Supporting learners with autism in an early childhood centre for learning: A case study in inclusive education

By

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Summary

Inclusive education is a fundamental part of South African Education with policies and initiatives being designed to provide support for learners with barriers to learning. With autism as a growing global phenomenon, South Africa has the additional challenge of providing learning support for learners with autism. This dissertation focuses on how one specialised preschool provides inclusive opportunities for preschool learners with autism through learning support. This setting is unique as it shares the same physical location as a mainstream preschool. The study focuses upon how the preschool teachers support their learners with autism so that they can be included within the adjoining inclusive environment. The research was conducted through participant observation and supporting interviews over a period of six months. All observations were recorded through field notes and reflections. The research produced a number of key findings. The shared physical environment enabled teachers and learners from both preschool settings to work together on a daily basis. This had a positive effect upon peer acceptance, staff and learner relationships and opportunities for staff to communicate and work collaboratively on a daily basis. The specialised preschool teachers provided learning support through the adaptation of learning environment, curriculum, multi sensory learning and language and communicative means. The main conclusions drawn from this research were the importance of a close working relationship between staff members and learners from both settings; the importance of adapting communication, environment and learning expectations; and lastly, the importance of focusing upon each individual when providing inclusive opportunities. The research recommends having a specialist setting physically close to an inclusive environment as this enables learners with high needs such as autism to build up the skills needed to benefit from being included. In addition, the research recommends staff in mainstream and specialist settings to have regular opportunity to work together collaboratively when developing learning strategies. Finally, the research recommends the publication of a guideline, outlining the nature of autism and recommended strategies to use within the classroom, which would serve as a flexible document for teachers to adapt to support their individual learners.

Key terms

Autism Spectrum Disorder; Inclusive Education; Learning Support; Adapted Teaching Strategies; Early childhood Development Phase; Pre-school learners

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CHAPTER 1

1.1 Introduction – Background to the research

Early years educational settings are a learner's first experience of education. With the assertion that inclusive education is about enabling schools to serve all children (UNESCO 1994a p.iii), the early years setting is a learner's first opportunity to experience and be part of an inclusive society from an educational perspective. Notably, progression towards inclusive education is based upon international change within the education system. A major contribution to these changes was the World Conference on Special Needs Education held in Spain (1994), with a focus on the access of quality education for learners with special educational needs. This conference adopted "education for all" principles that were set out in the *The Salamanca Statement: Framework for action on special needs education*(UNESCO 1994b). This statement drew attention to the importance of access for learners with special educational needs in regular schools, regardless of their physical, intellectual, social, emotional, linguistic or other conditions with a child-centred pedagogy capable of meeting these needs (UNESCO 1994b:8).

In South Africa as throughout the world, changes and progress have taken place to accommodate learners who experience barriers to learning. The South African education system has changed to become more inclusive through the legislation of national documentation and policies. The White Paper 6 (2001a) gives clear guidelines and expectations on building an inclusive education and training system. Through this legislation, South Africa looks to introduce measures, which would lead to greater consistency and equity in practice (DoE 2001a:5). In 2008, as a response to the White Paper 6, the National Strategy on Screening, Identification, Assessment and Support (SIAS) was drafted, outlining a more inclusive and thorough assessment procedure.In addition, South Africa has also embraced the establishment of an inclusive education system to accommodate learners with diverse needs, including those with disabilities to keep up with international trends in education. In 2006,*TheUnited Nations Disability Convention on the rights of the child: Article 24* focused on human rights provision and the states obligations. This recognised the rights of people with disabilities to education and ensured learners with barriers to learning would receive the support required, within the general education system to facilitate their effective education(DoE 2006a).

In earlier documentation, South Africa gives priority to the development of Early Childhood Development Centres, recognising the importance of Early Years education. The White paper 5 (2001c) on early childhood education 'Meeting the challenge of early childhood development in South Africa' outlined a long term plan, leading up to 2010 to prioritise the subsidisation of early learning programmes for four year olds from poor rural and poor urban families, HIV/AIDS positive/infected children and children with special learning needs (DoE 2001c:11).The paper also acknowledges a limitation of Early Childhood Development (ECD) services for children with 'special needs'. Reasons outlined for this include the training of staff, the distribution of resources and management of different learning barriers including violence in schools and

HIV/AIDS. Children with disabilities constitute approximately 5.9 per cent of the target population, and 9.4 per cent of the ages are between 1 and 5. They are, for the most part, not provided for either in mainstream or within specialised services. (DoE 2001c:13). Despite this evident lack of services, the paper recognised that early identification and early intervention are imperative for the optimal development of many of these children. (DoE 2001c:13).

Within a changed education system, South Africa uses their inclusive education principles to accommodate learners' needs. Changing the attitudes, curricula, behaviours, teaching methods and environment when meeting learners' needs enables inclusion to occur in the South African education system (DoE 2001a:19) . The realisation of these principles in an Early Childhood Development (ECD) can enable a setting to accommodate learners with a barrier to learning, including learners with an intrinsic barrier, such as autism (Batten 2005:94).

Autistic Spectrum Disorder (ASD) is a pervasive developmental disorder which stems from multifaceted origins (Westwood 2007:26). This intrinsic barrier to learning can occur with varying degrees, yet all learners with autism are medically diagnosed as being on the spectrum. For instance, Tutt (2007:67) describes pupils diagnosed with Asperger Syndrome (AS) as being at the more able end of the spectrum, whereas those with 'classic autism' or Kanner syndrome are likely to have severe or moderate learning difficulties in addition to the autism. Whilst Magnusen (2005:26) recognises Tutt's (2007) statement, he also states there is a continuum of autistic characteristics, but no clearly defined single syndrome. Despite this, Yapko (2003:24) states each learner with autism is affected in three primary areas of development. Firstly, it occurs in communication (verbal and nonverbal), where the use of stereotyped and repetitive languageis noticed (Westbrook 2007:27), and a prolonged delay or lack of speech (National Autistic Society 2008:1). Secondly, social interaction, for example, failure to develop peer relationships (Westbrook 2007:27) and failure to comprehend the unstated rules of social interaction without concrete instruction (Mesibov, Sheat & Adams 2001:88).Thirdly, repetitive behaviour patterns, e.g. preoccupation with one or more stereotyped patterns of behaviour or interest (Westbrook 2007:27) like hand flapping, spinning and perservation (Ochs et al 2001:400) and activities, e.g. unusaully intense and/or perculiar areas of circumscribed interests (Adrean & Stello 2001:207)

Teaching within inclusive contexts is critical for very young children with autism because it increases their ability to learn and demonstrate skills in a practical and meaningful context. (Boulware et al 2006:96) An ECD is deemed particularly beneficial for children on the autistic spectrum as the early years curriculum focuses upon the three areas in which individuals with autism have impairments; communication, socialisation and imagination (Nutbrown and Clough 2006a:33). Ironically, it is the demand for preschool learners to use these three skills, which can make educating preschool learners with autism problematic (Barnard, Broach, Prior & Potter. 2000:17).Furthermore, Ochs et al (2001:400) research shows the physical placement of children with autism in inclusive educational settings alone is not sufficient for successful socialisation. For learners with impairements like autism, support is essential through the planning and implementation of learning support programmes and adapted teaching strategies.

This research focuses on how pre-school learners with autism access an inclusive education in a childhood centre for learning. The emphasis of the research is on supporting the learners. The research specifically focuses on the planning and implementation of learning support programmes through adapted teaching strategies. The aim of this research is not to provide concrete instructions on how to support and teach pre-school learners with autism, but to outline guidelines on how to provide inclusive opportunities for learners with autism when adapted to each unique learner's abilities and circumstances. Therefore, this study is focused on the inclusive educational principles being used when providing learning support for learners with autism through adapted teaching strategies. As Hewitt (2005:9) states, adapting the guidelines and by following their own inclusive principles, teachers can become more informed about how pre-school learners can be given equal opportunities and the best preparation for real life within an educational setting.

The educational setting which was used for this research is an independent ECD which is founded, owned, managed and financed by stakeholders other than the state (Wagner 2008:1)The independent ECD is situated in the South African province of Gauteng. The ECDprovides early years education for learners with autism. All learners within the setting are aged between 3 and 6. Each learner has been medically diagnosed as being on the autistic spectrum or having autistic tendencies alongside other Pervasive Developmental Disorders. (Wagner 2008:1) This ECD shares the same premises as another ECD centre of learning, which provides preschool education for learners within the local area. Despite the two centres being separately owned and managed together, the two ECD centres of learning work together to provide inclusive opportunities for the preschool learners with autism. The learning support for these learners is provided in the ECD at school-wide and classroom level through the implementation of various inclusive education practices.

Researching an independent setting can provide valuable lessons into inclusive philosophies.Research shows independent schools in South Africa comprise a small but significant sector in the South African education and many settings are seen to implement inclusive education (Cohen 2000:11; Dladla 2004; Gardner 2003:22) Walton also argues that:

> "Inclusion is not merely an ideal espoused by the curriculum …but (in the independent sector) is both feasible and practical in the South African context" (Walton 2006:1).

This supports Homfreys' assertion (2002:30) that independent settings are implementing inclusion and are learning valuable lessons and inclusive philosophies which can be adapted for the whole education system. Furthermore, Schwartz, Sandall and McBride (2006:94) state that practitioners who provide inclusive education are faced with the challenge of identifying and implementing appropriate programmes to meet the unique needs of very young children. Evidently, teachers within this ECD setting face this challenge on a daily basis. Conducting research in this setting enabledconclusions or recommendations to be made for all educational settings accommodating preschool learners with autism and how to support them through the planning and implementation of learning support programmes and adapted teaching strategies.Therefore,the exploration and description of the two ECD settings through a case study provided an in depth description of what teaching strategies are occurring within the 'bounded' system (Babbie 2001:285)

1.2 Motivation for the study

1.2.1 The pursue of South African-based research in the field of inclusive education regarding learners with autism

Every area of research can benefit from additional knowledge and research, particularly if the area of research has a 'gap' within its proximities. Mankoski, Collins, Ndosi, Mgalla & Sarwatts (2006) states that the prevalence of autism in Africa in still unknown. However, this is in contrary to other international countries and continents. For example, in North America multiple cases of research shows that 1 in every 110 children in America have some form of ASD. Whilst Smeeth, Cook & Fombones (2004) indicates that children in the United Kingdom (UK) have an increased prevalence of autism from 0.11 to 2.98 per 10,000 cases.

The development of significant research achievements in the field of autism is also seen to be dominated by international countries such as the United States of America (USA). When *Autism Speaks* presented the top ten autism research findings of 2009 at their yearly conference, eight pieces of research were conducted in *the USA*, one in the UK and one in Denmark. (Health & Medicine 2010) From this data, we can infer it is important to understand more about autism within South Africa. With the limitation of published research on inclusion for learners with autism, a motivation for this research could be that of filling a "void" (Fouche 2002:102)

1.2.2 The need for inclusion for learners with autism in the education system

As previously discussed, autism is documented as being more prevalent in today's society. Despite the prevalence of media and statistical coverage in other countries such as the USA and the UK, few statistics or research is seen within South Africa (NAS 2008:1). To reiterate, the prevalence of autism in Africa is still unknown (Mankoski et al 2006).In addition, Mankoski et al (2006) outline possible reasons for this gap in data, one being the difficulty in maintaining accurate records in more rural areas. Noteworthy, the Autism Society of America (2005:1) estimates a prevalence of 60 individuals out of 10,000 in contrast to the 1980's statistic of 3 to 5 out of 10,000. As a result, this apparent increase of learners with autism has caused researchers to speculate about the dilemma of accommodating these learners with specific barriers to learning. (Barnard, Broach, Potter & Prior 2002:108) In the UK, an estimated 90,000 children have an autistic spectrum disorder (ASD) whilst only approximately 7500 specialist educational placements exist for this population (Barnard et al 2000:108). In contrast, South Africa is estimated to have 380 educational settings, which cater exclusively for learners of a specific barrier to learning, for example autism. (Department of Education 2001a:12) Some of these settings are part of the government provided education system, whilst others are independent of governmental control. With an approximate overall population of 45 million (South African Census 2001) and an estimated number of 5,000 children in South Africa being born on the autistic spectrum each year (ASA 2010:1),the country has a larger population to provide inclusive education. In contrast to the UK, South Africa has six documented schools specialising for learners on the autistic spectrum. (Autism South Africa 2010.1) As six schools do not seem sufficient given the large population, I believe many learners with autism as a barrier to learning need to be educated in inclusive schools. Researching what learning support is occurring for these learners is likely to provide guidelines for teachers to support these learners in an inclusive setting

1.2.3 Increasing teachers knowledge regarding the inclusion of learners with autism

Teachers who work with preschool learners with autism on a daily basis could be argued as having the most experience and skills when providing learning support for learners with autism as a barrier to learning. (Wagner 2008:3) Therefore, they can provide unique information into what learning support they use when focusing upon individual learners with autism (Westwood 2007:69).

Understanding these teachers' knowldege, experiences and skills when using adapted teaching strategies within their independent ECD could provide information about the learning support being used when enabling learners with autism to access an adjoining mainstream ECD. In this study, a guideline was facilitated by using ECD teachers' experience and skills. Outlining the inclusive education principles used by the teachers in the ECD for learners with autism can enable other teachers in other ECD centres of learning to increase their knowledge and ability about inclusive education principles when teaching preschool learners with autism.

With more knowledge, experience and skills teachers and other educators would be better equipped to provide inclusive opportunities for learners with autism. (Mace 2007:140) Understanding the learning support being undertaken within a South African independent ECD centre for learners with autism could provide guidelines and adapted teaching strategies for teachers in regular ECD centers and primary schools. By having more knowledge and 'tools' to provide inclusive opportunities, could increase these teachers confidence to include learners with autism into their educational settings.

1.3 Problem statement

The problem statement ensures that the researcher has a good grasp of the specific problem he or she wishes to investigate (Johnson & Christensen 2000:47). The primary goal in this case study is to research how pre-school learners with autism access an inclusive education in a specific Early Childhood Development Centre through learning support . The ECD within this case study is located in Centurion, a southern suburb of Pretoria within Gauteng province. The ECD focuses upon the education of learners with autism and other pervasive disorders, aged 3 to 6. It shares the same physical premises with a mainstream ECD. The learners with autism access the adjoining ECD throughout their weekly timetable. To enable this inclusion to occur, teachers from the ECD for learners with autism provide learning support. As already indicated, researching and documenting the learning support used through adapted teaching strategies provided insight into the inclusive principles used within this setting.

The aim of this qualitative case study was to understand how inclusive opportunities for preschool learners with autism are being provided in an independent early years childhood development centre through the adaptation of learning support and teaching strategies. Therefore, the research question is;

What inclusive opportunities are being provided for preschool learners with autism in an early years childhood development centre through the adaptation of learning support?

1.4 Aim of the study

The aim of the study was to research how teachers in an independent ECD setting provide learning support to promote inclusive opportunities for preschool learners with autism. By adapting the outcomes from the study and by following their own inclusive principles teachers in other mainstream and inclusive settings can become more informed about how preschool learners with autism can be given equal opportunities and the best preparation for real life within an educational setting (Hewitt 2005:9).

Using the teacher's knowledge, experience and skills of supporting learners with autism within an ECD setting may contribute towards the research of inclusive education. Based on this research, other teachers could increase their knowledge and ability to provide effective learning support in their regular ECD centres of learning. The focus in this research was upon the learning support being planned and implemented by the teachers within this specific context from a systematic perspective.

1.5 Research Methodology

Silverman (2003:233) describes that in writing up research, we tell stories about data. Therefore, it is only natural, that readers should be expected to know how we gathered our data, what data we ended up with and how we analysed it. Providing a thorough overview of research design and data collection also ensures that validity, reliability and trustworthiness of data outcomes and analysis can occur.

1.5.1   Research design

This research focused upon understanding and recording what learning support is used by preschool teachers in an independent ECD for learners with autism, when providing incluisve opportunities. The focus was upon the teaching staff in the independent ECD . The research was conducted for approximatley six months andwas conducted from a qualitative perspective through an intrinsic case study. This was achieved through participant observation as working as a volunteer teacher in the setting enabled observations to be made whilst being accepted as part of the community. Interviews were also conducted to verify and discuss phenomenons observed. As Neuman (2003) asserts, an intrinsic case study focuses on gaining a better understanding of an individual case.As the case study focuses on preschool teachers experiences the research was of qualitative design.

1.5.2 Sample selection

As a specific preschool setting has been chosen,purposeful sampling was used. The sample wascomprised of teachers in the specific preschool for learners with autism. It was chosen as the preschool setting shares the same physical environment as a mainstream preschool.

1.5.3 Method of data collection

This research used a combination of interviews and participant observations to collect data. The observations were flexible and field notes were recorded at the end of every workday. In addition to field notes, reflections were also recorded. See appendix III

1.5.3.1 Interviewing

One to one interviews were conducted with preschool teachers. Each interview was recorded and transcribed. See appendix II.

1.5.3.2 Observations

In this study, observations were made whilst the researcher undertook a voluntary six month teaching part-time position at the preschool. Reflections were recorded at the end of each school day. See appendix III.

1.5.4 Analysis of results

Each interview was recorded and transcribed, Appendix II. In addition, field notes from participant observation was recorded at the end of every work day, Appendix III. This data was analysed and categorised so connections between the experiences could be recorded in a logical manner.

1.5.5 Validity and reliability of Qualitative research

Validity and reliability during the qualitative research was ensured to eliminate bias and increase the researcher's truthfulness when recording learning support being implemented in an independent ECD. This was achieved through triangulation and cross validation among data sources.

1.5.6 Ethical considerations

According to De Vos and Schulze (in De Vos et al 2005:56), ethics is a set of moral principles that offers behavioural expectations about the most correct conduct towards participants. These include having an informed consent from each participant through an ethical letter, Appendix I. The researcher adhered to these moral principles throughout the research by considering the following principles: informed consent; avoidance from harm; researchers' competency and confidentiality.

1.6 Descriptions of key words and relevant terms

1.6.1 Autistic Spectrum Disorder (ASD)

The term Autism Spectrum Disorders (ASD) is used to describe the group of pervasive developmental disorders characterised by abnormalities in social interaction and communication and by a restricted range of repetitive behaviour and interests (American Psychiatric Association 2000). These abnormalities are a pervasive feature of the disorder that is usually present across many settings. It is now understood that these core difficulties can manifest in individuals with varying degrees of behavioural severity, language and intellectual abilities. The presentation can be extremely variable and therefore, this group of disorders is best considered as a "spectrum" (NAS 2008:1).

The three main forms of ASD are autism, Asperger syndrome, and Pervasive developmental disorder not otherwise specified (PDD-NOS). Autism forms the core of the autism spectrum disorders. Asperger syndrome is closest to autism in signs and likely causes.Unlike autism, Asperger's has no significant delay in language development. PDD-NOS is diagnosed when the criteria are not met for a more specific disorder. (Wikipedia (a) 2009:1) All the preschool learners in this case study have been diagnosed as being on the autistic spectrum. This means a medical diagnosis has been made by an educational psychologist stating that each learner has ASD. For the purpose of this study, all learners shall be referred to as learners with autism.

1.6.2 Inclusive education

The Alliance For Inclusion (AFI 2009:1) sees inclusion as the future for all global communities.

> "Inclusion is belonging to one race, the human race. Inclusion is a basic human right. Inclusion is struggling to figure out how to live with one another."

As already mentioned in the introduction, inclusion is an internationally recognised phenomenon. The term is commonly linked with education and the concept of enabling schools to serve all children within an establishment. (UNESCO, 1994b: iii).

Inclusive education is enabling schools to serve all children (UNESCO, 1994b: iii). In addition, inclusive education now not only involves providing alternative and specialist schools for children with special educational needs, but being proactive when identifying the barriers some groups encounter in attempting to access educational opportunities (UNESCO, 2001:18). Furthermore, inclusive education seeks to address the learning needs of *all* children, youth and adults with a focus on those who are vulnerable to exclusion and marginalization. Admittedly, learners with autism within the ECD centres are currently marginalized as they are separated by being in a specialized ECD. However, the teachers within the ECD are using learning support to enable inclusion in a 'mainstream' ECD to occur for these learners.

1.6.3 Providing learning support in an inclusive environment.

The concept learning support is used to described the support of learmers who experience barriers to learning (Moor 2002:16). It is through this support that individuals are able to have access to a regular education setting.

*"Support is defined as all activities in a school which increase the capacity to respond to diversity" (*The *National Strategy on Screening, Identification, Assessment and Support*: Republic of South Africa 2008:89)

As the ECD centre in this research is an independent setting, the learning support excluded any external support which would normally be given to a goverment-run educational setting in South Africa. Therefore, support in this research focused upon the support which can be given at a teaching level. Adapted teaching strategies provided by the empowered, experienced and skilled teachers in the independnet ECD setting were the focus when researching what learning support is occuring.

1.6.4 Adapted Teaching strategies

Teachers use different instructional strategies when presenting information and facilitating student interaction (Sakschools 2009:1). To encourage greater success from students, teachers adapt these strategies for individual learners' needs (Department of Education and Early Childhood Development 2009:1). For this research, the focus was on the way teachers for preschool with autism adapt their teaching for individual learners with autism.

1.6.5 Early Childhood Development Phase

The early years of life are crucial.

"Although individual children develop at their own pace, all children progress through an identifiable sequence of physical, cognitive, and emotional growth and change." (The World Bank 2009:1)

The ultimate goal of ECD is to improve young children's capacity to develop and learn. When well nurtured and cared for in their earliest years, children are more likely to survive, to grow in a healthy way, to have less disease and fewer illnesses, and to fully develop thinking, language, emotional and social skills (UNICEF 2009:1). Learners in this phase being educated in South Africa are referred to as preschool learners.

1.6.6 Preschool learner

Preschool education in South Africa can extend up to four years from the age of 3 as compulsory education in the country starts from the age of 7 (Indiaedu 2009:1). Plessis & Louw (2008:53) describe the preschool programme as having two components, pre-Grade R and Grade R programmes. Pre Grade R programmes are meant for children between 0 – 4 years while Grade R (Reception year) programmes are designed for 5-6 year old children. The preschool learners in the independent ECD are aged between 3 and 7.

1.7 Structure of the dissertation

Chapter 1: Introduction

This chapter is the introduction to an independent ECD for learners with autism and the importance of providing learning support for these learners through adapted teaching strategies. Amongst other things, the chapter discusses the problem statement, research question, key terminology and research methodology on how to gain an in-depth understanding of how teachers in an independent ECD implement learning support through adapted teaching strategies to be able to promote the inclusion of these learners in regular ECD centres of learning.

Chapter 2: Literature study: Learning support for preschool learners with autism and a global perspective of inclusion.

This chapter re-introduces the research question and outlines a detailed literature review of South African and international literature on the following three areas.

- Inclusion and learning support for learners with autism from a South African and international perspective
- The nature of autism, e.g. history, definition, debate of cause and prevalence.
- Learning support strategies for learners with autism.

Chapter 3: Research Methodology

This chapter explains the qualitative research used in the study and gives a rationale for its suitability and relevance, a summary of the case study used.

Chapter 4: Discussion of results

In this chapter, the outcomes of interviews and observations are critically analysed, gaining an in-depth understanding of how an ECD setting for learners with autism uses learning support through adapted teaching strategies.

Chapter 5: Conclusions / recommendations and limitations

This chapter summarises the findings of the case study of what adapted teaching strategies are used by preschool teachers to promote the inclusion of learners with autism in regular ECD centres of learning. This chapter also provides recommendations for further research. Finally, any limitations of the research are outlined.

LITERATURE STUDY: LEARNING SUPPORT FOR PRESCHOOL LEARNERS WITH AUTISM AND A GLOBAL
PERSPECTIVE OF INCLUSION

CHAPTER 2

2.1 Introduction

This literature study shall focus on the following areas: inclusion and learning support for learners with autism from a South African and international perspective; the nature of autism and learning support strategies for preschool learners with autism. A thorough understanding into these areas shall provide comprehensive knowledge on learning support through adapted teaching strategies for preschool learners with autism.

Policy and legislation has given a drive towards the international experience of inclusion. It is important to acknowledge the inclusive practice and debates that are occurring internationally and in South Africa. Therefore, an accurate means of achieving this is the analysis of governmental documents on inclusivity. In addition, an understanding of international literature on inclusion within the classroom will provide more insight into a preschool teacher's role in an inclusive environment.

2.2 Principle of inclusion

The British Psychological Society (in Thomas & Vaughn 2004) defines inclusion as rejecting segregation for any reason, making learning more meaningful and relevant for all learners, and reconstructing policies and curricula to meet diverse learning needs. Similarly, Yssel, Engelbrecht, Oswald, Eloff & Swart(2007:357) agree with this definition. With this in mind, inclusion can be broadly defined as the process of identifying, understanding and breaking down barriers to participation and belonging. (Jones, English, Guldberg, Jordan, Richardson & Waltz 2008:1)

In order to develop 'best practice', practitioners need to adapt interventions to the unique needs of the individual child, work in partnerships with parents and other professionals, create enabling environments and be informed by a developmental approach to learning (Guldberg 2010:168) The Index for Inclusion (2011:1) argues that inclusion in education is merely one aspect of inclusion in society. It extends beyond the classroom to include:

> * Increasing the participation of students in, and reducing their exclusion from, the cultures, curricula and communities of local schools.
> * Restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in the locality.

Evidently, the principle of inclusion goes beyond education to cover the total experience of a child or young person and their family. It is the recognition that every child can learn and belongs in the mainstream of both school and community life (Yssel et al 2007:357). This developmental approach seeks to address the learning needs of *all* children, youth and adults with a focus on those who are vulnerable to exclusion and marginalisation. It is now recognised that for inclusive education to be truly successful, it needs to extend beyond the education system into society and the global community.

Nutbrown & Clough (2006b:2)see inclusion in our modern society as a political and social struggle, which foregrounds difference and identity and which involves whole setting and practitioner reform. Understanding and accepting humanistic differences can result in a more inclusive society for all citizens, beginning with education and extending into the work place and society. Nutbrown & Clough (2006b:2) reinforce this notion of inclusion being moved from being specifically related to children with SEN to being a central part of the current governmental agenda for broader society.

2.3 Inclusion: A move from medical to educational perspective

Inclusion was once viewed from a medical perspective. Learners with additional needs were seen as learners with medically recognised disabilities. This caused exclusion to occur within the education system (Naicker 2006:3). Previous debate centred on a small percentage of pupils with the most significant needs and where their education should take place.

"The debate about the meaning of inclusion has centred round whether or not asmall proportion of pupils with SEN should be educated in special schools or whethermainstream schools should be able to include all pupils, including those with the most complex needs"(Tutt 2007:12).

It was expected that these learners willadaptto their educational environment. If a learner was unable to adapt, they then accessed a segregated specialised system. Tutt (2007) says integration was commonly confused with inclusion as the term 'integration' was about integrating individuals into mainstream schools, with the onus being partly on the pupil with SEN to adapt to a mainstream environment. This notion was reinforced by the South African government (DoE 2005:104) who recognised that within their country learners who experienced barriers to learning attended ordinary schools largely by default, and very little was done by these schools to adapt teaching methods, the learning environment and assessment procedures to accommodate these learners.

Bothma (2000:201) emphasises that the removal of barriers to learning and development is linked to the view that learning difficulties originate not only from deficits within the learner, but also from deficits within a system. It is important to note that the British government (DoE 2004) tried to move the debate of inclusion by clarifying that inclusion does not mean including all pupils in mainstream schools, but including all schools, and indeed, all types of specialist provision within an inclusive education service. Whilst this notion is important to recognise, the modern interpretation of inclusion still recognises the importance of providing inclusive experiences for learning with special educational needs.

"Every child must matter and every child must feel equally valued. All pupils and students deserve an education tailored to their individual aptitudes and interests, but for those who have special educational needs, the personalisation of their schooling requires that muchmore thought and attention, so that they can maximise their potential within a flexible andinclusive education services" (Tutt and Barthorpe 2006:12).

Moor (2002:40) states inclusion for a child with autism inclusion could involve learning to say 'hello' or 'can I play with you'. Dyson & Millward (2000) supports this notion and suggests varieties of inclusion are beginning to emerge, each offering different solutions for different situations. However, with a new perspective comes new implementations and new challenges as practitioners within education need to interpret and apply the principle of inclusion when accommodating individual's needs. Consequently, an international perspective of inclusion will be diverse will vary with different interpretations and application within each countries contextual limitations.

2.4: International perspective on inclusion

As previously discussed, the concept of inclusion has evolved from being an entitlement to education and support for all individuals with a disability within the mainstream of provision to enabling schools to serve all children (Autism Europe

2003:1; UNESCO, 1994a: iii). Inclusive education now not only involves providing alternative and specialist schools for children with special educational needs, but being proactive when identifying the barriers some groups encounter in attempting to access educational opportunities (UNESCO, 2001:18).

According to theformer Minister of Education, Professor Kadar Asmal, the ultimate challenge is to 'create the conditions of learning and teaching in all our learning institutions so that all learners can be fully accommodated, can flourish and contribute effectively to the regeneration of our society, our economy and our country" (Bothma 2000:200). This belief seems to resonate with international trendsproposed by The United Nations Conventions on the Rights of the Child (United Nations 1994a) which stipulates the right for every child to access education on the basis of equal opportunity. Therefore, being inclusive involves recognising and accommodating *all* human differences such as poverty, health, ethnicity, linguistics, gender, geographical location and special learning needs. Inclusive education is about*"reducing all types of barriers to learning and developing ordinary schools which are capable of meeting the needs of all learners"*(UNESCO 2001:22).

Individual disabilities can also result in a barrier to learning. For example, children on the Autistic Spectrum can find accessing education difficult because of their social, emotional and communicative difficulties. The National Autistic Society in the UK (2008:1) sees the importance of breaking down the barriers children on the autistic spectrum might experience in school. They have produced practical strategies for educators to understand how to overcome such barriers, which could be experienced because of the triad of impairments (Dfe 2007:1).

The importance of inclusion from an educational perspective has now gained global recognition. This is reflected in the development of international legislation. Initially, UNESCO launched the Education For All (EFA) movement in 1990. EFA observed that educational opportunities were limited and marginalised groups were at risk of being excluded. The World Education Forum (WEF) in 2000 also asserted that*"education is a fundamental human right. It is the key to sustainable development and peace and stability within and among countries, and thus an indispensable means for effective participation in the societies and economies of the twenty-first century"* (WEF 2000, par. 6).

More than fifteen years ago *The Salamanca Statement: Framework for Action for Special Needs Education (UNESCO 1994b)* was drawn up by representatives from 92 governments and 25 international organisationswhich would require all children to be accommodated in ordinary schools, regardless of their physical, intellectual, social, emotional, linguistic or other conditions (Nutbrown & Clough 2006a:26). Since then, Sigman and Capps (1997:178) recognised that countries on an international level have advocated the importance of inclusive education. The main outcome was the recognition that inclusive education would enable schools to serve all children, particularly those with special educational needs (UNESCO 1994: ppiii). From these movements, global conferences for the inclusive educational approach have occurred and are now in the forefront of education systems in different countries. The emphasis has now moved beyond the recognition of inclusion as countries now focus upon how inclusion can work within their nation. In recent years, South Africa has focused upon the recognition of inclusion and the application of its principles within the country.

2.5: A South African perspective on inclusion

Given South Africa's dark apartheid history, every policy intervention had to ensure that human rights ethos prevails (Naicker 2006:1).Interestingly, inclusive education in South Africa has not been promoted as simply one more option for education but as an educational strategy that can contribute to a democratic society. Engelbrecht (2001:256) acknowledged these concepts and conceptualised inclusion as the shared value of accommodating all learners in a unified system of not only education, but a changing and diverse society. After the end of the Apartheid era, the new democratic government committed itself to the transformation of education and key policy documents and legislation which stressthe principle of education as a basic human right (Engelbrecht 2006:253).

As a philosophy, Engelbrecht (2006:253) indicates that the concept of inclusive education in the South African context embraces the democratic values of equality and human rights and the recognition of diversity. Furthermore, Swart & Pettipher (2002:176) asserts that the concept 'inclusion' is not monolithic. They also recognise that although various countries share a commitment towards inclusion, it is becoming increasingly more accepted that inclusion has different meanings in different contexts. In summary, inclusion can mean different things to different people (Wagner 2008:2). Therefore, the reform of education in a now-democratic society has stimulated a commitment to the development of a single inclusive system of education which has the capacity to provide for appropriate ways and means to facilitate learning and meet the needs of all learners, including those with disabilities in mainstream classrooms (Engelbrecht et al 2011:1).

This paradigm shift has now occurred around the debate of inclusion for both education and society in general (Swart & Pettipher 2002:186). A result of the paradigm shift impacted upon the South African educational system, changing it from changing the individual to changing the system (DoE 1997a:54). Although individual children have been included in some schools since 1994, South African schools officially introduced inclusion in 2001 (Yssel et al 2007:357). Inclusive Education as well as the Revised National Curriculum Statement (RNCS) are learner-centred and require teachers to be dynamic, creative and reflective (Naicker 2006:4). To move towards inclusive education in terms of thinking and practices, South African educationalists have had to shed entrenched special educational theory and practices (Naicker 2006:3). This is a radical departure from what most South Africans are familiar with (Moll & Naicker 2001 cited in Naicker 2006:3). For Inclusive Education to take hold in South Africa, the curriculum is the single most important vehicle since it was the traditional curriculum that alienated learners from mainstream classes (Naicker 2006:4). As a result, access to education was prevented as a result of barriers, which reflect a deficient system and not a deficient person (Naicker 2006:4).

Barriers to learning are defined by the South African Department of Education (1997a:5) as "those factors, which lead to the inability of the system to accommodatediversity, which lead to the learning breakdown or which prevent learners fromaccessing educational provision". Furthermore, the DoE (1999:3)acknowledges that learners with barriers to learning and development are learners whoexperience learning difficulties, which make it impossible for them to learn effectively. Additionally, these difficulties can arise from a range of factors including physical, mental, sensory, neurological and developmental impairments, psychosocial disturbances, cognitive differences, particular life experiences or socio-economic deprivation (DoE 1999:3).

A barrier to learning can affect an individual's ability to access the full curriculum. Inclusive education is now seen as; reducing *all* type of barriers to learning and developing ordinary schools which are capable of meeting the needs of *all* learners (UNESCO 2001:22). These barriers to learning can be sub-divided into two categories; namely, extrinsic and intrinsic barriers. Intrinsic barriers can occur whendifferent learning needs arise from a range of factors, including physical, mental, sensory, neurological and developmental impairments, psycho-social disturbances, differences in intellectual ability, as well as particular life experiences or socio-economic deprivation(DoE 2001a:17).

The DoE (2001a:17) indicates that extrinsic barriers are the inter-socio-economic factors such as violence, crime, poverty, the educational system; the role and attitude of the community; and language issues. Essentially, every individual is different and brings to the classroom a wealth of diversity and difference. As a result, individuals can find accessing education difficult because of their background and life experiences. Therefore, gender, race, culture, age, language, poverty, emotional and social maturity and health are all extrinsic factors which can affect learning. Intrinsic barriers include:

* **Sensory barriers** which are visual and hearing impairments;

* **Physical barriers**;

* **Neurological barriers** which include brain lesions, cerebral palsy, spinal bifida and epilepsy;

* **Mental barriers** which range between gifted learners to severe intellectual impairment;

* **Chronic diseases and infections** such as malnutrition, allergies, asthma, HIV-infection; and

* **Autism**, which can be described as a severe disorder of communication, interpersonal relationships, behaviour and thinking.

2.6: South African contextual factors

In 1948, special schools act in white education in South Africa introduced into special education a medical and mental diagnosis and treatment model. Naicker (2006:3) argues this medical discourse shaped and largely influenced exclusive practices in the field of education. A later analysis of educational practice highlighted extreme segregation.

"Until 1994, different educational support services in South Africa were managed by racially segregated education departments and service provision was characterised by glaring inequalities and inconsistencies, a lack of co-ordination, and a lack of national focus" (DoE 1997a:2).

Historically, the South African apartheid education doctrine focused on control, absolute understanding of the world and a very authoritarian approach (Naicker 2006:1). The principle of inclusion through education is seen as a very different approach where emphasising non racism, equity, non sexism, non disabilism and access for all would be a radical political change. (Naicker 2006:2)

Within the South African context, inequalities resulting from the apartheid and economic deprivation have had a significant impact on the provision of education for learners who were traditionally seen as having special educational needs (DoE 2001a). In South Africa, a commitment to inclusion still involves emotional and financial sacrifices for parents (Engelbrecht, Oswald, Swart, Kitching & Eloff 2005:459), for example, the cost of extra tutoring needed to enable a child to remain in a mainstream school.

Naicker's (2006:1) research has also shown that after the introduction of inclusive education, there are several challenges and possibilities associated with the implementation of Inclusive Education in South Africa. For instance, the introduction of new policies in South Africa has meant the demand to educate learners with special educational needs in inclusive education settings have continued to grow (Engelbrecht 2001:256). However, Naicker (2006:2) believes South African educationalists, mainly those in the employ of government, were forced to implement education policy and train for several reasons. Consequently, many academic institutions in South Africa have not applied their minds to radical paradigmatic shifts at both a theoretical and practical level (Naicker 2006:2). Whilst in the past segregation resided within the context of racial groupings which has been changed at a national level, Eloff & Kgwete (2007:352) believe exclusionary practices related to disabilities, academic abilities, and language competences are still evident today. They believe this conceptual underpinning of segregation has had a residual effect on support for inclusive education and subsequently on quality of teacher support and training.

Despite an increase in learners being included within an inclusive classroom, teacher's experience of inclusive education is very limited (Engelbrecht 2001:258). Evidently, the past separation of special educational programmes in teacher training now impacts upon general classroom teachers who have not been provided with the necessary training and experience to handle diversity within the classroom. The RNCS was introduced highlighting its principles as inclusion, human rights, healthy environment and social justice. However, the training concerning curriculum 2005 and the RNCS focused on the different features of the curriculum, principles, aims and goals instead of practical application (Naicker 2006:4). Consequently, the lack of teachers prepared to provide quality inclusive teaching to these learners and the limitation of existing support structures both impact on inclusion (Engelbrecht & Forlin 1998).In the same way, Naicker (2006:2) believes the insecurity concerning training and the lack of knowledge has led to teachers teaching with routine and control instead of flexibility and adaptation. In addition, (Engelbrecht et al (2011:2) state there is a tremendous shortage of professionals, including educational psychologists. This is problematic as it is their assessment which is often a crucial step when a learner with disabilities is being diagnosed as having special educational needs. With many contextual issues occurring within South Africa, alongside many countries, it is important to recognise that implementations have been put into practice, as can be seen through policies and documents.

2.7: International policies and practices

Clear and realistic policies and practices are essential when developing a universal approach towards inclusion. The UNESCO Open file on Inclusive Education (2001) analysed countries' different approaches to managing inclusion. In the

document, two main approaches to policy implementation could be seen; changing the reform of the existing education system and small scale interventions outside the government. On the contrary, in South Africa, the transition towards inclusion was built into legislation and government documents. The White Paper 6 (DoE 2001a) gives clear guidelines and expectations on building an inclusive education and training system. By enhancing the systems effectiveness, South Africa looks to improve the quality of education for all learners, not just those with disabilities.

Nutbrown & Clough (2006a) observed that in the 1990's and early 2000's, an intensive policy intervention was established in England. For example, the early year's education is delivered through the Early Years Foundation Stage (EYFS - DoE 2000). This covers learning, development and care for all children from birth to the age of five. Part of its statutory framework is to overcome barriers for individual children, to be alert to signs of needs that could lead to later difficulties and to stretch and challenge all children (DCSF 2008). To deliver this, the Department for Children, Schools and Families (DCSF 2008) set up national strategies to take forward these commitments through their Inclusion Development Programme (IDP). The IDP consists of 'first wave' training to support practitioners in their day to day practice, with the second phase of the IDP focusing on meeting the needs of children on the autism spectrum. The Early Years IDP is structuredaround the overarching principles of the EYFS, which are to meet young children's entitlement to a rich and engaging learning experiences through the theme of a 'unique child', 'positive relationships', enabling environments' and 'learning and development' (DCSF 2008:2).

In addition, England has 'The Every Child Matters' agenda (DoE 2004b), with its emphasis on placing children and their individual needs at the heart of what schools do. The five outcomes focus on: being healthy; staying safe; enjoying and achieving; making a positive contribution and enjoying economic well-being (DoE 2004b: c). Tutt (2007:7) confirms that putting in place a more flexible arrangement for meeting pupils needs ties in with the government Every Child Matters agenda, which places children and families at the centre and builds around them and the services they need.

In contrast, small scale interventions can produce a multiplying ripple effect, showing that inclusive practice can be successful when not part of a systematic change describes the power of micro-level efforts (UNESCO 2001). Interestingly, the Spastic Society of India, a non-governmental organisation (NGO) in Mumbai opened a specialist school for children who were unable to access the available education system. From this one initiative, other NGO's set up schools for children who were previously out of the school system. The Spastic Society of India has since launched a National Resource Centre for Inclusion – India (NRCI-India) in partnership with Canada and has changed its ideology to the inclusion of all children with barriers to learning.

2.7.1 Assessment and curriculum

In many countries, teachers are expected to use their assessment to develop lesson plans and assess what the children are learning. In countries such as Australia, England, Scotland and the USA, legislation expectation also includes Individual Education Plans (IEPs) to be drawn up for students with the greatest difficulties (DoE 2004). This is beneficial as it ensures

individual students are taken into accounts during planning, necessary resources are available for the individuals and the classroom and it provides a means for all external support to plan together. The White Paper 6 states that the National Curriculum Statement (NCS) adopts an inclusive approach by specifying minimum requirements for all learners (DoE 2005:105) The outcomes and assessment standards within the NCS emphasises participatory, learner centred and activity based education. This is believed to leave considerable room for creativity and innovation on the part of teachers in interpreting what and how to teach (DoE 2002:14).

In England, most assessments of students with SEN are carried out by classroom teacher. In 2001, a special Educational Needs Code of Practice was devised which advises the teacher to call on the Special Educational Needs Co-coordinator (SENCO) when concerned about a student's progress (DoE 2001b). Commendably, this approach is inclusive if the SENCO provides specialist support and assessment which can be used in the learner's school. However, as Crowther et al (2001:85) report, there have been problems with the role of SENCO as it has been subjected to increasing prescription and guidance. Time, training and staff availability to provide support has influenced the SENCO's ability to undertake and follow through with assessments. (Crowther, Dyson & Millward 2001:90). On the contrary, in South Africa, the National Strategy on Screening, Identification, Assessment and Support (DoE 2008a:7) provides comprehensive expectations in response to the White Paper 6 (DoE 2001a) declaration to overhaul the process of identifying, assessing and enrolling learners in special schools and its replacement by one that acknowledges the central role played by educators and parents. Through this legislation, South Africa looks to introduce measures which would lead to greater consistency and equity in practice (DoE 2008:5). Whilst adhering to government legislation both countries advocate and are seen to enforce the importance of early assessment and identification. The Common Assessment Framework has also been planned in South Africa to provide a user-friendly assessment of the entire child's individual family and community needs with the expectation that it will promote a more effective and earlier identification of children's additional needs and improve multi agency working when providing an inclusive education (Nutbrown & Clough 2006b:23).

Whilst early assessment and identification does not only refer to assessment during the early years of a child's life, the DoE (2006a:23) appreciates the importance of assessment and interventions during the early phases of life. In England, Sure-Start is a government programme to deliver 'the best start in life' for every child. They focus on bringing together early education, childcare, health and family support (DoE 2008a:1). The White Paper 6 (2001a) in South Africa also recognises the importance of working with different organisations such as the Department of Health and NGO's. The DoE (2008a:23) realises the importance of early assessment when addressing barriers to learning as it is during the pre-schooling years that a variety of screening and testing programmes can reveal early organic impairments which may pose barriers to learning. Therefore, it is this intervention during the early years that encourage parents and organisations to work together collaboratively when providing and deciding support for children with barriers for learning.

Providing a friendly and flexible curriculum enables productive and useful assessment to occur. UNESCO (2001) describes how some countries have recognised the importance of a curriculum-based assessment and have adapted their curriculum for more inclusive teaching. In England, the attainment of students is assessed through the National Curriculum. Each subject has levels of attainment for each subject. These levels have since been refined into P scales if a student has not

accessed level 1 attainment for each subject. These are beneficial as progress can be recorded and prediction of achievement can be made. For early years' intervention, the Sure Start programme can be seen as a large-scale early intervention programme. Nutbrown & Clough (2006b) describe its aim as to address multiple factors, which threaten children's development. Such programmes seek to provide something specific and additional to the usual mainstream provision, and are often targeted at groups most likely to benefit and seek to change something. On the hand, in New Zealand, the ethos of the Te Whariki curriculum is that every child has a curriculum fitting to his or her needs, culture and personality (Nutbrown & Clough 2006b:151). This supports the inclusive philosophy of addressing the curriculum for each child's individual needs. South Africa has recently changed its curriculum structure. The new Outcome Based Education (OBE) curriculum encourages every learner to progress at his own pace, regardless of grade or level. Noteworthy, this new form of assessment is seen as a major component of the country's attempt to develop a more inclusive education system. South Africa has made many changes towards developing a more inclusive education system and society.

2.8: South African policies and practices

In South Africa, inclusive education practice can be seen. For example, in the Western Cape learners with Down's syndrome attend a preschool training centre where learners and parents are supported in preparation for inclusive education. Parents and teachers also attend a support group meeting per term at the training centre (Engelbrecht 2001:259). However, Naicker (2006:1) recognises that the publication of the White paper 6 (2001a) was the driving force for inclusive education, setting out to create a single education system for all learners within a twenty year period.

The development of legislation and policies within South African education highlights the country's support for long term plans to develop a more inclusive society. Through this legislation, South Africa anticipates to introduce measures which would lead to greater consistency and equity in practice (DoE 2008a:5). On a positive note, Swart & Pettipher (2002) recognise that South Africa is in a favourable position in that it is only now implementing a policy that has been tried and tested in numerous other countries for many years.

In 1996, the department of national education in South Africa commissioned the National Commission on Special Needs Education and Training (NCSNET) and the National Committee for Education Support Services (NCESS) to look into all aspects of special needs and support services in education and training. The NCSNET/NCESS (1999/97:55) concluded separate systems of education, which presently exist, (special and ordinary) need to be integrated to provide one system, which is able to recognise and respond to the diverse needs of the learner population. It recognised that "quality education for all refers to barriers that can be located in the learner, within the school, within the education system and within the broader, social, economic and political context" (NCSNET/NCESS 1999/97:55). This development of governmental documents has provided a catalyst for changes within South Africa. The development of an inclusive education is outlined to involve all areas of education, including pre-primary schools and Early Childhood Development (ECD) settings. This can be seen in South African policies such as White Paper 5 and White Paper 6.

2.8.1 White Paper 5

In 2001, the White paper 5 on early childhood education 'Meeting the challenge of early childhood development in South Africa' is consistent with Education White Paper 1 on Education and Training (1995) and the Interim Policy for Early Childhood Development (1996). One of the papers long term plans, leading up to 2010 was to prioritise the subsidisation of early learning programmes for four year olds from poor rural and poor urban families, HIV/AIDS positive/infected children and children with special learning needs (DoE 2001c:11).

The paper also acknowledges a limitation of Early Childhood Development (ECD) services for children with 'special needs'. "Children with disabilities constitute only about 5.9 per cent the target population, and 9.4 per cent of the ages of 1 and 5. They are, for the most part, not provided for either in the mainstream or within specialised services" (DoE 2001c:13). Despite this evident lack of services, the paper recognised that early identification and early intervention are imperative for the optimal development of many of these children. (DoE 2001c:13).

2.8.2 White Paper 6

In South Africa, a significant transition towards inclusion was built into legislation and governmental documents. As already indicated, the White Paper 6 (2001a:1) gives clear guidelines and expectations on building an inclusive education and training system. Through this legislation South Africa looks to introduce measures, which would lead to greater consistency and equity in practice (DoE 2008:5). However, it is imperative to state that the South African vision for inclusive education does not mean the abolishment of specialist schools. The White paper 6 (2001a:1) sees specialist schools having a unique and important role within the inclusive educational system. The specialist schools role will include providing particular expertise and support, particularly professional support in curriculum, assessment and instruction (DoE 2001a:21). It is foreseen that these specialist schools will be transformed to fulfil a wider range of support systems to 'ordinary' and full service schools as part of the district-based support system (DoE 2005:8).

The government also outlines plans for specialist schools to act as resource centres where expertise and resources can be shared, increasing collaboration and communication. Resource centres will also be able to support assessments being carried out in neighbouring schools, for example, providing Makaton resources for visual aids and schedules, which previously only children in specialised settings had access to. By enhancing and extending the schools role in the community, specialist schools will be able to provide services which 'ordinary' schools have no access to. As a consequence, this will enable further inclusive practice amongst schools previously segregated by the labelling of their students. In particular, the government foresees this collaboration allowing children within specialist schools to have a more inclusive education. For example, a child who had previously been segregated would be able to access an inclusive school with support systems devised by the specialist school resource centre.

Alongside the White paper 6 vision for more inclusive collaboration between special and non-special schools, it also outlines plans for full service schools. One primary school in each district will become a 'full service school'. The vision is to have a

fully inclusive school, which can cater for every individual's needs. Full service schools and colleges will be equipped and supported to provide for the full range of learning needs (Dfe 2001a:22). These schools will become the beacon for inclusive practice, accommodating all children regardless of their special educational need or barrier to learning. It is the long-term goal that 500 primary schools will eventually be selected for conversion into 'full service schools'. Therefore, full service schools through additional physical and material resources will become specifically equipped to address a full range of barriers to learning in an inclusive educational setting. In addition to their 'ordinary' learner population, they will become accessible to most learners in the area, who experience barriers to learning. The initial implementation of these schools will become models of institutional change.

2.8.3 National Strategy on Screening, Identification, Assessment and Support

Through documentation, South Africa is seen to advocate inclusive education and is beginning to produce more practical outlines. In 2008, as a response to the White Paper 6, the National Strategy on Screening, Identification, Assessment and Support (SIAS) drafted these outlines for a more inclusive and thorough assessment procedure. Within this paper, some challenges facing specialist schools are identified as an increasing number of learners being unnecessarily referred to special schools from their local mainstream schools. In the space of three years (2004 to 2007), the number has increased by more than 15 000 learners. The document also recognises that access to special services or facilities is limited as special schools and education support services are not always within reach of communities. This leads to marginalisation and exclusion of children with additional support needs, including a large number with disabilities. (DoE 2008:7)

It is outlined in the strategy that specialist schools will benefit through this documentation by providing clarity on which learners should be admitted to particular specialist schools and how their educational needs should be supported (DoE 2008:4). In can also be deduced from the documentation content that teachers within more inclusive settings will be supported when accommodating for learners who would have been previously marginalised in a specialist setting, ensuring that 'mainstream' schools will acquire policies, cultures and practices which are welcoming to all learners (Doe 2008:4). A specific group of these previously marginalised learners will be learners on the autistic spectrum, in particular students with higher functioning autism or Aspergers.

This document, which was produced in (2008), provides a comprehensive outline to provide aid for teachers to complete assessments of how the school can accommodate individual pupil's needs. The focus includes, the environment, learning and teaching materials, and the individual, staff as a resource, the built and natural environment, support systems and the learning environment. Whilst the RNCS fundamentally makes provision for support and flexibility needed, (DoE 2008:4). It also recognises that barriers to learning can arise from various interlocking parts of the curricula such as:

- the content of learning programmes;
- the language and medium of teaching and learning;
- learning style and pace
- time frames and completion of curricula;
- materials and equipment to which have to be available and

- assessments methods and techniques (DoE 2008:18)

Within the document, the South African government redefines learning support as moving its focus away from supporting individual learners who are assumed to have 'special needs' towards addressing barriers which prevent the system from responding to their learning and other needs". (DoE 2008:17) For learners with autism, these barriers to learning would include; communication and socialisation. It also outlines the importance of learning support when providing support to individuals is one way of attempting to make learning contexts and lessons accessible to all learners" (DoE 2008:18).

2.8.4 Inclusive Learning Programme (ILP)

The White Paper 6 outlines guidelines for ILP (DoE 2005). It states education and training system must change to accommodate the full range of learning needs with particular attention to strategies for instructional and curriculum transformation (DoE 2001a:11). The ILP looks to provide practical guidelines for this transformation. The guidelines provide a detailed overview of how the NCS can be used in an inclusive environment. It recognises that learning programmes, work schedules and lesson plans can be adapted to cater for the individual needs of learners(DoE 2005:105). By providing more practical guidelines to accommodate learners with barriers to learning the government concludes:

> "Guidelines for developing inclusive learning programmes, provides guidance for teachers, administrators and other personnel on how to deal with diversity in the classrooms and schools of our country." (DoE 2005:105)

For learners on the autistic spectrum the government recognises the need for more specific intervention as for a minority learners, individual support plans must be used to outline how the specific needs of that particular learner must be addressed (DoE 2005:113). These individual support plans for learners with ASD would include an outline of the work schedule or year plan and how specific lesson plans for the learner could be differentiated. The outline asserts it is imperative to take the learners profile into account when designing learning programmes, work schedules and lesson plans. For learners with ASD, the support plan would focus upon the three areas of learning these individuals have a barrier in; namely, communication, socialisation and inflexibility of thought.

Designing down is an important principle in the OBE and the NCS. For learners with ASD, learning support can be provided, by breaking down the assessment standard they need to achieve and plan small attainment steps, which can be built upon in a logical progressive way. Simply put, designing down involves looking at an assessment standard and dividing this minimum expected set standard for the year end into smaller, achievable components which are spread across the duration of the year (DoE 2005:114). This would enable learners with ASD to work towards expected targets whilst recognising and celebrating what progress has already been made. Within the document, consideration is given to differentiating the curriculum to support individual's needs when reducing barriers to learning. Flexibility and differentiation in the method of teaching presentation and assessment is explained to provide practical examples of learning support and inclusive teaching across each learning area.

The analysis of South African government documents shows an emphasis being given to providing learning support to enable learners with barriers to learning to access an inclusive education. The DoE (2008) recognises that many learners who experience serious barriers to learning and who require support to be able to learn optimally in their local ordinary school have been most vulnerable to exclusion and have very often not been able to access either a school or any form of support. Amongst these learners,there are those with disability who have great difficulties in gaining access to education. Learners with autism could come under this category.Therefore, it is important to recognise what specific learning support has been researched in regard to these learners.

2.9: Introduction to understanding autism

Alongside understanding inclusion, gaining a thorough knowledge of autism as a barrier to learning can give insight into the barriers to learning experienced by preschool learners with autism whilst in an educational setting. The historical backgroundabout autism needs to be understood and that will subsequently set the tone for the current debates surrounding autism which will further enable an in-depth understanding of autism and its place in today's society.

2.10 Pervasive Developmental Disorders

Pervasive Developmental Disorders (PDD) is a term introduced by the American Psychiatric Association (APA) in 1980. This diagnostic term refers to a group of five disorders characterised by delays in multiple basic functions, primarily social and communication skills. The disorders are: Pervasive Developmental Disorder Non Otherwise Specified (PDD-NOS); Autism; Asperger syndrome; Rett syndrome and Childhood Disintegrative Disorder (CDD). The Corriel Institute for Medical Research (2011:1) states that PDD is characterized by severe and pervasive impairment in several areas of development such as reciprocal social interaction skills, communication skills, or the presence of stereotyped behaviour, interests and activities. PDD can be diagnosed in infancy and its onset is typically prior to three years. In addition, the National Institute of Medical Health (NIMH) states the diagnosis PDD-NOS is often used when the learner does not meet the requirements to be diagnosed for the other disorders. (NIMH 2011:1) According to the DSM IV criteria for 299.80 PDD-NOS (including atypical autism), this category should be used when there is a severe and pervasive impairment in the development of reciprocal social interaction or verbal and nonverbal communication skills, or when stereotyped behaviour, interests, and activities are present, but the criteria are not met for a specific Pervasive Developmental Disorder, Schizophrenia, Schizotypal Personality Disorder or Avoidant Personality Disorder (APA 2000).

The first three disorders listed are commonly known as Autistic Spectrum Disorder (ASD). The National Institute of Neurological Disorders and Stroke (2011:1) statesthat Autism (a developmental brain disorder characterized by impaired social interaction and communication skills, and a limited range of activities and interests) is the most characteristic and best studied PDD.

2.11 Autistic Spectrum Disorder

Autism is considered a relatively new phenomenon. Despite the increased research and awareness of autism, there are many aspects of the disorder, which remain unanswered. As Hewitt (2005:12) states, the first formal documentation of autism dates was seen in 1943 in Boston, USA when a child psychiatrist Leo Kanner studied a group of 11 children (8 boys and 3 girls) whose behaviour he described as being markedly and uniquely different to the majority. Although these children appeared physically normal, they each displayed an extreme aloneness or profound autistic withdrawal. Kanner's paper published in 1943 and was entitled 'Autistic Disturbances of Affective contact'. In his paper, he proposed that these children suffered from a psychological malady, which he named 'infantile autism'. Nowadays, individuals affected in a similar way are often referred to as 'typically' or 'classically' autistic. In relation to what is currently referred to as 'the autistic spectrum' learners identified by Kanner as 'classic autism' would be placed towards the middle and lower end of the spectrum.

The diagnosis and understanding of this phenomenon was reinforced in 1944 when Hans Asperger, an Austrian psychiatrist and educator (Perlman 2000:221), published a paper entitled 'Autistic Psychopath in childhood'. According to Volkmar & Klin (2000:262), although similarities were coincidentally evident in the work of Asperger and Kanner, neither researcher was aware of each other's writings. As Hewitt (2005:13) outlines, Asperger described a group of boys who had average or above IQ's but who found it 'difficult to fit in socially'. Such children would be described by parents and teachers as being academically bright, but socially a little bit odd or highly intelligent, a bit eccentric or even cheeky, almost rude. Also evident were repetitive, stereotypical behaviour, often with 'abnormal fixtures' on certain objects (Cummine, Leach & Stevenson 2000). Another striking feature Hewitt (2005) notes was that all the boys frequently made attempts at socialising and approaching others but on doing so, typically making mistakes. However, Asperger was also aware of the boys many positive features because they often had a level of independent thinking, together with a capacity for special achievements (Asperger in Frith 1991:376).

Another significant development in the diagnosis of ASD occurred in 1979 when Lorna Wing and Judith Gould carried out a study of approximately 35,000 children from Camberwell, a borough of London in which they identified 132 children with autism. Wing and Gould (1979) confirmed that, although autistic children showed a wide range of difficulties, there were three areas of impairment that could be commonly identified; namely, in language and communication, social skills and flexibility of thought or imagination. Consequently, Hewitt (2005:109) notes Wing's 'triad of impairments' became the basis of diagnosis, which is used today. Similarly, Sigman & Capps (1997:144) also outlines how Wing and Gould classified these children as aloof, passive or odd. However, the children did not respond to social overtures or to speech; passive children appeared indifferent but accepted others' attempts to engage them in social interaction. Though the children seemed to be like others in the study, they tended to behave in ways that were off putting and inappropriate. The triad of impairments is currently used as a diagnostic aid by the American Psychiatric Association (2000).

2.11.1 The spectrum

The severity of the disability varying between learners is often referred to as a spectrum where individual learners can be 'placed' (Wagner 2008:3). Some researchers argue that Asperger syndrome is simply a subgroup within the autistic

disorders spectrum, whilst Baker and Welkowitz (2005:77) believe it is a different form of disability representing a group of higher functioning individuals with only a few autistic tendencies. However, Tutt (2007:67) notes there is a large measure of agreement that Aspergers syndrome is part of the autistic spectrum. Originally, Wing (in Tsai 2000:139; Wing 1981:124; Wing 1997:1761) suggested that Aspergers Syndrome (AS) should be considered a part of the autistic continuum and that AS could be a mild variety of autism in relatively bright children. With this definition in mind, AS is a form of autism, a disability that affects the way a person communicates and relates to other (Ochs, Kremer-Sandlik, Solomon & Gainer Sirota 2001:402). Additionally, Tutt (2007:67) notes higher functioning autism is a term that is used less often, but it generally indicates people who are nearer to those with classic autism in terms of severity of their condition, but similar to those with AS in terms of their cognitive ability.

2.12 Diagnosis of autistic spectrum disorders

Today the American Psychiatric Association (APA) uses the historical discoveries of autism to aid the diagnosis and understanding of ASD.In particular, the work of Wing and Gould (1979) who recognised people with ASD have an abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity and interests known as the 'triad of impairments'. To be diagnosed as being on the autistic spectrum, three diagnostic tools are used. These include the ADI (Autism Diagnostic Interview), the ADOS (Autism Diagnostic Observational Schedule-Generic), and the DSM IV Diagnostic Criteria for 299.00 Autistic Disorder from the Diagnostic and Statistical Manual of Mental Disorder, Fourth edition, American Psychiatric Association, Washington, D.C.

2.12.1 Autism Diagnostic Interview (ADI)

Rutter & Couter (1994:659) devised the Autism Diagnostic interview. The interview is administered to the learner's main caregiver. Its objective is to gain detailed descriptions of the behaviours seen for the diagnosis of pervasive developmental disorders, in particular autism. Furthermore, the interview focuses on the concerns with developmental delays and deviance in social interactions, language, communication and play, and on restricted, repetitive, and stereotyped behaviours and interests (Rutter et al 1994:661).

2.12.2 Autism Diagnostic Observational Schedule – Generic (ADOS-G)

The ADOS-G is a semi-structured assessment of communication, social interaction, and pervasive developmental disorders (PDD). NIMH (2011:1) describes the ADOS-G as an observational measure used to "press" for socio-communicative behaviours that are often delayed, abnormal, or absent in learners with autism. It consists of standard activities that allow the examiner to observe behaviours or lack of behaviours that have been identified as important to the diagnosis of autism and other pervasive developmental disorders.

2.12.3 DSM IV Diagnostic Criteria for 299.00 Autistic Disorders from the Diagnostic and Statistical Manual of Mental Disorder, American Psychiatric Association.

To be diagnosed by the APA, a child must show symptoms of abnormal social and interpersonal development before the age of three years and must meet at least 6 of the 12 criteria listed in the Diagnostic and Statistical manual of mental disorders (APA 2000). In the same way, the DSM-IV definition also contains two primary clusters of traits that must be present to qualify for a diagnosis of AS (APA 2000:74). The first is a qualitative impairment in social interaction. Accordingly, two of the following behaviours must be observed: mark delays in nonverbal behaviours; impairment in establishing peer relationships;absence of 'spontaneous seeking to share enjoyment, interests or achievements with others or delays in social reciprocity. (APA 2000:74) The second major DSM-IV trait describes the individual's restricted areas of interests and stereotypes behaviours and activities. One of the following has to be present: preoccupation with one restricted area of interest; inflexibility or fidgety, sticking to a set, sometimes non-functional routine; stereotypical or repetitive motor movements;preoccupation with parts or objects (APA 2000:75).

Whilst all learners must have the necessary criteria to obtain a diagnosis of autism each learner on the spectrum can display different strengths, challenges and needs. What each learner has in common is that they are affected by the 'triad of impairments', as recognised by Wing & Gould (1979:259 in Frith 1998:32). Consequently, this influences the way that each learner can relate to the world. Although learners with ASD present with varying degrees of severity, the 'triad of impairments' affects them all (Unica 2008:1).

2.13 Increase in diagnosis

Today there is a dramatic increase in the number of learners diagnosed with autism (Hunniest 2005:2), particularly since the addition of this syndrome in the widely used Diagnostic and Statistical manual of mental disorders (Simpson & Myles 1998:149). This increase in diagnosis may be explained particularly in terms of a greater awareness of the impairments of the AS. However, there is a view that there has been a real increase of the AS (Greenway 2000:469) Accordingly, learners with Aspergers Syndrome will all the more likely be part of the inclusive education setting (Greenway 2000:469).

Throughout research the prevalence of ASD varies (Wagner 2008:3). The prevalence of this incidence could vary depending upon how the disorder is defined and diagnosed, or how the research itself is conducted (Strain & Hyson 2000:118). It remains unclear whether this increase is due to improvements of the diagnostic criteria ordue to improved measures to assess children with autism from a broader definition of autism (Fombonnne 1999 in Levy et al 2006:60) or the skills of paediatricians and diagnosticians (Special Education report 2000:2). Factors also cited for the increase in autism, include better diagnostic procedures; awareness of the syndrome, leading to more accurate assessments; exposure to environment and toxins; reactions to childhood vaccinations; and a genuine interest in the conditions prevalence (Autism Europe 2003: 4).

Meanwhile, learners on the autistic spectrum have become an international concern as reflected within the international media. The BBC news (27.02.01) reported that"autism levels have increased ten-fold over the past decade". In addition, the New York Times (10.18.02) reported that "as the diagnosis of autism has increased throughout the nation experts and

parents have cast about for possible explanations". Evidently, recent literature acknowledges autism as a special educational need and many professionals state that autism is on the increase. For example, the Autism Society of America (2008:1) reports a prevalence of 60 individuals out of 10,000 in contrast to the 1980's statistic of 3 to 5 out of 10,000.

Yet, two years later Westwood (2007:26) states the rate is higher with approximately 4 to 10 cases per 10,000 in the population and also acknowledges that the rate is increasing. The National Autistic Society (NAS) in the UK also revealed that approximately one in 200 pupils had AS. Noteworthy, most of these are educated in mainstream schools (Barnard, Broach, Potter & Prior 2000). In terms of gender, Westwood (2007:26) confirms that the ratio of males to females is 4 or 5 to 1, a statistic generally recognised by all. In addition, more recent research from the US centres for disease control and prevention announced that one in every 150 American 8 year olds now have some form of autistic spectrum disorder (Autism Genome 2007:1). In contrast, the UK primary school teachers reported a prevalence rate for ASD of one in 80 pupils. (Barnard, Broach, Potter & Prior. 2002:5) Interestingly, this rate is more than 3 times higher than that reported in secondary schools.

Currently, there are no official governmental statistics for the number of children on the autistic spectrum in South Africa. The charity Autism South Africa, which is a national body for children and adults with autism in South Africa, began a parental register three years ago to begin establishing initial statistics. Recently, they estimate that in overall 5,000 children are born on the autistic spectrum, over 400 each month. However, they also state that these statistics do not include rural areas and they estimate the rate of prevalence to be higher (ASA 14.04.08: verbal). With inclusive schools being a reality, provision needs to be made for children on the autistic spectrum with regards to learning support (Wagner 2008:21).Similarly, Batten (2005:96) states that schools should expect to teach children on the autistic spectrum and they must be appropriately resourced to meet their needs.

Carpenter (2000:5) declares that*"there is one thing of which you can be sure – in the future you will be providing for more children with autism"*

2.14 Symptomatology

The National Autistic Society (2008:1) believe the question 'what is autism?' cannot be answered by simply defining a series of characteristic. ASD are a lifelong developmental disability that affects the way a person communicates and relates to others around them (Hunnisett 2005:249). Autism is recognised to stem from a multifaceted origin as current thinking on the nature of autism embodies the notion of a continuum of autistic characteristics. Furthermore, research demonstrates there is no clearly defined single syndrome, often described as a 'hidden disability' (Magnusen 2005:26; Frith 2003:80). In addition, Batten (2005:94) points that individual's impairments may not be easy to recognise and understand as those of a physically disabled child. On the other hand, a poignant aspect of autism is there are no indications to the uninitiated that any bizarre or anti-social behaviour is anything more than the result of bad parenting (Hunnisett 2005:132).

Despite each individual displaying difference in behaviour and severity, Yapko (2003:24) confirms this disorder affect three primary areas of development. It shares the key areas of difficulty that make up what is called the triad of impairments: social and emotional development; language and communication and inflexibility of thought (NAS 2000:6). This PDD specified by

Greig (1998:16) significantly limits functioning in three or more of the following life activity areas: communication; learning; economic self sufficiency; independent learning; self direction and cognitive functioning.

2.14.1 Triad of impairment - Social

Autism is characterised by serious impairments in social interaction (Neihart 2000:222). The social skills of even the most intellectually gifted children with autism are severely limited (Westwood 2007:89). Fundamentally, children with AS do not pick up social skills (NAS 2006:10)and social situations occur daily or even hourly that make little or no sense to these learners (Myles & Soythwick 2005:75).Therefore, high functioning children with autism can act oddly at times. As a result, they avoid eye contact and tend to be reluctant to enter social gatherings because, they do not comprehend the unstated rules of social interaction without concrete instruction therefore can find it difficult to behave appropriately in social situations and make friends (Mesibov 2001:88). Moreover, learners with autism often have difficulty attending to social stimuli (Dawson, Meltzoff & Osterling 1995 cited in Levy et al 2006), imitating others (Dawson & Adams 1984 cited in Levy et al 2006) and playing appropriately with toys (Jarrod, Boucher & Smith 1993 cited in Levy 2006). Notably, many children with autism also engage in various forms of challenging behaviours (Simpson & Myles 1998), such as elopement, self injury, disruption and aggression.

2.14.2 Triad of impairment - Language

Westwood (2007:26) notes that language impairment is also a central feature of autism. Almost half of the population of autistic individuals never acquires functional language (Fombonne 1999:56 cited in Levy 2006). For learners who do acquire language communication can still be problematic, although many learners can speak grammatically they do not always use language appropriately (Sewell 2000:213). Students with autism also have difficulty processing and retaining oral information, even if they have good oral skills themselves. (NAS 2006:11). Autistic children, for example, tend to ask inappropriate questions such as 'how old are you?' to a stranger, make impolite comments, ignore others attempts to change the topic of conversation and perseverate on idiosyncratic subjects (Baltaxe 1977 in Ochs et al 2001:307).

2.14.3 Triad of impairment - Inflexibility of thought

As part of this 'triad of impairments' an autistic learners most striking difficulties involve behaviours that allow individuals to enter into each other's experience of the world. One of the central deficits of autism is precisely a difficulty liking parts into a coherent whole (Frith 2003; Happe 2000; Ochs et al 2001:407. In addition, Sigman & Capps (1997:108) discuss this as unsurprising given the deficits in theory of mind developed by Baron Cohen (1995) whorecognized children with autism as having great difficulty in evaluating their own and others mental states.Furthermore, Frith (2003:82) describes theory of mind as occurring from about age three when children know that something that a person has not seen cannot be in the mind of that person. If a child can implicitly take account of another person's thoughts this kind of inference will be obvious. Research has shown children with autism are not able to understand that someone else can have a belief that is different from their own. To test this theory, Simon Baron-Cohen (1995) devised the Sally-Anne experiment which shows that all but

the most intelligent autistic children say Sally will look for the marble in the new location (the box) rather than where she left it and she thinks it remains (the basket) (Sigman & Capps 1997:104).

2.15 Effects of impairments

Batten (2005:94) believes the impairments associated with autism make the world a very unpredictable and incomprehensible place. Thinking, feeling and acting in the world outside the parameters of ordinary expectations, children with autism perceive sounds, textures, tastes, odours, colours and visual details with a vividness rarely experienced by their unaffected peers (Harrower & Dunlap 2001:75). Because of sensory processing difficulties, noise, crowded places and being in close proximity to others may cause extreme anxiety. Meanwhile, certain smells and textures can also be overwhelming (NAS 2006:13). Therefore, individuals find reassurance in setting up routines and patterns they can control (Wagner 2008:5).Consequently, disruption in structures and routines can therefore lead to high anxiety, which may have an impact on behaviour (Batten 2005:96).Usually, ritualistic behaviours such as "hand flapping, spinning and preservation occur" (Ochs et al 2001:400). Many learners with autism have unusually intense and/or peculiar areas of circumscribed interests (Adrean & Stella 2001:207;Carrington & Graham 2001:42).

Westwood (2007:27) summarises that the manifestation of characteristics seen in a learner with autism, is also supported by additional researchers. A marked impairment of nonverbal behaviours used in social interaction e.g. eye contact, facial expression, posture, use of gestures (Yapko 2003:24); failure to develop peer relationships(National Autistic Society 2008:1); no spontaneous interest in, or enjoyment of other persons; no desire to return social or emotional contacts (NIMI 2011:1) ; delay (or total lack) of verbal communication skills (NIMI 2011:1); in individuals with speech, no obvious ability or desire to converse with others; the use of stereotyped and repetitive language (often echolalia) (National Autistic Society 2008:1); absence of imaginative play; preoccupation with one or more stereotyped patterns of behaviour or interest; (Adrean & Stello 2001:207); inflexible adherence to specific rituals and routines; repetitive movements such as hand flapping, body rocking (Ochs et al 2001:400); obsessive preoccupation with tiny parts or details of objects.

2.16 Etiology

A single etiology for autism or for any of the disorders on the spectrum has yet to be determined. The etiology of autism is complex, and in most cases the underlying pathologic mechanisms are unknown (Trottier, Srivastava & Walker 1999:103). In the past, suspected causes of these disorders included parent induced autism, brain injuries, developmental aphasia and constitutional vulnerability (Maino, Viola & Donati 2009:150).Additionally, Unica (2008:1) states that although autism appears to have a genetic predisposition, it is still concluded that it stems from a multi-faceted origin. It is believed there is no singular factor which can be directly linked to the development of autism and that autism is a PDD which stems from a multifaceted origin (Magnusen 2005:26).However, it is unlikely that there is a single cause, rather a set of triggers, any one of which could cause autism. Cummine et al (2000:84) believe the following factors may trigger the syndrome, namely: biological; pregnancy; birth; neurochemical and neurological which may lead to brain dysfunction.

2.16.1 Genetics

The genetics debate has been increasingly researched and discussed. The largest study of the genetics of autism ever conducted yielded *several regions of the genome; particularly one region on chromosome 11 seems to be very highly associated with the development of autism*(Nature Genetics 2007:1). In additionabbreviations in a brain development gene called neurexin 1 were also noted as having a possible influence (Nature Genetics 2007:1). Trottier et al (1999:103) notes that autism is a heterogeneous disorder, diagnosed subjectively on the basis of a large number of criteria. Recent research has investigated genetics, in utero-insults and brain function as well as neurochemical and immunological factors. Family studies have also suggested genetic transmission. As in siblings of autistic children, the incidence of autism is approximately 50 times greater than in the general population (Sigman & Capps. 1997:173). On the basis of such findings, Sir Michael Rutter argues that some families are genetically predisposed to develop language and cognitive disabilities, of which autism is an extreme manifestation (Sigman & Capps 1997:173).

2.16.2 Toxins

A different study in 2006 identified 202 potentially harmful industrial chemicals which may be contributing to increases of autism in addition to attention deficit disorder (ADD) and other mental developmental conditions in children (Environmental working group 2006:1). In the study researchers warned that autism may be a result of exposure to an array of toxic chemicals in the environment.

2.16.3 MMR vaccination

On February 28th 2008 Andrew Wakefield, a British gastroenterologist published an article with colleagues Munch and Anthony which described 8 children whose symptoms of autism appeared within one month of receiving the Measles, Mumps and Rubella vaccination (MMR). However, there were many flaws with Wakefield's research design. However, the Immunisation Safety Review Committee (ISRC) later produced a final report which rejected the casual relationship between the MMR vaccination and autism (Maino et al 2009:153).

2.16.4 Yeast infections and gluten

It has been believed and advertised through websites and single case reports that yeast infections, food intolerance and leaky gut syndrome can be possible etoligies for autism (Maino et al 2009:152). Although individual cases have advocated the benefit of a gluten free diet, most researchers suggest no concrete food/yeast/diet associative causative factors (Cornish 2002:261).Rabin (2009:9) discusses how researchers at the Mayo Clinic reviewed the medical records of more than 100 autistic children over 18 years and compared them with more than 200 children without the disorder. They found no differences in the overall frequency of gastrointestinal problems reported by the two groups. "There is actually no trial that has proven so far that a gluten-free and casein-free diet improves autism," Dr. Ibrahim said. "The diets are not easy to follow and can sometimes cause nutritional deficiencies."

2.17 Treatment

There is currently no cure for ASD. However, there are a range of specialist education and behavioural programmes (often known as interventions) that have proved effective in improving the skills of children with ASD. There are many different types of interventions for ASD and it is considered beneficial to combine interventions to maximise outcome (Wagner 2011:1).

The NHS (2011:1) endorse that any intervention should focus on important aspects of an autistic learners needs: communication skills, such as the ability to start conversations; social interaction skills, such as the ability to understand other people's feelings and then respond to them; cognitive skills, such as encouraging imaginative play, and lastly, academic skills, the 'traditional' skills that a child needs in order to progress with their education, such as reading, writing and maths.

2.17.1 Defeat Autism Now programme (DAN)

Adams, Edelson, Grandin & Rimland. (2004:1) write about a small number of physicians (many of whom are themselves parents of autistic children) who are trying innovative methods for treating the underlying biomedical basis of autism called the DAN! programme. The manual, titled Biomedical Assessment Options for Children with Autism and Related Problems provides a comprehensive discussion of laboratory tests and interventions. Some of the major interventions are suggested by DAN! Practitioners include:

- Nutritional supplements, including certain vitamins, minerals, amino acids, and essential fatty acids

- Special diets totally free of gluten (from wheat, barley, rye, and possibly oats) and free of dairy (milk, ice-cream, yogurt, etc.)

- Testing for hidden food allergies, and avoidance of allergenic foods

- Treatment of intestinal bacterial/yeast overgrowth

- Detoxification of heavy metals

2.17.2 Applied behavioural analysis (ABA)

Educational/behavioural therapies are often effective in children with autism, with Applied Behavioural Analysis (ABA) usually being the most effective. These methods can and should be used together with biomedical interventions, as together they offer the best chance for improvement (Adams et al 2004:1).

2.17.2.1The Lovaas method.

In the 1960's, Dr. Ivar Lovaas at U.C.L.A. developed a programme to treat autistic children. The core of the programme involves one-on-one therapy. The therapy hours can range from 15 to 40 hours (or more) a week. It is felt by many that the more hours one works with the child; the more he/she will improve. It is believed that children under 5 years of age will benefit the most from this programme. Research on the Lovaas method has shown that many children do extremely well. In a 15-year study published in 1987, Lovaas found that 47% of the children who participated in his programme were able to complete normal first grade classes.

The programme focuses on a number of child behaviours, including attention, social skills, concept formation, language, self-help skills, and appropriate play. The therapist begins with very simple tasks which are rewarded, and then gradually increases the task's difficulty before rewards can be obtained. Although learning sessions are often conducted in a clinical setting, it is important that the learning tasks also be conducted at home and in other settings to help the child generalize what he/she has learned. However, certain autistic behaviours, such as self-stimulation and non-compliance, are discouraged during the teaching sessions because these behaviours interfere with learning.

Appropriate behaviours are rewarded using positive reinforcements. These includeanything which is given to increase the likelihood that the behaviour will recur. Examples include praise comments such as, "good job;" an opportunity to play outside, and/or an edible, such as a cracker. In contrast, inappropriate behaviours can be reduced or eliminated in a number of ways. Common forms include saying the word "No," or placing the child in time-out. Time-out is where the child is removed from the possibility of obtaining reinforcement, such as having the child sit in a chair for a few minutes rather than play. Another way to reduce inappropriate behaviours is called 'extinction.' In extinction, behaviour is no longer rewarded; and as a result, the behaviour is less likely to recur. If the child is not cooperating in a task, the therapist may simply turn his/her head away from the child rather than give the child unintentional attention.

2.17.3 Relationship Development Intervention (RDI)

This is a new method for teaching children how to develop relationships, first with their parents and later with their peers. It directly addresses a core issue in autism, namely the development of social skills and friendships (Adams et al 2004:1). It is a home-based, parent-led programme in which parents are taught how to re-establish the guided participation relationship with their child (Gustein (2009:1).

RDI was developed by Dr. Steven Gutstein, (2009) a clinical psychologist from Houston, Texas. In RDI, parents are taught to use strategies like slowing down daily interactions, making changes to their communication style, and engaging the child in simple interactions that offer a re-do of the foundations that were missed in infancy and early childhood. Gutstein (2009:8) believes that as the child moves through the stages of RDI, new connections are built in the brain, helping the child to develop dynamic thinking, flexibility, and relationship skills.

2.17.4 Complimentary therapies

Wagner (2008:2) believes that additional therapies alongside a structured programme can provide valuable input for learners with autism. There are many therapies which address the challenges a learner with autism faces.

2.17.4.1 Sensory Integration

Many autistic individuals have sensory problems, which can range from mild to severe (Mace 2008:12). These problems involve either hypersensitivity or hyposensitivity to stimulation. Sensory integration focuses primarily on three senses — vestibular (i.e., motion, balance), tactile (i.e., touch), and proprioception (e.g., joints, ligaments). Many techniques are used to stimulate these senses in order to normalize them. Sensory Integration Therapy is an approach to treating children with poor sensory integrative function (Sensoryintegration.co.uk 2011:1).

The Sensory Integration Organisation (2011:1) outlines the therapy principles as a child and therapist interaction which is mainly child guided. Its aim is to raise the child's self-confidence and therefore get away from success and failure. They believe sensory integration does not aim to teach the child how to perform specific tasks but to help the child to learn by using the sensory systems help the brain to organise itself.

2.17.4.2 Speech Therapy

Green, Pituch, Itchon, Choi, O'Reilly & Sigafoos' (2005:1) research showed speech therapy to be the most popular intervention. Similarly, Goldstein (2002:373) identifies the goal of *speech therapy*as to improve all aspects of *communication.* Areasinclude *comprehension,* expression, *sound production,* and social use of*language.* At its best, a specific *speech therapy* programme is tailored to the specific weaknesses and the *environment of* the individual child (Goldstein 2002:375). Adams et al (2004:1) state that whilst this may be beneficial to many autistic children, often only 1-2 hours/week is available, so it probably has only modest benefit unless integrated with other home and school programmes.

2.17.4.3 Occupational Therapy

Occupational therapists help individuals with an ASD improve both fine and gross motor skills plus address sensory processing concerns (Hincha Ownby 2008:1).Gross motor skills also tie in with fine motor skills. The ability for a person to feed himself with a spoon or fork starts with the gross motor skills to manipulate the arm muscles (National Autistic Society 2010:1) Occupational therapists can work with children, through organized play, to help them improve their gross motor skills and thus improve their quality of life (Hincha Ownby 2008:1). In the same way, Wagner (2008:3) also believes occupational therapy can be beneficial for the sensory needs of these children, who often have hypo and/or hyper sensitivities to sound, sight, smell, touch, and taste.

2.17.5 .Medication

Green et al research (2005:1) reports that over half of parents questioned used medical intervention for their children with autism. Medications are often used to treat behavioural problems, such as aggression, self-injurious behaviour, and severe

tantrums that keep the person with ASD from functioning more effectively at home or school (NIH 2005:1).There is currently no available medication to treat the core symptoms of ASD, but medication can treat some of the related symptoms, such as repetitive thoughts and behaviour, and aggressive behaviour, such as tantrums or self-harming (NHS 2005:1).

2.18 Impact of including learners with autism in an inclusive environment

With inclusive schools being a reality, provision needs to be made for children on the autistic spectrum with regards to learning support. The National Autistic Society (NAS) believes that an inclusive education system is a vital building block of a more inclusive society for where there is understanding and support, inclusion can have benefits for both the child and the whole school community (Batten 2005: 96). Learning support is essential within an inclusive school setting if individuals on the spectrum are to benefit. Additional research also suggests that interventions which target specific areas of need, such as social skills, language acquisition, nonverbal communication and behaviour management can greatly improve the lives of children with autism (National Research Council 2001:1).

2.18.1 Positive impact for learners with autism

This is reinforced by a third of UK head teachers who when interviewed agreed children with special needs are most likely to achieve their potential in a mainstream school. In addition, almost half of head teachers interviewed believed that the education of other children is enhanced by special needs pupils (Bloom 2005a:1). For example, researchers have documented that students with disabilities, including students with autism, who are fully included (a) display higher levels of engagement and social interaction, (b) give and receive higher levels of social support, (c) have larger friendship networks, and (d) have developmentally more advanced individualised education plan goals than their counterparts in segregated placements (Fryxell & Kenedy, 1995; Hunt, farron-Davis, Becksted, Curtis & Goetz 1994). In addition, Harrower & Dunlap (2001:773) state a number of studies have demonstrated that teaching social and academic skills to children with autism and their non-handicapped peers in cooperative groups in integrated settings results in increased frequency, duration, and quality of social interactions.

Koegel, Koegel & McNeney (2001:746) observed that it is now a widely accepted fact that peers can contribute considerably to the development of social and communicative competencies of learners on the autistic spectrum. For example, peers learn leadership by taking active roles in their classroom community, responsibility for themselves and their partners, and acceptance for their classmates who have differing needs. Interestingly, children with autism as a barrier to learning learn to be responsible for themselves, make academic gains each day based on their collaboration with peers, and feel the benefits of being around their peers (Atkins 2007:393). Similarly, Ochs et al (2001:400) agrees that contact with typical peers is thought to be crucial in assisting children with autism to develop social and communicative skills.

In particular, Boulware, Schwatrz, Sandall & McBride (2006:94) reinforce the importance of inclusive opportunities for preschool learners with ASD. Notably, Tutt (2007:18) outlines a practical example of how in the more informal setting of a preschool environment, children were able to engage in activities alongside their peers for most of the time, but there were

still occasions when a child might be overwhelmed and taken to a quieter area, or more hyperactive children might have additional time for letting off steam, away from group activity. In addition, Nutbrown & Clough (2006a:33) concur with the belief that the early years are crucial to the children's later educational achievement and to their social, emotional and physical development. As a result, they promote the development of programmes, techniques and strategies which target young children who are 'at risk' in some way. This notion is also reinforced by Boulware et al (2006:96) when they contend that *"teaching within inclusive contexts is critical for very young children with ASD because it increases their ability to learn and demonstrate skills where and when they are needed."*

This provision is deemed particularly beneficial for children on the autistic spectrum as the early years curriculum focuses upon the three areas in which individuals with ASD have impairments. Nutbrown and Clough (2006a:33) argue that early intervention and support for individuals on the autistic spectrum can mean a greater chance of educational success. Rogers & DiLalla (1991 cited in Levy et al 2006:87) support early intervention as an increase in developmental scores and play behaviour and a decrease in autistic behaviour which has been confirmed through research. Similarly, Wagner (2008:21) concurs that early intervention ensures that all children, even very young children with ASD have a better chance of having their individual educational needs met through adapting the curriculum, teaching style and environment. In addition, Hewitt (2005:9) reinforces this notion by stating that educational settings are widely considered to offer children with ASD equal opportunities and the best preparation for real life. Furthermore, Levy et al (2006:7) support early learning support in an early year's inclusive setting and have concluded that children with ASD can be supported within the classroom and the school can develop their social and communicative needs so enjoyment and academic achievement can occur during a learner's time in education. From the analysis of participation in early interventions, Levy et al (2006:7) found that approximately 50% of the children were successfully included in general education settings. In the same way, Nutbrown & Clough (2006a:9) support this assertion saying children with autism appear to be more likely to benefit from interventions that are initiated at an early age.

2.18.2 Areas of challenge for learners with autism

Ochs et al (2001:399) observed that children with autism are predisposed to social isolation by virtue of their disability. In peer relationships, the inequalities in social interaction and communication between children with ASD and their peers can lead to frustration, bullying and low self esteem (Batten 2005:93). It is recognised that some children cannot learn by traditional teaching methods or through standard curriculum, therefore, individualised instruction designed for their specific learning styles is needed. (Autism Europe 2003:4)

Also, whist many administrators feel that inclusion will save money, in reality the opposite is true. Well implemented inclusion usually costs more than separate specialist classrooms (Autism Europe 2003:2).Well implemented inclusion can be a challenge as schools need to adapt the often rigid methods employed in the mainstream environment, and be more flexible in our approaches (Hewitt 2005:9). Children with autism remain among the most difficult students to place successfully in mainstream classrooms" (Turnbull et al: 2004:66).

Nutbrown and Clough (2006b:62) recognise the learning needs and difficulties most commonly listed as exceptionally demanding include autism. In 2004, the UK government department OFSTED produced a report, *Special Educational Needs and Disability – towards inclusive schools,* which looked at the extent to which the vision of inclusion is becoming a reality in schools. One of its main findings was that the admission and retention of pupils with social and behavioural difficulties continues to test the inclusion policies of UK school (Haywood 2006:18). A possible reason for this dissatisfaction is indicated that 72 per cent of schools are dissatisfied with the extent of their teachers training in autism (Batten 2005:94). Many classroom teachers, in particular the foundation phase, feel they do not have sufficient training and support to meet individual's barriers to learning (Bothma 2000:200).Similarly, this situation is comparable to South Africa where teachers are facing a challenge of being not been trained to cope with the diversity of learners now entering schools (Bothma 2000:201). Interestingly, in Bothma's same research he stated that Dr Gordon Porter, a world leader in the field of inclusive education maintained that all teachers have the skills to teach all learners – if they want to. (Bothma 2000:201).

2.19 The application of providing learning support for learners with autism

An understanding of documented practical learning support strategies is imperative when facilitating inclusion for learners with autism. Recognising such strategies will provide increased knowledge on what learning support strategies could be used within the preschool setting to enable learners with autism to access inclusive opportunities.

2.19.1   Learning support for inflexibility of thought

Bullard (2004:176) focuses upon the importance of visual cues and an emphasis of social skills when accommodating all children with ASD in an early year's classroom. In a preschool setting, activity can be high and can cause increased distress to the individual about what is happening next. As Batten (2005:93) discusses, the impairments associated with autism make the world very unpredictable and incomprehensible place, so individuals find reassurance in setting up routines and patterns that they can control.

Hewitt (2005:21) suggests that the degree of distress or anxiety can be reduced by arranging an initial visit out of school hours for ASD pupils starting a new school. To add, schools working with pupils with ASD need to recognise the need for sympathetic and individual introduction and begin the familiarisation process weeks in advance of when full time attendance is due to begin. Therefore, providing parents with a photograph of the outside of the building can help prepare their child for the visit. Hewitt (2005:21) also believes supplying one or two photographs of key members of staff further builds on this approach. Moreover, conducting home schools visits also helps educators understand learner's specific needs and interests. Basically, it can also provide a familiar face for when the child enters their new educational setting. Hence, developing an educational plan alongside parents can also help educators understand and take into account children's problems and address them in appropriate ways. Notably, Hunnisett (2005:98) provides a practical example of how beneficial a home visit can be when developing flexibility and being sensitive to individuals needs. Recognising what sounds can distress a learner.

Bullard (2004:176) believes visual cues are important when accommodating all children with ASD in a preschool setting. Transition from one activity to another can also be problematic for some students with autism.Yet, Harrower & Dunlap (2001:767) recognise that it is a common occurrence in general classroom. Noteworthy, visual cards of different learning areas can support a transition from one activity to another (Harrower & Dunlap 2001:767). However, in early years setting, activity can be high and can cause increased distress to the individual about what is happening next(Wagner 2008:15) As Batten (2005:203) discusses, disruption in structures and routines can lead to high anxiety, visual cues of a routine change can reduce anxiety. Furthermore, changing a favourite activity can also be problematic. Consequently, Hewitt (2005:72) recommends forewarning all pupils at least one minute before any impending change, using visual and vocal cues. Yellops (2005:31) reports that individuals respond to being shown a 'stop and tidy' card, this especially being useful after activity times with younger pupils.

Research has shown work stations to be beneficial when providing support in an inclusive classroom. Hunnisett (2005:108) describes the station as a desk in a small alcove that is free from distraction. Providing a pupil with ASD with a workstation area within the classroom setting will increase a child's chance of academic success as they will understand their physical positioning within the classroom and have distractions reduced (NAS 2005:2).Interestingly, Jacklin & Farr's (2005:209) have shown some evidence of the benefits of using a computer at home or in the classroom when helping to establish social and academic responses from autistic children. Teaching concepts through computers have been described as highly effective when increasing children's concentration and teaching key skills (Yellops 2005:74).

2.19.2 Learning support for socialisation skills

Within a school environment, Tutt & Barthorpe (2006:38) recognise preschool learners are expected to engage in small groups or partner working, whole class address situations, team games, lesson change over times, meal times and teacher pupil relationships. Similarly, Sigman & Capps (1997:207) believe increased instruction in smaller groups with more adults around to guide behaviour can provide additional support in an education setting, particularly for learners with autism as a barrier to learning.

Meal times can be naturally noisy and chaotic. Hewitt (205:44) indicates that crowds and noise can be unbearable for learners with autism. Because of this, break times can be difficult times for children with ASD. Therefore, NAS (2000:50) recommends a designated quiet place for break and lunch times. Similarly, Yellops (2005:12) suggests a quiet room with jigsaws and colouring where children can choose to spend break times. To add, Barnard et.al (2000:10) recommends giving a help card which can be given to lunchtime staff, providing an alternative method of communication, especially during busy and hectic times in the day.As a result, having a 'safe haven' can reduce children's stress levels.

Strain & Hyson (2000:121) report that for the majority of ASD children,the social aspect of school life is often the part they enjoy (and are expected to enjoy) the most. However, Hewitt (2005:18) contends that for those affected by more classic

autism this is not true. Whilst some learners want to socialise, Yellops (2005:74) recognises that they do not have the needed social skills to make friends. Therefore, setting up a buddy system can also provide support for children outside the classroom (Batten 2005:93).Notably, inclusive schools such as Croyland Primary (2006:2) have devised scaffolding support within the playground such as a friendship bench where children can sit on if they need a friend to play with. Furthermore, Carpenter (2000:18) assertsthat circle games can help social skills through social games, which focus on taking turns, sharing and working together as a group. To add, a short written explanation in the form of a social story can also support students speaking inappropriately to staff and peers (Barnard et.al. 2000:3). Essentially, social stories are also a practical and interactive way of modelling appropriate social skills (Haywood 2006).

2.19.3 Learning support for communication difficulties

As Westwood (2007:26) notes, the main characteristic of autism is "impairment of communications". Whilst most children being educated in inclusive schools will have verbal communication, learning support needs to be devised to ensure all communicative needs can be expressed and understood with minimum distress of misunderstanding. Interestingly, Hewitt (2005:51) recognises that the autistic thought processes typically prevents the interpretation of large amounts of language at one time. Therefore, it is important to keep instructions short. Hewitt's continued research into pupils with ASD (2005:52) found practical advice when providing learning support for pupils with communicative difficulties. As a result, he suggests that having secured a pupils attention, it is often useful to go and verbally praise and give a simple thumbs up as a visual reward and confirmation of appropriate pupil response. He further advises to allow a few extra seconds of processing time for all ASD pupils before expecting any response. Also, when repeating a verbal instruction, Hewitt (2005:53) warns support staff must always ensure they use exactly the same wording each time as a change of sentence structure may be interpreted by some pupils as a completely different request altogether. Finally, NAS (2006:11) found that answering open-ended questions can be difficult for children with ASD. Therefore, they recommend to structure questions so there is a limited choice of answers.

Hunnisett (2005:95) states picture schedules are an effective way of providing information. Naturally, children with autism are strong visual learners and can get reassurance from pictures and written words far more effectively than from the spoken word. Having a visual schedule which is changed and discussed in each session can also reduce individuals' anxiety levels (Hunnisett 2005:95). Picture schedules also serve as effective cue alerting students with autism to upcoming changes in activities. In the same way, Harrower & Dunlap's (2001) research demonstrated that picture schedules allowed the students followed the class routine 90%-100% of the time.

We have noted that research has highlighted children with ASD to be strong visual learners. Hunnisett (2005:61) reinforces the use of a visual timetable explain in an understandable way what to expect from the school day, from the time the children enter the class until they go home. Most importantly, it cuts down anxiety, tantrums and panic attacks common to children with autism when they are able to access a clear picture of what is going on around them. The picture exchange communication system (PECS) is an augmentative communication system also frequently used on children with autism. Charlop-Christy, Carpenter & Kellet (2002:214) describe the communicative process as the pictures being kept by the child on a notebook (PECS's book) with Velcro. They are then taught to create a sentence by selecting picture cards e.g. I want

card plus juice card' and deliver the cards to a communicative partner as a request for a desired item. Bondy & Frost (2001:86) acknowledge the PECS system as appealing because it has a relatively low cost and is portable. Their report also indicates that the system can be taught relatively rapidly.

The PECS is a pictorial system that was developed for children with social-communication deficits (Frost & Bondy 2001). The PECS system has gained widespread use nationally and internationally with children with autism and is appealing for several reasons (Siegel 2000; Yamall 2000 in Charlop et al 2002). Firstly, the system requires few complex motor movements on behalf of the speaker and does not require the listener to be familiar with an additional language such as sign language. Secondly, the system has a relatively low cost and is portable and suitable for use in many settings.

2.20 The adaptation of teaching and learning for learners with autism

When teaching children with ASD in a group, researchers have acknowledged that these pupils are so easily distracted; therefore, it is important to ensure that all distractions are minimal. Hewitt (2005:45) states schools working with pupils with ASD acknowledge this is most easily achieved by encouraging correct physical positioning. Additionally, he recommends that pupils be seated towards the front of the class, within easy sight of the teacher and the chalk/wipe board" (Hewitt 2005:42). Subsequently, for younger children, learning support can be given on the carpet by an adult sitting near them for additional support. However, Hewitt (2005:45) recommends that pupils are actively encouraged from the outset to be as independent of their support workers as possible during carpet time to ensure too strong attachments are not made. Therefore, the physical proximity from the adult can be gradually reduced over time. If personal space on the carpet is difficult for younger children, NAS (2006:10) suggests that support can be given by providing a hoop for the child to sit in, outlining their personal area.

Sigman & Capps (1997:182) describes the benefit of 'chaining' when teaching a child with ASD. 'Chaining' means that complex target behaviour is broken down into smaller increments. For example, setting the table could be taught step by step: putting mats on the table, folding the napkins. Once the first step is mastered, the second step is taught. Hewitt (2005:74) also supports this theory when he describes 'backward chaining'. For example, to teach a child how to take off their own jumper, an adult would remove the sweatshirt until almost over head. Next time they would remove only one sleeve and continue until the task had been completed.

Westwood (2007:32) concludes that teaching sessions for children with autism generally need to be implemented according to a predictable schedule. They need to teach new information, skills or behaviours in small increments through consistent, systematic and direct methods. He recommends the following support for children with ASD:

- strategic seating in the classroom so that they can be monitored closely and kept on task;
- great clarity in setting a task for the student to attempt;
- using direct, literal questioning, rather than open-ended questioning
- avoiding the over-use of complex language that requires deeper interpretation e.g. metaphors, idioms

- using visual aids during lessons wherever possible
- If necessary, using a student's obsessive interests as a focus for schoolwork, but at the same time trying to extend and vary the student's range of interests over time.

As Hunnisett (2005:39) recognises, everything has to be so much bolder, brighter and larger than life. He recommends that when reading a story to learners with ASD, the teacher needs to exaggerate the actions, ensure the story is rich in repetition, make the voices distinct and different, build up the rhythm, keep a good pace going and most important of all, choose good stories (Hunnisett 2005:40).

To summarise, Sewell (2000:29) suggests the following ten top priorities when working with autistic children:

- Seek early behavioural and educational intervention
- Be consistent in your management of the child (firmness plus affection)
- Maintain intensity and aid generalisation by extending the teaching into all environments
- Build up the child's attention to task
- Speak clearly and concisely to facilitate comprehension
- Ignore attention seeking behaviours but reward appropriate and compliant behaviours
- Be firm but fair in making sure the child carries out requests
- Ensure that all caregivers are aware of the objectives and targets for behaviour
- Challenge the child enough to encourage progress towards new learning goals
- Apply the 3 P's: Planning, Patience and Perseverance

2.21 Conclusion

Since the Salamanca statement, an international acknowledgment of the importance of inclusion has been seen in education. Haywood (2006:88) recognises that the expansion of the inclusion agenda has led to a wider range of staff and services being provided within mainstream schools, along with new approaches to integrating pupils. Within these changes, an emphasis has been given to learning support through adaptation (Haywood 2006:109). In international literature, Bothma (2000:200) reports the attitudes of teachers play a primary role in the successful implementation of an inclusive educational policy. Petty & Saddler (1996:15) refer to numerous studies indicating the importance of teacher's attitudes for successful inclusion. They maintain that a schools philosophy and the attitude of the staff are crucial. From personal experience the positive attitude of staff is essential when working in an inclusive school. A negative attitude and be seen within an educational setting. A teacher may be following the expected curriculum or philosophy, but if they do not believe in what they are delivering it will be met with mistrust and disdain. Therefore, exploring how preschool teachers provide learning support for learners with autism as a barrier to learning will provide insight into how teaching strategies can be adapted in an individual setting. With more information and practical strategies teachers are more likely to feel confident and have a positive attitude towards providing and truly inclusive environment. When a teacher is feeling positive and confident, the pupils will also feel positive and confident to the challenges and flexibility, which is needed when working with learners on the autistic spectrum.

RESEARCH METHODOLODY

CHAPTER 3

3.1 Introduction

The previous chapters have established the development of inclusion from an international and South African perspective. It has also shown autism to be a relativley new concept when refferring to barriers to learning and the importance of learning

support when providing inclusive opportunities for individuals with autism. What has not been ascertained from the previous chapters is how learning support is being provided for learners who have autism as a barrier to learning in South Africa, in particular learners within the early years. It is evident that one sampled independent setting which focus on the education of preschool learners with autism provides inclusive opportunities for their learners. What is not evident is how this is being achieved. Therefore, a case study was designed to provide a more in depth understanding of what learning support is occuring in an individual setting for preschool learners with autism as a barrier to learning. Silverman (2003:233) describes that in writing up research, we tell stories about data. Therefore, it is only natural, that readers should be expected to know how we gathered our data what data we ended up with and how we analysed it. Providing a thorough overview of research design and data collection also ensures that validity, reliability and trustworthiness of data outcomes and analysis can occur. This chapter shall focus on the nature of the research design, its outline and how it will be obtained.

3.2 Research design

Research design within the social sciences is either conducted from a quantitative or qualitative paradigm. This research design shall be conducted from a qualitative paradigm. This was determined as the purpose of the research is to understanda phenomenon of preschool learners with autism accessing inclusive education through learning support. (De Vos in De Vos et al 2005:40). For this research, the problem focuses on how teachers in an independent ECD setting provide learning support to enable inclusion for learners with autism.Hence, the purpose of this research is to obtain an in depth understanding of what learning support is used by the teachers when providing inclusive opportunities for specific learners. Henning (2004:31) states that a qualitative study is presented in language and is about the meaning constructed from the language when presenting data. The qualitative discipline investigates the *why* and *how* of decision making, not just *what*, *where*, *when* (Fortune & Reid 1999:94 in De Vos et al 2005). Therefore, a qualitative research design is required to ascertain this information and will be used in this research. This qualitative research is to understand how pre-school learners with autism access an inclusive education in a specific Early Childhood Development Centre through learning support. The resrach focused on the teaching staff in an independent ECDcentre as the teachers were able to provide communication and were seen to provide learning support throughout each school day. This enabled an indepth understanding to be seen on a dialy basis. The research was conducted for approximately six months so the development and progression of the learners could be seen and recorded over an extended period of time, additional time would have been allocated if more research had been necessary.

3.2.1 Type of qualitative research

Within qualitative research, the appropriate research design should be based upon the purpose of the study, the nature of the research question and the resources available to the researcher (De Vos et al 2005:268). In addition, Denzin & Lincoln (2005:3) also suggest that various design strategies can be used to utilise specific research needs. These strategies could include; ethnography, phenomenology, action research, case studies and grounded theory. The decision to use a case study co-incides with Cresswells theory (1998:61in De Vos et al 2005) that a case study typically refers to a bounded system or person, either a learner

or a teacher, or an entity, such as a school, a university, a classroom. Unlike ethnographic research, case studies do not necessarily focus on cultural aspects of a group or its members. Depending on the researcher's preference, case study research may feature single cases or multiple cases. Furthermore, case study research is aimed at understanding a bounded phenomenon by examining in depth, and in a holistic manner, one particular instance of the phenomenon. The research was conducted from a qualitative perspective through an intrinsic case study. An intrinsic study was used as the setting chosen was already seen to be practicing inclusive opportunities, to what extent and how was a valid reason for further research.As Neuman (2003) wrote, an intrinsic case study will focus on gaining a better understanding of an individual case.

According to Yin (2008), a case study follows the logic of the experiment rather than logic of the survey.Therefore, it is not necessary to repeat a case study. In particular, Yin (2008) mentioned this choice of design is ideal as the setting being observed was a specific environment with the unique event of preschool learners with autism being included in an educational setting. Finding a similar environment would be counter-producitve as the very nature of this research is to gain an in depth understanding of the phenomenon of including preschool learners with autism within this particular setting. This qualitative methodology is concerned with the opinions, experiences and feelings of pre-school learners with autism and their teachers producing subjective data (Hancock 2002:6).It is based on the assumption that all knowledge gained during the research will be obtained first hand (Denzin & Lincoln 2002) Through voluntary teaching, participant observation can occur, therefore the research data can be understood and documented through first hand knowledge. As Yin (2008) recognises, when conducting a case study, the collection procedures are not routinised. Merriam (2010:67) argues that the research methods of qualitative research are more flexible, responsive, and open to contextual interpretation than in quantitative research. This type of qualitative research works well whilst teaching as the researcher is in the setting and needs flexibility as the research is also teaching and interacting with the teachers and learners throughout the day. Because of this, the observations made were recorded on a daily basis in addition to reflection notes from observed phenomena. (Appendix III) Most notes were written during the end of each school day as there was little time to write whilst teaching, this also allowed opportunity for researcher reflection.

3.3 Research process

As already alluded to in chapter 1, paragraph 1.5.1, research design can be thought of as the structure of research, it is the "glue" that holds all of the elements in a research project together. Describing research outcomes through a concise notation enables the researcher to summarise a complex phenomenon efficiently (Trochim 2006:1).Data collection methods emanate from guidelines set out in the research design and these methods are influenced by the research question and design. (De Vos et al 2005:82). This study combined both participant observation and interviews to collect data. These methods were sympathetic to the demands of teaching within the environment and spending time with the staff after each school day. In addition, Silverman (2003) advocates the use of multiple methods of data collection, as this enhances the trustworthiness of data. He argues that each source gathered corroborate each other, replicating a form of triangulation, thus eradicating any weaknesses from each method of data collection. As the staff are very busy during the school day and do not always have opportunity to explain a particular learning support technique, individual interviews were conducted. The aim of each interview was to provide an in depth understanding of individual views on the learning support provided to achieve inclusive opportunities within this setting. The individual interviews did not provide enough rich information as the staff were not

relaxed to speak for extended times. In particular one respondent was very nervous about the tape recorder. A personal theory of the reason for the staffs reluctance is two of the staff learnt about providing support on the job and through the main teacher who is teacher trained. As some staff have not had any formalised training they could have been unsure how to verbalise what they do. Because of this participant observation was used and detailed field notes were written to add depth and personal insight into this phenomenon and provide an accurate documentation of what was observed.

3.3.1 Sample selection

In chapter 1, the researcher indicated that sampling can be defined as the element of the population considererd for actual inclusion in the study (Denzin & Lincoln 2002:71).Accordingly, the sample is studied in an attempt to understand the population from which it was drawn. Purposeful sampling was employed when a specific preschool setting was chosen. In addition, the sample was three teachers in the specific preschool for learners with autism and one teacher in the inclusive setting. The teacher in the inclusive setting was included in the sample as during the observation period it became apparent that she was an intricate part of the learning support process. As Silverman (2000:104) states, purposive sampling allows us to choose a case because it illustrates some features or process in which we are interested." Mertens (2005:288) states that purposive sampling is in accordance with the researcher's judgement. Silverman (2000:105) concurs that purposive sampling does not include accessible or convenient sampling but incorporates those from which the most can be learnt and that would most accurately help the researcher to answer the research question. In this case study, the sample was a preschool for learners with autism and other communication difficulties. It was chosen because it is attached toa mainstream preschool where staff from both settings work together to provide learners with autism opportunities to work within an inclusive environment. The research was planned to understand what learning support is being provided for the learners and understand more about the process.

3.3.2 Method of data collection

This studyparticipant observation was used as a data collection instrument. They were the prominent method of data collection as The research objective was to understand what leaning support was being provided for the preschool learners,.This was best achieved by working alongside the teachers and seeing the practical application of learning support on a daily basis. The observations were flexible depending upon what phenomena and experiences were observed and where the researcher was based when teaching took place. To ensure some continuity, a reflection was recorded at the end of each school day in addition to observations seen during the participant observations. Interviews were subsequently conducted on an individual basis to allow further understanding of individual behaviour seen and to allow opportunity for individual opinions to be shared. Notably, Silverman (2000) advocates the use of multiple methods of data collection, as this enhances the trustworthiness of data. He further argues that each source gathered corroborate each other, replicating a form of triangulation, thus eradicating any weaknesses with each method of data collection.

3.3.2.1 Interviewing

Interviewing was initially planned as the predominant mode of data or information collection in this qualitative research (Siedman 1998:1).Semi structured questions were planned to provide opening questions and a flexible structure. The intention of the questioning was to allow the staff to discuss their experiences and opinions about inclusion and their work in the classroom. Despite, one to one interviews with the preschool teachers being conducted on the premisesso that a relationship and sense of trust had been established between the researcher and interviewees, the interviewees were not comfortable with in depth interviews. According to Sewell (2001:1), interviews allow the researcher to understand the world from the participant's point of view, to unfold the meaning of people's experiences, and to uncover their lived world. However, during this research process the respondents were uncomfortable with being recorded and did not provide in depth answers. In particular, one respondent requested to only be observed and spoken to informally. Despite this unforeseen outcome, some insight was gained into the specific learning support which is used in the preschool setting when providing inclusive opportunities for preschool learners with autism. The interviews did also provide some undertsanding into what learning support the preschool teachers deems beneficial to preschool learners with autism in an inclusive environment.

This in-depth interview technique was not aimed to get answers to questions or to test the teacher's knowledge on inclusion. Instead, it was to gain an understanding of the respondents' experiences and the meaning they make of those experiences (Vos et al. 2005:293). For the interview process, the questions were given in the same format and follow the same process to ensure continuity and reliability of information. The question design was based upon Rubin and Rubin's (1995:145) theory of question types in an interview which includes:

- Main questions. The researcher prepares a handful of main questions with which to begin and guide the conversation.
- Probe. When responses lack sufficient detail, depth or clarity, the interviewer puts out a probe to complete or clarify the answer, or to request further examples of evidence.
- Follow up questions. These pursue the implications of answers to the main questions.

Individual interviews were deemed to be appropriate given the research question. Inclusion can be viewed from a practical, educational and moralistic perspective and because of this, individual opinions could be influenced by peers and the respondent's perceptions of what should be thought from a moralistic perspective instead of their true feelings. There was also the consideration of the limited number of respondents available being within each educational setting; because of this it was not practical to place preschool teachers together who do not know each other from different settings. Understandably, the environment would have not been naturalistic and the outcome of data would not be reliable. In retrospect, a change of interview technique for a group interview for all the staff in the setting could have resulted in more in-depth responses as the individual interviews were limited. Additional information was obtained through informal discussions which were recorded in the field journals.

Each interview was recorded on a tape recorder as recommended by Smit et al. (1995:17). As Rubin & Robin (2005) mention, this allows a much fuller and accurate record of what occurred during the interview than note taking. Its

disadvantage is that "the participant may not feel happy about being taped and withdraw" (Vos et al 2005:298). Despite building up a relationship with each respondent to help them feel comfortable, respondents did withdraw during the interview process. Instead they were more comfortable being observed and engaging in conversations during the working day. Significant verbal interactions were included in the field notes and observations written up at the end of each working day. (Appendix III)The change in data collection enabled the staff to feel more relaxed in their own environment and allow them to talk about teaching in a more realistic working environment.

3.3.2.2 Observations

De Vos et al (2005:275) assume the real world of participants can only be understood if the words and expressions they use in specific situations are revealed. Although Muller (1995:65) acknowledges that the presence of a researcher will itself alter the natural situation, participant observation provided the most objective experience of the school community. Also, as stated by De Vos et al (2005:283), participant observation aims at an in-depth investigation of a problem and its qualitative nature which is ideal for the purpose of this research. Therefore, for this research observations were made whilst the researcher was undertaking a voluntray six month teaching part time position. During this period the researcher undertook participant observations during each school day spent in the setting. Field notes and reflections were recorded at the end of each working day.

The focus of this particiant observation was on the everyday and natural experienes of the respondents, therefore the observations had their own rhythm and flow (Merriam 2010:121). By working alongside the respondents whilst they taught on a daily basis provided insight into the preschool teachers and learners everyday experiences of providing and receiving learning support when enabling inclusive opportunities to occur. Observing what learning support occurs within the independent ECD setting provided valuable knowldege into how learning support is used by these empowered teachers.

In addition, field notes, which are regarded as an important tool for the qualitative researcher, were included as a source of data in the inquiry. After each interview,and at the end of each working day, field notes were made to provide detailed reproductions and opportunity for reflection of what had occurred. Field notes are a detailed description of what was observed (Glarthorn 1998:173). Glense (1999:97) further states that field notes enable the researcher an internal dialogue to question what one has come to know and how that knowledge has come about; the degree of certainty of such knowledge; and the further lines of inquiry implied by this knowledge. Therefore, in addition to observations being recorded during the school day, the researcher recorded her reflections at the end of each school day. This facilitateda more detailed recording of experiences and the opportuntiy to reflect upon what had been observed. The observations were recorded two days a week whilst the independent ECD is open during term time.

3.4 Implications of ethical considerations

Ethics is a set of moral principles that offers behavioural expectations about the most correct conduct towards participants (De Vos et al. 2008:24). Ethical considerations were observed throughout the research project and were not taken as an afterthought. The following measures will be followed and continuously used as a guide throughout the study.

3.4.1 Informed consent

De Vos et al (2005:25) states that informed consent relates to the communication of all possible or adequate information on the goal of the investigation, the procedure, possible advantages and dangers to which the respondents might be exposed. To ensure this, participants were fully informed of the purpose of the research project in advance. Each participant gave his or her permission to be observed and interviewed. In addition, participants were given the option to discontinue participation at any time during the process. No deception wasused in the research project as all respondents participated willingly.

3.4.2 Avoidance from harm

Avoidance of harm was upheld. Sensitive and personal information could be extracted from the individuals who could leave them susceptible to emotional or physical harm. To avoid harm, the confidentiality and privacy of each participant were maintained without compromising the validity of data. A debriefing session also assistedthe participants and minimised harm by allowing them to ask questions or discuss their concerns Merriam (2010:162). Allowing a final session for participants to discuss their feelings about the project provided emotional support and also allowed opportunity to provide information on outside support from the school or wider community.

3.4.3 Researcher's competency

Researchers are ethically obliged to possess a high level of competency and skills in undertaking research project. Merten (1998:20) states his concerns that the researcher's biases, values and judgement may influence data either positively or negatively. To negate this, the research project was conducted without prejudice, bias or pre- misconceptions. The researcher had a conscious role throughout the interviews and observation period not to predetermine meaning. Instead, the researcher's role was to only report the respondents' experiences including their biases and judgements. To achieve this, the researcher was only asked questions, observe responses and accurately record the information. Finally, the researcher endeavoured to maintain a healthy and honest relationship with each participant and shared a high degree of trust throughout the research.

3.4.4 Privacy/confidentiality

The more sensitive the information, the researcher has greater responsibility to treat the information as extremely confidential. Confidentiality implies that the participants have the right to anonymity. In this research, no individual names, the name of the setting or any learners' names shall be disclosed to protect the privacy and safety of the participants. Pseudonyms were given to each participant and any traceable details were kept anonymous.

3.5 Data Analysis

Following a consistent process of data analysis will ensure that the comparative method can be utilised for each participants' response. Each interview was recorded and a word for word transcript was made. De Vos et al (2005:333) states that data analysis is ideal for its relevance to the human service professions and provides a format to approach qualitative analysis. As the very nature of qualitative research is flexible and focused upon understanding a phenomenon, the nature of analysis also needs to reflect the data which has been recorded.

Merriam (2010) mentions that qualitative data to be emergent as the researcher does not know the path the research will take or the outcome. Therefore, the qualitative analysis is based on making sense of the data (Merriam 2010:175). This was achieved by consolidating, reducing and organising the data into overall themes and recognising what has been learnt (Merriam 2010:175). Qualitative analysis began by going back to the purpose of the study (De Vos et al 2005:311) which was how preschool teachers use learning support to enable learners with autism to access an inclusive education system. From thisthe analysis "transforms data into findings" (Patton 2002:432). An advantage of qualitative research is that hypotheses are not developed ahead of time. Its disadvantage is that it can be messy and time consuming (De Vos et al 2005:333). The goal of data analysis is to yield significant and valid answers to the research question. Basic raw data was initially processed by transcribing the interviews (Miles & Huberman 1994:12). Once the data had been processed, the next step was to prepare the data and working systematically to develop common themes and connections through the field notes and transcripts.

Through re-reading and deep reflection, the researcher was able to understand the data which had been collected. Creswell's (1998 in De Vos et al 2005:340) method of coding was also a valuable tool when understanding what has been observed. By analysing each interview and observation, the overall data was broken down as similarities and repeating themes were seen. By making connections between each category the in-depth and detailed research became organised. All the data was categorised and connections between the experiences were made. This enabled the recording and discussion of the research findings to be clear and unambiguous. Once executed, the data from the research was used to understand what learning support was being used by teachers in an independent preschool setting when providing inclusive opportunities for learners with autism. This qualitative analysis took place throughout all the data collection process where the analysis commenced with reading all the data and then dividing the data into smaller and more meaningful units. Common themes and concepts were extracted and compared to discover connections between the categories and themes. Once Creswell's data analysis model had been executed, the data was integrated into the theoretical framework of the research question. This enabled a greater understanding of the data in relation to the research question and the surrounding literature outlined in the literature study.

It is imperative to note what connections are deemed important was not predetermined by the researcher. Maykut & Morehouse (1994:46) emphasise that whilst the research is being conducted to answer specific questions, the researcher has no preconceived ideas as to what those answers will be. The researcher's role was to reduce the data to meaningful and understandable information which naturally led to themes and categories being formed. Continuously analysing and refining the categories throughout the analysis in a systematic manner also enabled the verification and reliability of results.

3.6 Validity

De Vos et al (2005:345) suggest every systematic inquiry into the human condition must address the issue of validity and reliability. Gay & Airasian (2000:42) define validity as the quality of a data gathering instrument or procedure that enables it to measure what it is supposed to measure. In qualitative research, validity rests primarily within the data collection and analysis techniques. Using the combination of strategies of participant observation and interviews enhanced design validity. As a result, triangulation, cross validation among data sources and data collection allowed the corroboration of different themes to be seen (McMillian & Schumacher 2001:478). Lincoln and Guba (1985:290) propose four constructs which will reflect the validity of this qualitative research; credibility, transferability, dependability and conformability.

3.6.1 Credibility

Credibility is an alternative to internal validity, where the goal is to ensure that the research was conducted in a manner which ensures the participants are accurately described and identified. Credibilitywas determined through an in-depth description showing the complexities of variables and interactions whichwere embedded with data derived from the setting. Continually looking for discrepant evidence is a means of producing rich and credible data. Trustworthiness is also ensured through the method of data capturing, namely audio tape and verbatim transcriptions. The tape-recorded interviews ensured accuracy of findings as the transcriptions can be taken back to the participants, allowing them opportunity to see if what was recorded was the true reflection of what they discussed in the interviews.

3.6.2 Transferability

Transferability can be referred to as external validity or generalisability of qualitative research (Rosnow & Rosenthal 1996:201). Transferabilitywas addressed by outlining the theoretical parameters of the research so further studies can be conducted in the same theoretical manner.

3.6.3 Dependability

Merriam (1998:206) describes dependability as the alternative to reliability. It is defined as the degree of consistency during the research. Dependability of the research can be outlined by accounting for any changing conditions in the phenomenon and also, accounts for changes in the initial research design, due to an increased understanding of the setting during the research itself. Dependability in this research was established by describing all the data collection and analysis in detail and accounting for any changes in the initial research design. Dependability from the respondents should also be seen as it is predictive that they should respond in similar manner when subjected to the same individual interview questions.

3.6.4 Conformability

Conformability was seen as any general findings or implications made during this research will only be derived from the data itself. When discussing the learning support seen, the general findings found within the ECD for learners with autism do not necessarily apply to other ECD settings. The findings are specific to this individual ECD setting and are from an individual researcher's perspective and the individual researcher's interpretation of the data gathered.

3.7 Reflection of research methodology

Back (2004)argues for critical reflection of theoretical persective because without reflection, the reasearch itself will be bias and therefore, unreliable. Through critical reflection, the researcher can develop their understanding of themselves as a researcher and can subjectively interpret the data which has been found and analysed. Therefore, critical reflection also provided an unbias overview of the case study and provided an unbias framework for future research to be challenged or built upon. This was achieved by reflecting upon the field notes which were recorded on a daily basis. Writing notes after each observation allowed the researcher to record what was observed and reflect upon the experiences. This allowed the researcher to re-read past field notes and make connections throughout the research process. It was by re-reading the field notes that the effectivness of scaffolding was seen as one learners journey can be clearly seen over the 6 months observation. Through effective scaffolding and setting small achievable goals one learner developed from being able to sit in an inclusive classroom for 5 minutes to being able to fully participate in a structured lesson and make a transition into the outside playground. Several themes were also seen through re-reading and analysing the field notes. These shall be discussed further in the next chapter.

3.7.1 Limitations

The present study was limited to individual interviews, observations and field notes with specialist preschool teachers for learners on the autistic spectrum. All the respondents and preschool settings were within the Gauteng province. This limitation did not support any generalisation of the findings about other specialist teachers' experiences in South Africa, nor did it lend itself to the forming of generalisations on an international perspective. Therefore, the aim of this study was not to generalise but to try and understand individuals experience inclusion for learners on the autistic spectrum. The uniqueness of each learner also necessitated unique learning experiences. By recognising this element, this research was able to focus on how the learning support was adapted for each individual in their unique situation.

As there were a limited number of specialistspreschool teachers for learners on the autistic spectrum, the respondents were limited to those who are available and who gave permission to participate. Within this setting, the sample of 4 teachers was small, whilst this allows for a more in-depth analysis of individuals.The data and findings found only represent a very small population of ECD preschool teachers. Finally, validity and reliability could also be influenced as individual responses need to be unbiased and truthful. Whilst relationships will be developed between the respondents and the researcher, there could be an element of the respondents wanting to 'please' the researcher or the researcher never fully knowing if the respondent has been truthful. This limitation was minimised by the researcher spending a prolonged period of six months within the ECD setting.

3.7.2 Implications for this study

The outcome of this case study was to understand how one ECD setting provides an inclusive educational programme for preschool learners with autism. As autism is still a relativley unknown concept within South Africa, the research highlights the nature of learners with autism in South Africa. This information could benefit practicioners who have learners with autism within their educational setting. The research also highlight the use of learning support within the culture and society of South Africa. Any research about inclusion being conducted within South Africa will support the development and understanding of inclusion from an educational perspective.

DISCUSSION OF RESULTS

CHAPTER 4

4.1 Introduction

The observations and interviews conducted within the ECD for pre- school learners with autism provided valuable insight into how inclusive practice is being achieved through learning support. Observing the learners within their own environment and

in the adjoining ECD centre provided firsthand knowledge of how inclusion works between these two settings. Summarising the physical environment and relationship between these two settings is also imperative as this contributes towards how learning support is used within this case study.

The data obtained during the research required a comprehensive and thorough analysis through reading, interpreting, grouping and categorising the information found. The overall information, whilst complex, showed a prominence of two learning support strategies used by the teachers within each setting, namely;adaptation of the individual teaching style and adaptation of the learning environment. From this research, a guideline was written about recommendations when providing inclusive opportunities for learners with autism. The guidelines are based upon the findings from this study and were written as a baseline for teachers to adapt to each unique learner's abilities and circumstances (Appendix IV). The research also highlighted the importance of communication and collaboration within the community as an integral part of how learning support was being successfully executed within the setting. Consequently, the research results shall be discussed through three areas of findings: The adaptation of individual teaching; the adaptation of the learning environment and the importance of communication and collaboration within the community.

4.2 Summary of the case study setting

A main resource was the physical environment of the two ECDs. This influenced how learning support was used. The shared use of resources and space made daily interactions between the two ECDs occur on a regular basis[1]. This regular contact influenced the nature of the interactions between staff members. On observation, the interactions were seen to be informal as relationships were observed as friendly and strong.

4.2.1 The physical environment of the ECD setting

The ECD centre for preschool learners with autism is based within a residential suburb[2]. It shares the same physical building as a main stream preschool which caters for learners aged 3 to 7 in the local area[3]. ECD-A began in a converted garage and expanded into two adjoining rooms with bathroom facilities and a separate garden. The converted garage space is used as an indoor play and activity area. A corner is segmented off as a morning session area for the older learners, aged 5-7. The remaining rooms are used as a permanent morning session room for the younger learners, aged 3-5 and as a quiet activity room and dining area. Both the garage space and quiet room have a doorway which links into the adjoining ECD-B. The outside play area can be accessed from the converted garage area through a sliding door. The outside area is a combination of grass and concrete. Within the play area is a range of large equipment including a small slide, swings and a

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1Interactions in a school day of 8.00am – 2.00pm ranged from once to six times.

2Shall be referred to as ECD-A

3Shall be referred to as ECD-B

trampoline built into the ground. Larger climbing equipment is located in ECD-B, which is used by both settings during a school week [4].

4.2.2 ECD shared use of space

Different locations throughout the physical buildings were observed as places where informal interactions occurred between learners and staff in both settings. These interactions occurred in places where facilities were shared by both ECDs, e.g. the outdoor swimming pool at ECD-B. Learners share the changing area and the area is accessed through the ECD-B main playground. During these times, it was noted that learners and staff from both settings interact as they access the swimming pool area. Interactions ranged from waving to engaging in play situations. One learner with autism was seen to particularly enjoy swimming and thrive in a water environment. During the observation period, the preschool staff worked with this learner and the swimming teacher with the end goal being for him to participate with his age-related peers. At the end of the study, the learner had progressed to being in the water with his peers in addition to having an individual adult aid. His next step was to increase his participation with the planned activities.

Another shared area is the covered courtyard in the ECD-B setting where a weekly assembly is held and attended in the covered courtyard in ECD-B by learners from both settings. Learners from ECD-A have a designated seating area at the back of the courtyard and are encouraged to participate through shared singing, prayer and listening to stories.[5]

The ECD-B has two large well-resourced outside play areas. The outside area for the older learners is well-organised with designated play areas. It has a large covered sandpit, a bike trail, football and basketball areas and a construction area on raised decking. Large climbing apparatus is at one end of the play area, this equipment includes a fireman's pole, a slide and a bridge. Learners from ECD-A use this outdoor space alongside the learners from ECD-B throughout the school week

The formal school day ends in ECD-A at 2.00pm. Part-time learners are picked up after their nap time. Learners who spend a full day in the setting go to one of two play areas within ECD-B, depending upon the learner's age and individual needs. Younger nonverbal learners from ECD-A go to the smaller play area designed for younger learners within ECD-B whilst two older learners who have some verbal skills chose to use the larger equipment alongside age equivalent peers. This arrangement was seen to be flexible as children moved between the two play areas dependent upon availability of staff and peer relationships. For example, an older learner with autism went through a period of being unsettled as he consequently found playing in the larger play area difficult. The staff from both settings communicated their concerns and decided to move the learner into the smaller play area which was quieter and was where his younger sibling played. This transition was seen

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[4]An informal arrnagement between the two settings was observed. Shared play sessions averaged 2.5 times a week for morning play and 5 times a week for children who stayed after 2.00pm.

[5]The assembly session was not attended by all the learners from ECD-A. Many younger learners stayed in their own setting. Some learners stayed only for the singing part of assembly.

to have a positive effect as the learner was calmer and happier to be near his sibling. The proximity of the two playgrounds made this adaptation easier.

The kitchen is also a shared area between the two settings. Staff from both settings, in particular the support staff, share chores in the kitchen. These staff see each other in an informal context whilst preparing meals and cleaning school equipment. It was observed that strong relationships were found between support staff. Conversations were regular and chores were shared equally with no regard to where staff members are located. For example, snacks would be made by one staff member for all the learners from both settings. This was seen as beneficial as it was observed that the support staff from ECD-B showed particular affection for the learners in the specialised setting. They were often seen to take their breaks together in the ECD-A playground where staff from both settings would interact and show affection to the learners. This consequently supported the learner's recognition of key staff members when they go to the mainstream setting.

Teachers had a weekly staff meeting which is attended by staff from both settings. This was seen as beneficial as the staff had formal opportunity to communicate and be aware of learners needs from both settings. During the observation period staff from both settings also undertook two training sessions on the nature of autism and inclusive practice. Finally, many school resources for example music compact discs (CDs)were informally shared among staff from both settings. It was frequently observed that staff would enter both settings to borrow equipment, often a learner would accompany them for 'the errand' [6] During these interactions, it was noted that the ECD-B staff would interact with learners from ECD-A, consequently some learners recognised key staff members and interacted with them in a social context. From the informal interactions in the shared space many benefits were observed which created a positive working environment. This was seen to impact the opportunity for inclusive practice to occur.

4.2.3 The impact of shared physical location and resources

Whilst the shared physical location of the two ECDs did not alone enable inclusion to occur, it was observed that the adjoined setting had many benefits when developing inclusive opportunities for learners within the specialised ECD setting. These included: the building of relationships between learners and staff; the learners familiarisation of the adjoining environment and the increased opportunity for communication and collaboration.

4.2.3.1 Building relationships between learners and staff

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6 The 'errand' was either a legitimate need to borrow equipment or a planned opportunity for learners to enter ECB-B setting as part of the familiarisation process.

As the learners saw staff from ECD-B on a regular basis, they were familiar with individual staff. This notion was reinforced on one occasion when the learners were looking at photographs of different staff members within the two settings. When a member of staff from the ECD-B entered the room, the learners were able to match her with the correct photograph. In addition, the more-able learners within the setting were seen to smile and wave at different members of staff. On a different occasion, when a teacher from ECD-B entered the setting, a learner initiated physical contact through a hug. This positive interaction was significant as the learner had previously been agitated and withdrawn around unfamiliar adults.

Teacher A, the head teacher for ECD-A, describes the informal exchanges as an integral part of the inclusion process.

"Because the kids get to see the members of staff, they get more used to them so when they go into their (The teachers) classes it is not as scary as they know who they are and in the same way it is not as scary for the teachers as they know the children and what can upset them and so they can do a better job at including them."

Through interview and observation, it became evident that staff members from the ECD-B setting had previously had little to no experience with autism. They voiced their previous concerns about what autism meant and their concerns about teaching and interacting with learners who had autism as a barrier to learning.

*"If you'd have told me that I would have been teaching autistic children I would have said never!! But A**** has really shown me how wonderful these children are. I am beginning to feel more confident when around them. It helps that I see them all the time, they are now part of the L***** V**** family."*

The main concern staff had previously, did not know what working with learners with autism involved. Some staff had never previously heard about autism and had never experienced working with learners who had additional needs. [7]Concerns voiced included how they would deal with behavioural issues whilst maintaining control over a class of children.[8]Because the staff did not know about autism, they felt that they had no tools or strategies to deal with these learners. By seeing the learners on a daily basis, the staff from ECD-B were seen to indirectly observe how the preschool teachers from ECD-A worked with the learners with autism, how they communicated and interacted. This was seen to increase the teachers' understanding of autism as they were seen to interact with learners from both settings with confidence and understanding.

When talking about teaching strategies or behavioural reinforcement the staff from ECD-B often referred to examples of good teaching they had seen from the staff in ECD-A. These observations were possible because of the layout of the physical environment between the two settings, the staff members were able to see learners in their natural environment, leading to an unbiased insight into their school day and observing the learners without subjecting them to feel the pressure of a planned observation which would be out of their daily routine.[9]

4.2.3.2 Familiarisation with the environment

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7 One member of staff had experience of autism from a friend's child undergoing diagnosis.

8This point was mentioned by all ECD-B staff during the observation period.

9 Resistance to change is part of the triad of impairments. This is part of a learner with autisms barrier to learning.

The proximity of physical location also enabled the learners within ECD-A to become familiar with the surrounding environment in ECD-B. This was seen when a learner from ECD-A was playing in the sandpit. Whilst it was obvious that the learner needed to use the bathroom,he was unable to communicate his needs verbally; nevertheless, he was able to independently use the facility. Both settings have identical bathroom signs with Makaton symbols and labels. Being able to confidently move around in a different environment meant the learner was able to return to his play without showing signs of distress. Teacher A recognises this independence as a useful tool when developing a learner's ability to be included in a different environment.

"*It's good that the kids get to play and be on the other side (at ECD-B). Knowing where to go and what to do make it one less thing for them to worry about when they are away from their classroom. Cause children with autism like their routine and can get stressed with change and the unknown. Little things like going to the bathroom and lining up can be the breaking point (what can upset them) if these umm barriers are removed then they can just enjoy the activities with everyone else.*"

The staff members have worked together to ensure the signs around both settings have the Makaton sign in addition to writing. These signs were seen to benefit learners from both settings as the non-readers were able to 'read' signs through learning the Makaton symbols. Learners from both settings understood the signs and were seen to follow their instructions.

Learners from ECD-A were also able to confidently leave their main carer and enter parallel play with their peers from ECD-B on the large climbing equipment. The learners used the equipment appropriately and were seen to wait for their turn to climb up the stairs towards the slide. This incidence showed the learners from ECD-A were familiar with the ECD-B environment and were confident to interact in its surroundings. Also in one incidence a learner from ECD-A seemed to engage in parallel play in the sandpit. Notably, this was significant as he had previously been very isolated in his play. Again, as previously noted by teacher A reducing additional barriers to learning, such as stress from the unknown, helped the learners with autism to be in a position to be included in peers play. As some learners had daily access to the large equipment they were confident to use the equipment and were seen to achieve many gross physical developmental targets. This also supported their peer's positive perception of things they could do instead of focusing on what they could not. For example, when peers were asked what learner M***** was good at during circle time they referred to something they had seen him do in the larger playground.[10]

Familiarisation with the environment was also beneficial when the learners participated in activities in ECD-B. Learners' self-confidence was seen to be increased when they knew which room they were going to for an activity. Over time it was evident the learners stress level decreased as they became more familiar with the route they take to travel to the room. This was seen to make the transition to participating in an activity a calmer process.

The pressure for the learner to be included for longer periods of time was not seen as the learner was able to return to their classroom if they became highly anxious or distressed. On several occasions, when a learner was participating in an activity

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10 Answers included hanging upside down on a bar, climbing to the top of the high frame and running fast.

with their peers, if they became distressed, they were allowed to return to their own environment. Because the free flow of movement was encouraged, some learners were seen to calm down and chose to return to the activity after they became upset. This also supported the ECD-B teachers' confidence to include the learners as they felt their participation was always able to be positive. It also reduced their concerns about 'disrupting' the activity for the other children in the group.[11] This flexibility would not be possible if a learner had to travel to have inclusive opportunities.

4.2.3.3 Opportunity for staff communication and collaboration

Staff from both settings was seen to have developed strong working relationships and friendships. The development of such relationships meant that many interactions would occur throughout a school day. All interactions observed occurred in a friendly and informal context. Teaching staff would discuss learners' developments and arrange suitable times for learners from the ECD-A to go into sessions in the ECD-B. An observed downside was that these times were not formally recorded. This was seen to be problematic when staff were referring and comparing past strategies when discussing development programmes for new learners. Whilst this issue was not raised by the staff themselves, from an observer's prospective the lack of recording made an impact upon the consistency of implementation over an extended period of time.

Support staff from both settings had close relationships and would spend break and lunch time together. Support staff from ECD-B would frequently have their break in the ECD-A garden where they would observe and interact with the learners. This was seen to have a positive effect as staff members were familiar with individuals and on observation support staff and learners formed positive relationships with individuals. This attention was also seen when learners were in the ECD-B setting. On one occasion when a learner was in distress, he sought out a member of support staff from the ECD-B setting to provide emotional support through a cuddle. Teacher C explained the relationship she felt between the support staff and learners was one of a nurturing nature where the staff wanted to 'look out' for the learners and provide support for them to succeed. This additional support network was in teacher C's opinion was a positive attribute to helping the learners play alongside their peers as staff members were more aware of individuals needs so that they could intervene when necessary. By knowing the triggers which could upset individuals, the support staffmembers from each setting were able to react to potential situations and diffuse them before they escalated. An example of this was when a support staff from setting ECD-B quickly removed a spider from the climbing equipment as she knew a particular learner was afraid of insects. Instead the spider was moved to a different area in the playground so it could still be observed by the learners who were interested. By staff communicating what could be deemed trivial information, many triggers were reduced which led to an increase of positive experiences when learners from both settings were together.

Teaching staff members were also seen to collaborate when planning. The ECD-A setting would plan similar topics to ECD-B. In particular, if a learner was going to spend time learning in the ECD-B setting teacher A and B would plan for the topic work to be parallel. For example, when a learner was going to spend time in a class where the topic was Noah's ark, teacher

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11 Whilst it could be argued that inclusion does not mean having the child leave. It is the researcher opinion that providing this flexibility had a positive effect on the situation as it allowed staffs confidence to be increased over time as they learnt more strategies to support learners with autism.

A planned for her group to sing songs about animals which complemented the learning objectives in ECD-B. This similar planning was believed by Teacher A to provide support for a smoother transition between the two different settings. The staff also believed that preparing the children by singing songs which both ECD's were learning helped increase the learners' self-esteem and confidence. They felt that if the learner knew a song their peers were learning, they would feel more comfortable. From this, they believed that the learners would be more susceptible to learn new songs and extend their learning. This method of scaffolding was seen as a main learning support strategy which stemmed from the teachers' collaborative planning.

4.3 Learning support strategies used within the classroom context

This research emphasis that the nature of learning support being teacher-based. As the ECD is independent, governmental support was not seen within this particular setting. Teacher B described the support received as through community involvement and charity contributions of monetary value. Teacher A outlined the strategies she used had mainly been learnt through in-house staff training she received during her time as a teaching assistant in a specialised school in the UK. She also described how she keeps her training up to date by reading international information on the web and through her education at the University of South Africa (UNISA). Her teaching of this information was seen through teacher modelling as her learning support strategies were shared through informal peer observations and through presentations at staff meetings between the two ECD settings.

The learning support strategies observed throughout the research could be categorised into two groups; the adaption of individual teaching style and the adaption of the learning environment.

4.3.1 The adaptation of individual teaching style using Makaton

The teachers within the ECD-A setting use Makaton on a daily basis. When talking to learners, teachers used Makaton gestures to reinforce what they were saying. For example, using the phrase 'Time to go and eat'. The teachers would sign 'time' and 'eat'. Evidently, the use of Makaton was seen to support the teacher's means of communication as individual learners understood what was expected of them. However, very few learners were seen using the Makatonby themselves with the exception of a higher functioning individual who used it along side speech. A reason for this could be based on the learner's age and functioning level. For the higher functioning learners,Makaton was used to communicate basic needs such as 'toilet' and 'food', 'biscuit' were also a Makaton sign recognised by many.

The use of Makaton was seen to aid communication when in an inclusive setting. When participating in a group activity in setting B, one learner made the sign for 'toilet. As the teacher was aware of the signs and their meaning, she was able to understand his needs and assist him to the toilet. This meant the group activity continued with minimum disruption. The teacher explained afterwards that she was informally learning the Makaton signs from teacher A, who advocates the uses of

augmentative communication for learners with autism and the importance of all staff who work with these learners having shared skills.

"We teach Makaton in an informal way, the children learn by watching us every day. We show them the symbols and actions as we are talking.... This helps them to know what we are saying as sometimes they (the learners) can become frustrated and angry if we don't know what they want....The others (the teachers in setting B) need to know the signs too otherwise it is pointless. The kids would just get cross and there would be no incentive for them."(TheMakaton signing)

Makaton symbols were also seen throughout both settings. They were seen to have a positive effect on learners from both settings as all pre-readers were able to understand the signs and respond to them accordingly. Furthermore, the Makaton symbols also provided a universal language for learners in both settings. This was seen as beneficial as many learners from ECD-A did not have English as a first language.[12] As communication is a barrier to these learners learning,Makaton was seen to reduce this barrier in addition to the learners not all having English as their mother tongue language.

Interestingly, teacher B stresses the importance of staff learning Makaton through informal means and she described the courses as expensive and only available abroad. Alternatively, she advocates staff teaching each other the skills and knowledge they have so the ECD centre can save money. A disadvantage to this was the difference between staff on their confidence and willingness to use the Makaton signing. Some teachers were seen to use Makaton signing confidently whilst another teacher from ECD-B was seen to use little signing at all.

4.3.2 Adaptation of language to aid communication

Teachers from both settings were seen to adapt their language when talking to learners with autism. The lengths of sentences were shorter and emphasis was placed nouns and verbs. Many sentences used consistent of the noun of the learners' name followed by either the verb of what action was expected of them or the object, again a noun for what their attention needed to be drawn to. An example of this was when teacher B was reading a story. She would direct learners to interact with the book by saying "O....Look." The sentence would then be extended and repeated. For example, O....Look, look at the book." If she wanted a learner to come up and look at the book she would say. "Li...Come. Come... point to the flower."

When a learner successfully completed a task, the request was subsequently repeated through praise. For example, when Li pointed to the flower, teacher B said "Good pointing Li. Flower". In addition, teacher A describes the use of language as an important part of providing support and reinforcing the teacher expectations. She describes how the overuse of language or the use of ambivalent language is not beneficial for these learners.

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12 English is the language used within both ECD settings.

"If you talk like you normally would then it just goes in one ear and out the other. These kids don't get language so you have to just use short words and leave out what isn't needed, it's not like with the other kids (mainstream) who love to talk and stuff. These kids don't get language so why would you want to confuse them?"

To support this notion, the phrase "good boy" was rarely heard in isolation. Upon reflection, the word 'good' is an abstract concept with different interpretations. For a learner with autism, the use of this phrase could be seen as less beneficial as the reinforcement of a request and a reason why the teacher is pleased. For example, teacher A was seen to say "Good sitting Mjoshma. Good boy for sitting down to eat." Teacher B's notion is to focus on what words are needed and to minimise the use of longer more detailed sentences.

By adapting her language, the teacher is simultaneously addressing individual needs. This was seen as she adapted her use of words amongst the learners with autism. On one occasion when the children were threading, she engaged a learner in a conversation where the learner was encouraged to answer her questions about which colour bead to choose. She modelled how to structure the sentence and encouraged the learner to extend his use of speech. During the same activity with another learner who had less use of language, her focus was on gaining the learners' attention and directing him to complete the task. For this, the teacher used a lot of repetitive language and was direct in her approach. "Jayal...time to thread. Time to thread Jayal."

It was noted that the teachers within the setting used similar phrases when addressing groups of learners or individuals. The phrase "Time to" was frequently repeated before giving learners an instruction. Teacher A describes the use of this language as beneficial as learners with autism can find transition between activities difficult. Therefore, she believes the use of this phrase allows them to understand and comprehend the passing of time. Through observations, the researcher saw the repetition of this phrase giving individual support for two reasons. Firstly, the learners were aware that this phrase meant their attention was needed. Secondly, the learners knew that when this phrase was said they were expected to move to a different location or activity. Consequently, this use of language supported the learners through the transition of different activities throughout the day.

Again, the teachers from setting B when asked about any formal training they had, they said they learnt how to interact with the learners from observing them and observing how the specialised teachers spoke to them. The notion of learning through observation and participation seemed prominent when sharing new skills among staff. A possible notion for this could be the limitation of external resources as outlined by teacher A.

Interestingly the adaptation of language was observed in the playground context with learners from setting B. On one occasion, when a girl wanted a learner from ECD-A to play, they waved their hand in front of the learners' face to get their attention and then said "Mjoshma come here. Come Mjoshma" which the learner did. The girl then took his hand and said "Well done Mjoshma... good boy." She then led Mjoshma to the swings which they both sat on and swung. Whilst this

interaction could be seen as Mjoshma being passive, it was interesting that the girl wanted to interact with him and consequently adapted her communication skills so the he would understand her. Upon observation, this seemed a first step into the learner engaging in parallel play with his peers. What would have been beneficial to see was an adult to reinforce this good practice by praising the girl and reinforcing what the learner was doing by commenting that he was on the swings with his friend. This notion reinforced my observation that whilst placing learners with their peers in an inclusive environment is a good first step, it is not inclusive practice unless the adult is proactive and consistently uses their language and interaction to model good communication and socialisation skills.

4.3.3 The emphasis on multi-style learning as a tool for learning support

When teaching new concepts, the teachers in ECD-A used a variety of teaching strategies which focused on different styles of learning. During a health topic, the weekly objective was the importance of healthy teeth. Synchronically, throughout the week all three teachers were observed using different teaching methods to reinforce teach about healthy teeth. Firstly, teacher B was seen showing pictures of teeth and telling the learners about teeth which was subsequently followed by a song about brushing teeth whilst the children held toothbrushes which they were encouraged to use. Secondly, teacher B provided this information through a visual, auditory, musical and kinaesthetic learning style. This was seen as beneficial as different learners were seen to respond to different parts of the activity. Thirdly, teacher C reinforced brushing teeth during the week by spending more time encouraging independent teeth brushing after lunch. Fourthly, teacher A taught an art activity which was a toothbrush colouring sheet and free painting using different tooth brushes. During the activity she sang a song about brushing teeth. In addition, teacher A described the importance of using multi-learning techniques as a learning tool as she believed the different styles of learning were received by learners in different ways. Reflectively, she confidently outlined which learners responded well to different learning techniques. She said that by sharing this information with all teachers enabled them to have more tools and strategies when trying to engage with and connect with a learner. All the ECD-A teachers also mentioned that learners with autism as a barrier to learning often learnt well through visual and kinaesthetic learning.

Teacher B described how the importance of multi-styled learning has been shared with teachers from both settings through an in house training session during a weekly staff meeting. Teacher B reinforces that when learners from setting A go into setting B, the teachers make an effort to use more visual stimuli as they have noted that learners with autism focus more when they have something to look at. On one occasion, a teacher used real fruit which the children were encouraged to hold and smell as stimuli before listening to a story. [13] This notion was also reinforced during a presentation teacher A gave during staff meeting where the focus was 'what is autism?

Teachers were seen to sing when using auditory instructions. When learners needed to move to a different activity, teachers were seen to use specific songs to reinforce the instruction. When learners needed to tidy up the toys, teachers would shake

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13 The story was Handas surprise

a shaker to gain the learners' attention and then would say loudly. "Time to pack away". As they packed away and encouraged learners to help, they would repeat the song of "pack pack pack away, pack away the toys." By reinforcing the instruction through song, it was noted that more learners participated than when the instruction was given directly. It was observed that one teacher in setting B used the same song when a learner was in her room. The learner followed the instruction alongside his peers. I was told the teacher learnt about the song from informal observations in setting A. On reflection, the singing made the auditory learning more enjoyable as auditory understanding is a barrier or learning for learners with autism.

4.3.4 The adaptation of the learning environment by using picture schedules

Each morning session was seen to finish with a daily schedule. The schedule consisted of Makaton symbols of black and white lined drawings which complement the Makaton signing system. The daily routine was divided into set segments. Hello time, snack, lunch, brush teeth and sleep were always displayed. In addition, learners have an activity before snack and before lunch which changes each day. Each teacher pointed to the symbols and the learners are encouraged to shout out its meaning. Each teacher then said what the activity was. The schedule remained visible in the greeting area for learners to look at throughout the day. Teacher B explains the benefit of having a consistent routine as it enables the learners to understand their expectations. This helps reduce stress which can occur during transitions or if the learner is unsure of what is happening. The visual aspect of the schedule provides support through a clear consistent organisation of time and expectations. The pictures were attached using Velcro so can be easily removed. This was seen as beneficial as teachers were able to remove the symbol and give it to a learner if the reinforcement of transition was needed. Similar schedules were also seen within setting B and were also used on a daily basis.

The schedule was used when guiding individuals away from an activity they had become 'obsessed' with. On one occasion, a learner was getting over stimulated in the beads and was beginning to throw them around. Teacher C was able to guide the learner away from the activity by taking him to the schedule and telling him it was time for lunch. The visual schedule helped reinforce the teacher's expectations and provided a distraction for the learner.

The picture schedule also reinforced the transition individual learners would make when they went to group activities in setting B with peers their own age. Each morning the teacher would go through the schedule and above the allocated activity, she would put a photo of the learner and the teacher from the other setting. She would tell the learner they were going to go to 'the other side' and see this teacher. When it was time to go, the learner would be given the teacher's photograph and they would hand this to the teacher when they arrived at the activity. This reinforced the transition between the two settings and encouraged the learner to interact with the teacher. Teacher A states because the teacher always remains consistent in the new setting, the photograph gives a concrete association of what they are doing.

Teacher A also spoke about the benefit of having a portable picture schedule which could be around the learner's neck so they are aware of what the next activity will be. This was described as a future development as she felt the learners were still too young for the responsibility and had not yet built up the capability of staying away for more than one activity. There was no evidence of a picture schedules in the ECD-B setting. ECD-B was seen to have a more flexible and free flow curriculum in contrast to a set schedule seen in ECD-A. However, during observations, it was felt that a picture schedule in every classroom would increase the continuity of visual aids between both settings and be a visual reference for all learners.

4.3.5 The adaptation of the environment through routine

The setting follows a set routine by all staff. As outlined by the picture schedule, the only change in the daily routine was planned activities. These, however, were broadly consistent on a weekly basis. For example, computer sessions are always on a Monday afternoon whilst fine motor development was on a Tuesday morning. Essentially, the consistent routine was described as providing stability for the learners and supported the teacher's organisation of the curriculum. Therefore, the repetitive routine provides stability for the learners because this was seen as one learner arrived in an excited manner as he knew it was swimming day. The continuity of routine was seen to benefit this individual's awareness of time and enabled him to display appropriate emotions.

In addition to the curriculum routine, the teachers follow a specific routine when preparing for specific activities such as lunch. Teacher C describes how she prepares the learners as she is responsible for this transition.

"I take the boys who need nappies and change them. Then boys who use toilet come in. I get a bowl of water and I wash the boy's hands then they go dry (their hands). When each boy finished washing hands he gets his lunch box and sits down at table. The boys don't eat until all have sat and all have said prayer."

This repetition of preparing for lunch was seen to be recognised by many of the learners as they were able to follow the routine without verbal prompts from the teacher. Some learners were so aware of the routine that when they see teacher C they would go and wait by the door ready to go inside. The majority of the learners were able to make the transition from activities to lunch without distress. The routine for preparing for lunch is similar to the routine in setting B. This deliberate planning from both settings has enabled one learner to have his lunch with his peers after his swimming session. The similar preparation of routine enables the learner to prepare for lunch alongside his peers with reduced adult support. By providing a similar routine, the learner's barrier to learning was reduced and he was able to eat his lunch alongside his peers. As a result, this was a significant social development which was recognised by his teachers and parents.

4.3.5.1 The removal of distractions

Whilst there are displays of learners' work around the setting, they were placed in specific locations away from learners' working space. The work room had little colour and art work on the walls. Teacher A describes this as a conscious decision to remove anything which could be an additional stimuli or distraction to the learners. She displayed her concern about the learners having too many distractions when in other learning environments, but mentioned this was an area which would be

discussed at a future staff meeting. The greeting room has a display on one wall which is one the learner's left hand side of where they sit. This display changes for each topic. The wall has bright pictures depicting what the topic is about. For example, for the topic vehicles, the wall had different pictures of vehicles on it. This display is in contrast to the other walls which in comparison are plain. This again is described by teacher A as a strategic choice to direct the learner's attention to what the topic is. When needed, there are hooks on the wall and the teacher places a cloth over the display if it is becoming a distraction to individual learners when their attention is needed on the teacher.

The teaching wall where each teacher sits and the learners face has the picture schedule and the daily calendar which remains visible. The other teaching resources are kept in a box. Each picture used when teaching has blue tack on the back which the teacher places on the wall and then removes when finished. When the learners sing 5 little ducks, the teacher counted out five pictures of the same duck which she placed on the wall. When appropriate, a learner removed the duck and it was returned into the resource box. As the resources are placed on a blank wall, there is very little for the learners to look at other than the desired resource. The removal of distractions was seen to be problematic when one learner went to setting B for a signing session. His attention was not on the teacher as he was interested in some streamers which were hanging down in a birthday display. However, once the two teachers had discussed the learner's difficulty to concentrate the teacher in setting B attached the streamers so they were not hanging so freely and borrowed the singing resources, which the learner was used to. By removing the distraction, the learner's barrier to learning was reduced and he was able to participate in the next singing session.

The removal of unnecessary teaching resources was also seen during individual and group working sessions. When the learners were presented with a jigsaw to complete, the pieces were placed on the table face up and the jigsaw box was removed out of site. Teacher B stated that the removal of additional equipment increased the learners' chance of success, particularly, for one individual who enjoyed the repetition of placing things into a box. It was observed that a higher functioning learner was able to select from 2 jigsaws in a box and complete the puzzle independently. It was explained that his jigsaw skills had developed over the years.So taking the pieces from the box was an additional skill for him to learn. On reflection, it would be interesting to see if the learner was able to complete the puzzle in setting B where there were more distractions as this would represent the challenges faced by learners in an inclusive setting. The removal of distractions was also seen when the teacher wanted learners to focus on a particular skill. During a threading session, a learner was presented with a piece of string and 2 different bead colours; his task was to make a repeating pattern. With the removal of other bead colours, he was able to complete the task. Interestingly, he was unable to complete the same task when given the whole tray of beads. He instead became focused on the noise the beads made when they were moved about. This observation was noted in his personal file which is designed to aid other teachers into understanding his individual learning style.

4.3.6 The adaptation of curriculum

4.3.6.1 The organisation of activities (TEACCH)

When individuals needed to complete specific tasks, the teachers were seen to follow the TEACCH method. An individual table was set against a wall with all distractions moved from the learner's visual area. When a learner was given a task to complete, it was given in a basket with the necessary equipment needed. For example, when a learner was given a jigsaw to complete, the basket only contained the jigsaw pieces and not the box. Teacher C described how the removal of the box meant a removal of distraction. Accordingly, this adaptation of equipment was planned to provide the learner with an increased chance of task completion. Once the task was completed, the learner was encouraged to pack the task away and place the basket into a large box on the floor. Teacher A explains the future aim is for the learner to build up the ability to complete several tasks or pieces of work independently. She had seen this method of teaching during her time in an inclusive setting in England and advocated the success of learners completing individual work within a busy classroom environment.

The TEACCH method was not seen in the inclusive setting. Teacher A felt the learners were too young and inexperienced to complete the activities in a classroom environment. She explained the settings long termgoal was to develop the learners' ability to complete individual tasks before they left to begin school. One learner was seen to complete two task baskets and responded well to the third basket having his favourite car in as a visual signal that the work had finished.

4.3.6.2 The emphasis on social and language development

When planning inclusive opportunities, activities were chosen where learners would have opportunity to develop either their social or language development. Teacher B believes these are the two main learning barriers learners with autism have and believes that if these barriers can be reduced through curriculum adaptation, the learners can learn alongside their peers. Music sessions seemed to be an activity which teacher A planned inclusive opportunities for the learners. On observation, the sessions were similar on an academic level as the same songs were being used in both settings. In addition, the learner was able to participate without additional adult support. Another activity which seemed to be favoured was story time. This session, despite the stories being longer, were similar in both settings. On several occasions, a learner took his own book over for the teacher to read. It was later noted that this arrangement had been previously made between the two teachers. Again, the learner was able to participate with minimum adult support which over time was able to be reduced. For a while, the teacher from setting ECD-A also took children from ECD-B who were having difficulty concentrating during story time and included them in her story time session where the stories were shorter and had more repetition and pictures.

For social development, the emphasis was on shared playtimes. Teacher B noted that in the playground there was little visible difference between learners in both settings as many of the learners with autism had strong physical development and were therefore able to use the play equipment appropriately and play alongside their peers. This was seen as beneficial as the learners were able to involve themselves in parallel play. The teachers were then seen to focus on individual's social

interaction through the support and development of friendships and interaction skills. It was noted that the teachers modelled very few group games. Time was spent on problem-solving conflicts and encouraging individual socialisation. Upon reflection, this seemed a missed opportunity to reinforce social rules and social games.

4.3.6.3 The use of assessment

The varying use of assessment was seen as an integral part of the adapted curriculum. The teachers planned group learning objectives and individual objectives according to learners' individual education plan (I.E.P). The reinforcement of these learning objectives was seen on a daily basis. For example, when the group objective was recognising and learning animal names for a jungle theme the teachers followed this individual objective for two weeks. During this time, the teachers assessed individuals using a variety of individual and group assessments. Within the broad objective, learners had individual means of assessment depending upon specific capabilities. One learner demonstrated his knowledge of animals by selecting the plastic animals when asked. This means of assessment was also simplified for a younger learner who demonstrated his knowledge by selecting between just two animals. Another more verbal learner was able to point to the animals in a book and say their names when asked.

Relevant assessment information was shared with the teachers in setting B in an informal context. For example, when a specific learner was able to name the animals, his teacher from setting B came to see 'how clever he was'. This provided an opportunity for the learner to demonstrate his knowledge, providing his teacher with information of his learning and providing an opportunity to develop a relationship. The teacher from setting B then later reinforced the learner's knowledge by asking him to point to an animal he knew but in an inclusive group situation of story time. Teacher A explains the importance of providing a 'building block' or a bridge between what the learner knows in an individual and more controlled setting and then encouraging them to use their learning skills in a classroom situation. She described the importance of giving the learner confidence and opportunities to achieve so that their time within an inclusive context is positive. It was noted that not all assessments were formally recorded and learner's specific achievements were shared in an informal context with specific teachers.

4.3.6.4 Extending the curriculum into the community

Community day was an aspect of the curriculum which was seen throughout the year. Both settings prepare and participate in a show in honour of grandparents called 'Grandparents day'. The learners in the setting prepared for the show on a daily basis singing the same songs in the same order as would be sung on the day. Before the day,each learner was asked to bring in a photo of their grandparents and people who would be there on the day. Both teachers referred to the photographs when telling the children they would be singing in front of different people. On the day, all learners from both settings travelled to the local church hall either by bus or by walking. The learners in setting A travelled by bus with some learners in setting B. Each class in both settings had an individual section which they preformed. Before the learners in setting A sang, asmall introduction was given to the audience about the setting and the individual learners needs. Whilst very few of the learners actually sang on the day, many used some signs or clapped in the appropriate place. Consequently, the singing had

a positive response from the audience and it was noted that during coffee afterwards many adults were discussing the learners and showed an interest into what autism and asperger syndrome was.

On a different occasion both settings were involved in a charity day where money was being raised by the community for the schools. Each child was sponsored to walk around a planned circuit. The sponsored walk was followed by a small fete for families from both settings. Learners from the setting attended the walk and participated with their families. This day was particularly significant as the learners' families had the opportunity to meet staff from the other setting and informally talk to the teachers. In addition, the day provided an opportunity for parents from both settings to socialise. The parents of many learners from setting A expressed their joy at being involved in a community event. Understandably, they talked about the difficulty they often face when taking their children (learners with autism) into public places. On the hand, the day also provided opportunity for learners from both settings to interact on the bouncy castle or by providing support during the sponsored walk. Teacher A described a significant outcome from the community day. A grandmother of a learner in the setting had been concerned about her grandson spending time with peers from the other setting. But when she saw how he was able to play alongside his peers, she became excited about him spending more time in an inclusive context. Teacher A explained that she felt the community day provided an opportunity for families from both settings to understand more about learners with autism and highlighted the positive aspects of inclusion through observation. She felt this was more beneficial for many families as planned information sessions had previously been poorly attended due to work commitments and a fear of the education system. This notion was reinforced by teacher C who described cultural beliefs and differences as a barrier towards parents understanding and tolerance of learners' difficulties and the nature of autism. She believed community days closed the gap between the families and the teaching staff.

4.4 Summary of chapter

From the chapter we have seen the learning support strategies used within one setting when providing inclusive opportunities for learners with autism. This setting was unique as the physical environment enabled an informal interaction between a specialised and an inclusive setting to occur. Through interviews and observations the research highlighted the adaptations of individual teaching, adaptation of learning environment and the importance of communication and collaboration within the community. From this research, valuable information has been obtained about how a specific setting enables inclusion to occur for learners with specific barriers to learning. From this research, learning support ideas were written with the aim to outline guidelines on how to provide inclusive opportunities for learners with autism when adapted to each unique learner's abilities and circumstances (Appendix IV). Conclusions, recommendations and limitations from this research will be seen and discussed in the final chapter.

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

CHAPTER FIVE

5.1 Introduction

This case study has focused upon the learning support used by preschool teachers in an independent preschool setting for learners with autism. This ECD setting was unique as it was physically attached to a mainstream ECD. By focusing on this one setting, it was possible to gain an in-depth understanding into how the specialist preschool teachers provided learning support for the learners and for the preschool teachers who were including the learners.

A summary of the literature study will be discussed and the conclusions drawn from the case study will be outlined. In addition, limitations of the study will be discussed and recommendations will be made.

5.2   Research outcomes: conclusion of learning support used

5.2.1 The benefit of physical location when providing learning support

Because the two settings were close to each other, the staff members were able to collaborate and communicate throughout a working day. Staff spent time together during shared recess time and were seen observing and discussing students. Support staff from both settings developed loving relationships with the learners and were seen to share tasks such as preparing snack. In addition, staff would often enter each others classroom to borrow resources, during this time learners were encouraged to recognise key staff members through face recognition and matching a photograph to the adult. This proximity enabled a strong working relationship to form between staff members. Consequently, staff members were comfortable to seek advice and discuss concerns regarding individual learners. By being together in the same environment,staff members from both settings were able to observe each other in an informal context and the main preschool staff had the opportunity to observe the learners with autism. This had two positive effects, firstly the specialist preschool staff could see if additional support or adaptation was necessary and were able to feed back to staff quickly and provide practical advice, support and training; secondly, learners with autism had less pressure to remain in an inclusive environment if they were feeling distressed as they were able to return to a known environment with ease. As literature states (2.8.2) this was particularly useful in the beginning when staff members in the main setting were developing their learning support skills and gaining confidence.

By being in proximity to each other,learners were also enabled to be included in nonteaching activities such as, outside play and assembly. This time enabled learners to increase their confidence around larger groups of children and provided a role model on speech and play. In addition, having learners together in the same environment helped reduce the stigma of having some learners in a different building and also increased staff and children's awareness on the nature of autism.This

gave support as children were more accepting and less over-excited when learners from the specialised setting were included in specific lessons.

5.2.2 Promoting an inclusive community when providing learning support

By including the learners with autism into an inclusive preschool instead of just an inclusive classroom, the learners were able to become part of a wider community. During the school year both settings participated in a charity walking event to raise money for the school and were part of a Grandparents day which involved being part of a show. During a school week learners from both settings shared recess time and had a shared assembly on a Friday which was adapted for individual needs by having additional visual displays and shorter story time. Time was also provided for learners from both settings to participate in swimming lessons and be involved in small organised group games. By being together on a daily basis the specialised preschool staff modelled how to interact and respond to each learner in a kind and sensitive manner. Whilst this was not direct teaching, this scaffolding technique was seen to have positive effects on the staff, the children and adults in the wider community. Staff members were seen to understand more about autism and increased their confidence when interacting and teaching individual learners. Considerably, children in the mainstream setting were seen to adapt their speech and tone of voice when speaking to individuals and were also seen to show empathy and understanding of difference amongst learners. Finally, as the literature recommends (2.2) involving all learners in community events enabled the learners with autism and their families to be involved and be accepted as part of a preschool community.

5.2.3 Using scaffolding when providing learning support

The staff spent more time supporting each learner so they would feel confident to participate in an inclusive environment. Learners from ECD-A were seen to spend from one minute up to a full teaching session in an inclusive environment. Each learner was never forced to stay in an environment they felt uncomfortable in. Fundamentally, time was given on the transition between their own classroom and the inclusive environment. Staff members focused on outlining a routine through a picture schedule and by repetition of physically moving to a new environment. The visual schedule was introduced into both settings and was used on a daily basis in ECD-A, this technique is recognised in the literature (2.19.3). In addition, learners were seen to 'help' a support staff member run an errand which involved going to another teacher to borrow equipment. During this interaction learners were given the teachers photograph and a picture of the needed object to support communication. Building a relationship with a new staff member was a main focus of the scaffolding process. Picture cards of staff members were also integrated into the learner's morning time song and through pre-planned informal exchanges as previously discussed. A key element to this transition was having the flexibility to move between the two learning environments according to each learner's confidence and individual needs.

Staff members from the specialist setting also shared and transferred their knowledge to the mainstream teachers, providing them with tools and techniques to support each learner in their classroom. As suggested in the literature, staff members focused on modelling communication techniques such as Makaton signing and adaptation of speech (2.19.3). Staff training meeting were planned during the year in addition to training on the nature of autism and means of communication. Informal

training was also seen during recess time when staff would ask each other questions about what certain signs meant, particularly when a sign had been signalled by a learner. Time was also spent adapting the learning environment by providing visual teaching props and by removing main distractions in the classroom. Specialist staff would provide a song bag where known songs had Makaton cards and physical representations. E.g. 5 little duck song had 5 baby ducks and a mummy duck with the symbols for duck, baby and mummy. The specialist staff also provided support for the teachers as they initially accompanied each learner for each activity and then slowly removed themselves from the environment dependent upon each learner's confidence and ability to participate independently. The literature described the benefit of scaffolding or 'chaining' (2.20) as the scaffolding enabled teachers from the main setting to gain confidence in their teaching skills and build a relationship with each learner. In one case a teacher from the main setting began the school year being unconfident to have a learner with autism in her room to having two learners without an adult support.

5.2.4 Adapting individual teaching when providing learning support

5.2.4.1 Adapting language to support communication

Literature recognises adapting language is essential when providing learning support for individuals with autism (2.19.3). As the literature states (2.10.3) learners with autism have difficulty with language which can lead to many misunderstandings. The preschool staff spoke in short sentences with minimum words when speaking to individuals. An emphasis was given to the verb and the learner's name,for example 'Oratile, come. Come Oratile'. Questions asked were closed to avoid misinterpretations, for example, 'Oratile, where is the flower....Point to the flower?' Instead of 'What can you see on the page?' Preschool staff also gave each individual extra time to process the information before repeating the instruction. When instructions had been followed correctly staff always gave praise in direct manner and reinforced what had been requested,for example, 'Good listening Oratile' instead of 'Good boy'. By adapting their speech, the preschool teachers encouraged learners to understand what was requested and model how to respond appropriately. Consequently, this continuous support allowed learners to participate more in a classroom situation and was easily adapted by teachers in the mainstream. Staff were also seen to use songs to reinforce their meaning as this was seen to increase learners desire to listen. For example, a tidy up song was always sung when a play session was finishing.

5.2.4.2 Using Makaton to support communication

The preschool teachers used Makaton throughout the day as a means of learning support. The research (2.10.3) stated that Makaton is a useful tool to support learners with communication difficulties. In this setting, the teachers used the Makaton to support main instructional requests such as 'sit down' and 'come'. Makaton was also seen during singing sessions as teachers signed as they sung and encouraged learners to sign through observation and praise. Specialist teachers also modelled how to use Makaton to communicate by signing hello, goodbye and thank you as they spoke to other adults and learners. The Makaton sign for biscuit was also a popular sign which the learners were seen to learn quickly as they had a well liked reward of a biscuit. Makaton was seen a useful means of providing support continuously and was cost effective as no outward resources were needed. The specialist teachers were also able to share their expertise with mainstream staff

that was seen to increase their use of Makaton over a period of time. This was achieved through informal interactions and questioning and through planning teacher training sessions during staff meeting.

5.2.4.3 Using visual props to support communication

As the literature research states (2.10.1) learners with autism are visual learners. The staff used many visual props to reinforce key learning objectives. When outlining the daily schedule, clear Makaton pictures were used to symbolise what is happening during the day, this technique is also recognised in literature as supporting transition in a school day (2.19.1). These pictures were removable so learners could interact and look at each picture closely. When staff members are discussing, a large laminated photograph was always shown to each learner. This enabled each learner to recognise staff members before a social contact was made. Staff also encouraged learners to match photographs to staff members, encouraging a social interaction between different staff and learners. Makaton symbols alongside the written word were also used to label furniture and everyday objects in both settings. During the school year learners were seen to recognise the symbol and for the more able, the written word as well.

Every new vocabulary used in a topic had a physical object and a picture representation to support the word. Learners were encouraged to sign new words and recognise objects through tactile and visual learning. For example, in the transport topic, each vehicle had its own small bag with a picture, a toy, a printed word and the Makaton symbol for each vehicle. This provided a strong visual for each learner and provided a visual resource which teachers in the inclusive environment could use and adapt. For example, during a singing session, a duck vocabulary bag was used to introduce the 5 little ducks song.

5.2.4.4 The importance of adapting the environment

As the White paper 6 (2001) recognises, adapting the learning environment enables many barriers to learning to be reduced. In the literature Westwood discusses many of the techniques used (2.20). Allocated seats were given to each learner. Names were taped to each chair alongside a personal symbol e.g. a flower which each learner was encouraged to recognise. For hello timeeach morning, the chairs were placed in a semi-circle facing the teacher. This structured environment provided stability for the learners and encouraged them to focus on the teacher in front of them. In addition, the hello time room had very few displays. All distractions were removed to encourage learners to keep focus. For example, the topic display was covered up until it was needed for discussions. Any visual resources such as photographs of staff and learners were packed away at the end of the hello song. The group time learning space was also kept sparse with no toys or books in close vicinity, this gave a clear signal to the learners that this area was a space to sit and not to play. In the main stream setting teachers also tried to replicate this learning environment.

The only visual resource which always stayed visible was the daily schedule and daily calendar which was read every morning. Strategically, this repetition provided stability for the learners at the beginning of the day and gave a clear visual communication of what activity is happening. Using this schedule in both settings also supported the transition between the

classrooms and was a valuable reference for learners from both settings. It also provided a familiar object in both settings where the learners knew what the resource was and what the expected answer would be. This increased learners confidence to respond appropriately and feel more comfortable in the different environment.

Learners needing additional adult support were either positioned on the end of the semi-circle with an adult behind them or at the teacher's left hand side. This placement enabled teachers to give physical contact such as a hand on the shoulder if needed. This strategy worked well when learners moved between the two settings.

Adults from both settings were always sensitive to individuals learning needs. By knowing each learner through direct teaching observation or informal interaction, adults were able to adapt a learner's environment to reduce unnecessary distress. For example, one learner had a strong phobia to spiders; consequently staff would remove a spider if seen. Another learner had an aversion to a whistling sound so instruments which whistled were not used when he was in a music session. By having a deep understanding and commitment to each learner, staff from both settings adapted their learning environment by preplanning and by being flexible during a working day.

5.3 Recommendations and limitations

Whilst demarcating this case study, particular limitations occurred because of research design. These include the limited transferability of findings because the preschool had a specific physical environment and the limited generalisation as only one setting was focused upon. Other limitations occurred during the execution of the study, in particular the quality of interviews gained from individual respondents. Despite these limitations, the quality of the research obtained means that recommendations can be made, particularly to preschool staff that have learners on the autistic spectrum within their setting. In addition, further research recommendations emerged through questions and reflections made during the observation process.

5.3.1 Limitations

- The design of the semi-structured interviews proved problematic as respondents did not provide in-depth information during the interview process. The majority of data and information was gained through discussions and questioning during the participant observation. Attempts to record participant's thoughts through interviews made participants feel uncomfortable, despite having established a good working relationship. In particular, one preschool class assistant felt very uncomfortable and requested to not record her voice, citing religious reasons. Whilst this request had to be respected, a group interview could have made participants feel more comfortable and encourage them to speak more freely. Because of this more data was drawn from field notes and from participant observation.

- The case study focused upon one specialist preschool setting for learners with autism as a barrier to learning. This preschool despite being an individual setting is physically attached to an established mainstream preschool. Because the research was conducted on a specific setting a lot of information obtained can only be explicitly transferred to similar settings. In addition, the guidelines written (Appendix IV) are based upon the learning support used in one setting. The transferability of learning support used is dependent upon the physical proximity of a specialist setting to a mainstream setting where inclusive opportunity can occur. Researching a similar setting would provide additional information, which could be compared and transferred.

- Time constraints of only being able to work within the preschool setting on a part-time basis meant that many inclusive developments were not observed. In addition, working on the same days each week meant that particular sessions which encouraged language and social development such as music sessions were not observed. Conducting research on a full time basis would have enabled more in-depth information to be obtained.

Despite these limitations it is possible to make several recommendations based upon the findings from this study.

5.3.2 Recommendations linked to conclusions

- The research showed the process of how learners with autism were included in an inclusive environment over a sustained period of time. The initial process began slowly where learners were able to enter an environment for a positive experience and return to their own preschool for more specialised teaching. Having a specialist setting physically close to an inclusive environment enables learners with high needs such as autism to build up the skills needed to benefit from being included. In addition, teachers benefit from being in proximity to learners being included as they are able to gain confidence and develop the teaching skills and learning support techniques needed alongside specialist staff and individual learners.

- Specialist staff members have unique skills and experience when accommodating individuals with high learning needs such as autism. If teachers in the mainstream are to have learners with barriers to learning in their setting, they need the opportunity to learn the skills and learning support techniques needed. Staff in mainstream and specialist staff need to work collaboratively and have opportunity to communicate and learn from each other. This collaboration needs to occur through formal interventions such as staff meetings and through informal means such as conversations in staff rooms and playgrounds. Building strong relationships where staff members were comfortable to communicate and collaborate is the key to building relationships and working together to provide inclusive opportunities for a learner with high individual needs.

- The learning support strategies used by staff were mainly micro-interventions. Strategies such as adapting use of speech and removing distractions were easily implemented into everyday teaching once teachers were aware of their benefit. Whilst a guideline for teachers was written from research findings (Appendix IV), the publication of guidelines based upon the findings from many preschool settings would be a useful reference guide when the teacher is in the classroom.

- During this process, learning support strategies were learnt through hands on experience and observation. Preschool teachers would benefit from having opportunity to experience accommodating learners with high barriers to learning during their teacher training or through having release time during term time.

5.3.3 Recommendations for future research

- This study focused on independent preschool staff and their learning support. During the research process the attitudes and development of the staff accommodating the individual learners became a prominent aspect of the inclusion process. Focusing on the staff accommodating the learners and gaining insight into their preconceptions and attitudes would be beneficial for settings who are looking to implement a similar inclusive environment.

- Researching a similar setting where a specialist preschool is attached to a mainstream environment would be beneficial to compare results and to increase the transferability of this research. This would also be an opportunity to compare and develop a variety of guidelines, which could enrich the guidelines written from this study (Appendix IV).

5.4 Value of the study and conclusion

In South Africa, inclusive education is still a relatively new phenomenon. In the last decade, educational policies and documentation such as the White Paper 6 have been introduced and have become an integral part of the education system. Government documentations such as The National Strategy on Screening, Identification, Assessment and Support addresses strategies for teachers to help learners overcome barriers for learning.

Many researchers have discussed the difficulties teachers have faced when implementing inclusive strategies. Many teachers have discussed concerns about accommodating learners with behavioural and high needs such as the autistic spectrum. Unfortunately, in South Africa, autism is classed as a multiple barrier to learning and most learners with autism in South Africa are either uneducated or remain in specialised education.

This case study has helped us understand how one ECD setting provides an inclusive educational programme for preschool learners with autism. The research has also highlighted the nature of learners with autism in South Africa. This case study has shown a practical example of how an inclusive environment has been created for preschool learners with autism through learning support. The practical examples have been summarised in guidelines which teachers could refer to when supporting learners with autism in their classrooms (Appendix IV).Staff members in this setting have worked collaboratively with the staff in the adjoining preschool to provide meaningful inclusive experiences for the learners with autism. This was achieved through the adaptation of individual teaching strategies, the adaptation of the learning environment and an adaptation of individual expectations. However, in this case study, not all the learners in the specialised setting had equal amounts of time being included alongside their peers. For some learners being in the same vicinity during playtime was an

achievement. Each learner had an individual plan and opportunities were provided according to individuals needs. Being in a shared environment enabled staff and learners to interact on a daily basis and build a community with shared goals and vision. The benefits of a shared physical environment is seen as the two settings worked together to provide learning support for all their learners. The strong relationship between staff members from both settings enabled communication to occur throughout a working day.

The study also highlighted the positive effect including learners with autism had on the mainstream staff, the children and the wider community. Teachers gained confidence in adapting their teaching and increased their awareness of what inclusion truly meant. Children within the preschool setting were seen to increase awareness of individual needs, develop empathy and embrace difference. People in the wider community were accepting of the learners being included in charity events and Grandparents day, their awareness of the nature of autism and inclusion was also increased.

In this setting, inclusion did not mean integrating learners into a classroom for a whole day. In this setting, inclusion meant embracing opportunities to educate and enable all children to be included on a level that benefits them. By working together, inclusion can become a reality for a specialised preschool setting. For one learner this meant having peers happily greeting him and him wanting to sign hello back. For another family, it was being able to watch their son on stage perform in a concert where people applauded him for what he was able to achieve. Inclusion, in South Africa and in the world is about being included not only in education but into the wider community and into society itself. Learning from settings such as this one allows us to embrace inclusion and understand that learning support is essential when adapting to individuals learning needs.

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Appendix I

Outline of ethical letter given to each preschool teacher before research was conducted

Dear Madam

I am writing to request permission to conduct research in your preschool setting. The purpose of the research is to obtain a deeper understanding upon the learning support you provide for your preschool learners with autism. A particular focus shall be upon the inclusive opportunities you provide for your learners with the adjoining preschool.

It is my intention as the researcher to observe and document whilst working at your school as a volunteer teacher. In addition, I request permission to interview individual staff. As a teacher and as a researcher,I shall endeavour to maintain all ethical considerations and ensure the welfare, safety and privacy of individual students, staff and parents are respected. I shall ensure this by:

1) Ensuring all observations are objective and all interviews are transcribed. All observation notes and interviews will be shared should individuals request so.
2) Ensuring individual identities remain private by changing names and not disclosing personal information.
3) Respecting school procedures and ensuring the welfare of all students and staff is not compromised.
4) Ensuring that all research is reported in a true and accurate manner.

If you could please sign this letter to confirm that you are happy for research to be conducted in your setting it would be greatly appreciated.

Thank you for your time, I look forward to working alongside yourself in the near future.

Mrs Rebecca Enock

Signature of approval

Name

Appendix II

Transcript of interviews conducted

Main themes identified

<mark>Adaptation of individual teaching</mark>

<mark>Adaptation of learning environment</mark>

<mark>Communication and collaboration in school and community</mark>

<mark>Physical environment</mark>

Teacher A. Interview 1

Thnak you ever so much for agreeing to do this interview. Just to let you know it is completely confidential and you just be known as respondent A....I wondered if you could tell me what is your understanding about inclusion in South Africa?

Umm well depending on if you are talking about what the governemnt, has about an idea of inclusion or whats actually happening. What the White paper says we must do is umm mianstream all schools and special schools will be resourcing to each other and we will both benefit from, we will be like resource centre as a special school and we will both be able to help each otehr our children will be able to be mainstreamed into their school and there children will be able to come and give an example of their behaviour. But does this happen???? No it doesnt happen. I havent seen this happen once.

And when you do send a child to a mainstream school what is happening is ummm the mainstream school is asking for a facilitator or some sort of aid from outside so the government isnt really giving much option for these kids to get into mainstream.

Ok...do you know of any collaboration that is planned between the government and the specialist schools?

Unfortunatley not, no

What are your views on inclusion for children on the autisitc spectrum?

Like.....if you are diagnosed with autism in South africa, unfortunatley you will be able to just go to a specifically autisitc school. To get into a mianstream school with a facilitator is so difficult. One, and two you dont get help from the government.....Your only way out really is to go to a specialst autisitc school really. So there isnt inclusion.......You know

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what I believ that every child with, on the autistic spectrum should be included into the mainstream setting and I believe that every child should have the opportunity to try. If it works for you or it doesnt I think thatis irrellevant. Every one should have this opportunity. But in this country we dont. There is nothing like this happening which is why I am so happy about this school. That we have got the facility, that we are connected to a mianstream preschool that we can have, these children can come back and forth and we can do activities togetehr so that they can have that (inclusion). Especially with the children that dont have siblings at home. That they can get children behaviour and language modelled for them if they dont hav anything at home that they can base this on. Because we cant behave and act like children because we are not.

Ok.....Do you have any concerns about inclusion for children on the autisitc specturm?

Sure sure..I dont see any of it, I dont see neough of it as I said earlier I think that umm we must have the opportunity to at least have that opportunity to do it, to have inclusion. You shouldnt umm get a diagnosis for ASD and then you are just left, you know what I mean, to get your own resources, to get your own speech and language therapy, to get everything privatley and not get any help from the government or anything from mainstream schools, like you pretty much have to do things on your own. I feel like, I worked in Engalnd aswell and I feel like the White paper here in South africa is just like a carbon copy of what they (UK) are doing there. But they (UK) are doing it there, we've just got it on paper here. It's all just theory here. Its not, nothing theyve got in the White Paper is actually being materialised or is actually being done in this country. Its sad.

Ok... You mentioned the white paper 6. the government says that the White paper 6, inclusion is going to happen. What do you think the schools (inclusive) schools need to do to make it work for these students (ASD)

Well do you know what they say, they say that you've got to be able to help, it will be a give take relationship. You will become a resource centre for the mainstream schools. We are not seeing nay of that. The only way we are going to help each other is if we get an agreement that we say, fine, we bring 5 of our children daily to do art with your children and we will give training to the teachers that have got autisitc children in their class and in return we want something for us. So you must bring 10 of your children to come and have assembly with us on a Friday. You must give back to us. Do you know what I mean? We cant keep giving all our resources, all our knowledge, and our time especially to these mainstream schools and we are not getting anything back and our children aren't getting nayhting.

Ok....Can you tell me about any connections your setting has with the government or any external agencies in regards with support or inclusion?

No unfortunaltey not, we are completely private. Yah, this special L***** L***** is connected to L****** V******* (private preschool) and we have inclusion periods in the day, like music and movement and assembly and conerts and that kind of thing umm obstacle course we have that kind of thing that inclusion thing, but nothing by the government. The only reason why we know about inclusion is because I am studying through Unisa and we have got a copy of the white paper 6, thats the only reason why we even know about the inclusion policy.

Ok.......So what support services do you have?

We are all private..we have the pink petals (ladies), the association for autism and the National Autisitc society. They are all private.

What are the pink petals?

A group of ladies who come together and are community based, here in W****** P***** and they just do all community based for special schools and for old age homes and for like facilities and stuff like that. Raise money and raise funds for what ever you need.

Ohhh lovely...and services like speech and language?

No, unfortunalty not, we have 15 boys here of which 80% of them either go to speech and language or OT (occupational therapist) or both and they all go privatley. I havea speech and language therapist and OT (occupational therapist) on site but they are both private. This is a problem for the children, especially the parents on medical aid or who cant afford the school fees let alone the, on top of the speech and lanuage and OT so they are missing out on practives that they need, on facilities that they need.

I know you have already mentioned this but can you tell me about the inclusive opportunities your students are exposed.

Umm yeah we do assembly with L****** V****** every Friday. L***** V******* is what we are connected to were on the same property as. A 120 mainstream preschool children ages three to 6 and then there are 5/6 classess and yeah it has been established for 20 years. So our boys go every Friday and have assembly with them in the morning and we take one or two students depending upon the child and the activity onto the other side for things like art, music and movment, obstacle course ummm and just free play outside. And then in the afternoon which is quite nice weve got, every day it changes. We have 6 or 7 children form the grade 0 centre come over and they come play in our playground so they got, its a smaller setting and our children are completeley lost in the big playground so the mainstream children also have a chance to see what L***** L***** is all about and meet my boys. Oh, what else...we do a concert once a year for Grandparents day where all grandparents come and watch a little concert and the whole schools take part in it. We also have a big walk (fund raising day) every year which siblings and the family gets involved...its a great day out.

How do you think these inclusive opportunities have helped the community

Sure well all of L****** V****** (mainstream preschool) parents and the community at large know about I**** L****** as we are one of so few in the country, never mind in the area. So ummm where was I? Right and umm we had a child who couldn't afford to come to L***** L***** so we sent out an appeal to all the L**** V***** parents and we got sponsorship from like 20 of

these families for this child to come back, so like yah they are all very involved and very excited to have us a part of them. And I think it is quite nice for their children to know children with disabilities so that hey are not going to umm see a disabled, intellectually disadvantaged child and just gawk at them. They are going to have had that experience with them. That they know of disabled children.

Ok...thank you. My last question is how do you see inclusion in South Africa in the future for children with autism?

Sure...I dont know...sadly I dont think much. I think umm there will be more special schools popping up but as far as inclusion goes unless you have a setting like this, like we are very fortunate to have this because my Mother owns L***** V***** umm I just dont see how this agreement of I'm going to help you and you going to help me, you going to become our resource centre we will donate and become your inclsuion centre. I dont know if that relationship is ever going to materialsie until the government says you have to. Its not optional if you know what I mean. Until someone says....Springville school you have to help L***** L***** we have to be in collaboration. Other than that I dont think there is much chnace for inclusion. Or or they will include children and they will have to have a facilitator but then I think its the government. If the government are saying you need to be included with a facilitator then i think its the governments job to provide that facilitator and pay for that facilitator.

Where do you see your students going to after here?

The very high functioning ones I would suggest go to a mianstream school with a facilitator and the other ones ummm most children would probably go to Unica I dont know how much inclusion there is there...I dont know.

Thank you very much.

Interview A2

Thank you for agreeing to do this interview. I am recording our interview to help me remember everything we have covered.

That's fine

Can you tell me a little about your setting?

Well we are private so we don't get any help from the government. We do look at the curriculum (South African guidelines) but we have more flexibility to adapt what we need to teach our kids. At the moment we have 16 boys who either have autism, aspergers or other pervasive developmental disorders. The boys are all different. Our youngest is just three and ****** is seven, he's a bit old for here really but there's nowhere else for him to go at the moment. He's waiting for a place at ***** (specialised school) but there's no spots.

And the location?

Oh yeah...we are in Centurain suburb and we share the same grounds as ****** it's actually my mum's preschool for children aged three to seven. It's been here for over twenty years now whereas my place has been going for only two years.

How is it shared?

Well we started off renting the garage space from the preschool but when we needed more space we expanded into more rooms. We share the kitchen and our kids use the main playground as all the big climbing equipment is there. We also have our own outdoor area as well but the full time kids always go over to the other side (to the inclusive setting) every afternoon. We do lots of other stuff together though; we are all pretty close which is nice. We also share lots of teaching equipment ; music CDs computer CDs and posters and stuff like that we share things as all the kids can use it and if the kids go to the other side then they know what the stuff is and it helps them to share things as well. It's good that the kids get to play and be on the other side (at ECD-B). Knowing where to go and what to do makes it one less thing for them to worry about when they are away from their classroom. Cause children with autism like their routine and can get stressed with change and the unknown. Little things like going to the bathroom and lining up can be the breaking point (what can upset them) if these umm barriers are removed then they can just enjoy the activities with everyone else.

Is anything else shared?

Oh we also share the main swimming pool so in the summer all the kids either change together or have some splash time together when they change over swimming sessions. It's really sweet really as the children on the other side know when my boys are coming swimming and they get really excited and they always say hello to the boys when they walk through. It's nice as the boys have chance to interact and see how others say hello and wave and stuff.

Can you tell me how inclusion for your learners works?

Well I have an arrangement with the staff that we work together and we try and plan for activities where the kids can benefit from being included because we always share space and whole school things like assembly. They have a bench they sit on and it's nice for them to be involved but for the more able kids, the ones that will benefit we try and plan for them to go into the classrooms so they can be included like in a real classroom situation. For most of my kids they will end up in special schools because South Africa's not ready to have these kids in the classroom but when they are ready (the schools) then my kids will stand a better chance at succeeding.

How will they have a better chance?

Well we work on the socialisation and communication skills as the children have main difficulties with these things. So if a kid is really good at something or enjoys something like music then I will organise for him to go over to the other side for singing

sessions. We also did this for T***** who liked swimming, we knew this was his strength so we arranged for him to do more swimming time with his peers. This is still ongoing but we are really proud of how much he can do with the others. He started from not interacting at all to following instructions like everyone else.

We also like to include my boys in community days. When L*** V**** has grandparents day we get involved too. We always encourage the boy's family to get involved too. We have had sponsored walks for charity and the boys always sing a song for grandparents day.

How do you prepare a learner to 'go to the other side'?

Well we do lots of different things but the main thing is that we always involve the child and the other member of staff. We help build up a relationship with the staff member by taking him over for errands so he sees the classroom and having the teacher 'drop in' to borrow some equipment, when he recognised the teacher and was happy with her then we took him over with an adult to go to the singing sessions. We always tell him before hand and we use the picture schedule to tell him (the learner) and the others (other learners) what is happening. What does work well is if he takes a picture of the teacher and gives it to her. Then we know that he recognises who his new teacher is for the session. It helps that we see each other all the time because kids get to see the members of staff, they get more used to them so when they go into their classes it is not as scary as they know who they are and in the same way it is not as scary for the teachers as they know the children and what can upset them and so they can do a better job at including them.

We do like to keep things informal as the teachers are busy enough looking after their own classes. We talk about the boys in staff meeting or during a shared play time. The teachers always make an effort with the boys anyway; we are really like a big family where everyone looks out for each other. We also have lots of photos of the teachers around so they can be seen when we are in our own classroom. We make sure things are built up slowly. That's the nice thing about us (the two settings) being attached, there is no pressure for one of the boys to have to stay too long to start with. If they are not coping then they can just come back to their classroom and we know to try something different, like to give them more support if they need it.

Can you tell me how you give support to your learners?

Wow umm where do I begin??? Everything we do is really about helping our kids become prepared for 'the real world'. We basically help them by focusing on what they need. Our kids obviously have trouble with umm things like umm talking and communicating and interacting with others so we make sure that every day we focus on these things. We have to follow the South African curriculum but we adapt it to suit each kid's individual needs. We also take things at a slower pace and spend a lot of time on one subject. Take this week for example, we are looking at animals, we made sure the topic is the same as on the other side so when ***** goes to activities over there he knows a little about what the others are learning about. Like we sing the same songs as them but we will look at fewer songs, maybe ones that like have actions are quite simple and repeat a lot. Then when ***** goes over the teacher will make sure she sings the songs he knows first so he will feel confident. Yeh with the animal topic we will also do everything around it so with cooking we will make animal face pizza and

our craft work will be on animals but then we adapt the activity so it looks at each child's individual learning plan. So for the younger ones we will focus on gluing whilst the more able kids will have to think about where they place their animal pictures.

How do you adapt your classroom?

Well we have to make sure that there is not too much for the boys to look at. (smiles) we cover up our topic board until it is time to look at it as the paper can be more interesting than looking at me. (smiles) We also keep the toys in a set place as some boys want to pick them up instead of looking at me. It sounds like I am trying to make me the most interesting thing for them to look at (laughs). Distraction can be a bit of a problem when the boys go on the other side. The classrooms are so bright and there is so much stimulation for them it takes a while for them to become desensitised.

Do you give support in other ways, for example how you interact??

Oh of course, when I talk to the boys I am always thinking about how to talk to them. Like M***** who doesn't focus well I will always say his name until he looks at me and then I will keep the sentence really short, like I would say M***** look. Look M*****."If you talk like you normally would then it just goes in one ear and out the other. These kids don't get language so you have to just use short words and leave out what isn't needed, it's not like with the other kids (mainstream) who love to talk and stuff these kids don't get language so why would you want to confuse them?"

How does this help??

Well it helps him stay focused and we always make sure we reinforce what he has done and make sure things are concrete so he knows what is expected of him. We have talked to the teachers on the other side about this and they try to change the way they talk too. So when T**** goes over to the other side the teacher will make sure her sentences are short and to the point and that if she says well done she says what she is happy with rather than just 'good boy' as he won't know what he has been good for.

What other ways do you give support??

Well...ummm we do follow the TEACCH method so we make sure all distractions are out of the way. So if I want the boys to look at something I a showing them I might put a blanket over the other pictures in the room so they look at me. We also have little work stations set up so if one of the boys is doing some work he has more chance to succeed.

Could you tell me more about TEACCH?

Sure, it's a method of teaching learners on the autistic spectrum. It is based upon building up a learner's ability to complete work independently. As my boys are quite young we keep things nice and simple. They have 2 baskets which are placed on top of each other next to their desk. Oh I forgot to say the umm desk is facing a wall and there are sides up so they can't see anything else in the room. So, ummm, sorry where was I???

There are baskets

Yeap, thanks. The baskets are placed on top of each other and in each basket is an activity like say a jigsaw. Now the jigsaw isn't in its box or anything as this could be more fun than the jigsaw itself. The pieces are just in the basket and we teach the boys to pick up the basket, complete the puzzle and then put the basket on the other side of the desk. The last basket has a special treat for them in, a toy that they really like or a picture they like to look at. This lets them know that the work has finished and they have a reward. My boys are still quite young so we don't do many baskets but a good thing about the TEACCH method is that one of our boys is now at the stage that he can sit at a desk in a room with his other teacher and can complete a puzzle. It is an easy puzzle for him as it is extra hard for him to concentrate in a different setting, but hopefully we can keep building up his tasks and add more baskets and make the activities more difficult.

Wow, that sounds fantastic

Thanks, it is. It means that S****** would be more likely to be accepted in a 'mainstream;' environment as he can work independently. This is a huge thing for these boys as they need to rely on adult help so much. It also means he can spend more time over on 'the other side' as he can do some of his work there.

Can you tell me what you think is needed for inclusion to work in other settings for learners with autism?

Well I think this place is pretty special as we are lucky enough to be attached to another setting. This makes it so much easier to work with the staff there on an informal basis. We don't have to worry about travelling anywhere which would be too hard as the boys are not ready to be somewhere all day without one to one support. It would be great if South Africa was a bit more like the UK where they have more special schools attached to mainstream schools so they kids can be included more easily. I worked in a school like that; it's sort of where I got the idea from.

What about if schools aren't attached?

Well, I would say the main thing is about building up a good relationship with the staff. You need to make sure they are on board so you can teach them how to interact with the boys and what they can do to adapt their teaching. If I was writing for UNISA I would say communication and collaborationare the key to a successful partnership. (laughs). For me it's really about giving the staff time to let's say 'warm up' to my boys and understand what makes them tick. Cause when everyone

wants the best for the boys then they go the extra step. Do you know what I mean?? With time the staff can find out more about autism and understand the specific needs of these boys.

How can they do that?   Understand the specific needs of the boys?

We (the specialist staff) need to teach them about how to adapt their teaching and accept these boys with love and understanding. Because there are no courses they (the staff) can go on and so without my help it (the inclusion) wouldn't have really happened because they were scared and thought it was too much work. It's also not just the teachers. The parents can be a bit scared to come to school events if it is formal, they are better when they get to simply be part of the school community. For example, on grandparents day. All the parents and teachers from both sides (settings) learn more by just being involved and seeing what my boys are all about. It was difficult in the beginning as a lot of predjucies had to be overcome and explained.

And now??

Now it is good, we take each day as it comes but I am really proud of what we have done.

Thank you so much for your answers, it was really insightful.

Interview B1

Thank you ever so much for agreeing to do the interview. This is completeley confidential and I am just looking for your opinions so there is nothing to worry about.

(silence)

I wanted to ask you. What is your understanding about inclusion in South Africa at the moment?

Well I dont think there's much. Especially with autism and that kind of thing. I dont think there is inclsuion what so ever. If there is then its with, what do you call those people, they have that one on one aid. I dont think there is, or you would find a child with autism automatically going into a 'normal' school or even being able to take part in stuff at a 'normal' school.

Do you know of any examples of inclusion for children who aren't autisitc?

Umm I do know children with hearing difficulties like the children who are partically deaf I know they are doing things where they get a special mic (microphone) that the etacher wears and zones in on this teachers hearing aid. So i now about that. So somes happening but as far as autism No I dont think so.....If you can see it (barrier to learning) then they try and include it. If its a physicsal thing you can see the childs waering a hearing aid, the childs got a wheelcahir then inclusion is there but

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what you cant see, you cant see autism in the child. I think theres alot of kids with autism in 'normal' schools that are high functioning but nobody actually realises.

Do you think an issue with helping these children is identification?

Yeah and not just labelling them as naughty children. Thats how they are getting labelled. As really difficutl kids that the teacher has to deal with but it could be autism or something else.

We've covered a little bit on what are your views on inclsuion for children on the autisitc specturm. Could you elaborate on any benefits or concernes you have if inclusion was to happen for these individuals?

I suppose that the autisitc children would have an opportuntiy to socialise ect with 'normal' children. I dont know how much the autisitc child is going to get from it (inclusion) being thrown into a classroom of normal children and having his aid. I dont think they could ever do it purely on their own, just beome another pupil in that normal society. I dont think they could do it on their own. They would always have to have somebody woth them so the stigma of it being there for the 'normal' children. Oh hes special hes got somebody with him I dont think the autisitc child would be bothered as such. I dont know if there...maybe on a social level (they would benefit) but if they are going to get anything else out of it alot of work needs to be put forward first.

Can you elaborate on what work would be needed?

Well, you cant just have a child that has been at home and then expcet them to just adapt into a school. You need a set up like at L**** L***** where the children started off more sheltered. Only then if they can can they go and play with the 'normal' children. You cant just throw them into the deep end. You have to get them used to being around other people and get them to listen to instructions. This takes time and special teachers who get what the children are about.

Ok...great..thanks..They (government) are saying inclusion is going to happen for some children on the autistic spectrum. What do you think the schools can do to help make it work?

I think that there would have to be training and educating on what happens with autisic children. And how autisitc children respond. How they are going to deal (with the child) when the autisitc child gets upset because thats the most trying time when you cant get the autisitc child to be part of the lesson and (he) doesn't want to know so I think alot of training would have to go into, for the teachers and for everybody esle concernced with educating that child would have know what autism entails.

Do you feel the teachers are trianed at the moment?

No...no they need more training and even if they can just attend seminars or something on autism or have a book to read. Give them a book then they can understand a litle bit more about that child beacuse they are seen as naughty children ad they are not.

Who do you think is reponsible for proving the training?

The government. But in our case we have to do the training ourselves.

Do you have any views on part inclusion?

I think that is how I think it (inclusion) would work the best. In areas like music, activities or err sport activities things that dont require sitting down and concentrating on reading a book or something. Things that an autisitc child wont seem that out (of place). Things like music movement, playing music, taking part in a sporting activity where they can also do what they do. I agree on that but sitting down in a classroom I dont know.

Ok...Can you tell me...are there any connections between your setting and the government or any external agencies in reagrds to inclusion?

I know about A****** belongs to the AFA (autism association) I think it is the governemnt or a charity, I'm not sure ummm I dont know how much support A**** gets from the actual government in regards to her school i think very very little. I've never seen anybody here. Nobody from the Department of Edcuation has to here to say oh let me see how this school for special needs children is run. Theres nothing, no government interest in the school as far as I know. Umm I know A***** with the AFA I dont think she gets any funding from them. They give donations like books, I think thats all. And umm yeah otherwise I dont think she gets any other support what so ever. I've never been offered any support from the government or as a teacher of special needs children, see what training can be made available or that kind of thing. If I hadn't had experience in the Uk where would I have got training from?? You wont.

And the support services??

The parents pay for it privatley I know A*** went to alot of effort to get those included in the daily programme of the school. I do know that the speech and language workers came from the Pretoria University as part of a private practice so parents pay them per hour or per session or what ever and occupational therapy, I dont know where she is from....A***** knows her. Parents are paying for that and its alot of money and alot of them cant utilise it how it should be beacuse they cant afford it and with the school fees and all the otehr bits and pieces.

There isa government school over in Pretoria but there are not enough places for our kiddies who live further away so the parents have to pay for them to go to school and to have extra help and stuff.

What do you think the governments involvement should be with these services?, despite this being a private setting?

I thinkit is very important, especially if they, there are children out there who have autism who would never be able to afford to go to school. They wouldnt be able to get the help that they need. Definatley wouldnt be able to get speech and language and occupational therapy. If they could scrape by by the barrels of their bum to get them in school they couldnt give them the therapies that could make life for that child alot easier and for the families you know. So I think government should be looking at grants or something to families of these children and offering, I dont know if they do it but they could offer like a basery fund like saying, we will give you funding for three children a year to be sponsored through your school and then we could find three children from disadvantaged communities. Like how O**** comes – he is sponsored through other parents. Other people are paying for that child to come here. I mean there are three (families) altogether who contribute to his monthly fees.

Thank you...can you tell me about any inclusive opportunties that the children in this setting are exposed to?

They do do shared assemblies (with the 'mainstream' preschool attached to the building) but its not always appropriate to take part in every assembly..especially if the school is trying to get through their yearly programme. We do intercative play. We play with them in their playground. We are starting to work together more now. Like one or two children can cope with doing a bit more with the them so they go into the classrooms for little bits of time.

Sorry whose them??

The I***** V****** chrisitan school which is on the same premisis there is (provision) for three years through to garde 0. The grade 0 playground we play in there, especially when we are doing our obstacle course, we share resources. We will (also) call the children to come and demonstrate how to do it and they help teach our kids. Its just easier than u trying to do it. They are part of it and they play together and alot takes place in the afternoon when I am not here. There is alot more play as such ummm there is the assembly. The grandparents day thats all part of being togetehr with little village.

Do you think there are any benefits from those opportunities?

Oh definatley..I think its like I was saying, no the play aspect of such children learn so much through play and if they, the autistic children can see it being done they can mimic it. You can stand there and tell them what to do until you are blue in the face what itis you want them to do but if you can physically see it being done its very hard for them to comprehdn what it is you expect of them so I think for things like social behaviour and what is acceptable and whats not acceptable, to play nicely and sit next to each other and take turns I think that is something which is learnt easier by experience and seeing than being told.

Are there any benefits for the children from L*** V****** (mainstream pre school)**

Yes I think theres a big advantage I especially see when I bring my girls here (daughters) they come and spend the day with me here if I am here in the afternoon. They understand now that there are children who are different to them and we have to be a little bit more understanding and compassionate to somebody who doesn't come across as 'normal' – I hate that term!! But its like we were so surprised – like the other day my smallest one was saying so mum how is it going with the high functioners?? Cause they hear me talking about the lower functioners because I've got (teach) them. But hows its going with the high functioners?? (she asked) and she had never understood that term before and she now is an 8 year old who understands the difference between autism and that within autism there is different stages of how the thing (condition) affects different children. I think the children at L***** V***** get exactly the same benefit. And I think that its just for that accepting that we are not all the same and we are not all capable of doing everything, just makes it a little bit more compassionate.

Thank you... my last question is how do you see the future of inclusion in south africa for learners on the spectrum?

I dont think it will happen easily, especially and this is going to sound really bad. Amongst the Afrikaans culture I think it is a very taboo subject its still. Theres not enough exposure about autism. Theres not enough information within South Africa to help you understand what autism is. So until you get with that I dont see any body buying into the inclusion thing. We see anybody who has a child in a school is going to accept this rowdy, disruptive. They might see it one time where this child is having the worst day of his life and doing everything that autisitc children do in the space of half an hour. And they will say I dont want a kid like that in my childs class. And until people start changing their perspective I dont think this (inclusion) will happen quickly. And it shouldnt happen quickly..if everybodys mind is not set right, then I dont think it should happen. I dont think it should be a forced issue.

Thank you very much.

Interview B2

Thank you for agreeing to do this interview. I am recording our interview to help me remember everything we have covered.

That's ok, will it take long?

Just as long as we are happy with. Can you tell me a little about your setting?

Well I work as a teacher for A*****. This school is very nice. It has 15 boys who have been diagnosed with autism or something similar like aspergers. The boys are from 2 until 7, although the 2 year old is nearly 3. He just got diagnosed so he hasn't been here long. We share the building with next door. A*****mum runs the preschool next door and A******** started renting a room off her but as more children came in <mark style="background:#00ff00">we have expanded and now we have two rooms and an outside play area, although we use the bigger playground a lot next door.</mark>

Can you tell me about how you work with next door?

Well we are two different schools but <mark style="background:#0000ff">we do things together like share the playground because it's nice for the children to play with each other</mark>. <mark style="background:#ff0000">We also get involved with the schools big activities like a Christmas concert or grandparents day</mark>. We also go next door for <mark style="background:#00ff00">assembly on a Friday</mark>, although not all the kids do this, only the children that will get something out of it.

Can you tell me how inclusion for your learners work?

Ummm what do you mean by inclusion?

How the children from L*** I***** are involved with the setting next door. How are they included into their everyday activities?**

Oh right..Yeah sure.ummm. Well <mark style="background:#00ff00">all the children go over to the big playground around 3 times a week for morning play.</mark> <mark style="background:#0000ff">We plan it so they can have some time using the big climbing equipment on their own and then they get a chance to keep playing on it but when other children are around so it is like an extra task for them to play with more distractions</mark> and we <mark style="background:#ffff00">encourage the children to take it in turns to go on the slide and to not run into other children and to be kind to each other</mark>, like saying 'no hitting or biting'. Some of the kids are good at this but others find it hard so they don't go over to the big equipment as much.

How about any other times except from playtime?

Well it's kind of a new thing, like over the past year but we are working with the teachers from L******* V******** and deciding if any of our kids can go into some of their activities. As they are teaching things that will help certain children.<mark style="background:#ffff00">Like take M***** he is really bright and loves singing so he goes into a music class once a week.</mark> Not for the whole session yet. And T****** listens well so he goes into the fish class for a story on a Wednesday.

Do you think this helps the learners?

Oh yeah. I wasn't too sure at first but it all seems to be going pretty well. M**** seems to be liking going over. <mark style="background:#ffff00">He gets excited when he sees his teachers picture. The one he has to take over to give her, like as a way to say hello</mark>. It also gives

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the children a chance from the other side to see 'different children', well that sounds wrong. I mean umm what's the word??? Ummm diversity! So the children have an opportunity to be kind to each other and see that not everyone is the same but that's ok.

Are there any other benefits you can think of?

Well it gives the children a chance to socialise with other children and for them to see how they play and interact with each other. It is like they are the teachers. Because we can tell them it is nice to say hello and play but the children on the other side do that anyway and you can see that one or two of our children watch them. T**** also has someone to talk to as he is more verbal so he is always the one in my class who is talking. It is nice for him to have other children talk to him and expect an answer. Even if he doesn't know how to answer.

How do you prepare a learner to go into the classroom?

It doesn't happen overnight, it all takes time. But A***** says that is good because we don't want to rush our children into anything too soon. There is no point just putting them in a classroom if they will disrupt the other children. We use pictures a lot and make a game when the children go and find the teacher who matches on the picture. This helps them follow the picture schedule for when it is time to go and see that teacher. I also 'plan' to take a child on an errand with me as a way to take them into the classroom without them feeling scared. Sometimes if he is happy then the teacher lets him stay for a while, as a 'special' treat. We keep doing this until he is happy to be in the classroom.

How do you work with the teacher to help him prepare?

Do you mean the teacher in the fish class?

Yes

Well we have to decide when is a good time for him to go over, timetable wise. For he needs to be in the classroom when activities which will help him are on. Or if it is a more structured play like construction because free play can be too much for these children in such a big class. Umm we also talk about what the child likes and doesn't like, like things he might be scared of.

How do you give support to learners who are being included??

Well everyone gets included sometimes, even if it is through parallel play or by being part of a charity day event like the sponsored walk we did last term. We have to support the children if they are to be around the 'normal' children. We can't just sit back and let them get on with it as they might hurt the other children. In L**** L**** we teach things differently. We take

things a lot slower and spend a lot of time on one activity or topic. We always try to make our area calm and structured so they (the learners) know what is coming next. Because too much colour and noise can trigger some of them. Like W***** off screaming and then all hell breaks through and we have to calm him down. So we keep things nice and calm and we always tell them what is coming next by pictures which are on the wall.

Do you give support in other ways, for example the activities?

Of course, we plan the activities to focus on what each child's needs to look at and what they need to learn about.

Can you give an example?

Ummm ok. Well we are doing threading which for some it is enough for them just to sit down and put a bead on the string. But for others, the brighter ones they need their own target. Like R***** he is good at maths so he has to make a pattern with 3 colours. Whereas for M****** he doesn't concentrate to well so he needs us to help him with hand over hand support.

Do you give support when you are teaching?

Ohh these questions are hard. What do you mean??

Well, do you teach these children in a different way that you would teach a mainstream group of children? Like in the way you speak?

Oh yes. I read a great article online about how you speak to children with autism and so I always make sure that I speak slowly and that I repeat the important information that I am saying. The article also said that you should use the children's name a lot so they know it is them you are talking to and that you make sure they are looking at you which is hard for some of them, (the learners) especially for w***** who never wants to look at you. A**** also told me about how these children learn better when they have pictures to look at and this is true so I always have pictures to show the children what I am talking about and lots of photographs too. I have a big blue box that is just full of pictures for when I am teaching topic work. We put them all over the wall so the children can see them but sometimes A**** covers them up with a sheet so they don't get too distracted by them (the pictures).

Do you use Makaton at all?

Yes!! We teach Makaton in an informal way, the children learn by watching us every day. We show them the symbols and actions as we are talking. I try and do it when I can A*** showed me how as the course is too expensive to do and you can't do it here (South Africa). But it doesn't matter as we know enough.

How do you think this helps?

This helps them to know what we are saying as sometimes they (the learners) can become frustrated and angry if we don't know what they want.

Does everyone use the Makaton signing?

The others (the teachers in setting B) need to know the signs too. The kids would just get cross and there would be no incentive for them to use it. (TheMakaton signing)

Can you tell me what you think is needed for inclusion to work in other settings for learners with autism?

I think that South Africa has a long way to go until they are going to let children with autism into the schools. There are just so many other problems happening and not enough money. It works well for us because we are just next door and so it doesn't cost anything for us to just pop over and see the teachers. It also works here because it is preschool and so the children are not just sitting and learning all the time. Our children can be alongside them and they don't look or act too different because they are all just playing and being together which is nice.

Do you think your relationship with the staff next door helps the inclusion process?

Oh definitely, it is lovely that we all get on and just want what is best for the children. It is nice and relaxed and easy to work with. If there are any problems they don't even become an issue because we just talk about it and everyone's nice and relaxed

Thank you so much for your answers, it was really insightful.

Interview C1

Thank you for agreeing to do this interview. I am recording our interview to help me remember everything we have covered.

Ok….do I talk into here??

Don't worry, just chat to me. The tape will pick up what we say. I wanted to ask you if you could tell me a little bit about the setting you work in

Well I work here. At L****** L*****. I started working over the other side (mainstream nursery) with the duck group. But A**** needed some more staff L**** asked me if I wanted to work for A**** and I said yes.

What sort of work do you do here?

Well, I do lots of helping. I take the boys who need nappies and change them. Then boys who use toilet come in. I get a bowl of water and I wash the boy's hands then they go dry (their hands). When each boy finished washing hands he gets his lunch box and sits down at table. The boys don't eat until all have sat and all have said prayer.

That sounds lovely...do you do anything else with Ashley?

 A**** is really nice. She has showed me how to teach the boys as they are special. I help them do work like threading and jigsaws.

How do you help the boys?

Well, I make sure that they do what they need to do. <mark>I make sure they understand what I am saying by just saying what needs to be said. So we say their name first and then what we want them to do.</mark> Ashley has also shown me how to <mark>make some signs (Makaton signs) so they can see what I am saying.</mark>

Can you tell me about how the boys are included in the other nursery?

Well, I take the boys over to the other side for music or story time. <mark>Different lessons for different boys.</mark> Some of them like it more than others. The teachers there are really nice and try to make them be part of the group. <mark>I also take the boys for assembly on a Friday.</mark>

Are there any other times the boys are included?

Well<mark>, I take them to playtime in the big playground</mark>. We sit and make sure everyone is ok. Sometimes T****** wants to hit and I go and tell him NO T****** no hitting. And we all go to assembly on a Friday. We sit at the back and join in with prayer and singing. <mark>The boys who stay all day go back to the play area each afternoon as well.</mark> They go over after sleep.

Do you think it is good that the children go over from L* L*** to the other school?**

Yes. A**** is an angel. She helps the boys to be with other children so they are not just left to themselves. It is good for the boys. It helps them to be with other children and for the other children to be with them. Where I live there is no school like this. The boys who have troubles or are different just stay in. They don't go to school and be with other children.

How do you think it helps them?

It helps them a lot. Going to school helps them learn to be happy. They can play on the swings and listen to books. They are not just left to themselves.

Can you think of anyone who has learnt a lot from being included…Included in the classroom?

Yes. T**** and M*****. They learn a lot. They are so so good. They like to go to Mrs R******* and Mrs W******.

Do you think the children from L* V******* gain anything from the children being included?**

Yes. The teachers there are very good they tell the children that the boys are different but it is ok. The children learn how to be kind and you see the children helping the boys to play. The teachers are very good to the children. Everyone is in the playground.

I have seen you are very good with the children in L*** L*****. Can you tell me what things you do to help them learn?**

(Smiles) They are good boys. I make sure they listen to me. I speak to them in own language if it helps them understand. You have to be firm with the boys. Tell them what you want them to do. I sit with Mn***** in group time as he finds it hard to sit still. I hold his hands so he can join in with the singing (song actions). I show them how to brush teeth and how to wash hands. I teach them to use toilet. I help them eat their food and sit nicely.

Do the other support staff get involved? The other helpers?

(Smiles) they all want to be with my boys. They come and drink their tea at break and we sit and watch them (the learners) play. They like getting the cuddles as my boys get to know them now. But they always give me the cuddles first.

Thank you for your answers. It was really helpful.

Interview D1

Thank you for agreeing to this interview. I am going to record it so I can listen to all the information at a later date. Is this ok?

Yes that is fine.

I wanted to ask about your role in your school?

I am the duck class teacher which is the teacher for four to five year old children. I work in a preschool which has children aged three to six years. We are also ==attached to a specialist preschool unit which houses children who have been diagnosed with autism.==

Can you tell me how you are involved with the learners from the specialised unit?

Certainly, I teach some of the learners who benefit from being included with my children. ==I work with their class teachers and together we plan what lessons the children should come into and how I can adapt my teaching to help them.== I knew a little bit about autism as my friends boy is going through an assessment at the moment. They think he is (autistic) too. So I was a more obvious choice to start helping the boys.

Can you tell me more about how you plan and adapt your lessons?

Certainly, with A***** ==we look at the individual child and decide what area of the curriculum they would benefit from.== For example ***** comes to me for storytime becasue he enjoys books and ****** comes to me for music sessions and soon music and movment as he enjoys singing and is responding well to what i am doing with him.

And how do you adapt your lessons?

Oh of course. ==It is more about what I expect from each individual rather than a formal learning outcome.== For example, with ****** I want him to come up and point to certain pictures, ==I wouldnt expect him to be able to raise his hand yet and answer a verbal question but I would expcet him to respond to a verbal instruction.== A***** has also taught me some very useful strategies when communicating with the learners. I have been ==picking up makaton as I go along== and I always make sure that ==I dont make my sentences too long.== I also ==make sure the children are sitting near me== so I can include them more into the group activity and be able to touch them on the head, lighlty of course, if they need reminding to participate and they are not responding to their name. A***** has also provided me with ==extra visual timetable pictures so they== know what is coming next. These have actually been really useful for some of my own children too.

You mentioned that A**** has taught you some useful strategies. How was this information tuaght?**

Well we have has some staff meetings with both settings and A******* and a student gave a presentation on what autism is and what inclusion means. We also had another meeting where A**** talked about ways to communicate with her children and how they respond well to pictures and visual information. That was good as I always thought inclusion meant they had to be in a classroom all the time which would be too hard for me. I wouldnt know what to do with m******** in my class all the time but saying that I didnt think that at the beginning of the year that he would be in my class for anything. Other than that it is more informal training, for example, A****** and I might meet afetr school and she will show me some makaton signs and we talk about how each one (learner) is doing. But thats just more casual. I also learnt alot from just seeing A**** children in the playground and seeing how A***** talks to them.

What benefits do you see the learners having from being included?

Well, it is alot of work but I do see them (the learners) getting alot from being with me. To start with ****** was upset to even come into my room but now he happily comes in and sits down on the carpet. He brings me my photo as a way of saying hello which is really sweet. He can point to it when asked where i am. And ****** has done really well.. He has increased how much time he spends with me and blends in with the other children well. He will line up and wait to go outside and joins in with alot of the singing actions and some of the songs. Im amazed really at what he can do.

Do you see any benefits that your own children have from them being included?

Yes. It is nice to see the children show compassion for someone else. You see some of the children being thoughtful and helping them do things like line up facing the right way. One or two of them get a little over 'teacherly' and have to be reminded that they (the learners) are not their own pupil. But apart from that I think having ***** and ******* and one or two others visit has been a postiive experience. I know the parents have given positive feedback too, saying that their children have shown kindness at home and an awareness of children with disabilites. I think the inclusion has been positive for the parents too.

What would say is the reason why the inclusion of these learners has been successful?

Well obviously it is much easier to have children come into your classroom when they are in the same building. This way if ****** has a bad day and cant handle the whole session he can return to his own room and a situation doesnt escalate. This makes the time he is with us more positive as there is not that pressure to have to have him in the class all the time. Before teaching these boys I was nervous about what autism was, now I know and I am happy that these boys can be part of it (the learning environment)

How about the way the staff interact?

Well that makes a huge difference A**** has been great and has taught me so much and I'd like to think i have taught her things too. Because we are always talking to each other we know what to is happening and i never feel put on. The staff here are fantastic, we have always worked together and that is why it works. If you'd have told me that I would have been teaching autistic children I would have said never!! But A**** has really shown me how wonderful these children are. I am beginning to feel more confident when around them. It helps that I see them all the time, they are now part of the L***** V**** family.

Thank you for your comments. It has been really insightful.

Appendix III

Write up of field notes from research process. Reflections and notes from participant observation

Entry one 15th January 2009

Today the focus has been on an animal topic. Ashley has chosen this as she spoke to Ms D and has said that O likes animals, it is nice that they have worked together to chose a topic to help O to transition into the inclusion classroom. It is the plan that O will be able to feel more confident to be in the duck room as he will already know the animal songs and that it is something that he connects with. Ashley is starting with five little ducks. She made some visual ducks as Ash has said that visual stimulus is ideal for kids with autism as listening are difficult. Ash ran through the Makaton signs to the song so Ms Annika was familiar, I knew the signs too so we were all able to join in. Some boys attempted the actions; it was good to see the communication there. I know the song will need to be repeated many many times for the group to benefit from it, Ash has said she will introduce 1 song each day and also revisits the songs which the boys like. Every day she plans to sing the duck song as this will be the transition song for O to go into his inclusive music group.

The song was nice, the children liked the tactile sensation of the ducks and the more able were able to put them onto the washing line. O was able to count them. T found the session hard and was distracted by the soft sensation of the ducks. Ash is going to do some more work with him on tactile sensation so he doesn't become over stimulated. We also sung animals go in 2 by 2 but the kids did not seem as focused. This could have been because of the lack of visual stimulation; the song itself was quite long. I plan to make some picture cards to support the singing. This should hopefully have a better response. The animal theme is quite broad. I would have liked to have the animals more split up into different animals like zoo, farm and then sea animals. On a positive aspect it is nice that they are mainly doing songs that O likes – it will be interesting to see how O uses the knowledge of songs when he is with his peers in an inclusive environment and how the teacher's link O preference of songs with the children's overall learning plan.

Weather was so nice today, sunny but not overly hot. We spent a lot of time outdoors in the garden. The boys love it outdoors, a lot of physical activity does help them let off steam. Some interaction was seen between T and R today when we were bouncing. Eye contact and T was copying R when bouncing on knees. The play was extended by Ms Annika joining in and taking turns too. It is seen that the boys like to interact more when they are involved in physical activity. They are confident and so good at gross motor skills it is nice to see these boys have a strength. The teachers see this and really encourage the two schools to join in together in the big playground. It is busy during outdoor play though, I believe it would be better if the playtime could be staggered so not all the children are out when little leap boys are out, but timetabling doesn't allow this to happen. Maybe, Ash could work more with the full time children who stay after the school day and go into the playground with the main nursery. A thing that does stand out it that if a stranger walked into the playground and look round they wouldn't be able to distinguish which children have autism as a barrier to learning. This is good as the kids all blend together; I know this wouldn't be true in a classroom situation or an activity which involves imagination or verbal communication. I can see that the staff realise this and act upon giving inclusive opportunities where the boys have strength.

A development which would be good would be a recording system or a bit more organisation where the staffs plays with the children, encouraging a social game of a circle game or putting the ball into a hoop. Instead the staffs has more of a tea break and oversee and do troubleshooting if needed, the emphasis on friendship and interaction lies more with the children. I plan to observe this more and see what is actually happening when little leap boys and their peers are alongside each other.

Entry two 20th January

Today was a difficult day; the boys were really restless and found listening hard. There has been some illness which could be why. Also Ms Annika has been ill and Ash had to be out for a uni day so the boys have had more change around them. The duck song is still a firm favourite so this was sung as well as allowing the boys to pick their favourites. I thought the less structure of the boys choosing a song (by touching a picture) would be more disruptive but it was ok and I was impressed that some of them knew exactly which song they wanted. As I know the boys more I can see who is more able and who needs additional support within the group. N is very passive and has adult hand over hand for most movement and interaction. I believe that his benefit from inclusion is gained more by him physically being around peers, although I cannot assess how aware he is of others around him as he outwardly shows no sign of awareness of others. In contrast P shows signs of school behaviours and is excited to join in singing. I mentioned having P go into inclusion activity of singing too. Ash says that they plan to include p soon but wants to build up O confidence first and take it slowly with ms duck so she feels more and more confident to have O in her group before she adds P too.

I got to go with O today and see part of the music session. It is really good how it has been set up so he knows where to go. O has a schedule which is made up of Velcro and pictures. He takes the picture off before he goes to a new activity. A lot of the pictures stay the same each day. Morning session is first, then a new activity each day, then snack then outdoor play, then wash hands and toilet and then lunch. Today's activity was a picture of ms duck. He independently took off the picture and carried it to her classroom and gave it to her. I liked that the handover of the picture made O have an interaction, it also gave the security of knowing what was expected of him and made the transition between the rooms go smoothly. Because of the layout between the 2 nurseries o cannot walk independently to the duck room so does need an adult to walk with him. It would be interesting to see if he was able to walk independently if it was a safer set up. I wonder how transition could be applied to deferent settings if they did not have additional staff to walk with him.

O entered the room no problem and stood to one side. With prompting he was able to sit down in a circle with the other children. Ms Duck began her session by talking to the children about animals on land and water. This explanation was quite long and O alongside some other children was seen to lose focus. Ms Duck however did change her way of speaking when she wanted O to come and point to a swan in the picture. She said O...come here. Point to the swan. O responded to this instruction and pointed to an owl. He was corrected. When he did point to the swan she said, good pointing O.This is a swan. She spoke o the other children in a more adult manner. Afterwards she told me that Ash had worked a lot with her on how to speak to O so he would understand. I knew this was the case as Ash had told me there had been some problems with O understanding and focusing on what was expected of him. They also sung the duck song. I could see O physically

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relax and enjoy this song. I could see that he was happy that he knew what was coming next and I noted that the duck resources were identical. Both teachers had the same ducks and Ms D also had a picture schedule with Makaton signs too. She used this when she told the children it was time to go to the toilet.

Entry three 22nd January

Today a big focus has been on the development of Makaton signing. During group time the children were shown the signs of animals and Ash modelled the signs for each one. She held up the card of the animal and then said the name whilst Tina signed next to her. She went through each animal (4 different ones) and then placed them on the floor, encouraged the boys to choose one and then she signed. Apart from O I mainly saw the boys observe what was happening and not do the signs. This shows that the teaching of Makaton needs to be ongoing and part of everyday life, not just a fun activity. Today I made a concerted effort to see what Makaton was being used. All the teachers in the unit naturally use the sign for toilet, more, stop, sit down and biscuit. These words are linked to everyday expectations and daily routine – biscuit I think is an incentive word, as it is one that some of the boys like using a lot!! It is refreshing to see that the teachers use the Makaton alongside their speech; this shows me that they are serious about augumentive communication and that it is applied on a daily basis. I can see that the boys also pick up these signs (esp. biscuit). It helps the boys I can see that they are looking at the teachers hands when they sign, this is useful as many of the boys find it hard to look at faces so they do not follow what the teachers are saying, but the movement of the hand remains consistent and this also applies to having a unity with the boys having different first languages and also dialect. Within the group many boys have Afrikaans, English, Sootu, and Ndebele as their first language. This makes teaching additionally difficult as in addition to the boys having a barrier of learning to language they are also all learning in English which for many is not their mother tongue. I have seen Rose talk to the boys in her home language many times, especially if they are upset and not able to calm down. This tone can seem harsh but I think that is because of the nature of the language rather than Rose being harsh as her tone in English is softer.

I can see that the Makaton is being pushed more with O and L whom the teachers are encouraging to include more with the adjoining unit. Ash is spending 1 to 1 time with them each day and is building up a good range of vocabulary. O is working on naming and signing animals which is the topic his peers are singing about in music, this is the session he is included in.

Tina told me today about when T used the Makaton sign for toilet whilst he was in the main playground with the preschool children. He is non verbal but began to make the sign. Some children who were by him (mainstream) came and told the teacher that T was making 'funny signs' – they were able to translate and T made it to the toilet in time. This is a positive aspect of the Makaton – a good next step would be for the children in the preschool setting to learn some signs too so they can understand should one of the boys choose to communicate. This was an example of the children learning informally. Ash has told me that she has been teaching Ms Duck to sign to 5 little ducks to provide support for O. She said that in the beginning Ms duck found it hard to use the signs and felt awkward but she has since said that she is finding it easier and that all the children in the class like to join in and do the signs too – she describes it as actions to go with the song instead of a different way to communicate. I can see that Ms Duck's confidence will grow as she uses the signs more. Ash has said that she wants to do a short Makaton introduction to all the teachers at a staff meeting, but first she need to do a staff meeting on what is happening with the inclusion process with her boys and the duck class as some of the teachers do not understand.

Entry four 27th January

Today has been a relative calm day. I can see a continuation of the daily routine, which is very repetitive and consistent. The boys enter the playroom and have free play until a bell is rung and a tidy up song is sung. This is reinforced with Makaton signs. Once tidied the boys all walk to the greeting room and sit in their allocated seats. The morning session always includes a hello song where each boys and teachers photograph is shown and sung to and they are hung on a washing line. They always do the day of the week, the weather and then they look at the topic board. This is covered with a sheet until time and Ash says it can be a distraction during other activities. After topic board the boys sing either a theme related song and then a song of choice. This greeting session has the same format everyday and then it ends with looking at the schedule board for the day. Rose always sits behind O as he needs more support and Tina sits between L and R whilst Ash leads the session. I am always included in the singing session and my photo has been added to the wall. O and V can say my name which is a really nice feeling – just shows that consistency and repetition does work with these learners. Ash has said that she included Ms Duck on the wall too so O recognises her and uses this photo as a way to transition to her classroom.

The daily routine is free activity, hello time, a set planned activity, snack, toilet, outdoor activity, planned activity, wash hands, lunch, toilet and brush teeth, and sleep or goes home. Each activity is placed in a schedule and is attached to a long strip of cardboard by Velcro. All the cards stay there except for the planned activities which change each day. I have seen before children have their own boards and remove each card after each activity but Tine feels this is too much for them at this age and that the layout of the different rooms means it not easy to do. Ash has said that she has made schedule boards for Ms Duck's room and for Ms Gooses room and she hope they will be used when her children are in there.

T had a huge meltdown today – he became over stimulated by the feathers and was unable to leave the activity when it was time to eat. He had to be carried to a quiet corner and laid down on pillows; it was a huge commotion and made me wonder how a teacher would cope with this with a large classroom of children?? T – Does have severe autism and although it is unlikely he would be able to cope in a mainstream classroom, it does raise the debate of true inclusion. Some people believe inclusion means all children being included all the time. But would T benefit from this?? What strategies would be needed for his needs and his peers needs to be catered for simultaneously?

It will be interesting to see how ms duck copes if O had difficulty in her room – will he be removed?? Or does she know enough and feel confident enough to have him stay?

I observed whole little village assembly today. Little leaps kids sit on a bench at the back and listen to the story and are encouraged to join in with prayer. I can see that for some of the boys simply being with a large number of children is unsettling. Not all the boys attend assembly each time as some stay behind if they have a need for a one to one activity and 3 boys don't attend as they are unable to sit without an adult helping them in such a large environment. Ash is hoping to build up so all the boys can sit in an assembly.

Entry five 29th January

Weather has been raining which seems to affect the group dynamics. The boys have been restless and there has been a need for more trouble shooting and calming techniques. Ash seems to use a very calm voice and lowers her voice when she is talking to the boys. I think this allows the boys to focus a little more and not be overwhelmed by too much noise and stimuli. I am already making mental notes of what information to pass on to Ms Duck and Ms Goose of tactics which will help them when they have the boys in their group. It would be useful for the teachers to have a quick reference sheet of what strategies to use. But maybe this would be too restrictive as each learner is obviously different. Still, a general rule of thumb guideline could be useful. I plan to liaise with Ash and see what she thinks or if it is too soon to be prescribing recommendations. Maybe all the teachers could work together and write the guidelines at a staff meeting??? That would be good collaboration and something I can see the teachers doing. It really strikes me how strong the relationships are between the staff. I know this is because of the physical location of the two buildings, the staff see each other continuously throughout the day and I can see strong friendships and a strong sense of commadarie between the two schools, they really do see themselves as the same establishment which is so nice. I don't believe they would have the same relationship if they were further apart, simply because the meeting they would have would be more formal and organised, and also more infrequent.

In circle time today Annika focused on the teacher photos again. It is the same routine of singing the hello song and showing the pictures. The children generally seem more confident at this procedure and some are outwardly happy to see the photo with their picture on. T – Visibly shakes and smiles in his chair. O and T confidently say the name of each child and teacher – they shout out the answers with confidence. Repetition does seem to be essential and a strong visual resource does support the objective of getting to know each other's name. Annika included Ms Duck's photo today as well, not a huge response but when O prompted did say Ms Duck. Ash encouraged him to touch the photo and to point to her eyes. I think this was to help him to look at her eyes when in person, a trait that I know he has difficulty with.

Group activity was fine motor control, sorting small beads into trays. The activity was quite hectic as the weather has affected the boy's mood. The differentiated activity was focused on each boy. An I.E.P for what stage they were at. The lowest or easiest activity was simply taking the beads out of a try and putting them into a moulded tray. Kerens activity was to put the beads into matching types but he had two different types of beads. L had the same activity but with three different types of beads. A group had beads which had to be sorted by colour. T had beads to be size and O had colour and size. T was quite obsessive about placing the beads in a particular manner but was able to be independent. What did strike me was the pre preparation involved in setting up the boxes of beads so each boy had what they needed. What I also noted was that the majority of boys were able to be semi independent in completing the activity. This was refreshing to see.

O went to singing session today. He went with Rose and took the photo of Ms Duck to give her. He was unsettled to go was allowed to take his noo noo (a comfort square of muslin) with him. He went to the session and stayed the full time with Rose by his side. She reported back that it went well and although he held onto his noo noo the whole time he sat with the other children and seemed to be listening well. She said he did not join in the singing as much today but his body was relaxed and he tolerated sitting by other children. Ms Duck now has O sitting near her so she can touch him to get his attention. Today he wanted to sit next to Rose so sat at the back of the classroom as having Rose at the front would have reduced the other

children's vision. It strikes me that Ms Duck so very open to being flexible to O needs and that she was able to explain to the children that O needed his noo noo today and that was ok. This explanation was evidently needed as the children have a class rule of no toys or comforters at school except for nap time. It is good to see that this exception was evidently tolerated and Rose said the children accepted the explanation and didn't fuss (except for tiani) but she has a fussy character.

Entry six 3rd February

Swimming lessons have begun now and today the routine is focused on swimming. After morning circle time the boys walk over to the swimming area and get undressed to swim. Only boys who have paid receive the lessons. At the moment seven boys have paid so they go in a three and then a four. Little leaps are hoping that the pink ladies will help raise some money or make a charitable donation so more boys can have swimming lessons if their parents have not or are unable to pay. The pink ladies are local ladies who are involved in raising money for local causes, little leaps is one of their causes. They have paid for school jumpers, books and a long term project is raising money for F fees.

I haven't seen them or met them but have heard a lot about the good they have been doing and that they are a religious group, like little village and little leaps which are very Christian.

The swimming teacher teaches all the swimming lessons in the outdoor pool which is on little village grounds. This is a perfect example of the two settings sharing resources and working together to provide similar experiences for all their children. I see that when the group walks back from swimming the children in little village are outside playing and they all wave to the boys. This melts my heart as it is so so nice to see the children wanting to engage with the little leap boys and that they accept them into their lives and hearts. The boys don't wave back except O although T did smile outwardly and make eye contact. It is the incidental exchanges like this that make me believe that this set up is working and positive. Children are choosing to engage and interact, it is positive for the children to be exposed to different children and to accept difference openly and with love.

I'm sad I didn't get to see the actual swimming lesson. I was needed to assist the other children in a movement session. I guess that is a downside of being a participant observer. I have a role in the school too and can't spend all my time choosing where I go to. I shall be asking Ash if I can go and support the swimming though, esp. as they overlap with when another group finish their session and I would like to see if any interaction occurs during this cross over time.

Movement was a routine lesson. The boys have the same music for quite a few weeks. It is vehicles at the moment. They have lots of visual signs to follow. Red to stop and green to go. Makaton signs are also used and the speech is very direct and uninterpretive. No dance like a flower, more stand on tour toes, dance in a circle. Very direct and minimum language. They did like these games, especially the stop and go game. I can see a strong need for the visual clues. The boys also like having floating cloths to throw and catch to the music. Ash has deliberately introduced this activity into her movement session and Ms Goose does a movement class with her children and they always end the session with the cloths. A slow start is being made to introduce T into the movement session and consequently wants to overlap with what they already do. Transisition does seem to be a main part of getting the boys introduced into an inclusive environment. It also shows how important the physical environment has been in making this setting be more inclusive.

Entry 7 5th February

T had a significant step forward to day. Whilst we were doing our morning session with the photographs Ms Duck came into the room. I later found out that Ash had deliberately asked her to come by 'for an errand'. When she entered T got very excited and gave her the photograph of herself. He initiated the contact, made eye contact and said her name. It was really nice to see and I could see that Annika and ms duck were a bit emotional as they were so pleased. This is a big step forward; I can see the relationship developing between T and Ms Duck. This will make transitions easier. I really like the informal way that this interaction occurred, if it had been set up as a planned activity there would have been a lot of pressure and could have been time consuming for Ms D. This way the interaction was more natural, spontaneous and initiated by T himself. It does show how important the close physical proximity is for these two settings, especially for children of such a young age. Travelling by bus or walking a long way to another setting would eradicate any of the spontaneous inclusive moments I am seeing. I like how the two building share physical equipment and how the staff are obviously close. The next step is to have T go into Ms Duck's room with O for a singing session. This is going to preside over his session with Ms Goose as Ms Duck is more confident and eager to T to be included.

Staff meeting today, Ash and I did a PowerPoint presentation on what inclusion means. Most of the teachers thought integration was inclusion and were worried about having a boy for the whole time. It made me sad to hear them be so worried about having a learner with autism in their room but I can also empathise with them. These learners do have extremely high needs and the staffs obviously have had little training with special needs. I can see that baby steps are the way forward. For this setting true inclusion will be from the boys being part of the community and being accepted and being happy from being with peers, not from spending huge amounts of time in another room for the sake of it. Interestingly, Ms Swan realised that she was being inclusive by having a learner who s hard of hearing in her room and was pleased that she was naturally being inclusive by doing action signs with songs and by having a monitor round her neck (paid for privately by parents). She is now eager to formalise her signs with Makaton – I know it should be African sign language but the school doesn't have anyone trained in that. It is great to see the staff understanding more about what Ash and her team are trying to achieve by including the boys and what it means. I think more shared staff meeting will help bridge misunderstandings. I also think that true acceptance of what Ash is doing will take longer for some staff than others. The staffs that are eager to get involved and have Ash's learners in their room are the staff that already know someone with a disability or have had some training in this area.

Entry 8 10th February

O went to his singing session today and I was able to accompany him as he is more familiar with me and more settled into Ms Duck's room. I can see that his procedure has been set into place. After a normal morning circle session (the topic has moved onto vehicles – an emphasis on naming different types) O goes to his individual timetable which is next to the main timetable. It is just a simple long board with Velcro on. Ash and Annika have put different Makaton pictures on in order and after circle time is a photo of Ms Duck with a music symbol. O has the routine of taking off the picture and then he knows what is coming next. Ideally all the children would do this for each activity but from what I have seen the organisation of the different rooms for different activities makes this transition to the board problematic. Maybe, a board in each room??

After O has taken the Makaton symbol off the board he walks to ms ducks room. He seems calm and relaxed and does not show any outward signs of being nervous (I admit I am feeling more nerves and excitement as I don't know what to expect).

O obviously knows the route and walks into the room. He doesn't knock yet, I guess we will work on that etiquette later! The children are all sat down on the carpet having obviously had registration and their morning time. The children are excited to see O and are eager to sit next to him. Ms Duck takes a few minutes to calm the children and to remind them of the class rules. E.g. calm, indoor voices, stay in your place on the carpet. As O sits down I notice that a few girls, quickly bottom shuffle to sit closer to him. It does show that the children are aware of O and happy to accept him in the class, it does feel a little bit like the girls are being overly motherly and Ms Duck does have to remind them to give O some space. O doesn't seem unsettled by the attention, he actually doesn't really seem aware of the other children. His focus is on Ms Duck. He has a special spot on her left hand side; I can see this helps as Ms Duck is able to place her hand on his shoulder if he does not follow an instruction 1st time. The children all sing the animal's songs and Ms Duck uses Makaton signs whilst she is singing. She asks the children what song they would like and O shouts out 'duck duck'. Ms Duck smiles at O and say 'good talking O. You want the duck song'. One child shouts out it's his favourite'. Ms Duck reprimands the boy and says 'hand up TW'. He puts his hands up and repeats it's his favourite song'. A few of the girls (who have been trying to mother O) say it's my favourite too, and mine ect. Ms Duck has to calm the children down.

O joins in well with this song and is obviously happy. His voice is loud and can be heard amongst the other children's. It is heart warming to see him involved with peers his own age and that he is happy. After the singing session it is time to line up and with me prompting he is able to line up with the other children. O does go at the back and I notice there is a larger personal space between him and the child in front, but he is able to follow the children and go outside to play as he meets his group in the playground with the others. I do notice the children from his group talking to O and pulling his hand to go on the big climbing equipment. O follows the children and climbs on the equipment too. I have noticed that the children show more interest in O after the session he has been with them rather than if he has come straight from the little leaps unit.

Swimming session happened again today. Again the children all waved to each other and I could see some of the boys looking at the children waving and smiling. It is good for the boys to have eye contact and to experience others initiating social contact, even if it is for a brief time.

Entry 9 12th February

The transport session has now moved onto sorting vehicles into air, water and land. I can see the boys have picked up the Makaton signs well and enjoy making the vrooommmm noises. Ash has taken over the big cars into the mixed playground so the boys can play cars with their peers. O goes to singing session, he is getting more and more confident with the schedule now and going to Ms Duck is more of his normal routine. The children have moved away from animal singing and are working on nursery rhymes. Ms Duck feeds back that O didn't join in singing but sat and listened well. He asked for the duck song at the end which all the children did sing. Annika is going to play a cd of nursery rhyme songs for the boys to listen to as they play so O will hopefully become more familiar with the songs. I can see the problem of not having the same planning

but Ash can't do exactly the same as the other classes all the time as she feels the boys will benefit more from a topic they are interested in and with strong visual resources which vehicles topic has over nursery rhymes.

Entry 10 17th February

T went to go into Ms Duck's room for the first time today. Annika has been working with him on a one to one basis for some time, encouraging recognition of Ms Duck through a photograph and by taking him with her as she goes on 'errands' deliberately to Ms Ducks room. Again, this is so easy to achieve because the rooms are so close together. O has become more settled and into the routine so Ms Duck feels comfortable to include T too. It has been really raining today and the boys have been unsettled coming in after the weekend. After a rocky morning circle time session, the boys were unable to concentrate, LI was self soothing and rocking, V had his fingers in his ears and was squealing LOUDLY, this was making O and Tu upset. Despite this Ash decided to continue with T going over as it was on his schedule and he was expected. T removed his picture schedule and I took him over to Ms Duck's room. But once we entered it was obvious that he was not happy. His body language was very tense and he began rocking and humming to himself. I tried to talk to him calmly and say 'T its time to sit down. Sit down T. But he was unable to follow the instruction, I think it didn't help that the wet weather had made all the children noisier and unsettled, there was a definite vibe in the air. After five minutes it was obvious that T was unhappy was not able to cope with this transition. We went back to the classroom and he sat in a corner holding his fleecy blanket. He didn't join in the activity of building. But did join in later when the boys had indoor play with lots of balloons. (A great activity for raucous boys who had excess energy)/ I felt really disappointed that his first experience in ms ducks room was not positive as it seemed a contrast to O settling in. I also hope that it hasn't affected how ms duck and the children accept him. I know I shouldn't be worried about this as inclusion is all about acceptance but first impressions do last. It's hard to know whether we made the right decision either way as not letting him go over could have made him more unsettled as he was expecting to go. Ash is going to go over with T tomorrow and continue showing him the classroom environment and meet ms duck. It is good that we didn't have to travel by car to the inclusive environment as it was effortless to allow T to leave the area he was stressed in. To note O came with us and was able to stay whilst I took T back to the room. He is certainly becoming more independent. I can see the way Ms Duck speaking to him becoming more natural and O 'learning' what is expected of him e.g. sit down in a circle without being asked.

I think that the new strategy for T will be to go twice a day and take something to Ms Duck's classroom as an errand. The boys are used to this and then encourage him to stay a while longer in the room whilst the other children are in there. A few days of this and then they are going to try and have him join in again.

Swimming session was cancelled today because of the weather – boys were not affected by the change in routine as it was on their schedule they were cooking instead. I can see the schedules do work well in explaining what is coming up.

Entry 11 19th February

T has been taking the photo to Ms Duck and has been going with Rose for 'errands'. This is going well and shall be continued. O is doing well in his singing sessions, there is talk of increasing his activity time with his peers to include a story time as he listens well to stories with Ash and is able to concentrate longer than his peers in Little leaps. This is a good

example of why the flexibility is important. Ash explains that they never send the boys over to be included when it is imaginative play as the nature of autism makes imagination extremely difficult and the boys would not have as much benefit from being there as they would when playing to their strengths. Gross motor skills for the majority of the boys which we can see as they play three times a week together, everyday for the full timers. And then the teachers can look at individual children, see their strengths and then place them in a situation which gives them the most opportunity to be happy and successful in that environment. To me whilst the steps to achieve it are slow it does seem to work. I can see success and if something doesn't work then the teachers change their approach and take smaller steps to scaffold each boy. I like that it is done in a positive way.

Some of the support staff came and sat and have their snack with Rose whilst the boys were playing in their outside garden. I can see that the other staff love the boys and are eager to show them physical affection. This love is nice and it encourages the boys to initiate physical contact and to connect with another. Maybe because of their ethnicity or that they speak many of the boy's mother tongue but I can see that the boys are very loving and accept having cuddles. Tu, Z, and L chose t climb into onto of the staffs laps and be cuddled. The support staff is obviously very pleased about this and says she wants to work with the boys too. Whilst it is slightly humorous to watch these ladies vie for the boys attention it is positive to see the informal exchanges and for the support staff to see the boys. By observing them – although they would say they were just having a break they can see how the boys are individually and also increase their awareness of what autism is. Rose has told me that many of the ladies had never heard about autism and now they see the boys they have chatted about other children in their communities who could have autism too. This awareness is a positive step forward into raising individuals and society's awareness of autism. This informal interaction would not have been possible if they didn't share the physical building setting. In my experience, support staff do not have opportunities to see learners with barriers to learning, observations are often organised between teachers. Yet it is often the support staff that interact with an individual with barriers to learning the most.

Entry 12 24th February

I saw a nice example of individual differentiation today. The boys were doing a jigsaw activity today and I was impressed with how the thought had been put into the differentiation for each learner. The activity was set up alongside an ongoing activity of the boys doing water play outside. Ash called the boys in either twos or threes depending upon their need for support. To start with Ash called one boy who was more able and one who needed more support. She explained the activity to K first. It was to complete the jigsaw of 12 pieces. It was placed in a tray without a box as Ash says it can be a distraction. In contrast Ou needed hand over hand support so Ash sat with him. His goal was to complete an inset jigsaw of 4 pieces. Ash named each piece e.g. look Ou Car and did hand over hand to put them in. She repeated the jigsaw twice whilst K was completing his. Then she sent Ou back out to play and she sat with K and talked about what he could see in the jigsaw picture. She focused a lot of name recognition .e.g. 'where is the kite?' and modelled the speech 'I can see a _____' Alongside her speaking she used Makaton signs for see and the named object. I can see that the way she was introducing the activity like the teaach method. Ash wants the boys to be able to complete an activity independently.

During the activity the teachers use the phrase 'Time to' a lot. I find myself using the language to. It is shorter and more precise than 'I would like you to'. It seems to be a trigger phrase that the boys know something is expected of them. This

phrase needs to be shared with the teachers at little village as it will help them to shorten their speech and be more direct with the boys. I said this to Ash and she has said she will mention it at the next staff meeting.

In the playground today I saw an interaction between T and two other boys. The boys were on the large climbing equipment and T was climbing too. The boys were playing and one of them took T by the arm and said 'come' T followed them up the steps onto the equipment. He then proceeded to follow them down the slide and climb up again. This was repeated for ten minutes until the boys went to go and play football. They did say 'come T' to T but this time he did not make eye contact or respond. What struck me was how the boy adapted his speech for T. He spoke like how the teachers do. I find this amazing for a 6 year old boy to be aware of T's needs. I also found it positive that T chose to interact with the boys, even if it was just by following them in parallel play. Although it was a shame that he did not continue the interaction I thought it was good that he made a choice and was not being 'moddycoddled' like I have seen with some of the girls and O. There is a small issue with two girls from the goose class being overly motherly with the boys and invading upon their personal space too much. Even trying to pick up the smaller little leaps boys. It is important for the children to continue being alongside each other so they can accept one another and accept who they are without obsessing about them.

T is still going on errands to Ms Duck's class. Progress is slow but steady. He now hands her the photo without being prompted and will briefly look at her face when she says hello. Ms Duck has suggested that T joins in a circuit movement session as she knows he likes physical activity and feels that maybe a different approach will be good. Ash just needs to re-jig her timetable so T can do this and swimming too. Repetition has certainly been the key when supporting T!!!

Entry 13 10th March

Back after a short holiday today. Ash has talked about a Charity walk today to raise money for little leaps and little village. It is going to be a whole community event. The children will ask for sponsor ship and then they will walk round their circuit with their families or by themselves. Afterwards the school is organising a small fete with a bouncy castle and food and stalls. It seems like a big project – we won't be that involved with the preparation as little village is organising the event but we have been asked to obviously be there and to take part in the walk and raising sponsorship. I'm looking forward to meeting the boys families more as drop of is usually very quick and there is little opportunity to talk and build relationships. It is also be good to see the families involved in the community. Ash says that the families are usually very isolated. I can understand this having worked with families in the up. Often parents are embarrassed to take their children with autism outside as ignorant people mistake their needs for bad behaviour. I don't think South Africa has any 'business cards' like the autism society provide where a parent can hand out a card explaining what autism is. Sponsor forms have been given out for the boys to take home. Our children come from a wide range of social economic backgrounds Ash isn't too concerned about how much money the boys raise, she is more concerned about the boys having someone to represent them on the day. (it's to be on a Saturday).

It has been discussed whether to mix the children at lunchtime (mealtimes) when they eat. The children bring their own snack in which is quite a substantial meal and then they have a cooked dinner at school. This has been successful as the boys know the rule is to eat what is in front of them whilst Annika has said that at home, and in my experience learners with autism have very restricted diets and are open to changes. Meal times can vary at little leaps but it is very structured and quiet. The boys say prayer and then eat afterwards. In contrast, the little village lunchtime has a lot more children and is very

noisy. I am not sure how the children would benefit from this inclusion without support strategies. At the moment lunch is a quiet time and the boys are calm before nap. Would it be that the little village children would have to eat more quietly or would it be that the boys would have to adapt?? I am not convinced yet but shall observe and see what happens. Maybe having the boys share a snack time might be nicer??

It's been decided that T is to go and join in circuits with Ms Duck. She is adapting her movement lesson to be more structured. T is now at a stage that he is happy to go to Ms Duck. With him also having very strong gross motor skills I hope this interaction will be more successful. In contrast O is going to join in circuits too but besides adding a new picture to his schedule very little preparation will be needed. O is really benefiting from his time with the Ducks, he transitions well between the 2 rooms and is becoming more independent and not needing an aides support when he is in there. Ms ducks use of language around him is also helping him settle. She is emphasising the nouns a lot more and is using good boy less. Instead she is saying good job, good talking ect. This more direct approach is working well.

Entry 14 12th March

Today had an unusual turn of events. At swimming L was late for his session and was showing signs of distress as he didn't want to miss the session that had nearly finished. Lorriane, the swimming teacher said that he could join in with the next group of learners from little village. Rose stayed with him (and myself changed the little leap children so I could see the session too). It was really good, L was with younger children than him but was able to join in with the activity and followed all the requests and joined in with the session. It was quite funny that despite not having any preparation L was included in a main stream activity, and enjoyed his time there. Ash is now organising it that L has the session with the little duckling group. So another inclusive opportunity that we didn't see happening that just happened naturally. It seems quite surreal that it happened without any adult intervention when my time is focusing on how learning support can help these individuals. I guess that's just the nature of the game and am pleased that it happened. I think L was more focused on keeping his schedule of swimming rather than worrying about his peers around him. It was also the same environment and same teacher that he was used to.

O went into Ms Duck's room for story time today. I got to go with him to observe and provide support if needed. Now he has the transition into Ms Ducks room is sorted it is much easier to increase O's time with his peers. When O enters the room the children are sitting down working on letter sounds. Ms Duck smiles and says 'come O. Time to sit'. O follows the instruction and sits in his allocated spot on her left hand side so she can interact with him physically if needed. Once letter sounds have finished Ms Duck shows a small schedule board to the class, Ash has provided this to her. On it is a story sign which she calls a child to take off. The story is The Gruffalo and O sits and listens well. His eyes are on the book and he shows signs of concentrating. The next story is Over the hill, this book is a more descriptive story without rhythm and I can see Os attention is starting to wane. Ms Duck notices him fidgeting and lightly places her hand on his shoulder which brings him back to the story for a short while, but I can see that his attention has waned. He is not alone though, some to her children have also started to lose interest. Once the story ends it is time to line up and go outside for outdoor Play. Again, Ms Duck brings out the schedule and O takes the picture off. He lines up (again the last in the queue) and goes outside with the others. I noticed that Makaton was not used but the picture schedule and the change in language use worked well. I was merely an observer

in the room. I was not needed as an aid and O could have been there independently. I myself was A good transition for O not to rely on having Rose with him as he is much closer to her and likes to be near her if she is in the same room.

Entry 15 14th March

Today has been an interesting day. The boys have been working on a new group of songs. The theme at the moment is transport. The boys had been very enthusiastic, they have been eager to name new vehicles and have been eager to meet the sounds that match the picture. Ash has linked the boys learning the play outside with their peers. She has put large trucks and into the main playground. Ash took the boys outside before the children were let out to play; she with the boys playing with cars until they were more engrossed in the activity and then she left them. When the children came out and saw the new toys they were encouraged to play alongside the boys. Some of the children chose to move away from the cars and go to different activities in the playground whilst some children stayed and continue to play with cars.

From what I can see the children were engaged in parallel play alongside their peers, the children were pushing the trucks around in the same vicinity. Although there was no cooperative play it was good to see a step towards socialisation, the close proximity between the children and the ability to watch what the other children are doing and how they are playing is a good role model for the learners. I don't know how much they absorb but seeing such 'typical' behaviour must have a positive effect.

Sponsor forms are slowly coming back and the staffs are talking about the charity walk as it is coming up soon. It is on a Saturday so will be interesting to see which families come. Some of the boys can't make it as they live too far away but Ash is happy that a few families are coming to represent little leaps.

T went to observe the children having a circuit lesson. He went with Rose and watched for 10minutes. Rose says he was calm and interested. He wanted to jump on the big blue mat which was a rolling activity, not for jumping. Rose said he understood when he saw the children doing it. Rose thinks it will be ok for him to join in next time.

Rose and I have a good relationship but I know she is wary of all the formal vocabulary such as inclusion and learning support. She just believes that she is a good person and that her boys need help. Interviewing her has been difficult. Ash has said she can sit with her if she wants but that made Rose feel more nervous. I don't really understand why and am a little frustrated. But I guess I must respect her feelings and just gain what information I can from observing and from our more informal chats.

O was out more of the classroom today. He went to singing, story time on his own and went with Annika to watch the children practise for Grandparents day. All the boys are going to go over and watch them practice. Singing went great, feedback was a lowered concentration in story time so Ms Duck shall choose some more lively and repetitive books and Ash shall go over and sit with him, one to observe and 2 to help focus O during the story.

Entry 16 15th March

Today is an extra sort of entry as it was charity day today. It was planned to be held on a Saturday and was at the local churches park area. Little village had organised a circuit in which all the families were to walk around 3 times. Each family was responsible for how many laps they had done. At the end all the children were given a rosette sticker. There was a big turnout of families. A lot of sibling and Grandparents were there as well as parents. The little village children were staggered according to age oldest first. Little leap children went last. We had five families turn up (expecting 6). The children were initially very shy and stuck close to their parents, holding hands, being carried. My job was to help cheer as the children went round and to give out an ice lolly to those who had a rosette sticker. It was hectic but well organised and good fun. I didn't really have time to stop and watch the individual families but I did see them as they passed my station area. Z had both parents with him and walked around holding both their hands. It was so nice to see him within a larger group and being involved. K walked one lap and was then carried for the next, he was happy to be on Daddy's shoulders. T ran around and I think he did more than 3 laps!! Lu was with a lot of extended family so I didn't get chance to see him in more depth. Afterwards there was a bouncy castle, face painting, food, drinks and a second hand store alongside some carnival type games. The event was actually larger than I had anticipated but I guess it had to be a little village is a large preschool.

Whilst I didn't have opportunity to watch the boys in full I did get chance to say hello to a few parents and introduce myself. It wasn't the atmosphere to strike up in depth conversations (lots of children running in all directions) but it was nice to match a parent or family member to a child.

Afterwards as I am writing this, feeling very tired I am struck by the fact that I wasn't thinking about the children's disabilities during the day and thinking about how I can help them cope. It was simply a family day out. What did strike a note though was the acceptance of little village to little leaps. There was no animosity; actually very few parents probably knew that 5 boys with autism were there, it was just more happy loud children being excited. It is this community spirit that I aspire to achieve for learners with autism. By the very nature of the disability autism can leave families feeling isolated, children in South Africa can be hidden away from what I have been told and autism is a relatively new concept to many families in South Africa. By simply being welcomed into a community raises awareness of acceptance and understanding. Today, five families were part of a 'community day' they all had a common goal of raising money for both schools and the emphasis was not on individual needs but on being part of a community.

I was also interested to see the boy's siblings, as I focus so much on the individuals I don't think about the community of the family home. Yet every boy who came today had at least one sibling. Whilst Lu's older siblings stayed at home (teenagers) his younger baby sister was there and older siblings were there for the other boys. The relationship and family dynamics within each family and how they balance community events for siblings and time for the individuals would be an interesting study for some time in the future.

Entry 17 17th March

L went and joined in with the swimming again today. The previous plan to include him more had not been possible because of staffing and ratio of the swimming teacher to children from little village. He went today and joined in the water with the children. He was not able to listen well today and the swimming teacher has not been taught any specialist learning support strategies. She tried calling him over to join in but he was more interested in just swimming with the blue doodle. Truthfully, he was a distraction to the other children who kept looking away from the teacher to him at the other end of the pool. Once

their session had finished they all had free time to use the doodles and floating ducks. L kept laughing loudly at the boys kicking water at each other and laughing. It was good that he was aware of the children and that he had a sense of humour. I don't know if he understood that the boys thought this was funny or whether he was copying their laughing sound. Either way, it was very sweet to watch. The swimming teacher was not very happy that L had been so disruptive. She has asked that if L comes in the water as part of this session that he has an aide in the water. Having an adult away from little leaps during this time has been problematic and the sessions finish next week so I am not sure how this situation will be resolved. It just shows that some teachers need more support than others and possibly some learning strategies for dealing with diversity.

Ash went with O for story time today as she wanted to have an observation for her own records and for an upcoming parent meeting. Her feedback was that the story time structure was quite formal and she's not surprised that O gets restless. Evidently, Ms Duck reads a shorter picture book story first. The books have a lot of repetition and rhythm in them. She reads this first for her younger and 'more wriggly' kids. She is currently reading a longer book, more chapters like which have very few pictures in. Ash says that she can see a few kids struggling, but obviously the group has some very able kids in who are obviously enjoying the longer story. She has come up with a different solution of inviting the younger children in the class who Ms Duck thinks find it hard to listen to the longer story and invite them for a shared story session with some of her older children. They have decided to have the session at the same time and the younger boys in little leaps will have an extended outdoor play. It is this communication that seems the key in ensuring inclusion. Because the teachers have a good relationship they are comfortable with making suggestions and the other not being offended. I can see the collaboration and a shared goal to help all the children. Now instead of O having story with Ms Duck he will have it with ash and peers. He will also join in circuits with T and have snack and play with the Duck class children.

Another reason Ms duck said to me as of why o was distracted was because of a birthday display in the classroom which he was getting distracted by. It has streamers coming off the wall and they move. Evidently this display was also more interesting to O than the story. Ash normally covers up her displays during hello time and adult input as ant small distraction can throw the boys. Ms Duck didn't know this but by a simple conversation I was able to share this strategy that we use in little leaps to help he in her room. The opportunity and security for simple conversation is most useful, it is good that we have a good relationship with ms duck and the other teachers in the school.

Entry 18 19th March

Z had a huge melt down today. It totally disrupted the balance of little leaps. The children had to move into another room as he was being destructive and trying to throw furniture. He is a big boy for 4 and can do physical harm. Rose spoke to him in his mother tongue. Ash removed all objects she could and put cushions in for him to throw. They managed to usher Z into the hello time room which has very little in and put cushions in to help him not hurt his head as he bangs it. It was very emotional and stressful and it affected the boy's temperament. Lu was crying and K got over excited and started shrieking with excitement. Z is not currently part of the inclusion process as he has very high demands and is not currently in a position to be safe in a different environment. It made me think that inclusion is not a process for all children with severe needs. Inclusion for Z can be something as simple as sharing a community day and playing parallel in an outdoor playground. If he had been in Ms Duck's classroom I honestly don't think she would have had the skills or the confidence to

handle the situation. I have worked with learners with autism and I was shaken by the intensity of his explosion. We are still not sure what the trigger was. Z came in unsettled today so ash is going to try and contact Grandma tonight (who he lives with whilst mother works). For the extent of the melt down the strategies such as short sentences and Makaton and schedules would not have worked. He needed a safe space so he could diffuse without hurting himself or others. This would be something that I think educational settings world need to cater for if the inclusion process was to be successful long term. Again, the physical environment of the building makes this possible in this case studies but for many schools this could be problematic. In my experience specialist schools have snoozlins and soft play areas but mainstream schools do not have this, simply because the space is being used as a classroom or for teaching.

After this episode the schedule was changed as it lasted so long that there wasn't time to begin structured sessions. Instead Ash turned on the computers which are always favourite and put plastic balls into the hello room and fenced it off and let the boys have tactile play. She also has a huge bin liner of shredded newspaper which she added. Lu and K loved this tactile experience and Lu sat shredding it whilst K and the other boys threw it around. It was good that the day could be flexible and focus on what the boys needed. Trying to do threading and jigsaws, the planned sessions would not have helped the boys today as they were all emotional and tired after Z episode. Z spent the majority of the day sleeping after as he was so tired.

In shared playtime today, which was shortened because of Z Ms Goose and another classroom support GG were talking to me when Z came up in conversation. Ms goose admitted that she was nervous at the idea of having the boys in her room because of behaviour. She said she wouldn't know what to do and she would be worried about the other children getting hurt. I tried to explain that we wouldn't just drop off Z in her room but it would be someone more appropriate and we would work together, but I can see it is an issue. This makes me sad but I can understand as Ms Goose is older and is more set in her ways. I think it might take a bit more than a one off staff training session to have her on board.

T did manage to go on an errand though today where he had to take a book back to ms duck. Another excuse for him to enter the classroom and see Ms Duck and the other children. This went well and he stayed for a while as the children were having free play indoors. H occupied himself with some plastic animals, not interacting with anyone else but he was able to become involved in an activity in a different environment.

Entry 19 24th March

Two day he was L is the last session on swimming. He was not able to join in with his peers for the swimming session. This was because the teacher was not confident enough to teach him without an aide in the water. Was a shame, and L had a strength of swimming and had the same swimming skills and his peers. He is difficulties was following the instructions and because of water safety the teacher that she was equipped to teach them safely. Because there are timetabling issues, rose and other teacher was unable to accompany all in of the water. All had his last session with the other two children from little leaps. They had a nice session playing with the ducks and the annual and the balls in the water. Ironically, there was not engaged in the water with him during this time. Rose sat on the side as she normally does.

T went to circuit class two day. I was not able to gain any initial feedback today. But I can judge first session went well and he stayed for the final ½ hour. I think the structure of a circuit session would provide support in encouraging T two know what is coming and to understand the expectations. I know Mrs. Duck is continuing to gain more confidence in her Makaton

signing. Ash says it is as shown that the teachers on having to learning informally as she feels they would have burned a certificate had they been on a form of course. I noticed for the first time today that in the little village toilets they have the Makaton signs on how to wash hands and toilet sign in there. I don't know if they are new or if I just hadn't noticed before, either way Ash and the teachers are continuing to bridge the gap between what the boys need in their own environment and in little village.

Ash says she had O and T for story time session of two days. They were all joined by all children from and Mrs. Ducks class. Ash used limited speech and focused on a repetitive picture book. I can see the children were focused and listen well. She also covered up her topic board with a big cloth, whilst it does seem a strange sight having a cloth hanging on a wall it did cover up the pictures and removed any distractions. Ash also used the schedule board with the group and encouraged all children to read the signs and say what they mean. The little village children were more vocal and were a good role model on O and T. They were raising their hands to talk and were engaged in what Ash to say. I personally thought that O and T flourished with Ash teaching them alongside their peers. Whilst Ms duck is a good teacher you can see the ease Ash has with the children and that she naturally changes her questioning, her modelling of speech and her expectations with the children. I know this is wrong to say but I can see that she has had international experience teaching learners with barriers to learning. She also has had the experience of being in the classroom and picking up many small strategies. Afterwards I asked her what she was doing. Ash named all the external resources such as Makaton and the schedule board and the choice of book. She did not realise that her differentiation extended through her body language and her wording of questions or statements. During this session ms Goose came in to borrow a CD. The children all said hello to her and then T waved to her as well. I like the informal interactions, the provide a natural learning environment on how to behave and how to model certain behaviours. Watching the children greet a teacher was more powerful than a planned lesson on how to say hello.

Entry 20 14th April

Today was K birthday. He went to the a little village assembly with T, O, and Lu. They sat at the back on a bench with Annika this is a little leaps bench so the children can be involved that they can also leave easily if needed. He was called to the front of the assembly by the little village head teacher Susanna. The children sang happy birthday to him. K and did not seem to have an awareness of what was happening, but I thought it was a nice gesture two include him and made his celebrations a part of the community. Annika took photographs to show his parents. When Susanna was talking to play she used short laugh oh and instead of saying good boy, she said good listening. Is an example of how the little village teacher are being more aware of the boys individual needs.

During outside play today there was any misunderstanding between L and the boys playing basketball. L was wandering around the playground and was wondering into the game. The boys were becoming ann6yed and started to shout at him. Ash went over and dealt with this situation. She told them off and said you do not shout out your friends. She also explained that all sometimes found it hard to listen and to get his attention eye contact is needed. She spoke to tell are using the Makaton signs and moved him out of the way. I believe that the incidence like this helps children gain more empathy towards learners with barriers to learning. Ash took the time to explain why he want listening and gave the boys

future tools to help communicate. It was a shame that L was unable to join in the game but Ash says that the level of play was boisterous and she did not want to force a friendship upon the boys who were focused on their rather competitive game.

I also saw a small incident which I thought showed the awareness the support staff have of the boys. I saw GG run over to the climbing frame and carry something away. It was a spider which two of the girls from little village were fussing about. GG said that normally she would tell the girls to not bother with the spider and to stop fussing but she said that V was nearby and she knows he hated spiders and didn't want to upset him. GG not only knew what trigger would upset V but she acted upon her instinct and made his environment safer for him and reduced a potential trigger to upset him. I think this is amazing and tried to tell her so. I think she thought I was a bit potty (maybe a tad over enthusiastic) as she just looked at me and said – it was just a spider before walking away. Instead of going into the educational side of it I think I should have just said that she had been really thoughtful to V.

Entry 21 16th April

I sat in story time for O and T with ash and four peers. It is a smaller group; ash is using this opportunity to model classroom behaviour and expectations on the carpet. Ash is asking simple questions a blast the ball and she is encouraging all children, including O and T to raise their hands. She has an aide of four pieces of card with a picture of a boy sat on the carpet with his legs crossed raising his hands. This was a good example of scaffolding. Ash had created a smaller and more secure environment, including the boys with peers. This situation, she is modelling how to behave on a carpet. She is giving the boys classroom tools so they know how to behave in a classroom situation. For the card, this is a good visual reinforcement which supports her clear instructions to raise your hand when speaking.

Later in of the day Mrs. Duck came to see ash and said think you for the session. She said children who had been with her were raising their hands much better. So this was definitely a partnership where teachers were seen helping each other with the skills that they have. Ms Duck has also said that she is coming to the end of her longer book and is moving onto rhymes and short poems which she thinks will appeal more to O and T. Ash is happy for the boys to go back into the session.

Rose is unhappy that Ash is unhappy with her not wanting to speak on a tape recorder. I know ash is eager to share what she is doing in her school but I don't want any animosity between rose and myself so I have said not to worry I shall just watch a bit more. Rose's main job is focusing on the boys primary needs anyway, she is giving them the skills of self help skills and is either toilet training or changing nappies. Whilst this is a very valuable input for the boys she has very little time spent on the academic side of inclusion. She is however a very clever lady who knows the boys and loves them dearly. She is responsible for all their personal and health needs, she toilet trains them, keeps them clean, makes sure they are eating well and gives them a lot of love. During the health topic I remember it was Rose who spent the time teaching the boys to brush their teeth everyday in link with the topic healthy eating. From her input the boys now brush their teeth every day after lunch. Evidently, the parents commented on how nice it was to have support on brushing the boys teeth as some of them evidently really play up at home and refuse to have them done?!?! Maybe a different situation makes it easier here, or simply the fact that everyone does it and it is a routine.

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Entry 22 20th April

T went into circuit class today. He took a photograph of Ms duck to her room. I accompanied him. He confidently went into her room, but the children were not there as they had moved outside to begin the session. With me leading him we found the class who were stretching to music. T began to rock a little so I gave him his comforter (Ash said to if needed) – it is a small and rather smelly blanket. Some of the girls started to fuss and say children were not allowed to have toys with them but ms duck explained that T was new to this lesson and needed a little something to help in today. This was accepted. Ms Duck had laid out the circuit in a circle and the children were warming up in the middle. Ms duck then sat them down and explained the activity. She got one of her children to go around and show the others what to do. Her explanation was very detailed so I shortened the instructions and spoke softly to T. For example when she talked about balancing and holding your head up high and placing one foot in front of the other. I simplified the sentence and said 'Walk on the bench. Walk slowly'. Once the explanation had been complete the children went and stood at an activity. T still had his blanket and I had to physically lead him to a station. I chose the bench as it was closest to us. Then the children started to move around. T moved around in a circle and followed the children well. A structured environment was good for T as was the visual explanation. Ms duck had been thoughtful in thinking of the environment layout for the children and all were able to move about in the circuit. For the cool down, the children played sleeping lions where they have to lie down and they are out if someone moves. T lay very still and consequently was one of the last children. Whilst I know he was very sleepy and was not aware of the game I could hear some of his peers being impressed that he had done so well. D said 'well done T' which was a nice verbal interaction. Whilst T didn't respond I modelled the response of thank you D. It was a fun game. It was good for his peers to see him do well at an activity and think of things he can do rather than things he can't.

Only some boys went into the assembly today. I personally think it is a shame that all the boys are not included in this, but because of shortage of time ash uses assembly for 1 to 1 targets, especially with the boys who need more intensive support. The boys who went to assembly participated in prayer, sang a song, and listened to a short puppet show put on by the owl group. For the majority of the assembly the boys were passive. They are all were able to pray by putting their hands together. This is an activity they had to be for lunch on a daily basis. An example of how repetition is important.

I saw a nice peer interaction today during shared play. Lo a girl from little village went up to M and tried to get him to come on the swings with her. She physically turned him so he was looking at her and said. 'Come M, come to the swing'. It was like she mimicked Ash, it was rather funny and cute. She then took him by the hand and led him to the swing. M seemed happy to follow, I am sure that if he wasn't he would have let her know. He then sat on the swing next to her. Lo started to swing, she then turned to M and said 'good boy M'. I find this amazing that the children have picked up how the teachers speak to M and that she was able to do the same. I also find it really interesting how the children at little village not only accept the boys in the playground but are eager to seek interactions with them. Whilst I am advocating the boys being included I know that they can give very little back in a social interaction yet some of the children are unperturbed by this. Is it a sign of innocence or a new generation of acceptance?? A little profound I know but still one of my most interesting and personally significant observations I have had to date.

Entry 23 24th April

T has been absent for a few days now and obviously was not able to go to circuit today. I hope that his extended absence will not cause him to regress. Ash does not know when he will return as he has had to go to an informal settlement where his grandmother lives as both his parents work full time and are able to take care of him.

It has been a while since I have focused on the morning circle time. I wanted to So us some more attention today. Especially as the boys have been split into two groups and are now taught by ash and Annika separately in different rooms. Ash has the older and or more able boys, whilst Annika has the younger or less able boys. Rose sits with Annika as Z needs her to sit with him. I am to stay with ash for the days I am in.

The topic at the moment is South Africa. I think this is a very abstract concept for the boys but Ash feels that cultural heritage is important. The boys are shown the flag and Ash talks about what the flag means. There is a lot of talking and detailed language which is unlike Ash; The Makaton is also not used. Ash has a picture discussion board with lots of pictures linked to South Africa on. Some of the pictures.   The south African rugby team, people in traditional costume, the South African flag and the national anthem words. Ash plays a CD of the national anthem words and sings the anthem to them. I find the song very difficult, especially as it is in many different languages. This makes me realise just how diverse South Africa is. For a learner who had difficulty with language and communication, South Africa is not an easy country to live in. It must also be difficult for teachers to support learners who have Afrikaans or English as their second language as they cannot make the resources or signs for all the languages and dialects in their class. This is a huge impact of providing an inclusive environment.

I obviously did not have opportunity to sit and listen with the younger boys. From what it said, good also gave the south African theme the focus more on object recognition for example it is sunny in South Africa. Off ash is extending the topic to include whether and what we wear for sun protection.

Entry 24 5th May

Two day was what I would class as a typical normal day. The boys came in in the morning and have free choice. Annika rang the bell is and we all sang with a tidy up song. This song is an auditory clue that the teacher-an expectation to tidy up. As it is the routine, many of the boys are able to attempt to tidy up. Afterwards the boys split into two groups for younger children went with rose and Annika into the garage, and I went with the older children into the hello time room. Today the topic has moved more away from the south Africa generally into animals we find in Africa, I can see an improved interest in the boys who seem to enjoy this input. Ash sings the hello song and the boys take a photograph of themselves, they are able to shout out the names of the boys (the verbal speakers anyway) and the non verbal boys can point to who it is or take the photo to them. Some of the boys also recognise me more and more now which is great. Ash then calls up O to help her with the calendar, O is able to say the weather is sunny and K and O can sign the days of the week as Ash says them.

I can see a remarked difference in the pace of the hello time now the boys are segregated into very small groups. Ash knows the boys really well and naturally adapts her language to very short sentences to longer sentences for O. The activity was to take it in turns to go up to Ash's feely bag, take out an animal and name it. This activity seemed quite easy and I think a focus was on the waiting for turn. This is a good skill for the children to have when they are in a more inclusive environment. Ash plans to make it more difficult next by adding animals that are obviously not from South Africa, e.g. penguin and polar

bear and teach the boys to sort them into groups. Her awareness of building on the boys learning is great and she is obviously a good teacher. What I wish was that some of her planning was more recorded so I could have a record of it and that other teachers could learn from it. Ash says her planning is the topic and she then adapts according to what the boys needs. She has said that she also has to do lots of paper work for her teacher training lessons so doesn't want to record what she already knows.

With the smoothness of the lesson it can be difficult to pick out how Ash is providing the individual learning support, but reflecting back I can see that she is still adapting her language to each boy, she is using Makaton in her communication, there is a high use of visual and tactile resources, other distraction are removed from the room. (it is very dull the walls). The boys are always in the same seats and the chairs are always laid out in a semi circle and the routine follows the same every day.

The picture schedule is also used as a cue for what activity to go to next. After hello time the boys have outdoor play while the teachers stagger the input for fine motor skills, today it is drawing with large crayons and huge pieces of paper. The children are left to be more independent and #Ash keeps the paper so she can plan their individual IEP for early writing skills. After snack time the boys have a movement session together and then it is story and lunch. Calm down Boris is a huge hot with the boys, the book has a tactile puppet within the book which captures everyone's attention and they all want to touch him. T is still away so didn't go to his circuit session and O didn't go over today as the duck group are doing something different. No inclusion today but was nice to see a more typical routine for the boys so I can see how the teachers adapt.

Entry 25 7th May

It was a staff meeting training session today, set up by Ash and myself. They changed the meeting day so I would be in, which was nice. We prepared a PowerPoint presentation and Ash presented to the teachers about language and communication .She talked about structuring sentences, being aware of literal meanings e.g. it's raining cats and dogs and the importance of speaking and listening modelling e.g. look at me, taking turns to speak. The staff mainly listened. One staff member said, it doesn't really apply to me as I don't really see the boys. The head of little village pulled her up and said but you see them in the playground and it's good to know how to communicate. I presented a small game on Makaton signing on having the teachers guess what the signs were and I also explained that the signs were to aid language, not to replace speech like South African sign language. Also talked about how we often naturally do this anyway e.g. signs for telephone me, asking a waiter for a bill gestures. About how the signs are good as they are universal across all languages. The input was short and there were other matters to discuss. It is good that Ash is communicating and sharing her vision and that the staff have a good relationship with each other. I can see though that the staff do not respond as well to more formal input, it is afterwards on a one to one that the staff ask more questions and talk amongst themselves. That is helpful to be informal but I think that more formal recordings are also very important too.

Entry 26 12th May

T is still away. Rose says she thinks he is in the township with his Grandma. Ash is working on talking to mum and getting the fees and saying he must come back to school. This evidently can be a problem as once the boys go to the township it is difficult to get them back into the city, especially for T's mum who has other children, is working full time and quite truthfully is probably finding it easier without T in the house too. I hope that this extended absence doesn't affect the progress that has been made with his inclusive opportunities.

All the boys went to assembly today for a birthday assembly and a sing song. The song is one that will be done at grandparents day and Lorriane (head teacher of little village) wanted all to be involved, again it is this sense of shared community which is nice to see. They sat at the back and actually all boys did really well, even Z who can find noise and groups of people overwhelming. The boys all had an extended play outdoors together afterwards which was also nice. We had a chance to chat to the teachers and class aids informally as the children played. Ms Goose was interested in the Makaton and has asked to borrow a book on it. I don't have a book but have said I can photocopy the sheets I have. I am pleased that ms goose is showing an inertest, this could be another great opportunity for more cross over for the boys into her class. The little leap boys played alongside their peers and accepted when children made interactions e.g. some girls were pushing Lu on a swing, O and K were on the climbing apparatus with peers. Z, M and H were in their own world but were tolerating others being around them which is significant progress, especially for Z.

O went to Ms duck for movement and story time today. With the assembly and extended play thrown in he was actually out of the classroom for a lot of the day. He still has lunch with his peers though as the dining layout is still very loud and ash wants him to have a calm time with his little leap friends, she wants him to still feel connected to this group too. Earlier in the day O had a great interaction with Ms duck. During morning activity Ms Duck had come into little leaps to borrow a music CD. The staff share many resources between themselves, a big reason is resources are more sparse and they talk to each other so informally it is easy enough to move resources between the classes. Anyway, when she came in she said hello to everyone and O went up and hugged her. O is a tactile boy and gives hugs to us a lot but from ms Ducks face it must have been the first time he gave her a hug. I am pleased that the relationship is blooming and O is accepting and seeking an interaction.

Entry 27 14th May

T came back yesterday, she had to get in touch with T's mum and put some pressure on to have him back. He was in the township with his Grandma. Ash says yesterday he was back he had regressed to a lot of autistic behaviour. He had been rocking more and had been avoiding eye contact. Rose spent a lot of one to one time with him and today he is being more back to himself. Annika says that in the township he would have been left to his own device, he wouldn't be in any form of education or intervention and that it would have been a lot for grandma to cope with. We still don't know if he went there on his own when he was first sick or if his siblings went with him too.

It was decided that T was still going to be involved with the movement session as Ash was eager for him to develop back into his routine. The group has now moved away from the circuit session which

had initially be planned for T and are now in a more free movement, responding to music sessions. Because of this Rose went with him to provide additional support. She said that her presence was needed as the group obviously knew what they

had been working on and they moved around in an open space. T found the open space exciting and wanted to run around rather than move like insects. O who has been going to the sessions whilst T was away was able to join in and follow the lesson. O is quite unique in how easily he has adapted to the lessons. He is a higher functioning learner with autism, and many of his barriers to learning with autism are quite mild. He has been a good 1st case as he has allowed the teachers to feel more confident and develop tools and strategies which hopefully will be transferred to other learners at different times.

Before he went though T remembered to take the photograph of ms duck and rose says he was able to give it to her independently. This shows that he retained the scaffolding strategies set up by Ash and Annika this is good as if he had forgotten we would have been going back to the beginning. Ms Duck has said that next week she will plan a more structured circuit for the children to be insects around to provide some support for T. It is this ease of communication between the staff which really helps the inclusion process run more smoothly.

I was able to see the boys sitting with their peers for snack time. It was interesting to see the boys and how they interact (or don't) with their peers. For snack time every child brings in their own lunchbox. Rose had brought the boys lunchboxes over. When the children raced to get their boxes O went to Rose and took his and then went and sat down at his special place. Whilst the children choose where they sit T and O have a set place and on the table is a Makaton symbol for 'sit' and 'eat' whilst they have gotten rather worn as the table is used by many children they are a good reference for where to sit and what to do. The allocated seats are opposite each other at the end of a table. T and O sit and eat their snack in silence; they are more interested in what they have to eat rather than what others are doing. In contrast, the children are very excited to have T and O for snack time, especially t as he has been away. There is a short of scuffle and a race as the children fight over who sits next to the boys. One girl cries as she doesn't get to sit where she wants to.

As O sits and eats his lunchbox the boy J next to him is talking to him in a loud voice. He also proudly tells his friend A that 'I am sitting next to O'. He then turns to O and says 'I'm your friend aren't I?' O doesn't respond and J says back to his friend A. 'I am his friend'. A responds 'I am too'. I feel the need to intervene and say, 'yes we are all friends'. J then turns his attention to his lunchbox, as he talks to his friend A he always turns and includes O in the conversation, more by telling him things although he does pause and look at O for an answer. I try to model how to talk to O as we are sitting there. I say 'look O. A has apple slices'. O has a yoghurt. O looks at A but doesn't answer by speech. I feel that although O is not speaking in this social situation at least he is accepted by his peers and he is being exposed to conversation and there is opportunity for us as adults to model what an appropriate social response would be.

T is able to sit at the table and is also engrossed in his food. It seems that the boys have a routine of eating their lunch and can do it in different situations. I do think that the noise during snack time is overwhelming and that it doesn't really provide the optimum inclusive opportunities. It would be nice if the boys could have a smaller group of children and an adult sitting with them to model how to talk and how to engage in a social situation. I plan to try and sit with the boys during snack time and encourage small talk, or any response! I did talk to Ash about the snack time organisation but she said it is problematic at the moment as the children all need to eat their snack at once and go out to play. The teachers are not yet ready to give up their break time for additional teaching. I guess everything comes in baby steps.

During outdoor play I saw Lu play alongside his peers in the sandbox. He was digging a hole when 2 children entered the sandpit and began playing with the diggers. Instead of moving away from the children he picked up a digger and began pushing it in the sand too. When 1 of the children pushed the digger into the hole Lu had been digging he then moved away

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and pushed the digger with his back from the boys. When they moved away he then went and pushed his digger in the hole. Whilst this interaction was minimal it was significant. If I hadn't been watching closely the interaction might have been missed. It also showed me that whilst Lu doesn't show through his body language that he has some awareness of others around him. It also shows that he is able to learn through observation and by copying others behaviours. Encouraging learners with socialisation as a barrier to learning to be included I think is essential, if schools keep these children isolated they have no positive role models to learn from or to see a different level of play. This case study has been unique and has sown me that although the boys are mainly segregated the inclusive opportunities they have do help them and helps them to be part of the community.

Entry 28 19th May

Based on my last field note entry I wanted to spend more time reflecting on the time spent in the shared playground. This is actually the main inclusive opportunity for social development and interaction between the two settings. As Ash has pointed out when you are in the playground and you look around it can be hard to distinguish which boys have autism as a barrier to learning as gross motor skills seems to be a strength of the boys. Annika sees this a positive means to include the boys as allowing them to share their strengths with their peers allows them to see the boys in a more positive light and focus on what the boys can do instead of what they can't. For example, on the big climbing frame K and V have very little fear and often easily scale up to the top of the frame and sit on top. Whilst staff do have be make sure they are safe many of the children in little village are impressed by their climbing skills. Little I said to me that K and V are very brave. The older boys in goose class were also seen to say that the climbing was cool. O is also very able with a ball. He confidently kicks the ball and dribbles it around. He is more oblivious to the notion of passing but does a mean run towards the goal and models the other boy's behaviour of raising arms in the air and shouting goal!! I think it is a shame that more time is not spent by the teachers actually supporting the kids interacting together, a lot of time is spent trouble shooting and watching the children whilst we have a cup of tea and a break. I understand that it is essential for the teachers to have a break, I just think that an opportunity to model play games or scaffold interactions is a wasted opportunity. Watching the boys the most parallel play is seen either on the climbing frame or in the sand pit. It is these places that the rules of play always seem to be consistent. The children have two ways to get on the large climbing frame so it is structures for the boys to follow the 'unofficial rules' of how to use the equipment. In the sand pit the tools are always the same and parallel play can occur without the need for speech. Support in the sandpit would have been most ideal as the children from little village also engage in imaginative play in the sand pit with animals and vehicles whilst the little leap boys from what I saw focused more on using the tools without imagination or speech. The 2 main areas of their barrier to learning.

O and T went to story time and movement time today. Ash and Annika have now begun to work with LU and K on recognising the teachers photograph so they can go into singing session with O and T too. Ash has said that when this works she will actually split the group with ms duck so she doesn't have too many kids in one group and Ash will take the more able duck children, which will help her do her teaching placement practical work. It was just taken very slowly today with Ash showing the children Ms duck today at hello time. She got each child to match a choice of two photos to ms ducks photo and then said her name. This is ms duck. She teaches the duck children. She repeated this for K and Lu. Morning session focus is now on seasons.

Today the boys had a fine motor session on using glue and spreaders. They had to glue pasta pieces to a piece of paper. Ash then plans to spray the pasta pictures pretty metallic colours and hang them in a frame for Grandparents day. She differentiated the task by the older kids having to make a representative picture. This did not work well as it was quite fiddly. Annika adapted this (and myself) to seeing if the boys could make patterns with the different shapes. K and T and O did well at this. Z had great fun with the tactile sensation of the glue, Rose helped him stick pieces on the pasta.

I saw Rose having a giggle and a talk in the kitchen today with her friends, they really do seem to be so close to each other. I guess that they spend more time with each other than their families. Rose says that sometimes the ladies have slept over at little village if they are unable to get home. Families are often looked after by grandparents so the ladies can work. This must be sad that they spend more time with other children than their own. I can see why they are so affectionate towards the boys from little leaps. This affection whilst fulfilling their need also supports the boys as it models appropriate physical contact and encourages them to interact.

Entry 29 21st May

Hello session is still split and seems to be flowing well. The boys now know the routine of which room they go into and where they sit. The pace of the morning session is still calm and steady yet seems to be more efficient. The routine whilst monotonous is structured and the boys are able to either sing or join in with actions to songs. They can shout out answers if they know them (the verbal boys) and Lu can touch a board to answer yes or no. It would be great if we had a speech button that said yes or no for him. Ash is modelling how to say 'it is a _____' when they are naming things. The boys are not saying this yet but it is good to have a goal to strive for.

A pink lady stopped by today to talk to Ash about helping to raise some money. The pink ladies are a local charity of elder ladies who devote their time to raising money for local causes. They have taken to helping little leaps this year which Ash has said is a huge financial support. She told me that previously they have paid for Vs tuition fees when his Dad lost his job. Z also has financial support from a group of parents at little village who all pay a little towards his fees each month so he can still come despite his family situation. This community support is amazing and something I have not really seen in South Africa. They are also planning to make a cookbook of recipes from every family and then sell it to make money for little village and little leaps. Though from what Annika said I think this is not going to happen until after the holidays.

T and O went to singing session today. K went with them as well but was unsettled so he left very early. Rose went with him and said it looked like he was going to 'kick off' so she removed him before anything was going to happen. I sat with K and Lu and we had a matching game of the teachers. I then walked with K and Lu and we went and delivered the photos to every teacher. This included Ash, Annika, Rose, Ms Duck and Ms Goose. This went well and the boys enjoyed walking around the school. Ash is going to try and do this again tomorrow. (after she has gathered up the photos again).

Ash is teaching ICT as additional activity. This is an obvious reward with the boys and many of them get over excited. Some of the boys have very developed mouse control skills, something I am not sure where they have gained from. I know K is from an affluent family but O and T I cannot imagine have a computer. Maybe it is the isolation of the activity that appeals to the boys, but I think that I lot of key skills can be taught through these computers. I shall look and see if there are any programmes on social stories which could be a useful tool to develop socialisation skills.

Entry 30 26th May

The children have come together as one group and have started to practice singing songs for Grandparents day. It is a huge community event that Little Village has been doing for years. For the first time Little Leaps are going to get involved too and sing songs for their Grandparents. It is a big event and each class will have songs and dances to present. It is a huge positive step in both settings working together. The boys are going to sing their own set of songs and O and T will join in with the Duck group for one song. Annika says that it normally takes place at a local school hall and all the children will be bussed there on the day. I am really excited about seeing this develop and hopefully be there on the day. Ash has 2 chosen songs that the boys like and are familiar with and 1 new one which links to shape topic. They might are going to sing the rainbow song (about colours), dingle dangle scarecrow and I love you (theme from Barney). Ash is using a poster of colours and she points to each colour as the boys are singing. We if you are planning to teach the Makaton sings once the boys are more familiar with colour names. A lot of repetition will be needed but it will be so nice to have everyone together for such an event. I can imagine that the parents of these learners have not had the opportunity to be involved with many social events in education. Ash has said that many parents found it hard to be accepted within their communities. Ou was sent away to an informal setting with his Grandma and was kept indoors all day. He came back to Little Leaps once money was raised for his tuition fees by the parents in the community, again another example. Another learner in the setting was also taken to a witch doctor as the family thought he was possessed and needed to be cleansed. From what I have seen the parents are very timid and unsure of what to expect and this will be a really nice way of including the boys in this community.

Earlier in the week Ash had asked families to bring in a photo of grandparents or people who are coming to watch the boys sing. Some photos have come back and ash has pasted them onto a large A2 sheet of card. She went through the names of who the people are and who is coming. Z got off his seat and slid on the floor to touch the photos, I'm not sure if it was the tactile feel of the paper rather than what it represented but he moved voluntarily out of his seat which is a first from what I have seen. Ash isn't sure if she will get many more photos from some families but has left a space just in case. I can see that a lot of preparation will go into this grandparent's day. The songs are now the boy's main topic work.

Afterwards the boys had a movement session. Ash played music and we all dance in a circle. When she banged the drum we all had to sit on the floor. It reminded me of a simple game of musical bumps. Ash also had the learning objective of teaching stop and go. She was reinforcing these words and using the sign at the same time. It was a good activity. It is now planned that Ms Goose will do this same activity and Ash will go over with some of her boys for a shared activity. This is a first step in the boys being with Ms Goose and I know that having Ash there will be a support for Ms Goose. It will help her gain more confidence and see what Ash does.

Z had a big upset during dinner, he was so distressed that the other boys became distressed too. We had a hard time calming everyone down and getting the boys sat to eat again. Z sat in a corner and had some newspaper to rip as this tactile sensation helps calm him down. I am not sure what the trigger was this time. I find it harder to read Zs signals and this does help me be more sympathetic to ms Goose being nervous as she feels she doesn't have the tools to help the boys if needed. I am trained and have a good amount of experience and Z can make me feel unsure as I don't know what will trigger him to have an episode. Having tools and tricks of the trade helps, but what also helps is knowing the individual and understanding what he needs and what makes them tick. This can only happen by spending time with each learner, but if you are too nervous to do it then it is like a vicious circle.

It was shared play outside again today. The staff stood around and chatted whilst the children play. They have their staggered breaks during this time. It is also a time when the staff talk to each other, often informal exchanges I have noticed crop up at this time. For example it was during the break that Ash and Ms Goose chatted about the lesson they were going to deliver together. It is great that the staff have such great communication with each other, it is a shame that nothing is formally documented for others to refer to. The children played well all together and there were no need for interventions. Physical exercise is something the boys seem to really love and is something they are good at. H whizzes around on a bike and T and K are great climbers. I like watching the boys achieve something they are good at enjoy. Sometimes I focus so much on helping reduce their barriers to learning that it is important to take a step back and appreciate them for who they are and what their strengths and individual interests are.

Entry 31 2nd June

Practise for grandparent's day is still a main focus. The boys are in a routine of singing the songs. I love you is a good favourite. I can tell they have watched Barney. Dingle dangle scarecrow has a lot of obvious actions so everyone can more or less join in. The colour song is still a struggle. Ash said that last week they played a game of running to the colour when Annika shouted out the colour which worked for some colours. She said that using the physical strength of the boys and trying a more multi sensory approach might have encouraged a different way of learning as the flash cards were becoming stale. She said the game was fun but really T and K knew the colours and the other boys followed where they ran to. So the objective wasn't met. I did a difference today though of hoe the repetition has paid off, I think the boys are knowing the song more and that it is good to have a focus on colours and learning too.

O and T confidently took down their picture schedule and went (mostly independently) to the class, they walked on their own but I was behind as I wanted to sit in on the session now they are more independent I didn't want them to really notice me and chose to sit with me instead. When I entered the room the children were sat down on the carpet. O and T were at the front of the carpet each on either side of ms ducks chair. This is still a designated pace for them. Ms duck has also got some small circle mats now which O and T and 2 other children in her class sit on as a way to help them have personal space and know where to sit. Ms duck asks the children to cross legs and to sit up. She physically places Ts legs into a crossed position and praises both boys for good sitting.

She addresses the class with short sentences and she has a schedule which she shows to the children. From how the duck children respond I can see that they are familiar with the board which makes me think they use it when T and O are not with them. The children recognise the symbol for story and shout it out. O physically takes off the symbol and Ms duck reinforces saying It is time for story. Today the focus is on fairy tales. Ms Duck has the story the 3 Billy goat gruff. She reads the story and encourages the children to make the trip trap noise and to pat their legs. This multi sensory interaction engages the children who are enthusiastic and a little boisterous. During the story she asks one of the children to be the troll. Many hands shoot up and she chooses a boy from the duck group. He is an enthusiastic actor and bellows out the words 'I'm going to eat you!!!' All the children are engaged. T and O join in with the patting of their hands on their legs. They look at the pictures and seem to listen to what Mrs duck is saying. At one time when T hasn't stopped patting his hands she lightly touches his hand and stops his patting. T accepts this intervention and stops patting. After the story Ms Duck asks the children some

questions which they shout out the answers e.g. who went on the bridge. O and T are not looking at Ms duck at this time, they are still sitting but I do not know if they are listening.

Ms Duck quickly rounds up the questioning, she gets out the schedule again and asks O what is next. O signs eat and I think he whispers the word, it is hard to tell as many of the duck children have shouted out what the symbol means. Ms Duck plays a game to get the children lined up. She says. If you have a blue top on line up. If you have a skirt line up. T gets up at the wrong time and wanders around the room. O stays sitting on the floor until last. Ms Duck then says If you are O go and line up. O responds to this. Meanwhile some children have noticed that T is wandering and have pushed him towards the line. Ms duck takes Ts hands and says 'come T time to line up'. She places T and O in the line where they wait. The children then line up and go to snack.

I am needed back in the class so I don't see snack time. But during play I manage to chat to ms duck about the lesson. Ms duck said that today went well and she was pleased. I tell her that I think she is doing a great job and that she seems more confident. Ms Duck says that she and Ash have been talking a lot and that she has taken on board about the language, the more she does it the more natural it feels. I also find out that ms duck used the schedule with her children for their transitions as it has helped some of the children understand their day and be more settled. The learning support Ash gave to Ms duck she is now doing for her children.

In the playground the boys all played independently and there were no issues. It began to rain so play was cut short and the boys went into their own indoor garage area and had the wheeled toys out in there.

Entry 32 4th June

Ms Goose came into hello time today for 'an errand' she came in during hello time and Ash stopped the boys and asked who is here?? O shouted out Ms Goose. Ash then asked T to take a photo that is the same and give it to ms Goose. T was able to do this. I think it was a planned errand day for Ms duck also popped in for a stapler. Again Ash asked the boys who it was. O shouted out Ms Duck. Ash asked Lu to get the photo of Ms duck. Lu independently chose the photograph and took it to her. Ms duck hugged Lu which I thought was a nice gesture.

After the daily calendar and weather chart we do more practice for the Grandparents day songs. Although the groups are split again. Ash has branched out a bit and is doing the topic family. She talks about brothers and sisters and does the Makaton sign for them. She models that 'we love our family' and then links it to the barney song I love you. Most of the boys can sign I love you and T. O, V and sometimes K are singing. The picture schedule is used again and the verbal boys can shout out that it is art next.

Today art is simply painting. Annika and myself call the boys in groups of 2 or 3 and work with each boy. Ash has planned the paint so it is 4 pots of paint orange, yellow, red and brown. There is 1 brush in each paint pot. The boys have the paint pots to share on a table. We model how to dip the brush in the paint, wipe it on the side and then paint. Z and H need hand over hand to do the painting. The other boys can paint with verbal prompt. O and K can name each colour and T signs red. Ash has now got a new assessment system that you mark how each boy achieved the activity.

1 – resistant, did not participate

2 – hand over hand full support

3 – physical support e.g. putting brush in hand

4 – verbal support e.g. pick up the brush.

5 – independent – no input given.

O and K were independent in the activity which is the goal for the boys as Ash wants them to be able to achieve things on their own and in the future see if they can achieve them in an inclusive environment, giving them the skills and the ability to be independent.

The assessment seems a useful tool as each painting is quite similar and the learning today was in the process rather than the outcome. Ash will now have a record of this to add to her end of term IEP reports.

Assembly today and the boys listened to the little swan group sing one of their songs for grandparents day. Afterwards we all watched a video of last year's show. This was a good preparation for what is to be expected for the children. Ash says she plans to show the boys the video again by themselves as they were quite far away from the screen and she thinks the repetition will be useful. When it is prayer time some of the boys independently put their hands together and O says Amen at the end.

You can tell it is a holiday coming up as the boys seemed really tired today. There was minimum fuss at nap time and the boys all dozed off snuggled in their blankets.

Entry 33 9th June

Today was a busy day. The children are working hard on practice songs and the run through for Grandparents day. Ash and Annika had shown them the video again of the children singing last year. Today Ash has put a bench in the hello room and is showing the boys where they will sit. She has said they have been doing this each day. Z is to have a separate chair and Rose will sit behind. H will also have a separate chair and I will sit behind him. Annika will sit behind the bench and watch the boys on that. The other boys are lined up is a specific order which Ash knows. She runs through the boys walking and sitting on the bench. Ash now has a tape recorder and sits on the floor in front of them. She counts 1,2,3 and we all start singing The colour song. V,O and Lu start to sing alongside me, Rose and Annika. The other boys sit and some are able to sing the words or join in with the actions. Ash then does the Makaton sign for stand up and says 'time to lie down'. Some boys lie down (Lu jumps up) and we help the other boys to the floor. Z sits on Roses knee. Ash presses play on the cd player and the boys lie on the floor. It is mainly me, Ash, Annika and Rose singing. When it is time to jump up the boys all know when to jump and start bouncing on their feet, dancing and squealing. It is obvious that this part of the song is their favourite. We sing dingle dangle scarecrow and the boys wave their arms and most join in with the actions. It is rambucous but very sweet. At the end of the song Ash makes the Makaton sign. Time to sit down. With support, whispering the reinforcement requests and physical guidance the boys all sit down again. Rose and I have to guide H and Z to their seats as they are happily wandering. Ash then counts 1,2,and 3 and presses the CD player. It is the Barney song. Again most of the boys can sign the actions and all the verbal boys sing loudly. The rehearsal goes very smoothly and I can see a lot of hard work has gone into the performance.

Ash has used a lot of planning and prompts to build the boys towards a common goal, I am looking forward to seeing them perform.

After this the boys have a quick hello song (no photos) and they check the schedule board for the day. As Ash points to each picture the verbal boys shout out what it is. They know everyone except the activity number time which is a moveable activity.

After this the boys go outside and mainly jump on their trampoline – I am glad this trampoline is set in the ground as lu, K, V are very confident and easily bounce off the sides. In the playground (little leaps yard) there is a lot of gross motor equipment such as a swing and a climbing frame and a trampoline. Rose has to keep telling K to climb down from the top of the swing structure, I am amazed at how easily and fearlessly he climbs up there. Ash says that they try and model how to use the equipment in here and the lack of fear for some of the boys can be a safety issue.

Annika and Ash take the boys for a number activity of counting objects into different pots. This is part of an assessment process for end of year reports. Again I can see the resources are all pre-prepared for each boy so no additional resources are accessible to the boys. I can also see that Ash has set up a table facing the wall. She has made a simple teach table where she has three baskets. In 1 basket is a puzzle, in the 2nd basket is threading and in the 3rd basket a comic. I watch O sit down and take the 1st basket. He independently completes the puzzle (quite an easy one for him) and then put the basket on the floor. He then takes the next basket and threads the beads. There is only a string and 6 beads in the basket. After this I see his favourite comic of a toy catalogue is in the basket which he takes out and looks at the super heroes (his favourite). I have seen this set up in schools before and have used the method myself. I have never seen O do it through or any boys at little leaps. Speaking to Annika she said that Ash is trying to encourage O to be more independent so he can complete activities away from herself. It is her long term goal to have O spend more time with his peers and she wants to set up a system so he can do work by himself. Ash said she deliberately has been putting in activities which she knows he can easily do without a verbal instruction. It is good to see that there is a continuing long goal for the boy's esp. O. It is a shame that I won't be here to see it develop each day. Ash said that it is very early doors yet and she thinks most of the boys are too young and are not yet ready to introduce this method more formally yet. O is more like a trial run so Ash can work out what works and how to provide the support he needs to understand what the goal of each basket is.

O and T went to music session and K joined them for story time. All the boys went over for afternoon shared play.

Entry 34 11th June

Today was my last official day observing at little leaps. I planned the day with Ash that I could go and follow the boys into their inclusion activities. Unfortunately, this didn't happen today as everyone was having a huge dress rehearsal for grandparent's day as a school so the normal sessions were cancelled.

Instead we had an extended play in the little leap garden. Ash put out the sand boxes and 2 huge cardboard boxes from an order and the boys played happily hiding in them and dragging them around. Whilst the boys were playing rose and Ash were cleaning up the rooms ready for the end of term. Annika was writing reports in the garage are. I had a really nice day enjoying playing with the boys. Upon reflection, it was not a productive day but I guess everyone needs a down day and the teachers are obviously winding down and organising.

O had a session where he sat at the table and completed three baskets of work. Ash has added an extra basket of a piece of paper with a circle on it and a red pen. His task is to colour in the circle. He was able to do all these activities and worked the baskets well. Again, his last basket was the catalogue with toys in it and again he turned to the superhero pages.

Ash said that at the staff meeting time was given to discuss the order of the day for grandparents day and how little leaps fitted in. It has been decided that the boys won't sit in and watch the event as the staff are very busy and are having older students from the school watch the children in the wings. They all agreed that this situation would not be beneficial to the little leap boys. Instead, they will play outside until it is their turn. The boys will also go on the first bus back so they can have lunch at a similar schedule time. It is good that the staff have collaborated so everyone knows what is happening.

I look forward to helping out at grandparents day and have really enjoyed working with little leap teachers and little village. I hope that what I have seen will be translated into something useful that others can learnt from as I feel I have learnt a lot from working alongside these amazing people.

Entry 35 19th June – Grandparents day

I obviously came back today to not only help out with Grandparents day but to see the occasion. It is a whole day event and is a big day of the year for little village and now little leaps. It is amazing that both communities are going out into the community and having a shared experience within the community. I think this day shows a great deal about little leaps being accepted within little village and within its community. The event is to be held at a local schools hall. The surrounding grounds are also available to them, I know there is a church connected and it is through this link that Lorriane got the booking. She also has a connection with the school as it is the filter school for all her older children when they graduate, maybe it could become a filter school for some little leap boys too. I think that until south Africa has more trained teachers in inclusive ways a full time aide would be needed and maybe a unit within the school but it would be an ideal long term goal for the community. I don't know what the future holds for the boys when they graduate from little leaps. Specialist places are limited and are fully isolated, for O to go to a setting like that would be a shame as I have seen what he can achieve and the benefits he gets from being in an inclusive setting. He has had a good role model for language development, watching and having social interactions, no matter how small and being part of a community. I think that this Grandparent day is important as the boys are being part of the community and by doing so they are able to teach others about the nature of autism and to encourage others to see them as individuals and to look past being a different boy who is autistic and nothing more a seeing them for who they are a boy who happens to have autism as a barrier to learning. I know that for these boys the inclusion is small steps as their needs are so extreme but if these boys can have inclusive moments which help them and other, then the possibilities for learners with less severe barriers is endless.

Grandparent's day went really well. It was very hectic getting all the children piled onto the buses for the short trip to the local school. I guess they don't have the same health and safety procedures like they do in the uk. I have never seen so many people piled into 3 buses!!

The show itself went really well, the whole thing lasted for a while as each class had at least two songs and things to read out. I didn't see this as I was outside with the boys as they ran around outside. When it was there turn to go in we lined them up and put on a little leap jumper, Ash provided jumpers for the boys who did not have their own (an optional purchase within

the school). We all walked onto the stage. I was nervous at how many people were there!! So many families were sitting around circle table and on benches. I don't know which of the boy's parents were there but it was nice knowing that they had the opportunity to watch their boys be on the stage. I know that for many families this is dream for them to see their child simply being involved in what most parents would consider an everyday school event.

All the boys sat and did some of the actions but they all went very shy and sang much quieter. O didn't sing at all and he is normally one of the leading voices. It was more the adults singing. Despite this the boys did all the actions on I love you song and they did sing a bit more although you couldn't really hear them all the adults stood up and did a huge clapping ovation which was superb. We then took the boys off the stage and let them run around again whilst the rest of the performance continued. The little village children stayed inside and watched the show from the side wings but Ash felt this was too much to expect from the boys. Afterwards all the grandparents and parents came out and everyone just mingled and have tea, coffee and cake. There was also art work that the children had some which was hung around the hall and outside which people commented on was really nice. I spent my time watching Li and H whose family were not here. I did get chance to speak to one lady though, or rather she found me to tell me that she was pleasantly surprised at how well behaved the little leap boys were and that she was now happier that they were involved in little village school. Whilst it wasn't the heart warming response I would have liked to hear at least it was a step in raising someone's awareness and making them a little less prejudice.

Afterwards, we all piled onto the bus and went back to the school. It was time for lunch and a nap – the other children came back a little bit later. It was a great event and I am glad that I got to be a part of it. I felt proud of the boys and proud to be part of little leaps.

Appendix IV

Guidelines learning support strategies for learners with autism, when adapted to each unique learner's abilities and circumstances.

Language and communication

- Adapt language by keeping sentences short and concise. Minimise the use of unnecessary adjectives. Emphasise the learners name before giving an instruction. For example, instead of saying "Can you come over here for just a minute?" say "Oratile....come. Come here Oratile".

- Using set phrases can prepare the learner to react in an appropriate way. For example, "Time to...." can be a phrase used when it is time to change activities.

- Be specific in your speech and expectations. Instead of saying "Good Boy" saying "Good listening" reinforces the expected behaviour.

- Give time for the learner to process any information, especially an instruction. Say their name and ensure you have their attention before speaking.

- Reinforce and praise any interactions or appropriate responses. For example, "Oratile....time to tidy up......Good tidying up Oratile".

- Use visual props when introducing new vocabulary. A photograph or an object can reinforce the word and its meaning.

- Makaton is a communicative aid which can be used alongside speech. It is a universal singing system across different languages. Makaton signing and symbols can be very useful when supporting speech and communicating. Signs can be learnt through everyday activities and songs.

- Picture schedules are a useful means of communicating the daily routine. Symbol cards can be removed from the schedule once an activity has been completed. Photographs can also be a useful resource when talking about specific people.

- Songs and music can be an effective way of communicating expectations and give a consistent and fun way of communicating. For example, a special song at tidy up time or a hello song which is sung at the beginning of everyday. Using Makaton signing alongside these songs can also support learners understanding.

Scaffolding inclusion into the educational setting

- Allow time for the learner to become comfortable within the classroom. If possible, keep initial visits short and increase time spent inclusively over time. If possible have time within the classroom every day.

- When planning, focus on what activity does the learner enjoy? What part of the day is the learner most likely to enjoy, succeed and benefit from? Remember, inclusivity not just integration. Begin with their strengths and build upon what they enjoy.

- Photographs provide a strong visual support for learners. A photograph of the teacher can be a signal of a new transition into that classroom. The photograph can also support initial interaction as the learner can match the

photo to the adult. Photographs of other significant adults can also support people recognition through songs and matching games.

- Talk to any other adults who work with the learner, including parents. Knowledge is power, find out the learners likes and dislikes. What times of the day can they find stressful? What teaching strategies have others found useful? Learning from others and asking questions is a sign of a good teacher. Also take the time to learn from the learner, observe them playing and working.

- Introduce the school day through a picture schedule. Using Makaton signs, photographs or clip art outline the day and share this with the learner throughout the day. Having Velcro on the back of each card can be useful as the learner can take down the card once the activity has been completed. Make the schedule part of the daily routine for everyone in the classroom and over time encourage independence when referring to it.

Adaptation of environment

- Be aware of possible distractions in the classroom. Teach with your back against a blank wall, or a corner to encourage concentration. Only leave out resources you are using for that session.

- Having resources hidden in a bag until they are needed can reduce the learner becoming overwhelmed with visual stimulation and can provide a hook to keep learners interested during an activity.

- Placing children in a semi circle on chairs can reduce the distraction of personal space and chairs can be angled to focus on the teacher. Placing the learner near you or another adult also provides additional support if needed.

- If sitting on the floor, having a small mat or carpet tile can be a strong visual cue on where to sit and provides the learner with their own personal space.

- Cover up nearby displays if needed. A cloth hung up over each display can be a quick was to cover boards.

- Be sympathetic towards learner's sensory environment. For example, if a learner has heightened hearing, turn off the fan to reduce distraction.

- Provide visual information when possible. Makaton symbols can provide quick information. For example, wash hands symbol in the toilet. Label everyday items and toys in the room with a word and a symbol.

- Provide a timeout safe zone where the learner can feel safe and calm if needed. This could be a small tent or a soft play room. Provide a blanket or comforter if needed.

- For work sessions, a personal workstation facing the wall can help reduce distractions and be a consistent area for the learner. A picture schedule on the wall can outline expectations with a clear reward when they have been completed. Baskets to put each activity in can help reduce distraction, for example, for threading place just 1 string and the beads needed.

Daily routine

- Lunchtimes can be a stressful and noisy time. Have smaller groups on a table or have a quiet area where lunch can be eaten. Be aware of food allergies and food phobias.

- Try to keep morning routine similar. Have a favourite activity set up for when the learner enters the room. At tidy up time, having a piece of music or a song is a useful signal for transition time. Begin each day with a morning hello session. This time of the day is useful for sharing the daily routine.

- Share the weekly and daily outline through visual timetables and refer to daily routine during the day – Velcro on the back of each activity card is useful so the learner can remove the card when an activity has been completed. Makaton symbols or photographs can be useful to communicate through pictures.

- Always give the learner a 5 minute warning before it is time to change activities. Allow time for the information to process. Refer to the picture schedule so the learner knows what is next.

- Having a special song or piece of music when it is time to pack away can be a useful means of transition.

- Use the picture schedule to give your day a structure. For example, toilet and wash hands before eating. Keep to this routine when possible.

Curriculum

- Focus on small achievements and build upon them. For example, if the learner enjoys being active plan a gym lesson for them to be involved in.

- Ensure expectations are sympathetic to the learner. For example, imagination is a barrier to learning. Focus on the learners strengths.

- Keep activities organised and controlled. For example, circuits provide a structure to physical activity which can be easily followed.

- Expectations sympathetic to learner, e.g. imagination is an impairment to learning.

- Multi sensory teaching can reinforce a learning objective. Use touch, music, and participation when possible. Do not rely only on auditory learning.

- Adaptany assessments to not emphasis verbal communication – work to the learners strengths.

- Only give resources which the learner needs to succeed. For example, if making a pattern give only the beads needed and 1 string. Remove any possible distractions.

- Having a visual reward for the end of the task can be a useful incentive. This can be communicated through a picture schedule with a photo of what the reward is.

- Look at the TEACCH method. See if this can be useful if adapted to your classroom.

- Take the time to teach small steps and ensure that understanding is achieved. For example, a learner might be able to name a list of animals but might not have awareness of what they are. Allow the learner time to learn new vocabulary and put the words into a meaningful context, this could be achieved through play, song or adult reinforcement.