP goal: ■■■ will return task material after use independently when required in class based on observation 100% of the time.</p>	CBI HBI
115.	4	<p>Domain: Socialization</p> <p>Strand: E – Play Skills</p>	CBI

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		IEP goal: [REDACTED] will engage self appropriately with play items for at least 10 minutes independently when required in class and at home based on observation 100% of the time.	HBI
116.	8	<p>Domain: Socialization</p> <p>Strand: E – Play Skills</p> <p>IEP goal: [REDACTED] will engage in social play independently when required in class and at home based on observation 100% of the time.</p>	CBI HBI
117.	7	<p>Domain: Vocational training</p> <p>Strand: E – Prevocational Skills</p> <p>IEP goal: [REDACTED] will roll bits of paper into balls independently when required in class and at home based on observation 100% of the time.</p>	CBI HBI
118.	8	<p>Domain: Vocational training</p> <p>Strand: E – Prevocational Skills</p> <p>IEP goal: [REDACTED] will spread glue on one side of paper and turn over to stick to another paper independently when required in class and at home based on observation 100% of the time.</p>	CBI HBI
119.	9	<p>Domain: Vocational training</p> <p>Strand: E – Prevocational Skills</p> <p>IEP goal: [REDACTED] will use crayons/colour pencils/felt pens/brushes to colour within a shape independently when required in class and at home based on observation 100% of the time.</p>	CBI HBI

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APPENDIX 9.4
SAMPLES OF CLASS WORK
CENTRE FOR SPECIAL NEEDS 1



Tracing of alphabet and colouring of a picture.



Pictorial images used to encourage Harish to communicate his needs.

APPENDIX 9.5

MISSION AND VISION STATEMENTS

CENTRE FOR SPECIAL NEEDS 1

The Centre opened its doors in Dubai on November 21, 1981, starting with only eight children. The Centre serves children with special needs from different nationalities and can accommodate up to 300 children in the new facility. The purpose-built facility opened its doors in April 2007 and was officially inaugurated on November 04, 2007 by HRH Princess Haya Bint Al Hussein, Wife of His Highness Shaikh Mohammad Bin Rashid Al Maktoum, Vice President and Prime Minister of the U.A.E. and Ruler of Dubai.

Mission

To provide all individuals with special needs, regardless of background, the same opportunity through professional training and care to realize their potential and integrate into the wider community.

Vision

Helping individuals with special needs achieve their highest potential...a guiding light for the community.

SERVICES FOR INDIVIDUALS WITH AUTISM SPECTRUM DISORDER

The Autism Unit provides support to children diagnosed under the ASDs in the following areas:

- Communication
- Behaviour Management
- Independent Task Completion
- Social Skills

Source: Information obtained from the Centre's website.

APPENDIX 10
CENTRE FOR SPECIAL NEEDS 2

APPENDIX 10.1

OBSERVATION NOTES

CENTRE FOR SPECIAL NEEDS 2

Name of the learner: Asma	Class: N3
Date: 15 June 2012	Time: 8:30 a.m. to 12:30 p.m.
Age: 9 years	Nationality: Emirati

Description of the Classroom in the Centre for Special Needs

The classroom is large, colourful and well ventilated. The wall facing the entrance to the classroom has huge windows that overlook a well-manicured garden. One corner of the window has been partially enclosed with long cupboards that serve to separate out a learner from the others when he/she requires time to be alone. A fairly large table that can seat around eight individuals is placed right at the centre of the room. The class teachers' desk and the computer are placed on the left hand side to the door. The class time table and other important information for the teachers are pinned on a bulletin board close to the desk.

Semi-closed shelves have been placed next to the teachers' desk. These shelves are filled with toys and board games for the learners to select and pick on their own. Large open shelves have been placed on the opposite end for the learners to keep their bags and lunch boxes in it. A chest of drawers lies adjacent to it and plates and cutlery for break time, among other things are placed in it. Relevant pictorial images are positioned next to the door so that the learners can point to the images and communicate their needs to the teachers as well as their classmates.

Class Period: Assembly	Place: Multipurpose Hall
Time: 8:30 a.m. - 9:00 a.m.	Teachers: Class Teacher and Teaching Assistant

Seven of Asma's classmates are present on time to begin the day at the Centre. They are assisted in placing their bags in the allotted spaces by the teachers. They then move around the class looking for something to play with. Some of them move in the direction of the toys and pull out what they like while others pace up and down the length of the room. At times they look out of the huge windows that face the Centre's garden.

The teacher soon informs the class that it is time to leave for their weekly assembly with all the learners at the Centre. The learners hold the hands of the teacher and the assistant teacher and walk along the corridor to the multipurpose hall. Each class has their designated spot in the hall and they move towards their seats. Many of the learners from the other classes have already settled down before Asma and her classmates arrive. Some of her classmates walk towards the already-seated classmates from other classes and shake hands with their teachers. There is a strong sense of camaraderie visible among the learners and the teachers. Asma is late for school and enters the hall with the assistant teacher ten minutes after the assembly begins. She walks in the direction of the seating arrangement for her class. She shakes hands with a teacher she meets along the way but does so only when the assistant teacher physically prompts her to do so.

Once the learners have largely settled down, one of the teachers' picks up the mike to welcome all the learners to a great week ahead at school. Asma cannot bear the loud sound when the teacher uses the mike. She immediately places her hands over her ears and doubles up in an effort to get rid of the sounds. However, many of the learners in her class seem to be enjoying the session.

A learner opens the session with a recitation from the Holy Quran. This is followed by activities to recognize the day and date of the week and it ends with lively music being played and the learners join in at the centre of the gathering to dance with each other. Most of the learners seem to be enjoying themselves, unlike some like Asma who have their ears and eyes shut close till the end of the assembly.

Class Period: Learning about Weather and Colours	Place: Classroom
Time: 9:30 a.m. – 10:00 a.m.	Teachers: Class Teacher and Teaching Assistant

The learners enter the class with the teachers and they walk around the room as the teacher looks up the time-table for the day. Along with the assistant teacher she manages to get the learners to sit around a table so that they can begin the days' learning. It is difficult to get Asma to sit on her seat as she insists on sitting on her favourite place which is a nook near the main door. The teacher begins the

learning by revising the days of the week with the class and asks the learners to tell her what day it is.

Some of the learners are able to verbalise (though not very audibly) while some are not able to do so. A few, like Asma, do not even bother to mouth the words. The teacher then takes out pictorial cards and asks them to describe the weather outside – “is it sunny, rainy or cold?” She places images of the weather on the table and soon realises that if she places three cards on the table and the image placed on the right end side is declared correct once then the learners’ continue to point at it even after she has shuffled the placement of the images. She finally asks them to look out of the broad windows and notice that it is sunny outside. She then shows them the image of sunny weather.

The teacher and the teaching assistant try to get Asma to the table twice during the learning process and once they even have to literally pull her up from the corner. But the moment the teacher gets back to her seat to renew the activity, Asma gets up from her seat and rushes to her favorite spot next to the door and stays put there.

The teacher then takes out images of a red apple as well as red and a yellow-coloured image. She asks the learners to match the red colours together. Some of them are able to do so while others are unable to identify the colour red and appear confused about what needs to be done. As the learners grow fidgety, the teacher soon finishes off the round for each learner to identify the colours and packs up the activity box for the day.

Class Period: Break time	Place: Classroom
Time: 10:00 a.m. to 10:30 a.m.	Teachers: Class Teacher and Teaching Assistant

It is break time and the learners are told to get their snack boxes out of their bags. They obediently walk towards their bags and pull out their snack boxes, which is itself like a mini bag. As soon as it is announced that it is break time, Asma promptly reaches out to her school bag without any further prompts from the teacher. She carefully opens her bag and pulls out her snack box.

All the learners place their food on the table and are prompted to get the plates that have already been placed on the table for them. They sit on their respective seats and open their boxes to eat their breakfast. Some of them need help in cutting their food into bite-sized pieces but Asma is very independent. She tears open the plastic to pull out the croissant and attacks it from one end. As she bites into it she skillfully opens the packet of orange juice and gulps some down. In no time she has finished her snack. She is reminded to clear up the plate and keep her box back in its place, which she promptly does. The teacher notices her runny nose and gets up to clean it for her. But Asma runs away from her and the teacher has to chase her round the table to finally catch her and manage to clean her nose.

Class Period: Group Occupational and Speech Therapy	Place: Classroom
Time: 10:30 a.m. - 11:00 a.m.	Teachers: Occupational Therapist, Speech Therapist and Teaching Assistant

The speech therapist and the occupational therapist enter the classroom with a big box filled with things. They come in wearing a big smile and greet the learners warmly. They place the box on a long cupboard and move towards the learners to individually greet them “a very good morning.” Asma is once again not on her seat but is in her favourite place close to the door. Despite a lot of coaxing she refuses to budge from there. Finally she is forced to get up and made to sit along with the rest of the class. The class teacher is not in the classroom for the session. One of the two therapists wears huge glasses and the other has a heart-shaped wand and they explain to the class that “we see things with our eyes”. One of them goes around letting the learners touch their eyes with the heart-shaped wand. Then one of the therapists pulls out a huge plastic nose and a clown kind of nose and they wear it on their faces and move around the learners for them to touch and feel it. They then ask them to point at their own noses. Some are able to identify their noses, while others merely point at the therapists’ noses.

By now some of the learners have placed their heads on the table. Asma and another learner has a runny nose and do not seem to be interested in the session at all. While the therapists move around the class and go from one learner to another the response from the learners is largely lukewarm. The therapists express, “You all seem very tired today. We hope to have a better session next time”. They pack up their box and wave goodbye to the class before they leave the room.

Class Period: Snoezelen	Place: Snoezelen room
Time: 10:30 a.m. - 11:00 a.m.	Teacher: Teaching Assistant

The learners begin to unwind after the session and the assistant teacher takes one of them to the bathroom and ensures that another teacher from the next classroom is present in the classroom before she leaves. When she gets back she takes them all one by one to the bathroom. It is only then that she realizes that the learners have a snoezelen session and she hurriedly gathers all of them and guides them towards the designated room after placing a note on the door stating that the class is visiting the snoezelen room.

The shoes are promptly removed by the learners before they enter the room and they all rush into the room, jumping and running around the place and pulling the balls placed at one end. The assistant teacher tries to play some music for them as they go about exploring the room for a multisensory experience. The learners are attracted to the lighting effects, colours, scents and textures on the walls and they run around the room in sheer excitement. One of them just sits on a huge ball placed in the room. The teacher struggles to get the music system on and finally gives up as she also notices that the kids are already immersed in their play. After a brief session in this room (as they had entered late), the learners are guided back

to their classroom, as another class is patiently awaiting their turn at the door to enjoy the experience.

Subject: Free Play	Place: Classroom
Time: 11:30 a.m. - 12:00 noon	Teacher: Teaching Assistant

When the learners enter the classroom, they go about doing their own thing. One of them pulls out a puzzle box, another one takes a toy, and Asma walks around the room for a while and then finally settles in her little space next to the main door. Some of the learners are at the partial enclosure near the huge windows, while another is pacing up and down the room. The teaching assistant allows them to play anything they want but she keeps a watchful eye to ensure that they do not hurt themselves or each other. Once or twice she is forced to intervene when two of the learners begin to grab the toys and games that are in another learner's hand.

Subject: Art	Place: Art room
Time: 12:00 p.m. - 12:30 p.m.	Teachers: Art Teacher and Teaching Assistant

After a relaxing play session in the class, the teaching assistant tells them to get ready for their art class. She asks them to line up one after the other as she goes to the pictorial chart and points to the image of a child painting. She tells them that "we are now going to the art room to do some art and craft." She informs one of the learners to pick the banner that reads, Gone for Art Class and tells him to place it at the little window on the door so that other staff remain informed about their whereabouts. The learner obliges and places the card and looks to see whether it has been properly placed. Satisfied with his work he joins the line. Asma is already in line and is growing restless as they have not started walking yet. The teacher makes them follow each other through the corridor while she holds Assam and another learner's hand.

The art class looks bright and cheerful as its walls are adorned with paintings done by the students. Work is also hung across the walls with a string and every part of the room is adorned with some work done by the children at the Centre. The Art teacher makes them sit down on the chairs while he stands on the other side of the table so that he can assist them. He greets them nicely and tells them that they are going to make an aeroplane. As he keeps talking to them about how they are going to make it, his hands are busy keeping the learners from touching and crumpling the art paper and supplies that have been placed on the table for them. As he demonstrates the first part of the aeroplane-making session, the teaching assistant initiates explaining the same to the learners next to her and helps them fold and stick the pieces of paper together as per the model aeroplane that has been already prepared and displayed in front of them. One of the learners in a hurry to make his aeroplane crushes the art paper and then clumsily folds it again. The Art teacher gently intervenes, irons out the sheet with his hands and then helps him fold and stick it again.

There is a scramble for the glue stick though many glue sticks have been kept out for them to use. In her enthusiasm, Asma places a bit too much of glue on her paper and the teacher helps to wipe out the excess from the paper. Asma shows her sticky hands to the teacher and she tries to wipe off the glue from it as well. Finally the aeroplanes are complete and the learners are thrilled with the experience. On being physically and verbally prompted by the teaching assistant, some of the learners wave goodbye to the Art room as they return to their class. The others just walk away.

APPENDIX 10.2

INTERVIEW-BASED QUESTIONNAIRE

CENTRE FOR SPECIAL NEEDS 2

Respondent: **Parent of a child with ASD in a Special Needs Centre in Dubai, UAE.**

Date of interview: **17 September 2012**

1. At what age and where was your child first diagnosed with ASD? **4 years, Dubai.**

2. Was the diagnosis followed by immediate interventions? ☒ **Yes** ☐ **No**

If not, why?

-

3. For how long has your child been attending this centre? **4 years**

4. Does your child look forward to attending the centre regularly? ☒ **Yes** ☐ **No**

5. Is the school supportive of your concerns and needs related to your child?

☒ **Yes** ☐ **No**

6. Does the school effectively communicate and update you about your child's developments? ☒ **Yes** ☐ **No**

7. Has he/she attended any school prior to this? If yes, which one, and for how long? ☐ **Yes** ☒ **No**

8. Do you think the existing services are adequate for your child? ☒ **Yes** ☐ **No**

9. Do you think these services have impacted the life of your child and family?

☒ **Yes** ☐ **No. Please elaborate.**

Asma's compliance level has improved drastically. In the past four years we have seen significant improvement in her development. She is

now more confident and maintains better eye contact than ever before. She has grown more social in the presence of other people. She likes to go out and is now more disciplined and polite. She is now more confident, she maintains more eye contact now than before. She has grown more social in the presence of other people. She likes to go out and is now more disciplined and polite. The Centre teachers and therapists have played a significant role in her development and they regularly update us about her progress through the school diary.

10. What, according to you, is required to improve educational services for learners with ASD?

√ **Early Diagnosis**

☐ Effective Interventions

☐ Timely Treatment

√ **Educational Services**

☐ Public knowledge, attitude and acceptance

☐ Others

11. According to you, which of the above-mentioned issues is the most important?

Early Diagnosis

12. Do you think the lack of or the availability of the above-mentioned issues has impacted learners with ASD in Dubai? √Yes ☐No. Please elaborate.

The lack of adequate educational services has impacted learners with ASD. Moreover, the treatment for ASD is very expensive. Therefore, the government must take the responsibility to help parents educate such children. Public awareness also needs to be improved as not many people know about ASD.

Furthermore, summer camps should also be organised for such children just like camps are organised for typically developing children. In this way, the children can be kept engaged during the long breaks from school.

APPENDIX 10.3

ANNUAL GOAL

INDIVIDUAL EDUCATION PROGRAM

STUDENT: X	ACADEMIC YEAR: 2011-2012
CLASS: NURSERY 3	PERSON RESPONSIBLE: [REDACTED]

ANNUAL GOALS	DATE STARTED	TERM 1			TERM 2			TERM 3			DATE MASTERED	NOTES
		Sept	Oct	No/Dec	Jan	Feb/Ma	Apr	May	June			
By the end of the academic year 2012, will be able to demonstrate the following cognitive skills: <u>Language and reading:</u> 1. Will read her name with minimal assistance 2. Will independently identify emotional reactions(sad-happy-angry-surprised) 3. Will vocalize basic daily words 4. Will match each letter with a word ("a" like apple, "b" like butterfly...)with minimal assistance 5. Will use greetings and courteous expressions without any verbal prompt	Sep 11				✓	Jan 12					Ongoing. She needs time to reach this goal. She imitates words but she doesn't vocalize by herself. Achieved.	
	Sep 11				✓	Jan 12						
	Sep 11				✓	Jan 12						
	Sep 11				✓	Jan 12						
	Sep 11				✓	Jan 12					Ongoing.	

IEP-Annual Goal 2011-2012 / X [REDACTED]

Writing: 1. Will trace vertical and horizontal lines using up-down strokes, right/left independently 2. Will write and trace her name independently without sight tracing	Sep 11				✓	Jan 12	Achieved. She did an amazing job.
	Sep 11				✓	Jan 12	Ongoing.
Numeracy : 1. Will independently sort basic colors and basic shapes. 2. Will be able to independently compare sizes/lengths/quantity 3. Will independently distinguish left/right, up/down, over/under, in/out. 4. Will recognize numbers 1-12 with minimal assistance	Sep 11				✓	Jan 12	Achieved.
	Sep 11				✓	Jan 12	Ongoing...she needs to practice more.
	Sep 11				✓	Jan 12	Ongoing.
Science: 1. Will learn about objects around her (size, shape, texture, color) independently. 2. During the circle time she will tell the weather outside and the date with minimal assistance	Sep 11				✓	Jan 12	Ongoing.
	Sep 11				✓	Jan 12	She needs more time to achieve this goal.
	Sep 11				✓	Jan 12	She still needs maximum assistance.

IEP-Annual Goal 2011-2012 / X

3. Will learn about the seasons and months <u>Social Skills:</u> 1. Will increase her tolerance from 10 to 15 minutes during table top activities 2. Will independently wait for her turn while turn taking activities. 3. She will not touch the computer and radio during other activities 4. Will independently learn to say "please, thank you, sorry" without verbal prompts 5. Will follow games rules <u>Self Help Skills:</u> <u>Toileting</u> 1. Will brush her teeth independently without spending too much time in front of the mirror 2. She will be quicker following all the tasks that the toileting time requires	Sep 11				✓	Jan 12	She is doing a good job.
	Sep 11				✓	Jan 12	She is much better than the beginning of the year. Ongoing.
	Sep 11				✓	Jan 12	She is not independent yet.
	Sep 11				✓	Jan 12	It depends on her mood... Ongoing.
	Sep 11				✓	Jan 12	She is doing a great job. Ongoing.

<u>Eating</u> 1. She will open her croissant's bag without asking for help as she knows how to do it 2. She will be quicker following all the tasks that the snack time requires	Sep 11				✓	Jan 12	Achieved.
	Sep 11				✓	Jan 12	She improved a lot on this.
<u>Dressing</u> 1. Will recognize and tell the names of her clothes articles with minimal assistance. 2. Will tie her hair with minimal assistance	Sep 11				✓	Jan 12	She still needs time.
	Sep 11				✓	Jan 12	She needs to practice more.
<u>Fine Motor Skills:</u> 1. Will develop tactile awareness. 2. Will develop visual memory and visual-motor coordination. 3. Will develop arm-hand-finger coordination. 4. Will develop eye-hand coordination.	Sep 11				✓	Jan 12	Ongoing.
	Feb 11				✓	Jan 12	Almost achieved...
	Sep 11				✓	Jan 12	Achieved
	Sep 11				✓	Jan 12	Achieved

APPENDIX 10.4

ACADEMIC REPORT

CENTRE FOR SPECIAL NEEDS 2

Final Report

Academic Year 2011-2012

Name: X

Class: N3

Date of Birth: 29.11.2003

Date of Report: June 2012

Introduction:

X is a sweet nine year old UAE national girl. She has been diagnosed with Autism and learning disabilities and has been at the Center since September 2008. She is currently placed in Nursery Section-N3 where her program focuses on developing social, self help and academic skills. She has benefited from occupational therapy sessions. She is able to follow many instructions in English and she communicates by sounds and gestures.

Social and Emotional Skills:

a) Relationship with peers:

X is completely aware of all the situations that arise within the classroom. She shows concern for her peers when one of them is absent or not in the class. She likes to hold the hands of her classmates when they move around the Center but she can be easily distracted and let go of her peers' hand and attempt to run off. Her social skills are much improved this year as she always looks for a classmate to play with. She doesn't like to take part in the morning assembly because of the loud music but with patience and encouragement she will hopefully participate with more cooperation next academic year.

Relationship with adults:

X is able to follow instructions given to her by teachers and therapists. She is usually very cooperative and eager to go with therapists and always indicates to them if it is her turn to go. However, she at times shows resistance especially when she is in the middle of a preferred activity. She is very keen to say hello and shake hands with visitors in the Center. She welcomes them by offering them a seat and thus she has to be guided back to her place. She responds well to teacher's facial expressions and enjoys positive attention she gets from her teachers. She responds well to commands such as "no" and "stop".

b) Behaviour within the classroom:

X's table top tolerance is improving. When she is engaged in an activity, she can stay focused for at least 30 minutes. Sometimes she gets disturbed by noises from the corridor and she becomes eager to know what is happening. She displays the ability to understand the function of different objects within the classroom and she is able to make choices and usually asks for her favorite toy or book. She can be quite impatient if she is not getting the desired result when working on a task, thus she has to be calmed and encouraged to keep trying.

Self- help and Autonomy:

a) Dressing

X is completely independent for dressing and undressing.

b) Eating

X is able to undo the zippers on her bag and redo them when necessary. She is able to feed herself and open her snack box. She is able to clean up after snack without constant reminder.

c) Toileting

X is toilet trained and indicates her needs by signs; she is able to follow the routine after toileting by washing her hands, drying them independently and disposing of the tissues.

Academic skills:

a) Visual Skills:

X's visual skills are improving. She is able to choose the picture requested by the teacher from a group of pictures. When given a picture to colour she can hold a crayon and colour within the borders with maximum accuracy. She is able to scan the pages of a book to identify the picture requested by the teacher. She can put together a 15 piece jigsaw puzzle (single pieces). She is able to string large beads correctly. When given play dough to play with, she can roll, pound and cut small pieces using cutters.

b) Language and Reading Skills:

X has excellent receptive language skills. She is able to follow commands consistently. She has worked on the Jolly Phonics scheme and can sound out and recognize the letters with verbal prompt. She can discriminate between animals and fruits and has learned the names of some farm animals related to the monthly theme. She is able to identify body parts and can point at them when asked to do so.

c) Numeric Skills:

X is able to match and identify all primary and secondary colours including pink, brown, black and white. She is also able to match and identify the 5 basic shapes including diamond, moon and oval without help. She understands the concept of size discrimination and can complete the stacking cups as well as cylindrical pegboard. She can also complete a 5 piece numeric puzzle (1, 2, 3, and 4). She seems to demonstrate numeral recognition of number 1-10 but she is not able to do this consistently. Consequently there is room for improvement in this area.

d) Writing Skills:

X is able to hold a pencil and colour a picture with maximum accuracy. When she is focused she can trace a straight line and different shapes. She tends to hold the pencil in an inappropriate manner, so a pencil of bigger size is given to get better grasp. She produces better results with one-on-one interaction.

e) Science Skills:

All through the academic year, themes such as “Animals and Their Sounds”, “My Five Senses”, “Recycling” and “Occupations” were introduced. X participated by exploring pictures and real objects, listening to songs and working on crafts associated with these themes. She is able to identify some animals and their sounds especially farm animals and to sort recycling materials with minimal help.

f) Manipulative Skills:


X is able to manipulate puzzle pieces to fit them into the right slots, although she may sometimes get frustrated. Gentle and calming reassurance usually helps her stay on task. She is able to use a child sized pair of scissors to cut paper that is about an inch wide but she finds it difficult to cut along a line. She can manipulate play dough and demonstrates skills of rolling, pulling, pounding and kneading the dough.


g) Listening Skills:

X is able to follow simple instructions from the teacher. She may require several reminders before she responds. When asked to engage in activities that are of interest to her, she responds promptly.

Teacher's Evaluation:

X really enjoys her time at the Center. She has high potential to achieve academically and socially. For this reason we believe that she would benefit more in a higher level class. She has made a good progress this academic year. To keep her level of performance and progress high it is recommended she follows her home program during the summer. We wish X a happy summer holiday.


Class Teacher


Assistant Teacher

APPENDIX 10.5
SAMPLES OF CLASS WORK
CENTRE FOR SPECIAL NEEDS 2



Creating a pattern with shapes and colours.



Images used to promote Asma's communication skills.



Cut and paste activity done during art class.

APPENDIX 10.6

MISSION AND VISION STATEMENTS

CENTRE FOR SPECIAL NEEDS 2

The Center is an established, non-profitable institution that provides the highest standards of service in specialized education and therapy, for children with various disabilities. It is a caring environment, largely dependent on the generosity of the local communities and corporations. Its aim is to provide each and every one of its students the key to a positive life, thereby "Lighting the path to a brighter future".

Our Vision:

Providing every one of your students the key to a positive life, thereby, lighting the path to a brighter future.

Our Mission:

The Center exists to serve the unique academic, physical, social, and emotional needs of its students. All aspects of the Center's organization, curriculum, and activities are child-centered and designed to accommodate individual learning styles so that all may experience success. Our management and staff seek to improve the quality of life of individuals with special needs of all ages and their families by:

Promoting their independence, productivity, inclusion, empowerment, and social participation in integrated community settings.

Promoting high quality, effective community-based programs and social support services to individuals and their families.

Promoting the prevention of disabilities through training, public awareness and services.

Providing advocacy, inter-disciplinary training, technical assistance and information dissemination to accomplish the aims given above.

Source: Information obtained from the Centre's website.

APPENDIX 11
EARLY INTERVENTION CENTRE

APPENDIX 11.1

OBSERVATION NOTES

EARLY INTERVENTION CENTRE

Name of the learner: Khaled	Class: -
Date: 9 July 2012	Time: 10:30 a.m. - 12:30 p.m.
Age: 4 years	Nationality: Emirati

Description of the Classroom at the Early Intervention Centre

As one enters the room one gets the feel that the room has been very well planned and organized to appeal to young children and keep them interested and engaged in the activities that takes place inside. The classroom is beautifully decorated with colourful pictures placed on the walls and toys and games are well stocked in the shelves. On one end of the room is a bright coloured canopy that has been set up with a seating arrangement for children to play inside it. On the side of the canopy are long shelves for storing toys and educational activities and the top of these shelves are stacked with a variety of educational games. Huge built-in cabinets have been fitted in with semi-closed shelves adjacent to the door. Along the wall of this cabinet are huge translucent windows. These windows are used by the parents and SEN professionals to observe the child from the adjacent room. While the child is unaware of him/her being observed, the observers can clearly see as well as hear the communications taking place in this room while being seated in the next.

Next to these huge windows is a wooden-floored section that has two sets of red coloured sofas, a kitchenette at the extreme end and a number of toy cars neatly arranged along its side. This part of the room is painted a bright yellow and its narrow yet long windows have matching curtains with baby prints on them. A table with chairs is placed at the centre of the room where major part of the therapy session takes place. The entire ambience has been created to ensure that the children who enter the room for therapy feel comfortable, happy and secure in the class environment.

Class Period: Behaviour Therapy	Place: Classroom
Time: 10:30 a.m. - 12:30 p.m.	Teacher: Behavioural Therapist

The therapist welcomes Khaled into the room as he enters holding his nanny's hand. He does not respond and moves towards the blue-coloured canopy that is placed in a corner of the room, as the behaviour therapist readies for the session. There is a holder filled with pencils, two toys, a colourful ball and a folder of papers placed on the table. Once she is done with her paperwork, she calls out to him but he does not respond and he continues to play. The nanny then goes up to him and prompts him to be seated near the therapist. As she gently pulls him towards the table, she notices that he has dirtied himself and takes him to the washroom to be cleaned.

Khaled re-enters the room with the nanny and moves in the direction of the canopy. The behavioural therapist directs him towards the table and she makes him sit next to her. She looks at him and smiles and places a paper with a small circle drawn on it. She hands him a colour pencil and tells him that "you must colour in it for 15 seconds." She begins to count aloud and he moves the crayon on the paper not once bothering to look at his colouring. He stops moving his crayon when her count reaches number 15. She then remembers that his target for the day was 20 seconds. So she flips the paper to expose a small triangle and explains to him that he must colour inside the triangle until the count to 20. She begins the count and he begins to move the crayon on the paper. As soon as she reaches number 15 he stops colouring and hands over the crayon to her. She smiles at him and takes the crayon.

The therapist then informs him that they would do an activity wherein objects need to be matched with each other. While she places the objects on the table, Khaled begins to nearly mouth the song, 'Bingo,' and when he stops the therapist prods him to continue to sing but when he does not respond. She takes over from where he had stopped and completes the song for him. She pulls out three pictures of a horse, a worm and a blank sheet and places them next to each other. She holds a toy horse in her hand and tells him to, "match the horse." He takes it and places it on the picture of the horse. The behavioural therapist gives him a high five and changes the arrangement of the images and shows him the box of pencils which he seems to be very fond of. She tries to tempt him to do the matching properly so that he can play with the pencils. In certain positions he is able to correctly identify the pictorial image of the horse but at times he simply places the horse on the worm or on the blank paper. On the trials that he gets right, the therapist allows him to hold a few pencils for a while as a reinforcer and then continues the session.

The therapist tries to juggle the positions of the three pictures so that she can figure out which position is not working with him and why he is not able to identify the horse in certain positions. After a number of tries, she feels incapable of finding out why he is not able to identify the horse image. After informing the nanny, the therapist leaves the room for a few seconds to consult her colleague and ask him to observe the exercise and possibly come up with a solution. Her

colleague is an occupational therapist and he observes the behavioural therapist as she tries out different combinations of the placement of pictures. Once again Khaled is unable to identify the horse when placed in a particular position. The colleague takes the paper with the different combinations for further study and leaves the room.

The therapist then makes Khaled get up from his seat and stand without support while she positions herself at a little distance and throws him a ball. He just allows the ball to fall near him. He does not make any attempt at catching it or even looking at it. The therapist asks the nanny to prompt him from the back so that he tries to catch the ball. With the nanny's help he catches the ball and then throws it to the therapist. Sometimes he seems to look in the direction of the ball, while other times he is totally disinterested in the game of ball.

The behavioural therapist then tells him to sit on the chair and remove his sandals. He is unable to do so without verbal and physical prompts. As soon as the nanny touches the sandal he stops helping himself presuming that she would do the needful. The therapist warns the nanny not to touch him while training him but just to touch the sandal as a support for him to wear it independently. Finally with some support he wears his sandals. He then gets back to the table and plays with the pencils placed on it. He does not bother to respond to the therapist or look in her direction. "Let's go to the other room and get some new toys," the therapist tells Khaled and tries to draw his attention. The therapist leads the way as Khaled and the nanny follow him into the other room.

Khaled comes back with nothing in his hands while the therapist has an electronic toy and carousal with bells in her hands. He is made to sit in his place and he immediately drags the pencil holder towards him. The therapist gently takes the pencil holder away. She resumes the matching of the toy horse with the correct picture but Khaled shows no interest. She asks the nanny if she has any snacks with her and she pulls out a juice packet, a packet of cheese balls, M & M's and a small bottle of water. The therapist places it in front of Khaled and asks him what he would like to have. He points towards the M & M bottle. The therapist takes it and tells him to say "Open." After a number of attempts he says "Op." She is happy and opens it for him and gives him one. She then tries the matching exercise and every time he gets it right she gives him an M & M. But by the end of the session he is still unable to successfully identify the horse in certain positions.

Then the therapist hands him a paper with a square drawn on it. She asks him to colour within the lines of the square and once again she tries to make him colour within the shape in 20 counts. She does this three times but on every attempt he stops when she reaches number 15 or 16.

Khaled tries to grab the cheeseball packet from the table but the therapist is equally quick and takes it back from him, asking him, "What do you want?" He points to the packet but he does not utter a word. She repeats the word "Cheesies" a number of times to encourage him to speak the word and she opens the packet

only when he mouths the word. He is given one cheesy and he runs around the room. When he wants more he goes towards her and she once again gives in only when he says the word. The therapist is excited at his response and asks the nanny to record it on the mobile phone. The nanny promptly responds to her. She then asks Khaled whether he wants juice and he points to it. Only when he says the word 'open' does she place in the straw and he sips the juice. Every time he wants a cheesy or juice, the therapist patiently repeats the words, "cheesies" or "juice" and waits for him to mouth the same.

Finally she makes him sit at the other end of the table to figure out why Khaled cannot identify the horse in certain positions and to determine whether he has perceptual issues. She finds that despite the change in position, Khaled is unable to identify the objects. He places the horse on any picture without looking. He keeps rubbing his eyes and looks visibly tired. The therapist then takes three toy animals and makes him match a toy giraffe with a similar one. He does this effortlessly in all different positions. Then she moves the toys away and asks him to identify the horse with a similar image. He is unable to match them in certain positions. When he does match it correctly, she allows him to play with the carousel which he enjoys twirling continuously. But when he does not match it correctly she does not give him the carousel to play. At the end of the session she gives him the carousel to play with while she completes the report for the day. The mother enters the room and the therapist briefs her about the session. Khaled holds his mother's hand and departs.

APPENDIX 11.2

INTERVIEW-BASED QUESTIONNAIRE

EARLY INTERVENTION CENTRE

Date of the interview: **10 July 2012**

1. Employment Title: **Behavioural Therapist**
3. Nationality: **Pakistani**
3. Since how long have you been working in your field of specialisation? **7 years**
4. How many years of services have you completed in Dubai? **3 years**
5. Do you share a strong collaborative relationship with the parents? ☒ **Yes** ☐ **No**
6. Is any training given to parents during the school academic year? ☒ **Yes** ☐ **No**
7. Do the parents reinforce the school teaching at home as well? ☐ **Yes** ☒ **No**
8. Does the Centre provide training to teachers and therapists during the academic year? ☒ **Yes** ☐ **No**
9. Are you satisfied with the training sessions? ☒ **Yes** ☐ **No**

<p>Fortunately the Centre I work with stresses on regular training programmes to update the knowledge and skills of professionals working in the field. These sessions keep us abreast with the latest developments and help us improvise strategies to further enhance the learning and development of the children.</p>
--

10. As a specialist do you think the existing services are adequate for the learners? ☐ **Yes** ☒ **No**. Please elaborate.

<p>No. There is a need for more services and there is scope for much more improvement in the field of special education. The city must attract qualified professionals to enhance the development of these children. Early diagnosis and interventions can help such individuals develop faster. While Dubai does have a few centres that cater to individuals with ASD, I do not think they are adequate. I say so because the waiting list in these Centres is quite long and the Centres</p>
--

are unable to cater to the growing demand for its services.

11. What is required to improve educational services for learners with ASD in Dubai?

√ **Early Diagnosis**

- ☐ Effective Interventions
- ☐ Timely Treatment
- ☐ Educational Services
- ☐ Public knowledge, attitude and acceptance

√ **Others. Training the existing practitioners**

12. What, according to you, is the most important of the above issues?

Trained professionals

13. Do you think the lack of or the availability of the above-mentioned issues has impacted learners with ASD in Dubai? √**Yes** ☐No. Please elaborate.

The lack of well qualified professionals in the field is pulling us back from developing individuals with ASD to their highest potential. Lately, there are more individuals entering the field of special education but there is still a dearth of professionals who are equipped with adequate expertise and experience.

APPENDIX 11.3

IEP: EARLY INTERVENTION CENTRE

Initial :Jan. 2012-Jan. 2013

Intervention Plan Type:

☒ Planning ☐ Four Month Review ☐ Eight Month Review ☐ Transition ☐ interim

Review date (s):

Due

- Four Month Review April 2012
- 8 Month review August 2012
- Annual Review January 2013

Completed

Child's name

File number

1. Identifying Information

Child's Name:

D.O.B: Sex: ☐ Male

☐ Female

Diagnosis:

Date and Source:

Mother's Name:	Native Language:
Tel:	
Father's Name:	Native Language:
Tel:	
Class/ Grade:	Academic year:
Day care/ School Name:	Day care/ School Contact:
Contact Phone Number:	Contact E-mail:
Teacher Name:	Teacher phone:
Child's Day care/ school language:	Child's primary home language: Other home languages (if applicable)
Does the child have communication needs that could impede his/her learning? Details:	Does child use an alternative communication system? <input type="checkbox"/> Yes <input type="checkbox"/> No

I. Child's evaluation process

Date of the initial assessment: October 20th 2011

Date of enrollment : November 28th 2011

Comprehensive Assessment:

Name of Assessment	Date	Conducted By
Assesment Evaluation and Programming System[AEPS]:0-3 years	Session 1 :November 30 th 2011 Session 2: December 6 th 2011	
Behaviour Language Assessment[BLA]	December 12 th 2011 (untestable)	
Early Echoic Skills Assessment[EESA]	December 12 th 2011 (untestable)	
Family Report Interview-AEPS	December 26 th 2011	
Assessment of Basic Language and Learning Skills [ABLIS]	December 20 th 2011- December 22 nd 2011	
Preference Assessment	December 18 th 2011	
Diagnostic Physiotherapy Assessment	March 22 nd 2012	

Date of initiation of intervention services: January 3rd 2012
Date of the IEP Planning meeting: December 25th 2012

II. Service Delivery Team

Designation and Role	Name
Assigned Service Coordinator	
Parent(s)	
Therapist(s) 1. Behaviour Therapist 2. Occupational Therapist	
Nanny	

III. SUMMARY OF FAMILY RESOURCES, PRIORITIES, AND CONCERNS

Resources	Priorities	Concerns
<p>A spends most of the day at home including 1-2 hours of teaching per day using the principles of ABA with his Nanny who speaks English. He has a twin sister and two other siblings who he plays with sometimes and occasionally imitates them.</p> <p>Moreover, he has his Uncle, cousins and grandmother living downstairs where he often goes to play and visit.</p> <p>A has a scheduled weekly visit with his Father and siblings to the Mall.</p> <p>A has a park in close proximity to his house.</p>	<p>Mom feels that speech improvement, toilet training and A's social interaction are among top priority for her.</p> <p>For A to Participate in the community and at family gatherings is another priority for mom.</p>	<p>Mom is concerned about his difficulty in communication, including speech delay as well as his lack of interacting with others.</p>

Description of the child's natural environments and the planned intervention framework:

The natural environment for A includes his home and his grandmother's home, with weekly visits to the mall and rare visits to other places. Sessions will initially be Center based and gradually will move to the home and will include few sessions in the community.

GOALS & OBJECTIVES TO BE ADDRESSED DURING THE TIMEFRAME OF THIS IEP
(January 2012 Till January 2013)

Family's goals:

Initial status	Goal	Status at review	Remarks
Increase and activate the process of communication between the Center and the family.	Understand the approach of the Center and the relationship between the family with the therapist.		

Observations/recommendations:

Date:-----

Child's Goals:

Present Level of Performance	Annual Goal	4 Month Objective	8 Month Objectives
Fine Motor: A grasps cylindrical objects as well as uses pincer grasp. He marks on a paper and scribbles independently. He manipulates pages of book without assistance .A stacks objects independently.	1.Fits variety of shapes into corresponding spaces.	1.1 Completes and inset puzzle containing 5 pieces handed separately using trial and error.	1.3 Completes a shape sorter containing 10 pieces when given the pieces in a group.
		1.2 Completes an inset puzzle containing 5 pieces when presented with the pieces in a group using looking and positioning.	1.4 Places a toy car into a car garage when playing with a toy car and garage 1.5 Puts together large lego blocks
	2.Copies simple written shapes after a demonstration.	2.1Traces straight lines.	2.5Copies straight lines
		2.2Traces curved lines	2.6Copies curved lines
		2.3 Traces squares,	2.7Copies circles and ovals

		rectangles and triangle.		
		2.4 Traces ovals and circles.		2.8 Copies squares rectangles and triangles.
	3.Remove wrappers from food items	3.1Removes foil from pudding cups.		3.2Open food that comes in a plastic bag.
	4.Colour within boundaries			4.1Colours in a large shape.
				4.2Colours in small shapes
				4.3Colours in a picture with only one item
				4.4Colours in picture with multiple items
Gross Motor: A has fairly good gross motor skills. He is able to manipulate his body to walk, kneel, run and walk backwards. He also walks up and down stairs with no problems and gets up and down from low structures. He kicks balls.	5.Jumps forward	5.1Jumps up with feet together		5.2Jumps forward across barrier (rope, block) with feet together.
	6.Catches throws and rolls ball.	6.1Rolls ball without a target with partial physical prompt		6.3Rolls ball at a target
				6.4Throws ball at target with partial physical prompting
				6.5Throws ball at target
		6.2Rolls ball without a target		6.6Catches ball with full physical prompting
				6.7Catches ball with partial physical prompting
Dressing Skills: A dresses and undresses himself with a high level of	7.Pulls pants up and down and takes pants on and off	7.1Pulls pants down and off with assistance		7.3Pulls pants on and up with assistance
		7.2Pulls pants down and off		7.4Pulls pants on and up

assistance.	8. Takes shoes on and off	8.1 Takes shoes off with assistance	
		8.2 Takes shoes off	
		8.3 Shoes on with assistance	
		8.4 Shoes on	
Eating Skills: A eats food with his fingers and drinks from a straw as well as drinks from a cup.	9. Takes pullover shirt on and off		9.1 Takes off pullover shirt with assistance
			9.2 Takes off pullover shirt
			9.3 Puts on pullover shirt with assistance
			9.4 Puts on pullover shirt
	10. Eats with a fork and spoon		10.5 Brings food to mouth
Grooming Skills: A washes his hands, brushes his hair and brushes his teeth with assistance.		10.1 Brings food to mouth using full physical prompt	10.6 Scoops food
		10.2 Scoops food with full physical prompt	
		10.3 Brings food to mouth with partial physical prompt	
		10.4 Scoops food with partial physical prompt.	
	11. Spread with a knife		11.1 Spread jam with a knife with full physical prompt
			11.2 Spread jam with a knife with gestural prompt
	12. Washes hands/face including drying	12.1 Dries hands with towel / paper towel with a gestural prompt	12.5 Gets soap with gestural prompt
		12.2 Dries hands	12.6 Gets soap

			with towel/paper towel		
			12.3Turns Tap off with a gestural prompt	12.7 Washes off soap	
			12.4Turns tap off	12.8Puts hands under water	
				12.9 Turns on tap	
			13.1Accepts having somebody brush his hair	13.2Brushes hair with partial physical prompt	
	14.1 Accepts having the toothbrush in his mouth	14.2Brushes teeth with partial physical prompt			
	15.1Initiates the need to go to the toilet by holding a familiar adults hand and taking them to the washroom	15.2Uses the toilet to urinate			
	15.1Does not wear a diaper when going out of the house.	15.3Uses the toilet to defecate			
	17.1A sits for ½ an hour while doing table top work receiving	17.3A sits for 1 hour while doing table top work receiving reinforcement after every 3 acquisition task			
			17.1A sits for one hour while doing table top work with		
			17.A sits for one hour while doing table top work	17.1A sits for ½ an hour while doing table top work receiving	
Toileting Skills: In the house A runs to the washroom and is sometimes taken by his caregivers when he needs to go however outside of the house he wears a diaper .					
Cooperation and Reinforcement: A allows familiar people to interact and					

<p>be close in proximity to him. He tries tasks willingly and sit for around 20 seconds at a stretch. He enjoys a few reinforcers including puzzles, edibles and small objects.</p>	reinforcements after every five acquisition tasks.		reinforcement for every acquisition task	
			17.2A sits for 1 hour while doing table top work receiving reinforcement for every acquisition task	
	18.A works for 10 items or activities that are effective as reinforcers.			
	19.A waits without touching the materials used for teaching.			19.1A waits without touching materials while he has a reinforcing item in his hand
	20.A allows assistance from adults when required to complete a task.			
	21.A responds to and discriminates a variety of			

	instructions including “ give me”, “touch”, “put on”, “take out”, “match” “do this”			
Play and Leisure Skills: A plays alone independently with puzzles, stacking cups and magnetic numbers. He also enjoys listening to nursery rhymes on the computer often repeating what he has heard after words.	22.Plays with and manipulates electronic toys correctly. 23.Plays games with balls.	22.1Explore toys in the center when left without a task.	22.3Uses an electronic toy by pushing buttons, turning knobs, turning on and off.	
		22.2Enjoys electronic toys	23.1Plays simple ball games (bowling, catch)	
Communication: In the area of	24.Takes turns during play with both adults and peers		24.1Take turns with an adult	
			24.2Takes turns with siblings	
	25.Imitates at least 5 different words to get a	25.1Produce any sound after a sound is vocally presented to him to get a reinforcer.	25.4Repeats a word after the word is presented to him to get a reinforcer.	

<p>communication A expresses his needs by taking a familiar adults hand to the item that he wants. He sometimes is heard repeating nursery rhymes that he hears on the computer. When something is taken away from him or he does not get what he wants he often cries.</p> <p>Social: A enjoys hugs and the affection of familiar adults most of the time. He often smiles when he is doing an enjoyable activity or finds something funny. He plays near his siblings</p>	<p>reinforcer and to label items.</p>	<p>25.2Repeats the specified sound when the sound is vocally presented to him to get a reinforcer.</p>	<p>25.5Repeats a word after it is presented to label an item.</p>
		<p>25.3Repeats an approximation of a word after the word is vocally presented to him to get a reinforce.</p>	
	<p>26.Responds to own name when called by going to the person who called his name</p>		<p>26.1Responds to name by looking at the person calling when the person has a reinforcer</p>
			<p>26.2Responds to name when called by looking at the person</p>

	27. When talked to by an adult eye contact will be made			
	28. When an adult greets A he will wave his hand or shake their hand.			
Visual Performance: A does a variety of puzzles but often needs to be prompted to stay on task. He inconsistently can match 3d objects and consistently matches pictures.	29. Match objects as well as pictures in all kinds of presentations	29.1 Will match identical 3d to 3d objects when presented in an array of 3.	29.2 Will match non identical 3d to 3d objects in an array of three.	
			29.3 Will match 3d[object] to 2d[picture] identical objects in an array of three.	
			29.4 Will match 3d to 2d non identical in an array of 3	

ACCOMMODATIONS/ADJUSTMENTS TO CURRICULUM/SCHOOL/HOME ENVIRONMENT

Support/service description	Provider	Date of Service/Support Initiation & Termination

III. DETAILS OF SERVICES/PROGRAMS PROVIDED

Service	Provider Name and designation	Start date	Anticipated end date	Frequency	Duration	Location
Behaviour Therapy	Behaviour Therapist	January 2012	January 2013	5 days a week	1-2hrs/day	Center/ Home
Occupational Therapy	Occupational Therapist	January 2012	January 2013	2 days a week	1-2 hrs/ day	Center/Home

Signatures

IEP Team:

X _____
Parent(s)

X _____ Occupational Therapist	X _____ Behaviour Therapist	X _____ Service Coordinator
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Management

X _____ Head of the intervention program	X _____ Head of the service coordination section
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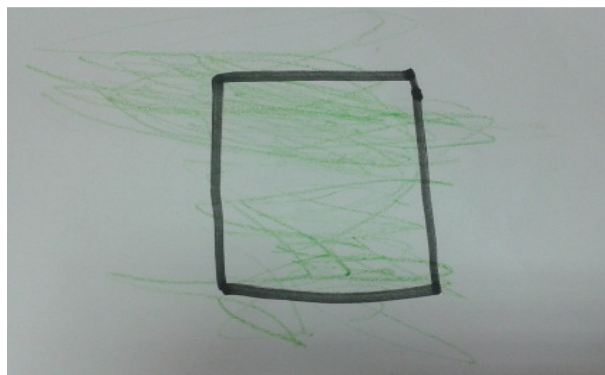
APPENDIX 11.4

SAMPLES OF CLASS WORK

EARLY INTERVENTION CENTRE



Sorting the toy animals into different boxes.



Colouring inside a square till the therapist counts to 20.



Identifying and matching the pairs of giraffes.

APPENDIX 11.5

VISION AND MISSION STATEMENTS

EARLY INTERVENTION CENTRE

The Centre is considered a unique early intervention program and is the first of its kind in the Middle East to provide state-of-the-art comprehensive programs. Supervised by a specialized team, the centre provides family-focused, trans-disciplinary assessment and early intervention services to children (from birth to 6 years) with disabilities and those prone to congenital abnormalities. In addition to that, it provides families and community with the appropriate support and educational services required.

The objectives of the centre are:

- Provide early intervention services at the appropriate time for children with disabilities and those prone to suffer from disabilities
- Enhance a child's developmental gain
- Enhance a child's learning capabilities
- Develop the family's understanding and capabilities related to their child's development
- Elevate the standards of service provision in the field of early intervention
- Raise public awareness about people and children with disabilities

Source: Information obtained from the Centre's website.

APPENDIX 12

MAINSTREAM SCHOOLING FOR A LEARNER WITH ASD

APPENDIX 12.1

OBSERVATION NOTES

MAINSTREAM SCHOOLING FOR A LEARNER WITH ASD

Name of the learner: Mathew	Class: Junior
Date: 18 November 2012	Time: 8 a.m. to 2 p.m.
Age: 4 years	Nationality: American

Classroom description of a centre that has initiated an inclusive education programme in collaboration with a mainstream private school

The classroom is large-sized to accommodate the seven learners, a class teacher and four assistant teachers. As you enter the classroom there is a flipchart stand that has the day's schedule neatly handwritten on it, even mentioning the separate sessions for the learners in parenthesis. There is a big whiteboard placed facing a colourful mat and a few chairs and the teacher's table is placed with the computer at the far end of the room. Above the whiteboard four coloured sheets are stuck on the wall and photos of the learners are placed on it with velcron. These photos are placed on the different sheets of paper, according to the learners' current behavior. Once their photo reaches the final sheet of paper the learner is rewarded as reinforcement, either as a favourite game on YouTube or a toy to play with.

A shelf that contains books and stationery divides the teacher's table from a play mat placed on the other side of it for learners to sit down and play with their toys. There is a table placed next to it for carrying out learning sessions and other activities. Three huge windows face you as you enter the door to the room and the lower part of the windows are covered by A4 sized coloured paper pasted close together. Black bats cut out of paper as well as orange coloured pumpkins are hung on threads from the ceiling in celebration of Halloween. A u-shaped red table and chairs are placed at the centre of the room to accommodate the learners. A cooking range and a shelf with books have been placed behind this table. This section has a shelf on one side, which is often moved to allow a learner inside for some quiet time and for reinforcing correct behaviour. Two rectangular tables and chairs are near the wall close to the classroom door and a number of neatly stacked chairs are placed next to it.

Class Period: Music	Place: Centre classroom and Mainstream classroom
Time: 8:00 a.m. - 8:30 a.m.	Teacher: Inclusion Teacher and four Teaching Assistants, later the General Classroom Teacher and two Teaching Assistants

Mathew arrives all excited into the class with his nanny. He jumps into the inclusion teachers' arms telling her that Santa Claus would be arriving soon. The teacher too plays up to his excitement and asks him what Santa was going to do. He tells her that "Santa is going to bring me a lot of presents." He goes over to a teaching assistant and repeats the same thing to her. He is asked to place his bag in the designated space which he does. He is allowed to play with the toys that he wants to in the class till the teacher announces that he has an English class to attend. He leaves earlier than schedule for the English class as he does not attend the Music lesson for the day. His classmate who usually accompanies him to the class is absent and Mathew sometimes finds it difficult to adjust to the music class with the typically developing peers in his absence. So the teacher does not send him for music lessons this morning.

The teaching assistant picks up Mathew's English exercise book, holds his hand and leaves the room. As he leaves the inclusion teacher tells him that he can watch an episode of Thomas Engine if he does well in his English class. He is happy and walks along obediently with the teaching assistant and does not try to run or jump along the way to the class. The English class is held with typically developing learners in a mainstream class setting (KG 1E) as part of the inclusive exercise to gradually integrate him into this environment.

As he walks towards the kindergarten class that he attends, the teaching assistant notices that the learners are assembled outside in the open area near their classroom. The girls and boys are separately seated and the teaching assistant guides Mathew to the boys group. He sits and watches the activity taking place. The teacher has placed two bars fixed onto colourful blocks for the children to crawl under. She is teaching them the word "under". She selects two children (one boy and girl) to crawl under the two bars individually. Mathew enthusiastically watches the learners crawl under the table. When the teacher calls out his name he gets up and imitates what the others have previously done. The teacher praises his effort and he is thrilled. They all then form a line and return to class for their English lesson.

Subject: English	Place: Mainstream class (KG 1E)
Time: 8:30 a.m. - 9:00 a.m.	Teacher: General Classroom Teacher and two Teaching Assistants

The children enter the class and the teacher tells them to sit on the chairs that are placed on the foam mats in front of the whiteboard. Once they have dragged their chairs and settled down, the teacher sits on a chair placed in front of them (her back is to the whiteboard) and asks them to tell her the present date, the previous

and the next date. The children answer in chorus. Mathew is busy swaying himself on the chair; the teacher notices him and tells him to sit still. He does so but soon begins to look around at the colourful walls of the classroom.

The teacher informs the class that they are going to learn the letter T. She asks them to think of words that begin with T. They are only able to answer the one that she had already spoken about – tractor. She then takes out a bunch of flash cards that start with the letter T. She shows them the pictures individually and asks them to repeat the word and the letter that begins with it. The children answer her in unison. She uses a marker to write the word T on the board (capital and as well as small). She asks the class if anyone would like to try to write the lower case ‘t’ on the board. A sea of hands shoots up and so she calls out names for each of them to come and write the letter t on the board. The writing is varied - big, fat, thin and small. Mathew needs help while writing the letter and the teacher holds his hand as he writes on the board.

The teacher then divides the learners into four groups. She tells them to go back to their seats around the four colourful tables. Each of the four tables has a separate task assigned to them. Learners seated at two tables are expected to follow the tracing lines and write the letter T in their books, those at the orange rectangular table make the letter T with clay dough while those on the yellow rectangular one has to finger trace the letter T on paper and then match the letter T to the related objects placed on their worksheets. There is a bit of noise as the children settle in their places. Mathew is not happy with his task. He tells his teaching assistant that he wants to do clay dough and not write the word. She assures him that he could do it tomorrow. She manages to convince him to complete this task and encourages him to look at his worksheet and trace out the letter. Mathew does lift his head a couple of times to watch the other group play with clay dough but he manages to finish the page with the letter t. The teacher is very impressed with his work and tells the class to clap for him as it is the first time that he has finished his work on time. He leaves the mainstream class very happy and smiles at the teaching assistant on the way back to his class.

Class Period: Writing	Place: Junior classroom of the Centre
Time: 9:00 a.m. – 9:30 a.m.	Teacher: Inclusion Teacher and four Teaching Assistants

Mathew returns from his English class very excited. He tells the inclusion teacher that he was good. The teacher is happy and she allows him to watch Thomas Engine on the computer as she had earlier promised him. He makes himself comfortable on her swivelling chair while she manages to open the link of Thomas Engine for him. He is quiet for the next fifteen minutes and is absolutely unaware of the chaos and the work that is happening around him as his classmates struggle to finish the tasks assigned to them.

The inclusion teacher then takes out a sheet from the flipchart and tapes it onto the whiteboard. It takes her a while to pull him away from the computer screen and move on to the next activity. She tells him to draw anything “for his mummy for

Christmas”. He stares at the paper. She prompts him and asks him whether he would like to draw a Christmas tree. He nods his hand and she shows him how to draw one. He holds the pen on to the paper but he only manages squiggles on the paper. She then holds his hand and draws an outline for a tree. She then asks him to colour it. But he is completely disinterested in the task and barely touches the paper with the pen. He is glad when the teacher says that it is time to go to the playground for break time.

Class Period: Break time	Place: Playground
Time: 9:45 a.m. to 10:10 a.m.	Teacher: Two Teaching Assistants

Five of the eight children are escorted to the playground where the kindergarteners are already out playing on the jump-and- slide dry bouncers as well as busy collecting the colourful plastic balls that have been scattered around the play area. The learners do not leave the teaching assistants hands and run towards the play area but obediently follow them till they reach the play area. Then the assistants gently leave their hands and encourage them to play with the other children. Mathew and two of his classmates go up the Clubhouse climber and enjoy sliding down. One of them is being coaxed into getting into the bouncing castle with the other children, while another girl is just standing by herself making a few sounds and flapping her arms up in the air. Mathew enjoys going up the tower and coming out through the tunnel and running back to do so. He pushes a child who is in front of him and in turn the child pushes him back. An assistant notices his behaviour and insists that Mathew apologise to the boy which he does with much reluctance. He enjoys going up and down the Clubhouse climber and sometimes just stands on top of it lost in thought. Only when pushed or nudged by another child does he begin to move forward or backwards on the climber. As the other learners line up to go to class he stands and stares at them. When it is turn for these learners to return to the Centre that is tucked in a corner of the main school, he tries to run in the opposite direction or walk away from the others. One of the teaching assistants then holds his hand till they reach the Centre. He tries to wriggle free and protests when he is unable to do so but she tells him that he must learn to obey instructions.

Class Period: Snack time	Place: Junior classroom
Time: 10:10 a.m. – 10:30 a.m.	Teacher: Inclusion Teacher and Four Teaching Assistants

When Mathew reaches the Centre he is taken directly to the bathroom and he returns to class after having washed his hands. When he enters the classroom some of his classmates have already begun eating their snack. He is told to get his snack box which he promptly obeys. He pulls out the box and grabs a few baked bread bites and pops them in his mouth. He sits on his chair as he eats his snack and asks for help from the assistant in opening the packet of juice. He eats well and the assistants focus their attention on the other learners who are either stuffing their mouth with food or flinging their food from the box onto the table. Once Mathew has finished eating he walks around the room and begins playing with a scooter board that has been placed in a corner of the room. One of the teaching

assistants calls him back to his seat and reminds him to clear up his part of the table and to return the snack box in the bag. Initially he does not comply and he is physically prompted to do so. The teacher tells him that he can scooter board along the corridor once he clears up.

Class Period: Recess	Place: Corridor along the classroom
Time: 10:30 a.m. - 11:00 a.m.	Teacher: Two Teaching Assistants

Mathew is thrilled at being allowed to use the scooter board along the corridors. There are already two boys from the Senior Class scooter boarding and one of Mathew's classmates soon joins him in this activity. They take turns in scooter boarding and this activity is closely monitored by the teaching assistants so that no one gets hurt. Two of the learners' scooter board together and then the other two follow from the other end. As they are given a push on their scooter boards they scream in excitement. One of the teachers from another classroom comes out and tells them to lower their volumes, which increases after a while. One of the assistants is stationed at one end to ensure that they do not move towards the staircase. One of Mathew's classmates who recently had a hip operation is rolled out onto the corridor in her wheelchair to enjoy the excitement. She laughs when she sees them on the board and enjoys the attention showered on her by another assistant who walks by the corridor.

Subject: Occupational Therapy	Class: Occupational Therapy Room
Time: 11:30 a.m. - 12:00 noon	Teacher: Occupational Therapist

Mathew enters the occupational therapy room with his therapist, while a learner is already having a session with another therapist. Mathew's therapist talks to him and asks him what he would like to do. As he speaks out what he would like to do – choo choo train, racing car and trampoline, she draws out images of the same on a piece of paper. Once he has mentioned three activities that he likes, she tells him that “now I will write what I would like to play”. She draws out a book, puzzle and a boat. She first pulls out some clay dough and hides some plastic pegs in it and asks him to pull them out. He is not very good with his fingers and finds it difficult to pull them out. Every time he pulls one out of the ball of clay dough she claps for him and encourages his work. He has been attracted to the mat to play with cars on it. Once he has finished his activity, she asks him to help her get the “choo choo” train tracks. He tries to fix the track himself but needs some help to finish it.

Once the tracks are laid, the therapist hands him Percy (name of an engine from the Thomas Engine book) to move along the tracks. He enjoys this game and is excited. After a few minutes the occupational therapist tells him that it is time to do a puzzle. Mathew is given two-piece puzzles to complete, some of which he does well while he needs help with the others. When it is finished, the occupational therapist asks him what he would like to do next and he points in the direction of the trampoline. She allows him to get in and she throws small plastic balls into the trampoline. He is very excited as these balls fall in and he tries to catch them and throw them back. After a while of playing this game, the therapist

gets him out and makes him first roll on the huge red coloured vestibular ball with her help and then makes him jump on it.

Pulling out the multi-coloured parachute from the cupboard the therapist makes Mathew hold it from one end while she holds the other side. She places a ball on it and asks him to balance it on the outstretched parachute. The other learner who is also having his session in the room is keen on joining this game and he along with his therapist join Mathew in holding the parachute and balancing the ball on it. A couple of times the ball slips off and the learners scurry to get it back. The therapist ends the session after Mathew has helped collect all the small plastic balls and placed the puzzle and track back in its respective place. The therapist then takes him to his class for the next activity with the rest of the learners.

Subject: Art	Place: Junior classroom
Time: 12:00 noon - 12:30 p.m.	Teacher: Inclusion Teacher and 4 Teaching Assistants

One of the teaching assistants has drawn out an octopus, dolphin, shark and tuna on separate large sheets of paper. The teaching assistants tape one-side used paper on the semi-circle table in preparation of the painting session. Once the papers have been taped on, the inclusion teacher calls the learners to be seated at the table to paint the fishes. The class is preparing a sea world themed bulletin board to be displayed outside their classroom. Two assistants have to physically get some of the children to the table as they do not comply with the instructions, while two of them cut out black disposal bags to serve as aprons for the learners. Some of the learners refuse to put on the temporary aprons, so that the assistant deftly drape it over them in a different style so that their shirts do not get stained while painting. Mathew is in no mood to colour and he refuses to even be seated at the table. The inclusion teacher tries to tempt him by telling him that he could watch the “Slippery Fish” video once he has finished painting but nothing pleases him. An assistant tries to convince him to join but he stands wearing a long face near the toy cooking range.

The rest of the learners begin their painting session without him, while he maintains his non-compliant stance. Once the learners have completed painting the fishes, they are escorted to the bathroom to wash their hands. Mathew slowly moves towards the computer and fiddles with the mouse. The teacher does not allow him to do so and tells him that if he did his Math work, the teacher would allow him to watch some videos. He reluctantly agrees and is escorted to a table at a corner of the room to do his Math work. His worksheet is to identify the number of objects drawn and to match it with the correct number. He does the first two correctly but then loses interest in following it through. With a lot of difficulty the assistant is able to get him to finish the exercise and then lets him watch a little bit of Thomas Engine video, while she attends to the other learner at her table who has been messing her hands with shaving foam. In five minutes time, Mathew is pulled back to his table but he is not ready to sit and work on his Math. The assistant takes his book to the computer table and ensures that he finishes tracing

out the numbers with a pencil on his book. Once he is done, she allows him to watch the remaining of the short video clipping.

Subject: Group work	Place: Junior classroom
Time: 12:30 p.m.- 1:00 p.m.	Teacher: Inclusion Teacher and 4 Teaching Assistants

Once all the learners have completed their lesson for the day, the inclusion teacher tells them to clear their tables and pull their chairs in front of the smart board. While two of the learners drag their chairs in front, the other five have moved in separate directions in the class and the teaching assistants make them pick up their chairs and place it in front of the board. As soon as two learners are seated and the assistant attends to another learner, one of them gets up and begins pacing up and down the room. The teacher intervenes and places the photograph of the learners who are seated on the second coloured paper (there are four different coloured papers). Gradually with the help of the assistants the learners are seated on their chairs and the teacher begins to show the alphabets from the letter factory website. Some of the letters are recognized by the learners and they mouth it. Every time a learner gets up from the seat, the teacher presses the pause button for the programme and monitors the learners' behaviour on the coloured cards as well. Finally when they finish doing the letters for the day, the teacher asks them what they would like to see. The majority says "Slippery Fish" and she obliges them by playing the song about fishes. The learners enjoy it thoroughly with some mouthing the words and moving their hands to imitate the movements of the fish shown on the video. The teacher then announces that it is lunch time and tells them to go and wash their hands. The learners are escorted to the bathroom by the assistants.

Subject: Lunch time	Place: Junior classroom
Time: 1:00 p.m. to 1:30 p.m.	Teacher: Inclusion Teacher and 4 Teaching Assistants

The learners enter the class and are reminded to get their lunch boxes on to the table. Mathew heads towards his bag and places his little lunch bag on the table and pulls out his box. He eats his sandwich well but the learner next to him tries to drop his food in Mathew's box and place Mathew's fruit yoghurt in front of his box. The teaching assistant intervenes and tells the other learner not to touch Mathew's food and she stands behind him to keep a tight watch on him. Mathew is enjoying his lunch and finishes it soon. He asks for help to open the yoghurt container and by the time he has finished it, there is yoghurt around his mouth as well. He however has to be reminded to keep his box back and drink water from his bottle.

Subject: Group activity	Place: Junior classroom
Time: 1:30 p.m. to 2:00 p.m.	Teachers: Inclusion Teacher and 4 Teaching Assistants

By the time lunch is over and the food has been cleared off the table, the Inclusion teacher calls them towards the smart board for some fun activities and games. While two of the learners immediately seat themselves in front of the screen, the others have to be physically placed on their seats. They begin by playing the 'Dress Up' game on the screen and each of the learners are given a chance to come forth and play. Mathew is excited and tries to disturb the other learners during their turn but the teacher tells him to sit down on his seat. After a few games on the screen, the learners are allowed to play whatever they want to for the next few minutes before they are picked up from school. Mathew is thrilled to see his mother and walks towards her. The teacher briefly discusses his behaviour in school during the day with her before Mathew bids goodbye and leaves the classroom holding his mother's hand.

APPENDIX 12.2

INTERVIEW-BASED QUESTIONNAIRE

CENTRE WITHIN A MAINSTREAM SCHOOL

Respondent: **Parent of a child with ASD in an inclusive education programme by a Special Needs Centre within a Mainstream School**

Date of interview: **18 November 2012**

1. At what age and where was your child first diagnosed with ASD? **4 years, USA.**

2. Was the diagnosis followed by immediate interventions? ☒Yes ☐No. If not, why?

-

3. For how long has your child been attending this centre? **6 months**

4. Does your child look forward to attending the centre regularly? ☒Yes ☐No

5. Is the school supportive of your concerns and needs related to your child?

☒Yes ☐No

6. Does the school effectively communicate and update you about your child's developments? ☒Yes ☐No

7. Has your child attended any school prior to this? If yes, which one, and for how long? ☒Yes ☐No

Mathew attended a nursery prior to this centre. During this period his behaviour had turned aggressive and I was compelled to pull him out of the nursery. The doctors in Dubai could not diagnose what was wrong with him and I took him to the United States in February this year to run a couple of tests and find out the problem. Their diagnosis concluded that Mathew has ASD.

8. Do you think the existing services are adequate for your child? ☐Yes ☒No

9. Do you think these services have impacted the life of your child and family?

☒ Yes ☐ No. Please elaborate.

Initially it was very frustrating as we did not know what the problem was with Mathew. He had grown aggressive and angry and I was unable to calm him down. Now that I know that he has ASD I am doing my best to seek and obtain the best intervention measures to help him develop well. I am happy that the Centre that he currently attends is doing a lot to enhance his potentials.

10. What is required to improve educational services for learners with ASD?

☒ **Early Diagnosis**

☐ Effective Interventions

☐ Timely Treatment

☐ Educational Services

☐ Public knowledge, attitude and acceptance

☒ Others. **Cost of services**

11. According to you, which of the above-mentioned issues is most important?

Affordable services

12. Do you think the lack of or the availability of the above-mentioned issues has impacted learners with ASD in Dubai? ☒ Yes ☐ No. Please elaborate.

Of course the services do impact the learners' development. If the services for individuals with special needs were more effective then more learners could be diagnosed at an earlier stage and placed into reasonably priced educational settings that will help develop their potentials to the fullest. The cost of educating a child with SEN is too high in Dubai.

APPENDIX 12.3

INTERVIEW-BASED QUESTIONNAIRE

CENTRE WITHIN MAINSTREAM SCHOOL

Date of interview: **15 November 2012**

1. Employment Title: **Class Teacher, KG 1 and Co-ordinator of KG sections, mainstream private school**
2. Nationality: **Lebanese**
3. Since how long have you been working in your field of specialisation? **17 years**
4. How many years of services have you completed in Dubai? **1 year**
5. Do you share a strong collaborative relationship with the parents? ☒ **Yes** ☐ **No**
6. Is any training given to teachers during the school academic year in dealing with children with special needs? ☒ **Yes** ☐ **No**
7. As a class teacher do you think the existing services are adequate for such learners? ☐ **Yes** ☒ **No**. Please elaborate.

These children are very smart but we need experts who can utilise different strategies and resources for their appropriate development. Most of the schools fail to include and provide such facilities for the development of these learners.

8. Can you elaborate on your experiences – challenges and successes?

Yes. I have worked with many children with special needs especially those with ASD. I can never forget how one learner with ASD developed so well in the mainstream setting that by the end of the academic year he had bloomed socially and had gradually begun to read words. I have seen the positive changes taking place in front of my own eyes. Such children can benefit greatly by being a part of the mainstream system and learning alongside their typically developing peers. Sometimes they become noisy and tend to distract the class but I have managed to tackle such situations quite well. We have to find out ways to tackle this issue for inclusive practices to be encouraged. I strongly advocate

mainstreaming such learners for their overall development and confidence-building.

9. What is required to improve educational services for learners with ASD?

- ☐ Early Diagnosis
- ☐ Effective Interventions
- ☐ Timely Treatment
- ☒ **Educational Services**
- ☐ Public knowledge, attitude and acceptance
- ☒ **Others Teachers training**

10. What, according to you, is the most important of the above issues?

Training Teachers and Therapists

11. Do you think the lack of or the availability of the above-mentioned issues has

impacted learners with ASD in Dubai? ☒ **Yes** ☐ **No**. Please elaborate.

The kind of services provided to individuals with ASD does affect their growth and development. For instance if many of these learners who attend this centre had been provided such services during their early years, then their development would have been much faster and they would have benefitted deeply from early intervention programmes.

APPENDIX 12.4 **IEP** **INCLUSIVE PROGRAMME WITHIN A MAINSTREAM SCHOOL**

Child's Name: [REDACTED] D.O.B: 20/12/2007	Individual Education Plan Annual IEP		Review Date: November 13th, 2012 Academic Term/Year: Term 1-2012-2013	
Inclusion Teacher: [REDACTED]	Inclusion Program/IEP Start date: September 3, 2012		Class Time: 8:00-2:00 Age Group Assignment: KG 1E	
Teaching & Speech Therapy Objectives: Inclusion Timings Attention focus	Goal: [REDACTED] will be included in English and all non-academic activities with the Kindergarten 1E group.	Current level of functioning: Currently, [REDACTED] is functioning well in the inclusion setting. He is well capable of the completing the work. The teacher notes that he occasionally needs reminding to stay on task. A shadow will accompany [REDACTED] to ensure his success in mainstream classes.	Achievement criteria: M= Met; E=Emerging; NI=Not Introduced	Possible resources/Techniques to be used: Shadow Teacher
G1: By June 2013, [REDACTED] will consistently attend to 10 staff directions, such as 'get your chair'. G2: By June 2013, [REDACTED] will attend to instruction for 20 minutes without going off-task or having disruptive behaviour, both in a group and individually, and will answer 5 intraverbal questions, such as 'what day is it today?' or 'what number is this?'	Currently, [REDACTED] has short attention span when working 1:1 and in group settings. Often [REDACTED] will make noise to himself and not attend to staff directions.	With 80% accuracy across consecutive three sessions, within the same week, with at least 2 teaching staff.	Resources: Visual cues Techniques: Facial prompts/cues (RDI) Reward/star charts	Documented by classroom observations/activities, and clinical data collection.

Teaching & Speech Therapy Objectives:	Goal:	Current level of functioning:	Achievement criteria: M= Met; E=Emerging; NI=Not Introduced	Possible resources/ Techniques to be used:	Evaluation/Data Methods:
Writing focus	G1: By June 2013, [REDACTED] will trace shapes with a pencil, within 1 inch of the line, using appropriate pencil grip. G2: By June 2013, [REDACTED] will copy shapes with a pencil, using appropriate pencil grip. G3: By June 2013, [REDACTED] will trace his name using a pencil and with appropriate pencil grip.	Currently, [REDACTED] needs to improve his grip on his writing instrument and lean harder on the page for letters, shapes and colouring.	With 80% accuracy across consecutive three sessions, within the same week, with at least 2 teaching staff.	Resources: Fine motor activities Token economy Techniques: Direct teaching – Handwriting without Tears program.	Documented by classroom observations/activities, and clinical data collection.
Maths focus	G1: By June 2013, [REDACTED] will arrange and identify objects by size – small, medium, large. G2: By June 2013, [REDACTED] will distinguish between 1, 2 and 3 items as a listener and as a request. G3: By June 2013, [REDACTED] will identify as a listener the numbers 1-5 in an array of 5 different numbers	Currently, [REDACTED] is unable to arrange objects by size. [REDACTED] can count to 5 with verbal prompts (e.g. 1,2...) but does not fluently count and answer questions of 'how many?' [REDACTED] does not identify or discriminate between written numbers.	With 80% accuracy across three consecutive sessions within the same week with at least 2 teaching staff.	Resources: Study ladder Birmingham Grid for Learning IXL Funbrain Number Cards Counter Techniques: Discrete Trial Training Precision Teaching Extra response time	Documented by classroom observations/activities, and clinical data collection. All lessons and assignments taught will include appropriate modifications to assist students in understanding and learning.
Reading focus	G1: By June 2013, [REDACTED] will select the correct uppercase letters from an array of 5 letters, for 10 different letters. G2: By June 2013, [REDACTED] will identify the correct phonic for each letter of the alphabet.	Currently, [REDACTED] can recite 5 or 6 letters from the alphabet song, but does not correctly identify letters by sight. Currently, [REDACTED] can recite the phonic for 'm', 's', 't', 'c' and 'a' with prompting of Letter factory song e.g. 'the A says...'	With 80% accuracy (4/5 trials) for each set of letters across three consecutive sessions within the same week, with at least 2 teaching staff.	Resources: Jolly Phonics Phonics games, interactive Letter factory Flashcards Techniques: Discrete Trial Training Precision Teaching Direct Instruction – group Incidental teaching	Documented by classroom observations/activities, and clinical data collection.
Free-flow focus	G1: By June 2013, [REDACTED] will independently complete a drawing or colouring activity for five minutes. G2: By June 2013, [REDACTED] will have improved colouring within the lines and drawing objects – he will lean hard enough on the page and stay within 1 inch of the lines.	Currently, [REDACTED] needs high levels of prompting to complete activities and stay on-task. Currently, [REDACTED] struggles to color within the lines and does not draw recognisable objects.	With 80% accuracy (4/5 trials) across three consecutive sessions within the same week, with at least 2 teaching staff.	Resources: Toys Puzzles Games Techniques: Modelling Cues/prompts	Documented by classroom observations/activities, and clinical data collection.

Teaching & Speech Therapy Objectives:	Goal:	Current level of functioning:	Achievement criteria: M= Met; E=Emerging; NI=Not Introduced	Possible resources/ Techniques to be used:	Evaluation/Data Methods:
Mand For Missing:	By June 2013, [REDACTED] will mand for 20 different items without prompts, when the desired item is not in view (e.g. if his snacks are not visible, if he wants to go to the OT room)	Currently, [REDACTED] mands for presented items and favourite objects using one and two word-utterances and at the same time he was observed to walk and approach to the wanted item with less dependency on his words.	With 80% accuracy (4/5 trials) across three sessions across three sessions, for increments of 5 minutes for each target, within the same week, .	Resources: Star charts Social stories Social videos Techniques: Verbal prompts/cues Visual cues Slow rate of presentations	Documented by classroom observations/activities, and clinical data collection.
Listener Responding to Function, Feature and Class:	By June 2013, [REDACTED] will select the correct item from an array of 8 familiar pictures, for 25 different LRFEC fill-in statements of any type (e.g. you drive the, show me something smooth.) with 80% accuracy.	Currently, [REDACTED] is able to select the correct item from a set of 4 using only features of function and colour of the selected item.	With 80% accuracy (4/5 trials) across three sessions, within the same week.	Resources: Pictures VBMAPP Cards Techniques: Direct teaching = Gestural prompt	Documented by classroom observations/activities, and clinical data collection.
Listener Responding Answering Questions	By June 2013, [REDACTED] will accurately respond to different Wh- questions in response to pictures and personal experiences. He will generalize answering the questions with many different conversation partners	Currently, [REDACTED] responds to a few personal questions beginning with "What" and "Where". He does not answer questions beginning with "Why" and "When". He becomes confused with long questions and tries to escape from the situation. He answers questions when provided with prompts.	With 80% accuracy (4/5 trials) across three sessions within the same week, with, at least 2 teaching staff.	Resources: Songs Books Number Cards Techniques: Modelling Visuals Extra response time	Documented by classroom observations/activities, and clinical data collection.
Linguistic structure. Pronouns:	By June 2013, [REDACTED] will accurately produce personal and possessive pronouns during spontaneous speech at picture description and conversation level such as: describing the self by using "I, me, my" with only a finger cue as prompt. And when referencing peers as: boys/girls and he/she appropriately during structured activities	Currently, [REDACTED] still mixes up the appropriate pronoun he commonly will replace the pronouns with the persons names and his name for personal possessive pronouns.	With 80% accuracy (4/5 trials) across three sessions within the same week,	Resources: Toys Picture cards Sorting games Techniques: Modelling Verbal cues and prompts	Documented by classroom observations/activities, and clinical data collection.

Linguistic structure	By June 2013, [REDACTED] will correctly articulate English consonants in response pictures and continuous speech. He will be able to produce multi-syllabic words contain all fricative, liquids and one affricates (sh, s, f, ,z, l, r) in all word positions and continuous speech.	Currently, [REDACTED] is able to correctly articulate 'plosives', 'glides' and 'affricates'. He has delayed phonological processes where he deletes and substitutes all fricatives and gliding the liquids (e.g., circle – tircle)	With 80% accuracy (4/5 trials) across three sessions within the same week, with, at least 2 teaching staff.	Resources: Songs Books Number Cards Techniques: Modelling Visuals Extra response time	Documented by classroom observations/activities, and clinical data collection.
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Occupational Therapy Objectives:	Goal: By June 2013, [REDACTED] s tactile discrimination would improve to the extent that he will be better able to motor plan accordingly for independence in age appropriate activities of daily living, like donning and doffing his own shirt, trousers, socks and shoes with no assistance. By June 2013, [REDACTED] s fine motor skills would improve to the extent that he grips his pencil/crayon with an age appropriate 3-point pencil grip. By June 2013, [REDACTED] s would be able to copy pre-writing symbols and imitate letters and numbers using correct formation.	Current level of functioning: Currently, [REDACTED] has decreased fine motor abilities / skills due to low muscle tone and decreased shoulder girdle stability. Because of this, [REDACTED] continues to have mass arm movements which also affect his pencil grip, pencil control and pencil pressure to a page. He also has an area of difficulty within tactile discrimination and this has a negative effect on his activities of daily living such as age appropriate dressing, grooming and toileting.	Achievement criteria: M= Met; E=Emerging; NI=Not Introduced With 80% accuracy (4/5 trials) across three sessions within the same week,	Possible resources/Techniques to be used: To provide indirect exposure to varied tactile media. Play dress-up. Using the brushing protocol at school and at home. Exposure to motor planned messy-play tasks, such as play-dough, shaving cream, modelling clay, finger paint, therapy, bubble, silly-goo, etc. Cutting and pasting activities. Tearing and pasting activities. Drawing and painting activities on an easel. To perform desk top work on a raised surface so as to encourage wrist extension for a more appropriate hand position for quality handwriting. To perform in-hand manipulation activities by encouraging [REDACTED] to perform adequate amount of fine motor activities daily.	Evaluation/Data Methods: Documented during therapy sessions / observations during activities and clinical data collection.
Tactile System Touch Discrimination Touch Sensitivity Fine Motor					

Child's Name: [REDACTED] D.O.B: 20 th September 2007	Individual Educational Plan-Occupational Therapy			Date: October 21, 2012 Academic Term: Term 1-2012-2013	
Occupational Therapist: [REDACTED] (B.Sc. O.T.)	Inclusion Program/IEP Start date: September 3, 2012			Class Time: 8-2 Age Group Assignment: Junior Class	
Occupational Therapy Objectives:	Goal:	Current level of functioning:	Achievement criteria: M=Met; E=Emerging; NI=Not Introduced	Possible resources/Techniques to be used:	Evaluation/Data Methods:
Proprioceptive System Muscles and Joints	By June 2013, [REDACTED]'s core trunk area would have improved to the extent that he will show no fixation at the shoulder and hip girdle for 10 minutes while performing gross or fine motor tasks.	Currently, [REDACTED] displays low muscle tone throughout his body. This can be seen in his ability to perform gross motor actions, such as walking, jumping and running, etc, when he fixates at both the shoulder and hip girdles. [REDACTED] also has slight decreased body awareness, which negatively affects his motor planning ability. Decreased muscle tone leads to decreased postural stability and affects appropriate postural coordination, while ultimately leads to decreased attention and concentration on any task at hand.	With 80% accuracy (4/5 trials) across three sessions within the same week,	Use of vibratory toys to improve kinesthetic awareness of body. Gross motor activities that provide resistance and "heavy-work" to the entire surface of the body, Using a lycra-bodysuit in sessions. Cocooning activities that provide deep pressure over maximum surface area over body. Cutting textures that provide resistance, such as play-dough or cardboard materials.	Documented during therapy sessions / observations during activities and clinical data collection.
	By June 2013, [REDACTED]'s shoulder girdle stability would improve to the extent that there will be no mass arm movements for 5 minutes during writing and drawing tasks				
	By June 2013, [REDACTED]'s shoulder girdle stability would improve to the extent that his pencil/crayon pressure from the pencil onto the page would be appropriate for 10 minutes. By June 2013, feedback in [REDACTED]'s muscles and joints in his lower limbs would improve to the extent that he performs gross motor and fine motor movements with more smoothness and control for 20 minutes.				
	By June 2013, [REDACTED]'s				

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	shoulder girdle stability would improve to the extent that he will have better flexion and extension at the wrist and of fingers while performing drawing and written tasks.				
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Occupational Therapy Objectives:	Goal:	Current level of functioning:	Achievement criteria: M=Met; E=Emerging; NI=Not Introduced	Possible resources/Techniques to be used:	Evaluation/Data Methods:
Vestibular System Movement and Balance and level of alertness	<p>By June 2013, [REDACTED] will have better movement control to the extent will not display any fixation at the shoulders and hip girdle for 20 minutes while playing gross motor activities in the playground.</p> <p>By June 2013, [REDACTED] will be able to concentrate in class on an activity for 10 minutes independently without a Teaching Assistant.</p>	<p>Currently, [REDACTED] has decreased muscle tone throughout his body, which results in decreased postural control. This also negatively affects his attention and concentration to the task within a multisensory setting.</p>	<p>With 80% accuracy (4/5 trials) across three sessions within the same week,</p>	<p>Encourage him to assume and maintain the anti-gravity postures of prone extension and supine flexion in therapy activities to improve his sitting posture.</p> <p>To provide movement in varied planes and levels, grading from slow, rhythmical movement to more rapid, transient movement in order to facilitate muscle tone and the integration of the two brain hemispheres.</p> <p>Performing activities while lying on the tummy on the scooter board.</p>	<p>Documented during therapy sessions / observations during activities and clinical data collection.</p>
Bilateral Integration Using 2 sides of the body together	<p>By June 2013, [REDACTED] s gross motor sequencing abilities would improve to the extent that he would be able to participate in age appropriate activities independently while playing in the playground during recess.</p>	<p>Currently, [REDACTED] has bilateral integration, sequencing and midline crossing difficulties, which often impacts his independence in his physical abilities within tasks or motor movements.</p>	<p>With 80% accuracy (4/5 trials) across three sessions within the same week.</p>	<p>To encourage segmentation between upper and lower body during fine and gross motor tasks.</p> <p>To encourage both sides of the body working together or alternatively. (E.g. either both hands and both feet).</p> <p>To provide opportunities at the desk where one hand stabilizes and one hand manipulates.</p>	<p>Documented during therapy sessions / observations during activities and clinical data collection.</p>
Sequencing Performing activity that requires more than 2 steps	<p>By June 2013, [REDACTED] s fine motor sequencing abilities would improve to the extent that he would be able to participate in age appropriate activities with no assistance from the class assistant for 10 minutes.</p> <p>By June 2013, [REDACTED] would be</p>				

Midline Crossing Crossing imaginary midline of the body	independently crossing his midline while performing tabletop activities or play activities for 10 minutes within the classroom.			To encourage activities galloping and one foot hopping – alternating feet. Structured ball play activities. To encourage independence in daily tasks that require the use of two hands, such as dressing, etc.		
Occupational Therapy Objectives:	Goal:	Current level of functioning:	Achievement criteria: M=Met; E=Emerging; NI=Not Introduced	Possible resources/ Techniques to be used:	Evaluation/Data Methods:	
Motor Planning Planning of physical movements	By June 2013, [REDACTED] would have the ability to age appropriately plan a structured movement activity to the extent that he ideates the plan, performs the plan of action and is able to evaluate the feedback accordingly. By June 2013, [REDACTED] would be independent in performing suggested 2-3 step movement activities with minimal cues / assistance from the therapist.	[REDACTED] requires verbal guidance and prompts to maintain focus on tasks from the therapist while performing age appropriate motor tasks or activities within his therapy sessions. At times he also needs to be guided as to how to participate within an activity, e.g. having a visual cue when building Obstacle courses, as well as completing the courses.	With 80% accuracy (4/5 trials) across three sessions within the same week,	By providing opportunities to independently perform any motor activity within a session from start to end. By breaking down activity instructions for [REDACTED] to perform it, 1 step at a time. Thereafter progressing grading accordingly. By availing certain equipment for [REDACTED] to plan a 1-2 or 2-3 step activity.	Documented during therapy sessions / observations during activities and clinical data collection.	

RECOMMENDATIONS & SIGNATURE PAGE

IEP Meeting Date: October 21, 2012

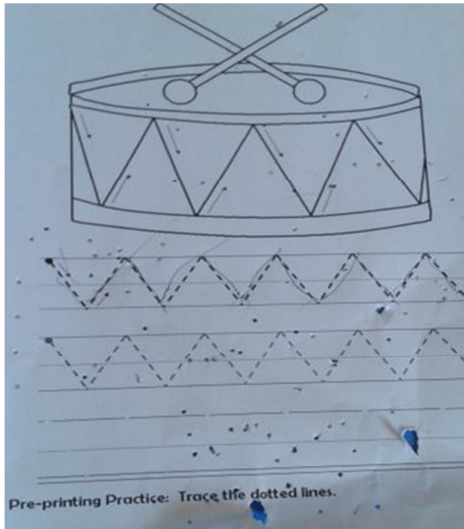
Student: [REDACTED]

Participants	Title	Signature

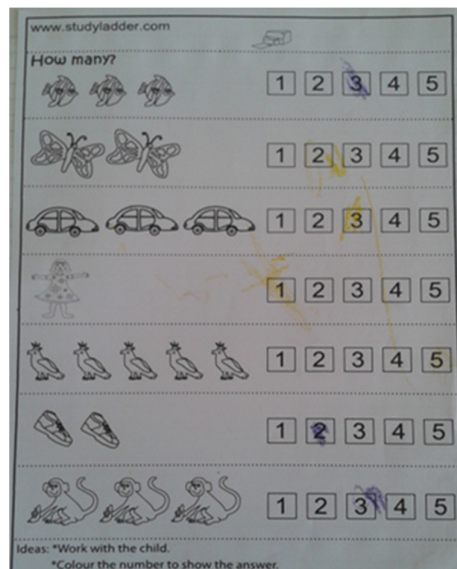
APPENDIX 12.5

SAMPLES OF CLASS WORK

INCLUSIVE PROGRAMME WITHIN A MAINSTREAM SCHOOL



Tracing the dotted lines and applying pressure on the paper with a pencil.



Learning to count numbers 1 to 5.

APPENDIX 12.6

MISSION STATEMENT

INCLUSIVE PROGRAMME WITHIN A MAINSTREAM SCHOOL

Our Mission

Founded in 2001, this Centre is an internationally recognised organisation that utilise evidence-based practice to treat and educate individuals diagnosed across various areas of developmental and learning difficulties such as Pervasive Development Disorders/Autism Spectrum Disorders, Attention Deficit/Hyperactivity Disorders (ADD/ADHD), Downs Syndrome, Speech & Language Disorders, Sensory Integration Dysfunctions/Disorders and other related areas of need. Our goal for each individual is more effective, independent and improved quality of life.

We have been and are guided by the principle that “the child’s needs and best interests come first.” Profits, personalities and other variables must be secondary in our mission. By keeping our clients’ needs and best interests as our number one priority, all else will follow.

Source: Information obtained from the Centre’s document.

APPENDIX 13
SUPPORT GROUP

APPENDIX 13.1

OBSERVATION NOTES

SUPPORT GROUP

Venue: Indian Private School Premise	Time: 10 a.m. to 12 noon
Learners with special needs: 21	Date: 2 June 2012

The multipurpose hall of the Indian private school was abuzz with excitement as grade 11 students from the school mingled and welcomed young individuals with special needs into the premise for the monthly gathering. These individuals with cerebral palsy, Autism Spectrum Disorder and Down Syndrome among other special needs entered the hall. Some of them held on to their parents hands, while others were escorted into the hall by the young school-going volunteers themselves.

One of the children left his mother's hand and as he paced up and down the length of the hallway as he continued flapping his hands. Two 11th graders went up to him and began talking to him and slowly, after a lot of coaxing managed to calm him down for a little while and sit at the tables and chairs neatly arranged for the gathering. He sat down next to them and his seat and began walking aimlessly in the hall. In a few minutes sudden rose from all of a sudden rose and resumed walking about aimlessly. The two volunteers did not compel him to sit down again but kept a keen watch over him till the activities were set to begin.

As the stream of children with SEN continued to enter the hall, one of the regulars to these gatherings grabbed the mike from a student volunteer and informed the gathering that, "it is my birthday today. Can you please sing for me?" As the volunteers, parents, organisers and some of the children sang her the birthday song, she soaked in the attention. She is deluged by greetings and she laps up all the attention showered on her.

When the learners seem to have settled down, a student volunteer announces that they are going to do art work and requests the volunteers to get the children seated at the tables. Assisted by student volunteers, the 21 learners who attend the gathering that day are asked to be seated next to these children at each of the tables. The tables have been pre-set with paints, brushes and canvases. The learners are divided among the 65 volunteers so that they can pay adequate attention to them.

The learners seem to enjoy the interaction with the typical developing peers as these young volunteers indulge them with attention and involved them in lively

chatter. While one of the volunteers at a table teaches them how to hold the brush, another volunteer is seen trying to help them identify the colours, while another is demonstrating how a third colour can be formed by mixing two colours. Just as the learners with special needs are being kept occupied, the parents are busy catching up with each other discussing their new challenges and experiences with regard to their child with SEN.

The painting session takes over an hour to complete and even as the completed canvases are kept to dry, there are others who are still struggling to dip their brushes in the paint and colour their canvases. A number of the learners are unable to paint their names on the canvas and the student volunteers willingly obliged to do the same.

When it is announced that snacks are being served, the volunteers escort the children to the snack counter and help them fill their plates with food and place the plate for them at the table. In some instances, the parents had to also intervene and help their children select the food they wanted to eat. A huge cake is brought out and the birthday girl is thrilled at seeing it. The rest of the children are seated at the table while she cuts the cake. The cake is distributed among the children. Some of the children who have finished eating take to the stage and sing Bollywood songs. One of the children stops eating her food and presses her hands against her ears as she cannot bear loud sounds.

One of the organisers announced that there was a surprise for all the children and they all rush in her direction. The gifts are handed over to the children as they leave the hall with their parents at the end of the gathering.

APPENDIX 13.2

INTERVIEW-BASED QUESTIONNAIRE

SUPPORT GROUP

Respondent: **Parent of a child with ASD who attends a Support Group**

Date of interview: **2 June 2012**

1. At what age and where was your child first diagnosed with ASD? **1 year and 10 months, India.**

2. Was the diagnosis followed by immediate interventions? ☒ **Yes** ☐ **No.** If not, why?

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3. For how long has your child been attending these group gatherings? **Regularly attends these gatherings for the past few months**

4. Does your child look forward to attending these sessions? ☒ **Yes** ☐ **No**

5. Is the group supportive of your concerns and needs related to your child?
☒ **Yes** ☐ **No**

6. Does the group provide adequate platform for you to communicate your concerns and share experiences with other parents? ☒ **Yes** ☐ **No**

7. How long has your child been at the current centre? **3 and a half years.**

8. Has your daughter attended any school prior to this? If yes, which one, and for how long? ☒ **Yes** ☐ **No**

After home-schooling her with the help of specialists, we placed her in a regular, private school in Dubai when she was 12 years old. But she found the environment very stressful and could not cope with the academics. She currently attends a SEN centre.

9. Do you think the existing services are adequate for your child? ☐Yes ☒No
10. Do you think these support services have impacted the life of your child and family? ☒Yes ☐No. Please elaborate.

This is one place where the child can be herself/himself and we do not have to worry about people staring at our child's behaviour. Our children enjoy these gatherings as the group organisers are very welcoming and the volunteers engage them in varied activities. This is also an ideal opportunity for us to meet other parents with such children and share our experiences, anguish as well as enjoy a few lighter moments with them.

11. What is required to improve educational services for learners with ASD?

- ☐ Early Diagnosis
- ☐ Effective Interventions
- ☐ Timely Treatment
- ☒ **Educational Services**
- ☒ **Public knowledge, attitude and acceptance**
- ☐ Others

12. What, according to you, is the most important of the above issues?

Public awareness about ASD and its characteristics

13. Do you think the lack of or the availability of the above-mentioned issues has impacted learners with ASD in Dubai? ☒Yes ☐No. Please elaborate.

People are definitely more aware about special needs in Dubai than way back home. On a few occasions when my child has been unmanageable in a mall, complete strangers have come up to me and patted my back in complete understanding of the situation. The billboards placed on bus stops and petrol stations helps to build the awareness of the disability and gradually the acceptance level automatically increases.

APPENDIX 14

INTERVIEW-BASED QUESTIONNAIRE

Respondent: **Parent whose child has been home-schooled**

Date of the interview: **15 November 2012**

1. At what age and where was your child first diagnosed with ASD? **2 years and 6 months, Dubai.**

2. Was the diagnosis followed by immediate interventions? ☐ Yes ☒ No. If not, why?

When my child was diagnosed with ASD in Dubai and I learnt about the fees to the Centres I knew that I would not be able to sustain her education here. Two to three years was the waiting period for admission into the Specialised Centre at that point of time. I kept my daughter at home for a while and then availed the services of a private occupational therapist. But it was for a brief period only as I decided to send my wife and daughter back to Sri Lanka so that she could be enrolled at a centre there.

3. How long has your child been waiting to be enrolled at a centre?

For over four years but I did not pursue it as I found the fees very high.

4. How many centres have you sought admission to? **One**

5. In the absence of an admission, how do you engage her in learning and social development?

My wife is finding it very difficult to manage my daughter with ASD as she refuses to communicate her needs. Instead she wails if she wants something and it is difficult for my wife to understand her needs at a particular time. I have two other younger children who are getting affected because of my elder daughter's behaviour and they are scared to go close to her. I feel bad to see my daughter in this state but I cannot bring her back to Dubai because I will not be able to afford her treatment.

6. So far has she ever attended any school? If yes, which one, and for how long? ☒ Yes ☐ No.

She has been attending a Centre in Sri Lanka for over three years but their staffs are neither well trained nor adequately skilled to attend to such children.

7. Do you think the existing services in Dubai are adequate for your child?

☐ Yes ☒ No

8. If no, then what more would you like introduced for your child?

I would like more educational centres to be introduced and the fee structure kept nominal in Dubai so that parents like me who do not earn much can also help our child with ASD avail of educational services. My daughter has been currently enrolled at a Centre in Sri Lanka for the past four years. Unfortunately her condition has deteriorated through the years. She no longer communicates with us or listens to what we have to say.

9. What is required to improve educational services for learners with ASD?

☐ Early Diagnosis

☐ Effective Interventions

☐ Timely Treatment

☒ **Educational Services**

☐ Public knowledge, attitude and acceptance

☒ Others. **Cost of services**

10. What, according to you, is the most important of the above issues?

Cost of educational services

11. Do you think the lack of or the availability of the above-mentioned issues

has impacted learners with ASD in Dubai? ☒ Yes ☐ No. Please elaborate.

If educational services are made affordable and easily available, then more children with ASD can benefit from it. I have been told that earlier the treatment begins for such children, more effective in their response to it and greater is their overall development. These children can develop their potentials if the interventions are introduced during the early years itself.