

Autism in Early Childhood Education Montessori Environments: Parents and Teachers Perspectives

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Attestation of Authorship

I hereby declare that this submission is my own work and that to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the references), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Ethics Approval

Approval for this research was granted by the Auckland University of Technology Ethics Committee (AUTEC) on 19th August 2013. Ethics Approval Number: 13/188.

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To my fiancé, who appreciated and supported my efforts to contribute to the world of education and cooked many dinners while I tapped away on my keyboard into the wee small hours.

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To all my fellow teachers and parents who have shared their experiences with me, and made me laugh and cry, safe in the knowledge that we all hold the same things dear and have the children's best interests at heart.

Karakia

This karakia was developed by MANZ with
the support of Eve Scott (Ngati Awa) and Neihana
Matiu (Ngai Tuhoe) from Whakatane.

*Kei konei tatau hei poipoi i nga tamariki
rangatahi me nga whanau
Kei te mihi ki a takuta Montessori me nga tangata
katoa i tautoko i Montessori i Aotearoa
Ka awhina tatau i nga kaiako ka tohu i nga
tamariki
Ko arahi i tenei whenua rangimarie.*

(We are here to nurture children,
young people and their families
We thank Dr Montessori and all the people who
have sustained Montessori in New Zealand
We support the teachers who guide the children
To lead our country to peace.)

Abstract

There is very little research about children with Autism in Montessori early childhood education in Aotearoa New Zealand. This study examined parents' and teachers' perspectives of children with Autism attending Montessori early childhood education environments. This thesis documents literature that explores and critiques Montessori philosophy and the teaching of children on the Autism spectrum.

The purpose of this study was to gain insights into the Montessori teaching approach in early childhood education, as a supportive environment for children with Autism in the early years. However, I discovered that the Montessori environment is less than ideal if the teachers do not understand Autism Spectrum Disorder and do not make allowances for the symptoms that present themselves.

It was my intention to explore the factors that complemented both Montessori and the support of children with Autism with an approach that is conducive to learning and encourages positive behavioural patterns. The findings revealed three main indicators being identified as important. These were social competence, language and communication, and individual interests and sensory implications. However, not all findings were positive. The parents all agreed that the teachers needed to be flexible and understanding in their approach, and many Montessori teachers are strict in their routine and are not prepared to sway from their teaching method to assist a child with Autism.

This study suggests that Montessori early childhood teachers would benefit from professional development in the areas of including children with special needs, particularly Autism Spectrum Disorder, particularly in regards to understanding the unique characteristics of children with Autism and how they can effectively use the Montessori philosophy, equipment and prepared environment to support each child's learning and development.

Suggestions for future professional learning for Montessori teachers include the provision of professional development in including children with "special needs", particularly Autism Spectrum Disorder for Montessori early childhood teachers. It is not only the Montessori philosophy and the prepared environment that supports the child with Autism, but the teacher's awareness of the child's needs and a willingness to be flexible in their approach.

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Chapter One – Introduction

Introduction

This thesis explores parents’ and teachers’ perspectives of children with Autism in Montessori early childhood environments. My interest in this topic began with the diagnosis of my nephew with Autism and, at the time, my own personal research on the topic only brought up medical and scientific perceptions within early childhood education. It became apparent that there was not any research that focused on the insights of parents or teachers of children with Autism. For this reason I decided to write this thesis and research the perspectives of parents and teachers who interact with children with Autism on a daily basis. In order to understand their personal narratives, I decided to use semi-structured interviews to give a voice to those who had profound experiences in the areas of Autism and Montessori early childhood education. The participants volunteered and were selected on a ‘first come, first served’ basis from Montessori preschools in the Greater Auckland region. Interviews were undertaken either face to face or via email and three parents and three teachers took part in the study.

Positioning myself as a Researcher

I have been the Head Teacher at a Montessori Preschool for seven years and a teacher in Montessori preschools for another seven years before that. I have had personal experience with my nephew who was diagnosed with Autism at age two and I have taught many children diagnosed with Autism Spectrum Disorder. I have seen first-hand the struggle that parents face when confronted with their initial experience of education for their child. And I have also witnessed teachers adapt their practices to accommodate children with Autism in order to provide the best learning outcomes and opportunities. My personal philosophy values inclusion in early childhood education and my long standing service to the Montessori method is evidence of the sound foundation I believe it brings to young children’s learning and development.

My Research Question

The research question “What are parents’ and teachers’ perceptions of children with Autism attending Montessori early childhood environments?” reflects the relevance of the participants experiences and insights into Montessori early childhood education for children with Autism. I wanted to explore authentic experiences of parents and teachers. The research question highlights Montessori early childhood education and the importance of the prepared environment. It also

positions the research in the specific context in regards to the subjects of Autism and Montessori early childhood education.

Methodological Approach

I have chosen personal narrative through interviews as my methodological approach as I believe that this is the most beneficial way of understanding perspectives and validating my data. Gill and Goodson (2011) state that “Both narrative and life history approaches recognise that meanings are socially constructed, and human actions and agency are contingent upon socio-cultural, historical and political influences” (p.157). I believe that this was the most appropriate methodological approach as narrative transforms human experience into meaning. It focuses on stories recounted by the interviewee and provides a rich transcription of connection and identity. Semi-structured interviews provide an opportunity for authentic voices of parents and teachers.

The Significance of my Contribution

There has been little research done in the areas of Autism and Montessori early childhood education, and it is hoped that this research will improve learning experiences for children with Autism by making teachers more aware of their role and teaching practices to ultimately improve the quality of inclusive education in Montessori early childhood education environments. Although the findings were divided as to whether teachers’ practices complement the learning and behaviour of the child with Autism, other insights into parents’ and teachers’ perceptions of the Montessori classroom, were positive.

As a researcher I will benefit through completing a Masters’ qualification and will gain a wider and deeper insight into this particular area of teaching practice. The Montessori community in New Zealand acquires a study that emphasises the importance of professional development in the area of Autism and Montessori teacher practices. And the wider community receives current research in order to be better able to support children with Autism within education in the future. This study also contains recommendations for future research and practice.

The Structure of the Thesis

Chapter Two, the literature review, has been divided into two sections. The first section defines Autism Spectrum Disorder and examines the history of Autism, Autism in Aotearoa New Zealand, current theories surrounding Autism and Autism in mainstream early childhood education. The second section reviews Montessori education for Autism, the Montessori approach, the definition of Montessori philosophy, an historical look at the Montessori method, current theories about Montessori education and how Montessori education has evolved in Aotearoa New Zealand.

Chapter Three outlines the methodological approach taken by introducing this methodology, discussing qualitative research paradigms, exploring the narrative research method, outlining the indicative interview questions, expanding on interviews as a positive method. I will also clarify the ethics involved, frame the participants in the context of this study, investigate the data collection processes, consider the data analysis techniques and band it all together with a conclusion.

Chapter Four presents an overview of each participant and relates the responses of the participants to the findings from the research, relating each finding or findings to a question. The emerging themes are documented and supported by extracts from the interview transcripts, leading to a clear list of themes that fit within Montessori early childhood education and literature on Autism.

Chapter Five discusses the findings in relation to the literature on Autism, Montessori philosophy and the perspectives of parents' and teachers' through interview data and analysis.

Chapter Six concludes the thesis with a systematic summary of implications for practice, asking the question 'Was my contribution as a researcher validated?', discussing the limitations of the research, stating recommendations and suggestions for the future, and finally, summarising the main findings of the research in relation to the overarching research question: "What are the parents and teachers perspectives on Autism in Montessori early childhood education environments?"

Chapter Two - Literature Review

Part One – Autism Spectrum Disorder

Introduction

This review will establish my study as a link in a chain of research that is developing knowledge in the field of education relating to supporting children with Autism in Montessori early childhood education contexts. To do this I will firstly discuss literature on Autism Spectrum Disorder; then I will discuss literature on the Montessori approach in early childhood education. The purpose of the literature review is to inform my research on children with Autism within the context of a Montessori early childhood centre. It aims to provide the bridge between previous research and a gap in current research into the topic of Autism in a Montessori environment and the presentation of my original contribution. This discussion will provide justification for my research question and methodological approach.

What is Autism Spectrum Disorder?

“Autists are the ultimate square pegs, and the problem with pounding a square peg into a round hole is not that the hammering is hard work. It's that you're destroying the peg.” — Paul Collins (cited in Deming, 2010, p. 37)

“Don't think that there's a different, better child 'hiding' behind the Autism. This is your child. Love the child in front of you. Encourage his strengths, celebrate his quirks, and improve his weaknesses, the way you would with any child.” (LaZebnik, 2009, p. 2)

Definition of Autism Spectrum Disorder

To begin this literature review, I will give an overview on some of the specific conditions that are demonstrated in the Autism spectrum. Autism has been defined as a developmental disorder that affects many aspects of how a child sees the world and learns from his own experiences. “The term Autism literally means “absorbed in the self”...” (Berk, 2004, p.229). Levy, Mandell and Schultz (2009) consider Autism to be a spectrum of varying forms, so the definition of Autism changes significantly between high functioning Aspergers Syndrome and low functioning severe Autism.

No two autistic children are alike and their disorder is multi-dimensional with three main indicators that include impairments known to accompany Autism: social competence; language and communication; and individual interests and sensory implications (Ministry of Education, 2007). Kuoch and Mirenda (2003) state that children with Autism have difficulties with social relationships and often appear indifferent to others. They also find communication complex as they do not pick up on the meaning behind facial expressions, gestures or the pitch of voices conveying emotional feeling. Hines, Balandin and Togher (2012) believe that repetitive behaviour can exist as an individual interest where the children can easily become obsessed with particular objects or behaviours and sensory implications can occur when a child is particularly sensitive to sensorial stimuli such as taste, touch or sound. Autism Spectrum Disorder or ASD as it is also known, is thought to be a socially constructed disorder that would not have existed had Eugen Bleuler not coined the term (Berrios, 2011).

In order to differentiate between each syndrome on the scale, the medical profession employs an indicator of levels depending on the severity of each case. The severity levels take into account the need for support, the appearance of interests, repetitive behaviour patterns and insufficient social communication and understanding (Lord, Cook, Leventhal & Amaral, 2000).

The Autism Spectrum also includes Rett Syndrome, Pervasive Developmental Disorder (PDD) and Childhood Disintegrative Disorder (CDD) under the umbrella of the disorder (see Figure 1).



Figure 1: The Autism spectrum is explained in graphical terms

Rett Syndrome

Rett syndrome is listed under the category of Autism Spectrum Disorder as the signs of this neuro-developmental disorder are easily comparable. Neul and Zoghbi (2004) discuss the similarities between Rett syndrome and Autism as repetitive hand movements, lack of verbal skills, regression of developmental dexterity, lack of emotional reciprocity, avoidance of eye contact and sensory implications. These autistic features form the basis of Rett syndrome falling under the umbrella of Autism Spectrum Disorder (Baron-Cohen, 2003).

Cass, Reilly, Owen, Wisbeach, Weekes, Slonims, Wigram and Charman (2007) noted that the most significant difference with Rett Syndrome is that it almost exclusively affects females, although a few male children have been diagnosed with it. This is in contrast to severe Autism where the rate of boys diagnosed outweighs girls by 10:1. Rett syndrome was first discovered by an Austrian paediatrician, Andreas Rett in 1966 and he described the physical signs that differentiate the disorder from that of Autism including the appearance of small extremities (little hands and feet) and a decline in skull growth. Children with Rett syndrome are also prone to seizures, constipation, gastrointestinal disorders and almost half are unable to walk (Rett, 1966).

Tsai (1992) states that initially children with Rett syndrome develop normally, then they go through a stagnant stage of deviation before reverting back to degenerated language and motor skills. It is during the regression stage that Rett syndrome is commonly mistaken for Autism.

Pervasive Developmental Disorder

Pervasive Developmental Disorder (PDD) is branded by its delays in the development of basic behaviours including social competence and language and communication. These are common symptoms of Autism Spectrum Disorder, therefore PDD is now grouped on the scale of a single diagnostic term (Johnson & Myers, 2007). Eikeseth (2009) identified PDD and its term through the inclusion of many of the aspects of Autism including unusual play with toys and other objects in early childhood, a lack of facial recognition and difficulty in dealing with changes to routines. Often these difficulties can manifest themselves into anxiety and aggression in children, presenting parents and teachers with challenging situations, likened to scenarios represented by children with Autism Spectrum Disorder (Chakrabarti & Fombonne, 2005).

Childhood Disintegrative Disorder

Childhood Disintegrative Disorder (CDD) is a rare condition and is similar to ASD as it includes developmental delays in language, social interaction and gross motor skill function (McPartland & Volkmar, 2012). Heller (1908), an Austrian educator described children with these symptoms some

35 years before Aspergers described Autism. Like Rett Syndrome, CDD is a regressive disorder, but the regression is a rapid process where skills gained early on are lost somewhere around the age of three. These skills include verbal language, comprehension, social competence, independence, toileting and general motor skills (Mouridsen, 2003). Rogers (2004) explains that CDD has more sensory issues and less cognitive problems than Autism. He also suggests that the comparison of CDD to Autism is apparent in speech processing and that children with CDD do not respond as well to outside influences as children with Autism, particularly in a classroom environment.

High and Low Functioning Autism

Myers and Johnson (2007) describe the difference between low and high functioning Autism as an IQ issue, with children described as low functioning due to an IQ rating of less than 80. However, low and high functioning Autism can be more commonly applied to how well a child can accomplish basic activities related to daily life. The number of children being diagnosed with severe Autism has not risen as sharply as those diagnosed with mild Autism or Aspergers syndrome. This is probably due to the spectrum scale and our increasing knowledge of indicators within that scale that relate to one of the disorders under the umbrella of ASD.

Gillberg and Ehlers (1998) identified four main areas where high and low functioning Autism can be differentiated. Cognitive functioning is determined by how a child can function with or without any learning assistance. Typically, high functioning children do well in learning environments and are capable of following instructions, considering academic concepts, and have average to above average intelligence.

Motor skills is another area of contention as children with both low and high functioning Autism are affected by poor co-ordination and difficulties with fine motor control. However, children with low functioning Autism have more severe problems in this area, and it is more apparent in their daily life skills, including: self-care, toileting, hand eye co-ordination and skills relating to academic achievement, including pencil grip and writing definition (Gillberg, 2006).

Language development is one of the most obvious areas in regards to differentiating between high and low functioning Autism. Children with high functioning Autism tend to develop spoken language and often use descriptive language elements from an early age. Conversely, low functioning Autism factors little or no language as one of the main contributors to diagnosis. Children with low functioning Autism have limited speech, make obscure sounds and have great difficulty in expressing themselves verbally (Feinstein, 2010).

The age of onset is the final area in the identification of high and low functioning Autism. Low functioning Autism is usually diagnosed at a young age, around two years, with significant deficits in social, developmental and intellectual areas (Sporns, 2007). These areas are evident early on in early childhood as milestones are not reached and developmental delays are noticed. Many children with high functioning Autism are not diagnosed until later on, often after they have begun school, when their lack of social competence and intelligent language (the ability to acquire and to use complex systems of communication) is noted by their teachers and peers (Agha, 2006).

Aspergers Syndrome (High Functioning)

Wing (1998) defines Aspergers syndrome (AS) as an Autism spectrum disorder that is characterised by significant difficulties in social interactions and restricted and repetitive patterns of behaviour and interests. Klin, Pauls, Schultz and Volkmar (2005) suggest that it differs from severe autistic tendencies by its relative preservation of linguistic and cognitive development. Kasari and Rotheram-Fuller (2005) also recognise the physical clumsiness and odd use of language often associated with Aspergers syndrome. Hans Asperger (1944) first discovered and described children in his practice with Aspergers, communicating similar symptoms, such as descriptive language and inability to detect social meaning in their peers. The contemporary definition of Aspergers syndrome came to subsist in 1981 when it was put on the Autism Spectrum Disorder scale (Frith, 1991). This scale is used as a standard diagnosis within the medical profession (Wing, 1988). Aspergers is considered to be a high functioning aspect of the Autism spectrum and is a popular diagnosis for those children who fit the Autism disorder, but who remain normalised in sensory behaviours (Szatmari, 2000).

Low Functioning or Severe Autism

Low functioning of severe ASD consists of inferior cognitive impairment, little or no language, socially inappropriate behaviours and a tendency to exhibit movements that indicate stress and an inability to manage themselves. Children with severe Autism often display actions such as hand flapping, twirling or rocking and do not engage with others. Newschaffer, Croen and Daniels (2007) discussed how children with low functioning ASD may not respond well to behaviour therapy and children with severe Autism would be unlikely to be enrolled in a Montessori early childhood education centre due to the need for further support and specialised intervention in the education system to aid cognitive difficulties.

History of Autism Spectrum Disorder

In 1908, an influential Swiss psychiatrist, Eugen Bleuler coined the word "Autism" in schizophrenic patients who screened themselves off and were considered self-absorbed. He based his scientific experimentation on works by Freud and Jung and his interests in complex mental processes led him to discover unconscious processes in patients (Dalzell, 2011). Berrios (2011) also writes that aside from patients diagnosed with schizophrenia, Bleuler observed a cognitive weakness and behavioural difficulties in some of his patients, unrelated to the primary disease. He spoke of inward, self-absorbed behaviours prevalent in his adult patients. Bleuler was an exceptional physician and advocated for better conditions for his patients, and believed in consistent symptoms for diagnosis. His research and publications were also aspirational and although he later moved away from Freud's arguments of generalisation, he revised and expanded his studies, originating a field for the beginnings of Autism diagnosis (Kruse, 1996).

Almost 35 years later in 1943, the American child psychiatrist Leo Kanner, described 11 children with the following common traits: impairments in social interaction, anguish for changes, good memory, belated echolalia (echolalia is the repetition of words, phrases, intonation, or sounds of the speech of others), over sensitivity to certain stimuli (especially sound), food problems, limitations in spontaneous activity, good intellectual potential, often coming from talented families. He became the first person to clearly define Autism, calling the children autistic (Kanner, 1943). Donnellan (1985) made notes through acute observations and experiences in children's psychiatric hospitals and he consequently wrote a book and papers relating to infantile Autism. He argued that children had Autism from birth unlike Bleuler, who noted that his adult patients developed autistic tendencies and these tendencies were alongside their schizophrenic disease.

According to Kanner (1943), Autism was a separate condition which consisted of various determinants. He also commented on behaviours and genetic design that may lead to families being predisposed to having children with Autism. But this revelation was considered both groundbreaking and unfounded at this time by parents and critics of his work. Although Folstein and Rutter (1977) believed that the genetic determinants were more socially acceptable than views based on Freudian psychology, they contended that Autism was due to neglectful parenting, placing pressure and unfounded blame on insufficient mothering methods void of emotional attachment and nurturing of their children. Kanner (1971) argued that we appreciate the humanistic need for support for families with children with Autism and other children with special needs. He advocated for the welfare of these children to be accepted by society and offered a profound compassion for the parents (Neumarker, 2003).

A year later, Hans Asperger (1944), an Austrian paediatrician, independent of Kanner, wrote about a group of four boys which he referred to as autistic psychopaths. In most aspects they resembled the children of Kanner's description: a lack of empathy, one-sided conversations, intense interests, lack of friendships and awkward movements. The difference was that he did not mention echolalia, the compulsive repetition of words spoken by someone else, often a sign of a psychiatric disorder, but that the children talked like little 'grown-ups'. In addition he mentioned their gross and fine motor activity which was inept and different from 'normal' children (Frith, 1991).

Asperger went on to treat children with Autism, but much of his work was not discovered until later on in the 1980's when it was translated from German to English (Wing, 1981).

Unfortunately, he died before his pattern of Autism was identified to benefit and broaden the spectrum to include Aspergers Syndrome, so much of his work was unknown for almost half of a century, before leading to new research and studies based on his original theories (Frith, 1991). Baron-Cohen (2006) also believed that Hans Asperger had Aspergers syndrome himself as he fit the description of symptoms from childhood.

Asperger was a lonely child and he had an avid interest in language, particularly poetry which he would recite frequently and often talk about himself as a third person. After studying medicine and becoming the director of a special needs ward, he published a paper describing Autism and autistic tendencies, some of which challenged Kanner's earlier account of children. He also noted how these children grew up and used their special interests, knowledge and talents to become successful in their chosen career paths later on in adult life.

Frith (1991) successfully translated Asperger's words noting "We are convinced, then, that autistic people have their place in the organism of the social community. They fulfill their role well, perhaps better than anyone else could, and we are talking of people who as children had the greatest difficulties and caused untold worries to their care-givers" (p.2).

In contrast to Kanner's and Asperger's roles in recognizing Autism, Bruno Bettelheim, 1903, an Austrian-born American psychologist wrote about three therapy sessions with children in 'The Empty Fortress' in 1967. He called them autistic and claimed that their disorder was due to the coldness of their mothers. This theory became known as the "refrigerator mother" syndrome (Smith, Greenberg, Seltzer & Hong, 2008), where the absence of warmth shown by mothers of children with Autism, was thought to have contributed to their syndrome. With this theory in mind, he totally disengaged the parents from the children's therapy (Feinstein, 2010).

Bettelheim was widely respected in his field and wrote many papers on children considered 'normal' and 'abnormal' (Knopf, 1976). He also took a particular interest in emotionally disturbed

children discussing emotional growth through stable adult attachments and social involvement (Just & Pelphrey, 2013). Raines (2002) argued that Kanner's and Bettelheim's work were quite often confusing as they disagreed about the causes and symptoms of Autism, yet, claimed it was generally accepted that autistic children had emotionally detached mothers.

This theory began to evolve as the decades passed and Autism became well known internationally as a medical term for diagnosis. Blomberg (2006) discovered that in the 70's, knowledge of Autism spread to Sweden and intrigued researchers who began conducting studies on children with Autism. The Erica Foundation started education and therapy for psychotic children in the beginning of the 80's. The Erica Foundation was originally built in the 1930's to practice mental health care with children, but continues to provide research and data to the present day (Carlberg, 2004).

With the progression of psychoanalytical treatments came a heightened awareness of children's psychological needs and the foundation began diagnosing children with pervasive disorders and treating children in order to 'cure' them with a combination of psychotherapy and educational methods (Andersson, Boethius, Svirsky & Carlberg, 2006). The first autistic classes within special education were started in the middle of the 70's and research and knowledge continued to evolve and broaden with evaluation and analysis of treatment and education programmes. An understanding of children's mental development and the view of children as unique individuals, however, was still far from common across medical and educational fields (Silverman, 2008).

For a very long time, Autism and psychosis continued to be confused due to the spectrum of high to low functioning ASD, inherent causes and changes to the diagnostic processes. Even to this day, parents are accused of causing the serious disabilities their autistic children have (Blumberg, 2013). For many years after special education classes were initiated, researchers and educators searched for the underlying cause of social, sensorial and language disorders, but they realized that the disability was more complex, with each case unique to the individual. There was no single, basic cause identified (Andersson, Boethius, Svirsky, & Carlberg, 2006).

Wing and Attwood (1987) came to the fore during the 80s, when Autism research accelerated and more and more researchers became convinced that the basic reasons were to be found in neurological abnormalities, sometimes connected with hereditary conditions like rare genetic diseases, chemical reactions or an unusual structure of chromosomes such as fragile X-chromosome (Abrahams & Geschwind, 2008). In spite of the multitude of causes for Autism that were found, there were similarities that made it possible to group them under the same main diagnosis. Although it was also observed that autistic children among themselves were very different (Arndt, Stodgell & Rodier, 2005).

Fombonne (2003) discusses the modern views of Autism and how it has changed in the last twenty years from a singular syndrome, to experts beginning to talk of an Autism spectrum. The reason for this is apparent during the 1980's, when knowledge spread about diagnostics through research societies and support agencies. Autism Spectrum Disorder became an umbrella for the diagnosis of other syndromes being classified in relation to various signs and symptoms. Distinguishing Autism from other intellectual disabilities such as schizophrenia and development disorders based on physical impairments. The spectrum has continued to evolve into five separate disorders, each with similarities and differences, but all consisting of basic hindrances in language and communication, social capabilities and repetitive behaviours (Heidgerken, Geffken, Modi & Frakey, 2005).

Lorna Wing (1981), a mother of a daughter with Autism, founded the National Autistic Society in the United Kingdom in 1962 and together with Christopher Gillberg a professor of child and adolescent psychiatry at Gothenberg University in Sweden, have been regarded as Europe's leading Autism researchers. Wing identified the triad of impairments in the 1980's that encompassed children with social impairments, verbal and non-verbal language impairments and repetitive behaviours (Wing, 1988).

This understanding of Autism pioneered a revolution in Autism research and in the 1990's, Wing added another factor, limited planning ability and her triad became a square. Gillberg's (2006) research was instrumental in the discovery of a genetic mutation that explained autistic tendencies. He also worked collaboratively to implicate the fragile X chromosome and the formation of synapses in association with neurons in autistic children. Gillberg continues to research Autism, publish papers and present at conferences and seminars worldwide (Gillberg & Gillberg, 1989).

Including children with Autism in Early Childhood Education

Burgess and Gutstein (2007) discuss the quality of life for children with Autism and the importance of educators in raising the standard for successful educational outcomes for these children. The Ministry of Education (2007) suggest that educators use special education strategies and key competencies for the intention of classroom placement and curriculum development to support children with Autism. When designing educational programmes for children with low functioning Autism, strong visual processing should be implemented as a preference for learning. Stahmer, Suhrheinrich, Reed and Schreibman (2012) conducted a study using evidence based practices and an individualised education programme (IEP) as a strong approach in providing the child with acceptable and pre-determined ways of communicating with teachers and their peers. Teaching scenarios can also represent appropriate social behaviours, and provide experiences that satisfy sensory needs by promoting desensitization or reducing sensory overload in specific settings and situations (Goodall, 2014).

Blumberg (2013) is outspoken in his study on the prevalence of parent reported ASD in school aged children. He proposes that the crucial school years should be spent teaching the child to participate in beneficial activities. Children with Autism thrive in a functional living curriculum with various activities where they can practice life skills such as eating with cutlery, washing dishes and getting dressed. A functional living curriculum is a classroom where children actively participate in tasks that promote independence and allow the children to function at a level appropriate to their learning style. This type of curriculum also improves the quality of life for children through the provision of realistic and attainable achievements. These are vital goals and parents of children who are perceived as low functioning must advocate the need for such practical life and authentic learning experiences in the child's Individual Educational Plan (IEP).

Feldman and Matos (2013) agree in their research that children with Autism struggle with social competence, but propose that the facilitation of social behaviours between children with Autism and neuro-typical children lead to successful social skills. As behaviours are more noticeable than academic competence, teacher's need to emphasize integration efforts and focus on the need for instruction in social skills and competence. Co-operative learning strategies can be effective, as can physical concepts that work with concrete methods. Koegel, Vernon, Koegel, Koegel and Paullin (2012) conclude that adaptive skills help children become autonomous and socially independent. This in turn improves social engagement and initiations. Consistent routines and repetitive lessons also support children with Autism in acquiring academic and social aptitudes.

Many children with Autism are grouped in programs relating to the level of functioning and disabilities, instead of their abilities. In other words, the learning programme needs to build on what they can do, rather than focusing on what they can't do. There is no set label or curriculum which fits all students with Autism; no precise placement and what children learn in school should express their diversity of preferences (Grandin & Scariano, 1986). Social pragmatic approaches that include one on one tuition, visual cues and an inclusive curriculum teach communication skills in a naturalistic manner that is in harmony with the developmental patterns of children with Autism (Ingersoll, 2010).

Autism in the context of Aotearoa New Zealand

Although the history of Autism dates back to the early 1900's, New Zealand did not include the diagnosis of Autism Spectrum Disorder as a medical term until much later. During the 1960's, a female doctor, Dr. Mildred Creek journeyed to New Zealand as an expert in the field of Autism. At this time, New Zealand's medical profession were not versed in this new disorder, and few psychiatrists and paediatricians had knowledge of Autism's symptoms and diagnostic methods. Dr. Creek examined many children during her time in Aotearoa, and supported the parents of the

children she treated through links with groups that had been formed internationally in America, England and Australia (Feinstein, 2010).

Stace (1998), a Wellingtonian researcher associated with Autism New Zealand, examined the influence of Marion Bruce, a parent of a child diagnosed with Autism in New Zealand. She made contact with Australian parents the following year and she began her own journey of searching for children diagnosed with ASD. In 1969, Bruce had discovered sufficient families through the Intellectually Handicapped Children's organisation (IHC) to form a sub-committee under the umbrella of IHC. Nine families founded this committee and the first publication of the association was made in February 1970.

The association continued to grow over the next 25 years, with knowledge and advancement spreading on the causes and symptoms of ASD. And in 1995, the association became an Incorporated Society and now has over 6000 members. The direction of the Autism New Zealand Society has developed with the support of volunteers, field staff and co-ordinators who provide information, meetings, programmes, therapy, international guest speaker events and early childhood education support and intervention (Attwood, 2009).

Since then, other groups have emerged as part of Aotearoa's network of Autism Support and Research. The Altogether Autism organisation publishes a journal seasonally, focussing on informing, empowering and connecting with families dealing with ASD. New Zealand Medical Journals are also evidence of the rising incidence of children with ASD, circulating articles dedicated to the treatment and signs of ASD, and the prevalence of its diagnosis in young children. A report on Autism services in New Zealand was undertaken by the government in 1998 after care and support issues were raised in the media. In view of the prevalence of Autism cases increasing in New Zealand and the attention that Autism was getting by the public, the Ministry of Health and the Ministry of Education put guidelines and documents in place (Rawdon, 2012).

Ministry of Education

The Ministry of Education produced a comprehensive guide about Special Education services which has been reviewed and updated since the 1990's with information that is relevant and includes Autism Spectrum Disorder (Education Review Office, 2014). "The quality of life of someone with Autism depends more on the way we can adapt to their differences – rather than modify their efforts" (Gillberg & Peters, 1999, p.56). The Ministry of Education, Special Education's (2007) main focus is on early intervention services which can plan, assess and support children and their families from an early age. Teaching practices, social and learning goals and

advice are complementary and ensure that children needing extra assistance are identified and followed up.

Specially trained teachers are often available and work with children exclusively within the classroom environment, concentrating on learning and behaviour difficulties. They provide programmes to engage children in language and communication skills and are also able to help children with physical impairments that interfere with the development of their motor skills (Curry, 1998).

A wide range of resources and equipment is available through the Ministry of Education to assist in children's learning and it is a priority of the Special Education service to enable every child the opportunity to enter and carry out regular activities within the mainstream early childhood education system (Ministry of Education, 2007). Other national services are interlinked with the Ministry of Education under the umbrella of Special Education to optimise research, assistance and positive outcomes for children with Autism.

One of these services is the Centre for Brain Research in New Zealand which has recently launched a 'Minds for Minds' initiative that aims to unlock the mysteries of ASD (Hill Cone, 2013). This study is groundbreaking in its new technology and aims to discover whether genes form the basis of Autism. Many recent studies have pointed to a potential link between our gut microbes and neurological disorders, including Autism and the Centre for Brain Research also aim to investigate this link. The results of this study will give insight into the underlying biology of autistic tendencies and may ultimately aid diagnosis. This data will provide experts in this field with knowledge of how the wiring of the brain may differ in Autism. This New Zealand study will be part of, and contribute to, the international scientific research effort into Autism spectrum disorders (Minds for Minds, 2013).

Neurologist and mother of a child with Autism, Rosamund Hill, is highly aware that being autistic is part of the construction of a child's personal identity. Hill advocates for education and the knowledge that children with Autism should be accepted for who they are, but at the same time outlines the need to lift our expectation of what these children can achieve through the right learning environment (Hill Cone, 2013). This being said the Ministry of Education has evolved in its thinking and research into Autism and Early Childhood Education, by publishing booklets as a resource for teachers and information about special education services for families and whanau (Ministry of Education, 2000; Ministry of Education, 2007).

Current theories about Autism Spectrum Disorder

In the last 20 years, Autism research has progressed to include animal testing (Caronna, Milunsky & Tager-Flusberg, 2008), the presence of chloride levels in birth hormones (Tyzio, Nardou, Ferrari, Tsintsadze, Shahrokhi, Eftekhari, Khalilov, Tsintsadze, Bouchoud, Chazal, Lemonnier, Lozovaya, & Burnashev, 2014), early detection through facial recognition (Rutishauser, 2013), infant brain scans (Doyle-Thomas, 2013), neurological science (Geschwind, 2008), vaccines (Gerber & Offit, 2009), immunity deficiencies (Manzardo, Henkhaus, Dhillon & Butler, 2012), chemical imbalances in the brain (Catterall, Han, Tai, Jones & Scheuer, 2014), social bonding responses (Young, 2012), genetic variations (Abrahams & Geschwind, 2008), medication combinations (Bertoglio & Hendren, 2009), decreased neuron connectivity (Minshew & Williams, 2007), increased neuron connectivity (Supekar, Uddin, Khouzam, Phillips, Gaillard, Kenworthy, Yerys, Vaidya & Menon, 2013), and the importance of early intervention for the treatment of symptoms (Maurice, Green & Luce, 1996).

Volkmar, Chawarska and Klin (2005) discuss the fact that infants soon after birth, orientate towards the human face and voice and respond to voices and facial expression. Children with Autism cannot interpret another person's face and do not imitate it automatically. This explains why later in life they are not able to share attention and experiences with others. Much human experience is missed that way and early learning is usually passed from person to person by imitation. The basis of socialization and social competence skills are contact with other people and imitation (Berk, 2004).

Recent research has also shown that children with Autism have difficulty in seeing another person's perspective, and in deciphering and understanding the thoughts and intentions of others (Rapin & Tuchman, 2008). However, Arndt, Stodgell and Rodier (2005) believe that the basic cause of this is a difficulty in shifting attention or misinterpretation. They conclude that the same attention-shifting difficulty may also lead to ritualistic or repetitive behaviours and a reluctance to manage change, including the interruption of one activity to change to another.

Current theories state that children with Autism, function with a central coherence that does not automatically look for meaning in social situations, language and communication. Their world consists of isolated details and not a whole coherent inner map, due to the fact that they process information one piece at a time (MacKay, Grieve & Glashan, 2003). Cashin and Sci (2006) explain neuro-typical as a common term used in the community of Autism, describing people who do not have atypical neurology. Normal neurological pathways do not affect sensory functioning, social skills or cognitive skills and individuals are capable of functioning normally (Cashin & Sci, 2006). Neuro-typical children have the ability to ingest information consisting of several parts, but children

with Autism find this challenging and have difficulties with void or empty time when nothing happens, as well as transitioning time between tasks (Caldwell-Harris & Jordan, 2012).

Autism in Mainstream Early Childhood Education

As a result of the Ministry of Education's policy reforms on inclusive education in the 1990's, children with Autism are now included in mainstream early childhood education. In this study, 'mainstream' education refers to education contexts other than Montessori early childhood education. Many children with Autism who meet the Ministry's criteria are given a Special Education teacher to assist the child in the early childhood environment. An international study revealed that only a minority of mainstream teachers believed children with Autism should be integrated where possible (Campbell, 2001). However, mainstream teachers with experience of Autism showed more confidence to deal with the children than those without experience. Many educators expressed concerns about the effects that mainstream neuro-typical children may have in the classroom. Specialist teachers surveyed were more positive, although they acknowledged possible disadvantages for both groups of children, they stressed that the success of inclusive education is dependent on the individual child and their specific needs (Wilkinson & Twist, 2010).

Another study into mainstream inclusive education identified developmental trajectories of young children with Autism and investigated their predictive factors. Darrou, Pry, Pernon, Michelon, Aussilloux and Baghdadli's (2010) longitudinal study indicated two specific outcomes for children with Autism in mainstream early childhood. The results showed that the severity of autistic behaviour decreased and their communication skills improved in the classroom environment. It also pointed out that the amount of intervention was not related to the outcome. And that the mildness of the children's Autism within the spectrum was a favourable factor in the positive outcome.

Traditionally, most children with Autism have attended special schools. In many countries this changed with the spread of knowledge surrounding Autism in the 1990s (Wing, 1998). Many children with Autism were instead enrolled in their local mainstream school, with varying degrees of assistance. Depending on the number of special needs children attending a specific school, their education is often organized in smaller groups, and in separate classrooms, for either part of the day or for the whole day (Conner, 1999). There is however, very little research-based knowledge on how mainstream teachers organize and provide education for children with Autism in the mainstream educational setting. Barnard, Broach, Potter and Prior (2002) argue that it needs to be highly individualized, with a specially trained assistant completing most of the child's learning on a one to one basis. But Godfrey, Moore, Fletcher-Flinn and Anderson (2002) dispute that this is inclusive education when the child is detached from the rest of the class with a separate teacher and programme. Their study suggests that special needs policies have

been developed in mainstream early childhood centres with reference to children with special needs being entitled to equal opportunities. They also recognised that children with special education needs required extra assistance, adaptive programmes and learning environments with specialised materials and equipment to support them in regular mainstream early childhood settings.

This brings up more questions including: how much one-to-one teaching should be provided? How much should be done in smaller groups and should the group consist of other children with Autism or special needs or neuro-typical children? In addition there is much debate over which teaching method to use. Conner (1999) maintains that mainstream early childhood educators struggle with children that need extra assistance and for which they are not specially trained to teach. Many children with Autism are now including in mainstream early childhood programmes, but can mainstream education provide a model of learning that is beneficial to the child and effectively implemented in a mainstream early childhood education setting (Valmo, 2013)? No literature could be found about including children with Autism in Montessori early childhood education in Aotearoa New Zealand, highlighting the need for this study to be conducted.

Summary

Autism is a lifelong condition and each child is unique within the spectrum. However, we know that through effective early childhood learning environments, children with Autism can thrive and develop communication strategies, cognitive skills and social competence. With a deeper knowledge of the Autism spectrum disorder, parents and teachers can avoid aggravating the situation for children with Autism (Grandin & Sullivan, 2011)m,. Through education and knowledge children with Autism can considerably improve their level of functioning and quality of life with the support and understanding of parents and teachers, particularly in the areas of social competence, language and communication, and sensory and individual interests (MacKay, 2007).

Chapter Two - Literature Review

Part Two – Montessori Education

“It is true that we cannot make a genius. We can only give to the child the chance to fulfil his potential possibilities (Montessori, 1967, p.94)”.

“Since the death of Mario in 1982, the expansion of Montessori endeavours has grown to a frenzy of inchoate proliferation, a global cacophony, deafening as the sound of a huge orchestra tuning its instruments.” says Dr Montessori’s grand-daughter, Renilde Montessori (www.montessori.org.nz, 2014).

Introduction

Dr Maria Montessori designed her method of education to suit the living and learning needs of children with chaotic home and social lives and children with special educational needs (Fidler, 2013). The link between Montessori Education and Autism Spectrum Disorder began in Rome in 1897 when Maria Montessori successfully trialled her methods with children with disabilities. In 1948, the Gatehouse School in London opened under the appointment of Phyllis Wallbank. Wallbank learnt under Maria Montessori herself and dedicated her school to all children, inclusive of those children with special needs and disabilities (Wallbank, 2014). From this School, Wendy Fidler an advocate for Montessori education with a special interest in Autism became inspired to develop her own foundation. She became the Academic Director at MEfA, the Montessori Education for Autism foundation opened to foster the development and learning of children with Autism within a Montessori prepared environment. The foundation believes that children with Autism should be identified, appreciated and validated as the attributes they hold are invaluable. MEfA aims to teach children with Autism through the Montessori method, providing advocacy, training and support for children, their families and Montessori teachers (Fidler, 2013). Fidler (2013) has written many articles on the research she has conducted. The common theme is the belief that children with Autism build on their physical experiences of the world through their senses. The Montessori classroom provides an environment where sensory integration impacts on positive learning and greater self-esteem of the child with Autism, making it possible to build on their innate strengths, interests and abilities.

Definition of Montessori Education

Montessori education is based on the philosophy and teaching of autonomy and an individualised learning approach. Maria Montessori (1967) originally developed her philosophy and materials for children who were so called 'inadequate' in terms of mental achievement. Montessori reflected on the use of specialised equipment as a type of physical therapy incorporating educational benefits. The success of her materials and methods with these children led her to educate 'normal' children, raising their achievements with surprising results (Standing, 1957).

Kramer (1976) describes the Montessori philosophy as integrating unique features that distinguish it from mainstream and alternative education methods. Its constructivist model describes learning that takes place from engaging with a variety of materials as opposed to direct instruction from a teacher. Maria's son Mario Montessori (1966) discusses how the Montessori trained teacher is seen as a guide or facilitator within the classroom, providing an environment of specialized materials designed by Montessori and freedom of choice within the classroom, formed by a range of prescribed activities. Montessori also advocated for a 'three hour work cycle', consisting of a period of uninterrupted time, where children from the ages of 3 – 6 years old could use pedagogy lessons for human development. These lessons consist of Practical Life skills, Sensorial activities, Language, Mathematics, Science, Biology, Botany, Geography, History, Art and Music tasks (Montessori, 1966).

Lillard (2005) mentions that the major features of her method were a non-graded classroom, individualization of instruction, sequential ordering of learning tasks, sensory and motor training, use of concrete materials, abolition of punishment, discovery learning, and freedom of activity and choice. She reiterates the importance of the method first being used in 1899 for the instruction of children with known disabilities, and that Montessori soon found that her approach was equally effective with non-disabled children.

History of Montessori Education

In order to understand our present teaching methods, and our evolving practices, we must first look to the past and the origins of knowledge that have transpired. I will be discussing her work based on the significance of Montessori's original students, who were observed to have learning disabilities, as this pertains to the research which I am currently exploring.

Maria Montessori was born in Chiaravalle, Italy in August 1870. She was born into a middle class family, her father was the manager of a tobacco company and her mother was well-educated descending from a landed family. At that time, politics were going through a reform and the plight

of women and children was evident during Montessori's childhood. Montessori's family moved to Rome to support Maria's schooling when she was age five, where she attended a public school without demonstrating any exceptional ability (Hainstock, 1978).

However, Flaherty (2012) states that Montessori shocked her family and friends as a teenager when she decided to attend an Engineering school which was at that time a male populated area, yet she excelled in class and was later accepted into Medical school at the age of 20, where again, her gender proved a challenge in a male dominated university. However, her perseverance paid off and she won over her male counterparts, graduating in July, 1896 with a Diploma in Medicine and Surgery.

Montessori became one of Italy's first woman physicians, and she was immediately employed in a psychiatric hospital as it was considered inappropriate for women to serve on men's wards. Maria Montessori is often described as the first woman doctor in Italy, but in fact Ernestina Paper earned a medical degree in Florence in 1877. Montessori's popularity over the decades have led to a significant false portrayal of her achievement as the first woman doctor, but her contribution to medicine and education outweighs this little known fact (Trabalzini, 2011).

Montessori's employment initiated her journey into education, when she first observed children with learning disabilities during her time in a Psychiatric Clinic in Rome in 1897 (Kramer, 1976). Between 1897 and 1901, Montessori worked with these so called 'deficient' children. She believed that the children's environment did little to offer stimulation for their development. It was during this time that Montessori explored the mental deficiencies of the children that she encountered within the hospitals. This led Montessori to research educational material and became fascinated by the last 200 years of educational theory, and in particular, the work of French doctors, Seguin and Itard (Montessori, 1994).

These doctors experimented with disabled children and discovered that human development progressed through a range of stages and that physical and sensorial tasks were significant in developing cognitive processes. Using Itard and Seguin's work as a base, Montessori began to observe and study the mentally challenged children in the asylum (Standing, 1957). She soon came to understand what activities were successful in helping the children to develop academic skills and independence. Therefore, she became convinced of the value of manipulative materials and age-appropriate sensory stimulation in helping them to learn, and she created a very different environment, incorporating tasks and equipment that she designed herself (Lillard, 1996).

She also began to travel, study, speak, and publish nationally and internationally, coming to prominence as an advocate for women's rights and education for mentally disabled children.

Montessori's popularity grew as she spoke at a Congress in 1898 after visiting an Institute in Paris that treated children with deficiencies, where she stated that "the problem of defective children was more an educational than a medical matter"(Kramer, 1976, p.52). On her return to Rome, Maria Montessori implemented her methods with children in the State Orthophrenic school. She discovered that her methods worked so well, she wondered if she could also use them to benefit 'normal' children.

Babini (2000) sheds light on Montessori's private and personal life, writing that in the same year, Montessori gave birth on the 31st March, to her only child, a son named Mario (1898 – 1982). Mario Montessori was the result of a love affair with another doctor and instead of getting married Montessori decided to continue her work and studies. Montessori wanted to keep the relationship with her child's father secret under the condition that neither of them would marry anyone else (Maccheroni, 1947). But when the father of her child fell in love and subsequently married, Montessori felt betrayed and decided to leave the university hospital and place her son in foster care with a rural family living in the countryside, choosing to miss the first few significant years of his life. She was later reunited with her son when he became a teenager, and he subsequently proved to be a great assistant and advocate for her research and methods (Babini, 2000).

During this time, Montessori (1913) lectured at a teachers training college and wrote her first book, "Pedagogical Anthropology". It was soon after this that Montessori was given the opportunity to found her educational system known as the Montessori method in 1907, when she established the first Casa Dei Bambini in the slums of San Lorenzo, Rome in Italy, caring for preschool children whose parents often left them alone. These children displayed aggressive and anti-social behaviours, but Montessori recognized their need for stimulation and guidance. She continued to develop her philosophy and methodology observing the children and determining lessons to facilitate their learning and accomplish their full potential (Foschi, 2008).

Montessori (1967) prepared the Casa environment with activities that she used with the children with learning disabilities with whom she worked and was surprised to observe the same development by these 'normal' children. Children who appeared originally 'lost' in the classroom began to settle down for long periods of time, producing constructive, productive learning and habits. They were captivated by her materials and took pleasure and delight from the independence and skills they attained. Montessori extended the materials available, and implemented cultural and social skills, which provided the children with a certain freedom for developing their needs into strengths (Kramer, 1976).

Cossentino (2003) examines the importance of Montessori's prepared environment and how it successfully empowered the children as they became independent and learned sufficient basic skills to in order to pass a public examination for 'normal' children. Montessori gained instant recognition for her work, advocating education for children with disabilities and the reform in the treatment and education of children with learning disabilities. This was just the beginning as her methods evolved and spread, captivating educationists, philosophers and doctors across the globe.

Her methods became so popular that she published "The Montessori Method" in 1912 and held her first International Training Course in Rome in 1913. Montessori taught and lectured in many countries and her schools sprang up throughout the world. A visit to the United States in 1914 led to the formation of the American Montessori Society, with Alexander Graham Bell as president. At the peak of her early success was Montessori's demonstration of the 'glass classroom' at the San Francisco Great Exhibition in 1915, organised by her committed students, Adelia Pye and Helen Parkhurst (Harrison, 2004). The result of this demonstration was significant, as many leaders in education attended the fair, and Montessori's educational methods gained great acceptance (Ely & Matias, 2006).

Cohen (1974) noted the growing interest in Montessori across America, and the Montessori movement in England. He argues that many educationists did not approve of, or support, Montessori's ideas. One of those who criticised her methods was lecturer Professor William Kilpatrick, as he passed comment on the strictness of her methods and the lack of imaginative play, condemning her techniques through several articles which were published in America (Soundy, 2009). These expressions along with Montessori's wish to personally deliver her training led to a dramatic decline of her methods in the United States, and Montessori focussed on the development of her philosophy in London, England (Cohen, 1974).

In 1919, Montessori began regular training courses in Britain, and her methods intensified into the development of numerous Montessori schools. Both state and privately owned schools began to embrace the Montessori methods, particularly with the English translation of Montessori's book "The Montessori Method" in 1912. Kahn and Leonard (2007) observed Montessori's journey, referring to the fact that over the years Montessori has wavered in support, with judgement and disapproving views surfacing sporadically, causing its popularity to decrease and improve emphatically.

Montessori created the Association Montessori Internationale (AMI) in 1929 in order to secure her work and to provide a stable learning faction that would continue to keep Montessori alive, even after her death. At this time, AMI was directed by Montessori's son, Mario and he concentrated on creating a Montessori centre that adhered to the true Montessori philosophy for preparing teachers

and trainers to maintain the Montessori method of teaching at their centres (Montessori, 1966). Educators took the inspiration of Montessori back to their own countries and many associations and subsequent training courses advanced autonomously (Kripilani, 1981).

Butterini (2002) indicates Montessori's evolving message of peace education in the 1930's. Her philosophy began to change direction as she spent several years in India and began writing about peace and cosmic education. At the European Congress for Peace in Brussels in 1936 she spoke about peace education in schools and the reform of humanity, advocating for peaceful resolution and international co-operation (Montessori, 1951). She continued to read and lecture, but also investigate her programme beyond preschool and elementary stages into birth to three years and up to twenty four years old. Montessori established a Montessori timeline that began at birth and followed through until children became an independent adult in their 20's. She began writing about how character development leads to contribution to society later on in life, and how these characteristic attributes could be learnt and developed by all children in a sensorial, experiential way (Montessori, 1948).

As the roots of Montessori education come from observation and the education of children with special needs, it is only natural that the Montessori environment provides these children with great stimulation and support. In her last years, Montessori settled in Amsterdam, Holland establishing the Association Montessori Internationale (AMI) and implementing her method in preschools, primary schools, state schools and privileged institutions. She died in Amsterdam in 1952, leaving behind an international educational legacy (Lillard, 1996).

Current theories about Montessori Education

Montessori's death in 1952, saw a resurgence in her methods, and her influence soared around the world (Trabalzini, 2011). During her lifetime, Montessori was recognized as one of the world's leading educationists. And as education has evolved past Montessori's lifetime, we have adapted the elements of her work that fit into our existing theories and philosophies (Flaherty, 2012).

Baker (1994) alludes to the second wave of Montessori beginning in the mid 1970's. This began in 1969, when the Association Montessori Internationale (AMI) supported Nancy McCormick Rambusch's plea to manage a branch in America. She later set up the American Montessori Society and launched educator instruction classes in Connecticut. This led to a renewal of interest in Montessori education in the United States and today there are more than 4000 schools.

Today, there is a growing accord among teachers and psychologists that Montessori's ideas and theories were years ahead in design and functionality. As the Montessori movement resurfaces, many educationists are remarking on the theory that was founded a century ago, that is, the

Montessori approach to education, as being a contemporary approach in the present time (Mayfield, 2006). Unfortunately, though, the Montessori Method cannot be adjusted too far from the philosophy, as it requires the basic structure to exist as an authentic environment. The whole classroom and interpretation of the teacher's role must be taken into account for the theory to work in practice. In addition, people have only just begun to understand Montessori's interpretation of human development and educators have only recently rediscovered the obvious insights that this remarkable woman made (Malm, 2003).

How Montessori has evolved in Aotearoa New Zealand

The Montessori revival since the 1970 has meant the demand for Montessori has continued unabated. In New Zealand, the move towards Montessori began in New Plymouth, when a Montessori teacher from the United States spoke to a group of parents in 1974 about the benefits of this alternative Montessori education. Word began to spread and in the late 1970's two Montessori trainers were invited to New Zealand from England and workshops were run in Christchurch and Auckland in 1977 and 1978. New Zealand collectively embraced the Montessori philosophy and by the mid-1980's, 13 Montessori preschools were open and thriving. These preschools commenced as a result of parents yearning for Montessori education for their children. The demand for an alternative nursery education was overwhelming, as was the need for trained Montessori directors to staff the new centres (May, 2012).

Over the past 20 years many New Zealand Montessori schools have recruited teachers from overseas in a bid to attract and retain quality Montessori teaching staff. Many have advertised in Montessori training institutions around the world, and New Zealand is now home to Montessori Directresses from as far afield as Ireland, Sri Lanka, the United Kingdom, Singapore, Italy and the United States. This is due to the recognition of authentic Montessori training and the on-going stability this affords a school community. Montessori preschool education presently caters for the needs of more than 4,000 children, or about 9% of early childhood services (Piggot-Irvine, Aitken, Ritchie, Ferguson & McGrath, 2009).

Changes in New Zealand legislation regarding the qualifications of early childhood education teachers brought to the fore the long-term unsustainability of solely recruiting Montessori staff from overseas, highlighting the need for quality, face-to-face training of Montessori Directresses/Directors here in New Zealand. The Montessori Association of New Zealand (MANZ) worked with the Auckland University of Technology (AUT) to introduce a three year B.Ed (ECE) degree, which includes a Montessori component in the final year. In addition, the AMI training course was established as a natural progression to ensure comprehensive face-to-face Montessori

training was available in New Zealand, assuring the provision of quality Montessori professionals for the future (Montessori Association of New Zealand, 2006).

There is very limited research available in New Zealand surrounding Montessori, although recently there have been a couple of thesis submissions that include respect and reflection within Montessori preschools focussing on teachers perspectives and, observations of the Montessori journey in teaching practice. Liberty (2014) examined curriculum examples that sought to meet the needs of children with disabilities including children with Autism. The examples that appeared to be successful were those that were meaningful for the child, their families and the teacher. Liberty (2009) also used the narrative method as a tool to focus on the New Zealand Curriculum and the relevance of suitable learning styles and content within the context of New Zealand educational learning areas. This research, although not conducted in a Montessori context, informs this research study.

The work of the late Nicky Chisnall (2002; 2011) focused on a framework for peace and social justice in the context of Montessori in Aotearoa New Zealand. Her studies scrutinized the Montessori movement in Aotearoa New Zealand and worldwide, and observed Maria Montessori's idea of social advocacy for all children and a peaceful world in which children can grow and develop holistically.

Two other research studies have recently been undertaken in New Zealand. Scanlan (2013) yielded information on respectful relationships within Montessori early childhood centres and Pickering (2013) investigated teachers attitudes in association with Montessori New Zealand's journey to excellence. Special needs within Montessori in Aotearoa New Zealand, particularly children with Autism, has not been studied, therefore there is a gap in the literature which is where my study sits.

Summary

Dr. Maria Montessori is as controversial a figure in education today as she was 100 years ago. She was indeed a leading advocate for early childhood education and for children with special needs. Her methods, theories and philosophy have inspired and continue to contribute and change the course of the education field as we know it.

Those who studied under Montessori and who went on to make their own contributions to education and child psychology include: Anna Freud, Jean Piaget, Alfred Adler, and Erik Erikson. Many elements of modern education have been adapted from Montessori's theories. She is credited with the development of the open classroom, individualized education, manipulative learning materials, teaching toys, and programmed instruction. In the last thirty-five years educators in Europe and

North America begun to recognize the consistency between the Montessori approach and with what we have learned from research into child development and children with learning disabilities (Schwegman, 1999).

There is now a need for more research to contribute to the professional learning of Montessori teachers. It is hoped that this research reaches Montessori professionals and makes them aware of the need for further development in this area. It is also hoped that it will help parents with children with Autism to find inclusion within early childhood education.

Chapter Three – Methodology

Introduction

In this chapter I have outlined the methodology and research design that frames this small scale qualitative study. The most appropriate methodology to underpin this study effectively has been chosen to reflect my own world view and the object of inquiry and the meanings that are inherent in the study. In order to make sense of the findings I have reflected using an interpretive world view within the study that involved 6 participants - 3 parents and 3 teachers. Mutch (2005), in writing about methodologies states, that “these theories attempt to explain how societies and social systems function. They deal with large-scale interactions and complex relationships and are often used to underpin educational research” (p.57).

Macro level theories provide a broad framework for the topic, while mid range theories provide a closer lens to view the research topic. I used the macro level theory of phenomenology as an approach to gain a deeper understanding of the everyday experiences of the participants. Narrative mid-range theories provided a basis for semi-structured interviews that uncovered parents and teachers perspectives of children with Autism in Montessori early childhood education environments.

Ontological Assumptions

An interpretive world view is conducive to studies in social sciences as it reveals hidden values and implicates significant beliefs through the involvement of the researcher in the lives of the participants. Social behaviours are created through our personal experiences, therefore meaning is embedded in our attitudes. Within this study I have interpreted the narratives of parents and teachers of children with Autism, an approach that is neither scientific nor medical, but conveys the authentic journey of the participant’s lives (Bond, 2004).

Although, scientific approaches are validated with statistical quantitative data and according to Huitt (2011) an objective, accurate paradigm, we have come to view education as a social science, and social research is connected with communication, linking to qualitative narrative research. Lessing (1962), a woman noted for writing about her personal journey of identity, life, and politics refers to narrative as a participatory vehicle for social change. As her writing continued over decades, the meaning of her narrative changed, depending on the reader, and the political social climate that existed at any present time. Using this as an example, it is hoped that by revealing the narratives of parents and teachers who are intimately involved, the care and education of children with Autism may improve.

Phenomenology

Phenomenology reflects interpretive views as it links to meaning-making and the interpretation of lived experiences (Higgs, Horsfall & Grace, 2009). I chose the qualitative research approach of phenomenology through personal narrative and interview techniques. Personal narrative is intrinsic in its science of sharing stories and practices that assume a context which is delicate and unique (Somekh, 2006). Post modern research has evolved to a stage of social science inclusion where people, places and things are just as significant, perhaps even more so, than statistical data. Reviewing literature and various studies involving both Montessori and Autism as areas of my own research, has led me to focus on narrative research and appreciative inquiry as significant approaches that consequently benefitted the results of my investigation.

As Mutch (2005) explains theories that help to describe how societies and collective structures function, by dealing with both large scale interactions and complex relationships. This view concurs with the context of my study and the influence of macro level theories in the assumption that society perpetuates attitudes that are different from person to person.

Narrative analysis was selected as the most appropriate approach to data collection as it offered a method of capturing the “richness and complexity of human lives” (Rice and Ezzy, 2005, p.128). This was a major element in seeking to understand the impact on parents and teachers of children with Autism. Personal narrative encompasses temperament, meaning-making and social experiences. It is based on connections with influences and personal landscapes, adding to the identity of a person, validating their unique views and perspectives (Punch, 2009).

Data Collection

Each interview was audiotaped and notes were made throughout by me, as the researcher. The tapes were then transcribed by the researcher and any identifying information was changed or deleted. All participants were provided with a copy of their interview transcript and asked to check the accuracy of the information and to make any corrections. All participants were given a copy of the summary of the research on completion (Mutch, 2005; Punch, 2009).

Hines, Balandin and Toher (2012) used narrative stories and in-depth interviews in their study of older parents of autistic children. These methods provoked revelations of coping strategies, behaviour regulation, and social personality views that proved significant to the outcomes of the research. This research had the participants define Autism in their own words, which is parallel to my own research where the participants have had the opportunity to describe their own unique experiences with a child with Autism, relating a meaningful narrative that is personal and not necessarily a scientific or medical based theory. Hines et al (2012) also chose narrative research as

an instrument that “enables the researcher to build up a mosaic-like picture of the individuals and the events and people surrounding them so that relations, influences and patterns can be observed...” (Hitchcock & Hughes, 1995, p.187). As a researcher, I feel that I am characterizing myself to the participants in some way. It is difficult to be critical of personal experience and participant thinking as it crosses a realm outside of judgemental realism. This narrative research seeks to explore the lives of those in exceptional circumstances in detail to give voice to an alternative existence.

Data Analysis

Data must be analysed, reflected on and presented in a way that is acceptable to both the participant and the researcher, and is compatible with the theory underpinning the research, in order for it to be printed. Emerging themes will be noted and special attention drawn to Autism and learning and behavioural patterns that complemented the Montessori classroom. However, other themes were made apparent and have been discussed in Chapter 5. Narrative research methods often lead to misinterpretation or leading conversation which needs to be clarified distinctly by the participant in regards to meaning and context. Deconstructing narrative is more than simple transcription, the researcher must consider and accept the thoughts and feelings of another person, and be aware and mindful of the privilege of being privy to personal human connections (Derrida, 1982). Therefore, the positioning of myself as a researcher (as outlined in 1.1) is of great importance to my own philosophy and personal narrative.

Participants were interviewed initially with follow up meetings or emails made to clarify interview transcriptions and develop the accuracy of intended meaning which was vital for validity, results and recommendations. Follow up conversations allowed for illumination of facts and the possibility of further investigation into particular subject themes (Goodson & Sykes, 2011).

I compared and contrasted narratives using thematic analysis providing results based on significant themes, and other insights into appropriate, conducive learning strategies that I hope will shape education beliefs in terms of teaching practice of children with Autism (Reissman, 2011).

Narrative

Personal narrative is a form of constructivist, phenomenological ontology within a qualitative paradigm (Clandinin & Connelly, 2000). Denzin and Lincoln (2000) maintain that narrative encompasses temperament, meaning and social encounters. It is based on human actions and contingent on agency discourses that have connections with influences and personal landscapes. Assumptions on an epistemological level also consist of identity, and how the human realm can be likened to thick layers of a vibrant array (Gill & Goodson, 2011). Ricoeur (1988) derives meaning

of narrative from his hermeneutic philosophy. Hermeneutical phenomenology consists of basic themes that include the interpretation, dialogue and textual meaning of narrative research, in order to represent a descriptive orientation, rather than an innate representation of the text. Heidegger (1927) agreed stating that all human awareness is interpretative, particularly in the nature of honesty, conversation, society, and self-identity. Narrative must carefully explore the role of conversation, the nature of questioning, the phenomenology of the human realm, and the significance of preconception, accurate history, and custom and convention in the scheme of human understanding. Smith (2007) discusses Husserl's argument that meaning is not specifically given to the researcher and, therefore, we must make a hermeneutic examination through the symbolic landscape of the culture of the narrative. Ricoeur (1988) expands on this through the various uses of narrative and how we consequently return to the indicative questions that relate to human meanings, the distinctive self and individual character. Farquhar (2010) also explores the contentious issues surrounding ethics, which are discussed more fully under the Ethics section, and provide foundations particularly for early childhood settings in Aotearoa New Zealand, adapting situations in response to others.

According to Clandinin and Connelly (2000), narrative research "is a portal through which a person enters the world and by which their experience of the world is interpreted and made personally meaningful" (p.375). The limitations of narrative research are still under the scope in the educational environment, as readers are sceptical of dramatised narrative and ideal researcher outcomes. Other limitations include bias based beliefs that are unfounded by reference to clinical implications, and clarification issues in regards to miscommunication of meaning can result in the breaking of trust between the participant and the researcher (Roberts, King-Thomas & Boccia, 2007).

The intentions of this narrative research were explicit in the meaning-making and exact understandings of the participants. It was meant as a medium for holistic reflection that echoes our own emotions and reflexivity. The narrative research I discussed communicated a setting, a context, something that is defined by one person's experience. The participant's life stories were qualitatively interpreted and represented by the researcher with reference to combined significant themes and emotional understanding to create new conjecture (Denzin & Lincoln, 2000). The discourse of education in social science research ultimately stresses the importance of educational elements and our knowledge of educational practice. Often, narrative research is passionate and exposes marginalisation, consequently giving voice to minorities and benefiting others as a result (Foucault, 1977). I used narrative research as an intersection, a relationship between stories and experiences with regards to children with Autism and Montessori early childhood environments. Although many aspects were unique, similarities emerged and co-existed as a new narrative for positive change.

Giddens (1991) illustrated the intentions of narrative research as sociological and believed that we could make a difference as researchers in an overtly political world. However, he also communicated that we often trade off our participant's values as we risk public scrutiny in order for these significant changes to happen. Goodson and Sykes (2011) argued that the problem with quantitative research is that it is usually politically influenced and largely manipulated concerning curriculum, but qualitative research is pure and connected with classroom realities. Therefore, my research findings were reality based and concerned with the betterment of social lives and those needing positive affirmation for their unique stories.

Research Design

The research was designed around semi-structured interviews so as to include the participant's narratives. The narrative approach also allowed participants to clarify their stories through examples of their experiences. Trust was of utmost importance, therefore each interview that was transcribed was sent to the participant to ensure meaning had been communicated correctly and any adjustments or additions could be made for sense-making and emotive content. The rights of participants in my narrative research study were extremely important, as they shared a piece of themselves with me, the researcher and the world. The participants laid their experiences bare to the interpretation of the researcher and the assumptions of each reader's personal perceptions (Piper & Simons, 2011).

Interviews

Personal narrative was used through data collection methods that included in-depth interviews and flowing conversations. Opportunities for further dialogue and follow up exchanges led to triangulation, giving voice, and agency to the subject and participants. I understood that the narrative research methods were in place to take great care of the participants as, "The qualitative research interview attempts to understand the world from the subjects' point of view, to unfold the meaning of their experiences, to uncover their lived world prior to scientific explanations" (Kvale & Brinkmann, 2009, p.2).

Interview Questions

The Indicative Interview Questions were developed to gain a narrative perspective and to answer and extend on areas of Autism that are specific to the syndrome and implications of the Montessori classroom that may assist in these challenges. The questions were open-ended in order to explore descriptive answers that led to other emerging themes. They were also general, to assist the participants in answering without coercion. There was also always the option of omitting to answer the question to protect the participant's emotional state.

The interview questions were aimed at gathering information from parents and teachers with relevance to their perspectives on children with Autism in Montessori early childhood environments. I focussed on my research topic while weaving opportunities for personal narrative throughout my interview questions. The participants were free to interpret the questions independently and had the chance to clarify any responses if they needed to. Reflecting on the responses given, I noted the specific differences between the teachers and the parents in terms of personal beliefs and values, and in the language that they used to describe the children. These differences became apparent during my analysis of the interviews and the patterns of common words used by each group of parent and teacher participants. Their responses gave way to emerging themes and each finding is outlined under the interview question. After analysis of each question, the findings will be collated under three main headings and discussed further in reference to Autism and the Montessori environment.

Participants

I involved 6 participants voluntarily through the Montessori Association of New Zealand and Autism New Zealand. Participants were chosen on a ‘first come, first served’ basis and needed to meet the criteria of having or teaching a child with Autism and attending or teaching at a Montessori early childhood preschool. Each participant was initially interviewed individually for 30 – 60 minutes at a neutral location. Then each participant was then invited to a shorter, follow up interview of 15 – 30 minutes or invited to respond to a follow up email, during which the participants were given the opportunity to verify the initial interview transcripts and to further clarify any issues, or to raise any new themes.

The role of the participants in this research was to share their experiences, informing the researcher of their own unique knowledge. The qualitative approach provided rich, complex data and the participant’s principal involvement was one of sharing their information. The participants were volunteers and did not have a formal role as stakeholders in this project, however, they were asked to approve transcripts and drafts of their interviews.

I actively protected the participants from deceit, harm and coercion through the voluntary nature of the research, through appropriate information and consent forms and through the narrative approach to qualitative research. All transcripts needed to be approved by the participants and any changes deemed necessary were made. The participant’s identities remained confidential and any identifying details were changed or deleted from the research to ensure privacy issues were upheld in the

utmost respect. Cultural diversity was taken into consideration at all times and the participants were given the opportunity to decline from the research at any time.

I have included an overview of each participant in order to convey personal links and an appropriate context in which the research is placed. Each participant has been given a pseudonym name to protect their confidentiality. This information forms a background to the findings and justifies the reasons for participating in this study.

Participant 1- Patricia

Patricia is a 37 year old mother of four children, she was interviewed in this study as a parent participant. Her eldest child, a daughter, now 10, was diagnosed with Aspergers at the age of 2 and a half and attended a Montessori preschool from 2 and a half to 5 years of age. Patricia's third child, a son, now 6, was diagnosed with Autism at age 2 and attended Montessori preschool from age 3 years to five years old.

Participant 2- Heather

Heather is a 35 year old mother of one child, she was interviewed as the second parent participant. Her son, now 5, was diagnosed with Autism at the age of 2 and attended a Montessori preschool from 2 and half years to 5 years old. She is also the step-mother of a 9 year old girl whom she and her husband have care of every second weekend and during the school holidays.

Participant 3- Julie

Julie is a 43 year old mother of two children; she was interviewed as the third parent participant. Her son, now 9, was diagnosed with Autism at the age of 3. Julie tried desperately to enrol her son in a Montessori preschool but was refused entry due to her son's Autism, but believes that the Montessori environment would have enriched her son's life.

Participant 4- Donna

Donna is a 23 year old mother of one child and is a registered Primary School teacher completing her post graduate Diploma in Early Childhood Teaching. Donna was interviewed in this research as a teacher. She has had experience in mainstream Primary school classrooms, mainstream Early Childhood child care centres and Montessori Early Childhood preschools. Donna has taught children with Autism Spectrum Disorder in a variety of learning environments.

Participant 5 - Krystal

Krystal is a 30 year old registered Early Childhood educator and was interviewed as a teacher in this study. She has had experience in mainstream community Early Childhood centres, child care centres and in Montessori Early Childhood preschools. Krystal has taught children with Autism Spectrum Disorder who were undiagnosed and is a passionate advocate for the Montessori approach in relation to children with Special Needs.

Participant 6 - Abby

Abby is a 32 year old mother of three children and is a registered Early Childhood teacher completing her postgraduate upgrade to a Bachelor of Teaching. Abby was also interviewed as a teacher. She has had experience in mainstream Early Childhood childcare centres and in Montessori Early Childhood preschools. Abby has taught children with Autism Spectrum Disorder in a variety of learning environments.

Ethics

Ethical practice is an essential element in research, for all parties involved (Piper & Simons, 2011). Ethical concepts include informed consent from all participants, confidentiality, anonymity, access to data, equity, treaty obligations, basic human rights, analysis and produced findings (Punch, 1986). I recruited participants through the Montessori Association of New Zealand and Autism New Zealand as volunteers. I also endeavoured to reduce risks for my participants by seeking written permission from each participant first, informing them that they could decline from the research at any given time up until the end of data collection. After any requested changes were made, transcripts have been held by the researcher on a password protected computer and a copy will be held by the Programme Administrator at AUT in a locked drawer, separate to consent forms for a period of 6 years in accordance with AUT data protection procedures (any information no longer needed will be shredded at the end of the research). As far as possible, no identifying details are included in the data. The researcher was honest and transparent at all times, showing a commitment to the principles of the Treaty of Waitangi and maintaining social and cultural sensitivity with all participants (Jenkin, 2005). The utmost respect was given to all participants at all times, including respect for the people, their property and the environment.

The research was conducted at a neutral location in Auckland that was convenient for the participants or via private email if the participant preferred. The participants' ethical rights were of the upmost importance and priority was given to them and their comfort when convening at an accessible location. Communication was addressed through the use of an audiotape and notes were taken by myself the researcher, and this information was given to the participant prior to the interview process. Any other issues, although very minor, that arose were dealt with sensitively and in accordance with AUT research guidelines.

Strengths and Limitations of the Research Design

I chose the narrative, qualitative research approach as it suited the emotive stories that people have in relation to my research. The research I completed was not simply about practice, it was

about people, and the difference we, as educators can make in their lives. Research methodology and methods are about critiquing ourselves, about continually evolving across social and political structures in education (Noffke, 1990). The narrative research design I used is open to observational, emotional responses and interpretations, and the researcher's own prior knowledge and position.

Limitations to this method can include preconceived ideas and meaning that has been misinterpreted, leading to trust issues between the participants and the researcher. Another limitation is the fact that every child with Autism is unique and that every parent and every teachers' experience is different and contextual differences must be allowed for when analysing the data.

Sample size is also a limitation, as the sample was small, the findings are only an extract of those few participants, and not a true general consensus of the whole Montessori and Autism communities. Each participant was unique and their personal perspectives and attitudes varied with their experiences. So, thematic patterns that emerged only serve to provoke further discussion and investigation.

Bearing these strengths and limitations in mind, reliable findings measuring success and explaining outcomes can prove crucial in a time of evolving change in education and society as a whole.

Conclusion

Change is inevitable as we continually search ourselves for quality practices and learning outcomes that reach and surpass the potential of our children. All of our children, regardless of ethnicity, socio-economic background or disability, deserve the best that we can offer in terms of educational achievement. We, as early childhood teachers are responsible for justice and accountability. Ideas and vision are developed through extensive narrative approaches, holding promise for the importance of recognizing differences, similarities, and creativity in an ethical paradigm. By adopting the methodology of narrative I was able to explore the engagement of interpretation, emphasizing dialogical relationships, and challenging democratic thinking (Farquhar, 2010).

I was able to give parents, teachers and through them, children, a voice with narrative inquiry. We need to be prepared to support unique needs and value a myriad of learning strategies that can be incorporated into our classrooms across the nation. Parents and teachers own their individual, unique identities, and by understanding and supporting their perceptions surrounding Autism and Montessori, we can highlight and promote more supportive learning environments.

Chapter Four – Findings and Results

Introduction

This chapter sets out the interview questions, the participant's responses and the thematic findings in an orderly manner so the reader may make sense of them. Firstly, I list the participants and include a brief background on each one in order to place them in the context of the study. Then I list each interview question and finding in order with the parent's responses first and the teacher's responses following in sequence so similarities and differences can be noted. Emerging themes are cross-connected into three main subjects, which are explored and summarized through common literature and participant's responses. The end of the chapter makes reference to the following chapter where the findings will be separated again and explored and discussed more thoroughly.

Question 1-What is your experience with children with Autism Spectrum Disorder?

Finding 1- Differences in attitude between the parents and the teachers

The experiences of the participants were as varied as the participants themselves. The teachers appeared to have had diverse experiences, in several environments with children who ranged from very low functioning Autism to very high functioning Aspergers. The parents, though, had deep, detailed relationships with their own children, many of which had mid to high functioning Autism and they recognised and experienced other children with Autism in their lives, some family members and many who by virtue of having Autism were in the community that they were involved in.

The difference in attitude between the parents and the teachers was evident in the analysis of the data. There was a definite distinction in the way the parents and the teachers perceived children with Autism. This is an important and valid issue in the care and education of the child in this study.

Participant 3, Julie, describes her child in a narrative of how it has affected her own life as a mother and the emotions that she has in relation to Autism. She says,

“It has been great, it has been hard, it has been easy, it has been complicated. It has been happy, it has been sad. It has taught me a lot (participant 3, p.1)”.

Her statement shows the richness of emotions that she has felt over the years drawn by her experience.

Participant 1, Patricia, also engenders emotional reactions to her child's unique behaviours and her physical exhaustion of having to constantly supervise his safety and well-being. She explains,

“um, he, he just, he was scary, like he's, he's dented our car roof by jumping on it (participant 1, p.2)”.

During the interview, Patricia spoke frankly, complete with pauses, stammers and the repetition of words, evidence of the immense emotion that Patricia was feeling. It was obvious when listening back to the recording that Patricia's voice held strong emotions when she was retelling the story of her personal journey. This was interpreted through the character of her answers.

The parents also spoke about behaviours and attitudes as significant hurdles in the raising of a child with Autism. Their personal journeys are a myriad of coping techniques, the child's unique needs and the education of others. As parents, they draw from their own lived experiences, and communicate the triggers and stereotypes that children with Autism are faced with. The old fashioned attitudes and knowledge of those who believe that Autism is a disease, and the false opinions of people who consider the parents to be the reason why their child is autistic is heartbreaking for these mothers.

Exploring the idea that Autism is not a disability, but a different way of thinking is integral to the parent's responses. The understanding of educators and the importance of early intervention are essential components in the education psychology of the child. Trust and honesty are two attributes that are also required of educators, who may struggle with developmental delays, fixations and sensory behaviours that accompany children with Autism.

In their answers, the parents reflect on details of their child's specific needs and behaviours, speaking honestly about their disengagement from the world around them, the need for constant supervision and in Patricia's case, her son's hypertonic condition. Children with hypertonia have extreme muscular tension and this spasticity is synonymous with impaired ability of motor neurons, which is also a factor of children with Autism (Sanger, Chen, Delgado, Gaebler-Spira, Hallet & Mink, 2006).

For these mothers, the children are an essential being in their lives, a part of who they are, an extension of themselves. This on its own reflects a depth of love and understanding that is incomparable to a teacher's experience. Teachers tend to become detached from their work and see each child as a job, a work in progress, an empty vessel to be filled. But, for the parents of these children, this is their life story, their history, their innate experience.

In contrast, the teachers are somewhat disconnected from their narrative, basing their answers on a professional rather than a personal level. The teachers spoke in terms of teaching experience, without connecting these children to their own emotions. Talking in an almost clinical manner, as

educationists, their language and comprehension of their experiences took a fractured view of the children.

For example, Participant 5, Krystal, a teacher describes her teaching career and is more general in her approach to her experiences stating,

“...there are a few children who display the signs of Autism and Aspergers and who are definitely on the spectrum (participant 5, p.1)”.

Her answer tends to be void of emotional attachment, which is often a characteristic of being a teacher, the ability to define work and personal boundaries in order to best serve the child on an educational level. Just as the difference between writing a story and writing an essay is obvious, just as the parents spoke in story terms, the teachers spoke in terms of analytical and developmental thinking.

The teachers suggested child development theory, and critically compared children with Autism to neuro-typical children. However, one teacher, Abby, seemed to connect on a personal level to the question, having had experience in a family-related situation. Her answer involved both a professional and a personal discussion, placing significance on the details that were experienced, just as the mothers had done. She brought in deep reflective feelings of intimidation, physical strain and misunderstanding. Abby noted,

“I have an autistic cousin who has no speech, makes sounds and clicks, rocks backward and forward. Unable to live at home from an early teen, mum is a solo mum of four, he was too big and rough with her so he is in a special home (participant 6, p.1)”.

The teachers also brought up the official diagnosis, indicating an awareness of those children who had been diagnosed by a professional and the fact that there were other children in the classroom who displayed signs of Autism, such as anti-social behaviours and absent eye contact, but whom were not diagnosed and were highly functioning. Krystal brought this up in her statement above.

This brings the subject of functioning to the forefront of the spectrum and relates to the challenges and benefits that affect low and high functioning child from mild Aspergers to severe Autism. The environment in which the child thrives is also dependant on their unique needs and the implications of their behaviours.

Although, all of the teachers interviewed had varying experiences in more than one setting, each of the teachers also had experience in both a Montessori and a mainstream environment. This provided a balanced perspective on the benefits and challenges existing in each classroom.

The parent’s experience of children with Autism was also a balanced one with all three parents having more than one child and the experience of neuro-typical children from a parenting view.

Question 2- Does your child/the child you taught suffer from social competence issues, language and communication problems, or any sensory issues?

Finding 2-The Prepared Environment, Structure and Routine

The level of functioning of each child with Autism seemed to be an emerging theme. The parents whose children were high functioning adapted more quickly into the Montessori environment and found the prepared classroom and routine a comforting factor in their children's sense of belonging. Behaviour patterns were observed easily within the Montessori curriculum and social skills that often lead to behavioural upsets were consistently practised and demonstrated.

The parent's discussed their own struggles with their child's functioning and behaviour. They divulged the importance of really knowing the child and the factors that contribute to negative behaviours and low functioning. This knowledge allows for risk management in reducing incidents that lead to poor behaviour.

Heather immediately acknowledged that we were discussing the triangle of autistic symptoms, which Wing and Gould (1979) described, when answering this question and went on to reveal that many of her child's behaviours were in fact sensory related but were often mistaken as communication or social problems.

"...um, he kind of had issues on each of the three, and so yes, definitely sensory issues – we didn't have a good understanding of what sensory inputs were, so much emphasis was put on the behavioural side and the communication side, that we put a lot of the behaviours down to, um, it's because he's on the spectrum, not really realising that it was the sensory element (participant2, p.2)".

She communicated an awareness of the fact that much of the support that she received for her child focussed on his language and behaviour, yet it is usually the sensory implications that affect both of these developments.

Misunderstandings on a social level are evident in all of the parents' feedback. Different situations trigger different behaviours. Being sensitive to light and sound can represent itself in a busy supermarket, triggering an array of responses that can be misinterpreted as behavioural issues, but are in fact due to sensory sensitivities. The parents have learnt that by preparing their child for these trips, many of the autistic tendencies disappear. The simple act of providing the child with knowledge of the day's events can help them to self-regulate. The wearing of sunglasses and ear muffs or head phones in a potentially distressing daily event can turn it into a regular outing. Heather has learnt that her child needs to explore situations on his own terms to diffuse frustration, and to empower him to adjust on his own tenure.

Each of the parents expressed the struggles early on in terms of tantrums, disengagement, their child's unpredictable nature, and the failure to keep calm in disturbing circumstances. Patricia expressed her concern at her child's susceptibility to bite other children and retaliate in an inappropriate way to a social scenario.

"Oh well, we had the, what we call the biting week, where he bit seven, six children in a week, and he ended up being shadowed, yeah, so one of the staff members basically had to follow him at all times, and really sad, she followed him from 9 till 3 and then she left him and at 10 past 3 he bit someone (participant 1, p.10)".

She also goes on to explain how she felt that the child's teachers and peers misunderstood the situation and judged her son's actions without knowing the precursor of the situation.

"He wouldn't, I mean, I don't think he would bite just because he could bite, I think it was because, it was a communication. Um, and yeah, that was hard. So there were incidents of other children and because he was, he always lucked out with the verbal stakes, he couldn't tell you what had happened. I was reliant on the staff, like they would say he pushed someone, he hit someone or he did this and I couldn't ask him the build up to it (participant 1, p.10/11)".

And all three parents expressed concern that their children were not happy, that they displayed signs of anxiety and sadness, and in the next moment they were oblivious to others in their surroundings. Julie explains this as a social emotional issue, as her son struggles in social settings.

"He doesn't get social interaction, he doesn't get games, ie. tag, he would think that the children were trying to hit him and not trying to play (participant 3, p.1)".

Many of the symptoms though, were dependent on the setting and on the immediate reactions of those around them. Therefore, the environment plays an integral part in the child's ability to function. For instance, Heather spoke about the use of deep pressure as a strategy for self-control. Because it could be something small, that we might not even notice, but it can generate an atypical response. It could be a new shaggy carpet, the noise that the fish tank makes or the change in layout at a regular store.

"...the Warehouse was a classic one, the one down at Westgate, we walked in there on Sunday, and it's the first time we've been there since they've changed it. We walked in and he stopped, I don't want to be here, I want to go, it's different. I didn't realise, so if I'd said to him before hand, everything's different in here, they've moved everything, he probably would have been fine, but I guess the advantage of him walking in and saying I don't like this, I want to go, I'm not dragging him through a store he doesn't want to be in, I know what set him off (participant 2, p.4/5)".

The teachers responded similarly to the question, examining social issues, communication problems and autistic behaviour that they had encountered in their experiences. Donna considered how children with Autism appear withdrawn, often have trouble communicating and are extremely conscious of their personal space being invaded. She also makes an important point about the background of each child's family, how it is essential to form a bond and be in consistent communication with the child's family to ensure the upmost care is being taken and that

as teachers we are tending to that child's specific needs.

Krystal, like Donna, spoke about symptoms that she had noticed in the classroom, including: delayed speech, absence of eye contact, being opposed to changes in the routine and the inability to play with their peers, but instead, using parallel play alongside their classmates.

“These children had various symptoms such as behavioural issues, lack of speech, no eye contact and opposed to changes in routine and the classroom, and often playing alongside other children and not with them (participant 5, p.1)”.

Yet, Abby again is descriptive in her deliberation of issues that result from autistic inclinations. She defines sensory implications that teachers and parents find intimidating.

“... he liked the feel of wallpaper or carpet and would rub against it with his body and hands, he used to like sitting on people's laps and getting hugs, sweet intentions, but as he grew into a big teenager he was quite heavy and intimidating (participant 6, p.1)”.

Children needing assistance with toileting and self-help skills can be challenging for educators in a classroom environment, and these situations are often a catalyst for irritations and non-communicative behaviours.

The predisposition of sudden and violent movements are also an issue of contention for teachers, as they are required to first and foremost keep all of the children and themselves safe from harm. This can prove a difficult task when a child manipulates their environment through yelling, hitting, rocking, jerking or through primal urges that demand a level of intervention.

“He could not toilet himself or dress, had no self help skills. He used to try and communicate with his mum and just yell kind of in a scream way at her and hit the wall when he was mad, and nod his head no, kind of like how you see chimpanzees at the zoo rocking back and forward, rough jerking motions of the neck and arms, quite primal he was at times (participant 5, p.1)”.

Abby also suggests that the autistic child's fascinations and obsessions with specific items can interrupt and distract the child, and other neuro-typical children from learning. Their sensory need to touch, rub and feel objects and people present another challenge in the classroom, incorporating a balance between tolerating and strengthening a child's interests in an appropriate mode, while respecting both the individual and others whom their behaviour may affect.

Question 3-What is your perspective on Montessori early childhood education?

Finding 3-Learning Processes, Social Competence, Language and Communication and Physical Development

The parent's answers were a mixture of disappointment and triumph over their Montessori perspectives. Julie was impressed by the structure of the environment, the wooden equipment, and the combination of freedom and guidance in the Montessori classroom. So, to be turned away from Montessori education, due to toileting issues, Julie was devastated in her search to find a preschool that suited her child's needs. She felt that had the staff at the preschool been more flexible in their approach, and educated in the symptoms and needs of children with Autism, then her little boy may have thrived in what seemed like a complementary environment.

"If Montessori are worried about toileting, perhaps there could be something put around helping toilet training? With the staff and the parent or something. To be honest our toileting didn't happen until this year, until he was 7. We have been to two kindys and another school before being happy and settled where we currently are, and toileting has come as a result of him being settled and feeling confident at school (participant 3, p.2)".

On the other hand, Heather, when looking for suitable early childhood education for her son, was turned away by kindergartens and day care centres as she was told that these centres were not equipped to manage a child with Autism. Consequently, Heather visited a variety of different centres before finding a Montessori preschool that was prepared to provide a secure environment for her and her son, and willing to respect his patterns of behaviour as a symptom of Autism.

Heather relates,

"cos we looked at one of them and they, it was huge, it was a big day care type, and they had rooms where these kids were sectioned off and it just seemed very, very clinical, I didn't, I didn't get a good feel for it. It was, no you can't go in there, that's for the older kids and I don't know, there was a funny, there was a structure to it, but not the kind of structure he needed. And I just didn't want him to be one of 60/70 kids in a centre, I like that Montessori was so small (participant 2, p.8)".

She felt that the Montessori preschool created a framework for action. Specific role modelling by the teachers, an ordered classroom and the opportunity for freedom in a structured environment served to soothe her son's anxious behaviour and allow him to explore his own interests. Heather reported that the teachers made the effort to really get to know her and her son, and to maximise comfort and security to ensure his needs were being met. She also commented on the multi-age classroom as a catalyst for independence and interdependence, reinforcing defined guidelines and promoting her son's social-emotional potential and academic progress.

Patricia's response combined both positive and negative perspectives, depending on which child she was discussing. In regards to her daughter, diagnosed with mild Aspergers, Patricia found the Montessori environment brought her a sense of calmness, with its routines, structure and sequence of activities on the shelves. Her daughter was given the chance to divulge her intense interests and advance to higher numeracy and literacy levels.

"um, Monty was good in that respect that um, she knew the whole alphabet, and the sounds, the phonics that went with them, those, and that she could write her own name. All the beginning shapes... (participant 1, p.16)".

She was also given the prospect for social interactions and to enhance her gifted abilities.

Patricia believes that most importantly teachers should be respectful, honest and trustworthy, regardless of whether your child has special needs or not.

"Yeah, I do, I do, yeah and I trust them with the kids, that's why, that's why he went there, 'cos I couldn't, wouldn't trust anybody else (participant 1, p.18)".

The teacher's perspective was clear, they had all experienced mainstream teaching classrooms in a variety of forms. But have a passion for Montessori early childhood education, validated by the fact that they are all now currently employed in Montessori preschools. Thoughtfully, they each gave conviction to the reasons why they felt Montessori education was beneficial for children with Autism.

Both Donna and Krystal explained that the structure of the classroom plays a large part in the learning that goes on within the Montessori environment.

"Montessori education is a repetitive working environment with routine and goals in achieving each task (participant 5, p.1)".

In particular, the learning of practical life skills for daily tasks, and academic equipment in preparation for school. Donna also remarked how Montessori is open to all children in New Zealand, it is not an elitist education and the fact that the teachers work hard creating resources, preparing the environment and demonstrating materials to children on an individual level.

"It's really important because it helps them with academic stuff for later on, and not just with autistic children, but all children, you know I think it's more open for children with Autism from what I've seen (participant 4, p.2)".

Overall, the participant's all agreed that the innate structure of the Montessori classroom played a large part in complementing children with Autism. This is in contrast to mainstream early childhood education where children are allowed to play freely in an unstructured environment. Montessori philosophy also allows for the flexibility of curriculum to assist children with Autism and the accommodation of individual needs. Flexibility is given through hands on materials and individual assessment methods where children work through a progression of tasks independently

and at their own pace. Freedom in a structured environment is one of the fundamental characteristics of Montessori education.

Question 4-Do you think that Montessori early childhood education complements children with Autism? If so, how? If not, why not?

Finding 4- The Mixed Age Classroom and the Accomodation of Individual Needs

The multi-age classroom is another example of the Montessori philosophy. Dr. Montessori spoke of three yearly developmental cycles and determined her materials and the classroom to reflect this. Her reasons behind the multi-age atmosphere are evident in the peer mentoring and social competence skills learned through the mixing of ages. The parents and teachers emphasized the benefits of the different ages and the opportunity to work autonomously. Independent learning is in line with the thought and behaviour patterns of children with Autism. Children are able to work uninterrupted and at their own pace, supporting their learning needs and individual interests.

Patricia began answering this question by thoughtfully comparing it to other centres that she had experienced. She felt that Montessori encouraged quiet learning in a conducive environment.

This is in contrast to childcare scenarios

“where there’s always kids yahooing and shrieking, and, and carrying on, I say carrying on, but you know, you know what I’m saying aye? (participant 1, p.20)”.

She also noted that the children tend to work together, speak quietly and clean up after themselves. Children with Autism are taught responsibility and independence in the Montessori environment and are considered capable, competent learners. Patricia appreciated that the staff were kind and assessed each child individually, with opportunities to report on varying levels. Most importantly, Patricia felt that her child was happy in the Montessori environment,

“so if I had heard that there was behaviour that he was spending hours sitting and crying or... I would have, I would have dealt with it and pulled him out (participant 1, p.21)”.

Heather agreed with Patricia that Montessori education encourages each child to be treated individually, that all the children were treated as special. Each child’s needs and requirements were attended to, and learning at their own pace was focussed on.

“I think from what I’ve seen they are treated as individuals no matter if they’ve got special needs or not (participant 2, p.8)”.

From a sensory perspective, Heather’s son had the opportunity to self-regulate and access tools

and resources that exist within the prepared classroom. The Montessori environment was set up to cater for unique perspectives and to gain an understanding of children that goes beyond Autism. The multi-age classroom also provides a frame of reference for different paces of learning, and there is a certain beauty in how the learning is processed by each child. Heather is enthusiastic in stating that

“Montessori is amazing! (participant 2, p.8)”.

Even though, Julie never got to experience Montessori education with her child, she believes that the structure and routine would have suited her little boy. She believes that early childhood education centres that focus on free play can exasperate a child with Autism.

“In a kindy environment, some kindys can have too much free play, there is no structure, this environment can be confusing to navigate for kids with ASD and make their symptoms magnify for the worst (participant 3, p.1)”.

The teachers had clear ideas on the positive nature of Montessori and how it enables children with Autism to learn in a way that complements their needs.

Donna begins by stating that,

“Montessori works with children with special needs (participant 4, p.2)”.

She goes on to concur that Montessori education is an effective, positive system that allows children time, space and prolonged periods of concentration to grow, learn and discover themselves. Assessment is determined by the readiness of the child building on their self-esteem through concrete materials, and calm, hands on individual learning. Donna also emphasizes the implementation of biculturalism in the New Zealand Montessori classroom, explaining how

“it influences their self-determination and especially in Maori children as well, you know they kind of connect back with their, you know spiritually, as well (participant 4, p.2)”.

The significance of this and peace within the classroom are instrumental in complementing the child with Autism. Dr. Montessori herself, wrote about the importance of spirituality later on in her life and how the interconnectedness of this and the culture in the classroom develops the child holistically (Montessori, 1969).

Krystal and Abby struck the same note with a variety of different ways in which Montessori early childhood education complements children with Autism. The repetitive, structured routine in the classroom promotes a sense of order that is neither overwhelming nor confusing for a child with Autism. In fact, it helps to provide security and a knowing or feeling of belonging for children with Autism. There is no time limit for the completion of tasks, therefore the child does not feel pressured to complete activities that they may find difficult. The classroom is also designed to be comfortable, with all activities and furniture at the child's level. And the children are free to choose whether they would like to work on their own, either on the floor with a mat or at a table

alongside others. This allows the child to avoid distraction or being part of a group if it makes him uncomfortable. He also has the freedom to choose tasks that interest him and that he can work on methodically and independently.

There are still many opportunities to develop communication skills, social competence and self-care despite learning difficulties or sensory issues as the Montessori programme incorporates lessons on social graces and basic skills such as washing hands and dressing oneself. These skills are taught and practised often, allowing children to explore them autonomously or alongside others.

Question 5-Is there anything else you would like to add?

Finding 5-Professional learning and partnerships with parents

The parents really focussed their answers to this question based on extending teacher's knowledge on children with Autism and the need to move away from our own bias beliefs and truly value what children with Autism bring into our classrooms.

Patricia feels strongly that all teachers need more special education training while they are completing their studies. And that the training is significant, not just a one off session or day, but a more in depth look at how we can teach all children effectively. She comments that,

“there's placements and things, but there should probably be some sort of component where every teacher has to spend, even a week, in, in a school with children with Autism, or work with a family with an autistic child (participant 1, p.22)”.

Julie reiterates the need for teachers to be trained in elements of special needs procedures for children with Autism. She points out that Montessori teachers in particular, should have a training system put in place relating to toileting issues, particularly as this was the reason her child was not admitted into a Montessori preschool. The teacher's priority should be the well-being of the child, and to ensure that each child is happy and settled at preschool with an emphasis on social-emotional development. That there is honesty and transparency in communication with parents and families and that the families are made to feel welcome and have their own sense of belonging within the Montessori community.

This model is true in most preschools, including mainstream, however, Montessori education bases its beliefs on the uniqueness and the unlimited potential of the child. It's very foundation was built on serving children with special needs and giving them access to tools and resources to extend their knowledge and abilities independently. The Montessori environment is equipped to not only manage children with Autism, but help them to thrive in a structured, stimulating classroom. The difference between the mainstream and Montessori systems are stark in contrast,

culture and context.

Heather concludes that there should be more Montessori primary schools as she has found it difficult to transition her child from the Montessori environment which was so accommodating to a prescribed classroom where the Ministry of Education monopolise early intervention methods that are generalised, and do not work in the dynamics of a large state school. The Ministries of Health and Education (2008) currently supports open plan progressive classrooms in which the sensory implications are vast for a child with Autism. Heather would like to see the Ministry of Education provide a system that models Montessori in terms of structure and teaching methods, a system that balances communication, behaviour, and sensory components.

However, Patricia also states that,

“... Montessori is basically good if you have a neuro-typical child who doesn't have any special needs (participant 1, p.18)”

in regards to her son, diagnosed with severe Autism. She felt that the teachers were misinformed and uneducated in terms of children with Autism. Although they were kind and she had a long standing relationship with the centre staff, Patricia noted that they were reluctant to make allowances for her son and his behaviour.

The teacher's views correspond on a different level, striving to include families in a partnership with the preschool, and an appreciation of the learning difficulties that children may have and ways in which they can best serve the child's individual needs. They all responded with links to partnerships with parents and genuine, reciprocal relationships, where the parents and children feel validated and valued.

Krystal statements offer an understanding that,

“the teacher's are also very tolerant of each child and especially children with special needs, they also work with the parents to appreciate the challenges to the child (participant 5, p.1)”

She believes in the importance of home/school relationships and open lines of communication for the benefit of the child. Information and knowledge that is shared is instrumental in the development and well-being of the child. Teachers and parents should be working together for a common goal.

Donna discusses inclusive education and the importance of one on one teaching instruction as a way of really getting to know each child. She adds that the individual learning provides a platform for discovery and self-confidence which in turn develops progression in academic and social learning areas. Donna believes that individual learning also leads to contribution in group learning and the ability to interact more effectively with other children on a social level. As a child's sense

of security grows, they become more confident in extending themselves in social situations and in academic tasks.

The consistency of Montessori education, the activities on the shelves, the planning, and the flexibility of meeting children's individual needs are attributes that consider children with Autism. Creating learning processes that complement children with varying learning styles is another perspective that Abby feels contributes to healthy development in early childhood education. Listening to parents and communicating regularly ensure valid measures are being put in place to assist children with Autism. Abby summarises her answer by stating that,

“overall, every child is different, but as long as we support the children and the families we meet, and early intervention is in place, many children are given the chance to have a more richer and fulfilled life. People are quick to write them off and label them and that's not fair! (participant 6, p.2)”.

Emerging Themes

The findings from the inductive analysis were collated and documented providing the basis for deeper analysis. The participant's responses were cross-referenced to illustrate and define the most common themes (Fraser, 2004). The themes that emerged from the five interview questions and six participant responses include:

****The Prepared Environment, Structure and Routine***

****Learning Processes, Social Competence, Language and Communication and Physical Development***

****The Mixed Age Classroom***

****The Accommodation of Individual Needs***

****Differences in Attitudes between Parents and Teachers, Professional Learning and Partnerships with Parents***

Summary

These findings were then gathered into three distinct main themes. These themes have consistently come up throughout the participant's answers, regardless of whether the participant was a parent or a teacher. These themes mirror Wing's (1981) research into the triad of impairments: social competence, language and communication and sensory development and individual interests for children with Autism. Under the figure below, I have assessed each finding to fit within one of the impairments, showing that all of these emerging themes interconnect under the same umbrella.

Figure 2. Lorna Wing's Triad of Impairments (1981)



Social competence: (social competence, the prepared environment, structure, routine, the mixed age classroom)

Language and Communication: (language and communication, differences in attitudes between parents and teachers, professional learning)

Sensory Development/Individual Interests: (accommodation of individual needs, learning processes, development and partnerships with parents)

In the following chapter I will discuss each of the findings according to current literature, anecdotes, Autism Spectrum Disorder's guidelines and Montessori's own philosophy.

Chapter Five - Discussion

Introduction

In this chapter I will be discussing the research findings and the trends that were identified in the parent and teachers narratives. I intend to link the aims of the research to the emerging themes laid out in the previous chapter and discuss their impact on practice for Montessori early childhood education teachers. This includes acknowledgement of areas of Montessori practice that support children with Autism and issues that need improvement. The chapter also includes recommendations for actions, set out in short term, medium term and long term goals and finally, at the end of this chapter I reflect on the role of Montessori's philosophy as a foundation for early childhood practice for children with Autism.

Impact of Findings

This study provided insights that would have otherwise not been revealed as to the professional learning and attitudes of Montessori early childhood teachers and the lived experiences of the parents with children diagnosed with Autism. For this reason, the research provides a valuable starting point for professional dialogue amongst early childhood teachers.

In completing this research, the findings also impacted on my own teaching practice. The research findings challenged my assumptions as a Montessori early childhood teacher. When I started this research I believed that the findings would reveal the Montessori environment as a 'perfect' place for the child with Autism to grow and learn. However, during the course of this study my own positive bias was exposed, as a committed Montessori teacher and staunch believer in the Montessori philosophy; I was disappointed to learn of the many challenges for parents (who felt unsupported), their children with Autism (who sometimes seemed misunderstood) and for other Montessori teachers within the Montessori community (who felt they lacked professional learning). Although I realised that there is much to celebrate within the Montessori early childhood environment, I also realise that there are many practices that would benefit from reflection and change.

It was Montessori's view that the child be allowed to develop holistically in all areas and the prepared environment of a Montessori early childhood centre is given much thought and energy to extend on and enhance the child's distinctive needs, to ensure that each child's needs are being met on an individual basis, through sensorial equipment and developmentally appropriate activities (North American Teachers Association, 2011). However, based on the evidence gained in this study, the question must be asked...is this, on its own, enough?

McGrath (1980) agrees that young children with Autism appreciate the well-ordered environment, where activities are consistent and they can explore them independently. The sensorial nature of the equipment and the self-correcting design of activities mean that children with Autism are free to learn without unnecessary intervention. The parents and teachers all verified this within their interview transcripts. All of the participants believed that the structure and routine in the Montessori early childhood environment is of great benefit to the child with Autism.

However, while the prepared environment, structure and routine of Montessori early childhood education centres are conducive for children with Autism, the parents in this study were concerned that the environment alone was not enough, and that the attitudes of the teachers within that environment altered the atmosphere of the classroom and its practices. This suggests teachers must also critically reflect on their role within the Montessori classroom to ensure that all children are supported in their learning.

Dunlap's (1984) view of the analysis of children's learning styles sought to consider the function of antecedent variables. Variables such as, short time frames and limited use of activities are not conducive to children with Autism, as the children develop deep interests in specific objects and themes, and require longer lengths of time to process new information and knowledge (Cooper, Heron & Heward, 2007).

Instructions and demonstrations presented in a Montessori classroom relate to task acquisition and benefit children with their approach. Ideal conditions for learning include a varied stimulus environment where children are free to choose from an array of activities and spend as little or as long as they like on each one. The implications of this practice are evident in Montessori early childhood centres.

For the child with Autism, the objectives of the classroom are simple, where it is thought that they have more opportunity to learn as they need less assistance to interact with the learning material. Establishing a consistent and predictable routine simplifies a complex environment (Burden, 2003). An environment that provides an array of cues throughout each area is designed to lead the child with Autism to acquire new behaviours and knowledge (Lovaas, Koegel & Schreibman, 1979). Montessori equipment is designed to be used purposefully in one way, and has a self-correcting element built into each activity. In this way, the child with Autism will independently assess his own work and will know himself if he has completed the task correctly or not. The purpose and process of each activity actively develops new concepts and knowledge. Regular, consistent use of the materials provides opportunities for the child with Autism to extend on prior knowledge and interests.

Both the parents and teachers agreed that the classroom should run consistently to ensure children with Autism were secure in the knowledge of knowing what comes next. This is taught and practised indirectly, as part of the culture of the classroom and the curriculum. This assists the child

with Autism to feel at peace with the rules and to experience positive behaviours as a result. It is easier to build and reinforce positive learning and development than to control negative conduct (Strain & Sainato, 1987). Despite this, some strategies will not be as conducive or equally effective for all children, so this must be taken into account, particularly with children with Autism (Vallecorsa, deBettencourt & Zigmond, 2000). For example, one of the parents stated in her interview that part of the regular routine when the child arrives at pre-school, was that he was expected to greet the teacher. But, the fact that her child becomes anxious when he is directly spoken to and he cannot look another person in the eye made this gesture particularly challenging for both the child and the parent.

“Ah, greetings, so, um they expect children to greet the teachers in the mornings, and it was very, very hard for him. And, and, I used to do a lot of the greeting for him, so the teacher would say ‘good morning’ to my child and I would say ‘good morning teacher’, you know ‘good morning’ whoever was in the class, um, but they didn’t want me to say it, they really wanted him to be saying it, I said leave it, he can’t do it, it’s too hard” (participant 1).

Although, this regular routine was part of the classroom, this comment suggests the teacher could have been more flexible in her approach with the child, allowing and accepting that the mother would say ‘good morning’ without forcing the child with Autism into an uncomfortable scenario. Perhaps in time, the child would have felt comfortable enough to say it himself, after the gesture was repeated each day. Forcing a child with Autism to comply with the unwritten rules of social competence is an unreasonable expectation that many Montessori teachers have. The child with Autism must discover the rules of social competence himself through repetition in a safe, consistent and tolerant environment.

In the Montessori classroom, Dr Montessori herself stated that children were ‘little explorers’ and that her equipment was merely a vehicle for self-discovery (Montessori, 1961). The Montessori philosophy follows a sequence where each area of the classroom is set up with tasks that range from simple to complicated, from concrete to abstract. Through individual observation, the teacher notes where a child is at and when he is ready for the next step. The Montessori environment is prepared for delving into deep interests and used in a manner that requires little intervention, allowing the child to learn at a pace that suits him (Lovaas, 1993). This must also apply to children with Autism. The following is an example of how one of the participant’s children was catered for in his quest for knowledge on a subject that interested him.

“He was obsessed with flags. Um, I remember one of the staff members at preschool saying he could see a flag from the top of the tree playhouse. Yeah, somebody had a flag and he was ‘fla, fla,’ yeah. So this fascination was transferred into the classroom through the Geography area, where the flags of the world were on display. He was given the opportunity to match flags, discover the names of the parts of the flag, learn about the countries and continents where each flag comes from, the history of flags and so on” (participant 1).

In contrast, another parent spoke of how her child's fixation was quashed in an attempt to make him conform to the Montessori early childhood environment.

“And I made a couple of what I thought were like random, random questions, or random statements about a couple of things he did. He would sit there and he would be in his own little world, and run things over the bridge of his nose, especially his little trains. He loved trains, but the teachers would take them off him and put them in his bag. I tried to explain that this was his way of self-regulating but they didn't understand. They just thought they were a distraction. I thought after, if they had just done something with the trains then he would have been so interested. Even if they had just printed out some pictures of trains to colour in” (participant 2).

Children with Autism often present with deep obsessions or fixations and these innate interests can be used and transferred into a wealth of knowledge in the Montessori classroom. Extending on prior knowledge and delving deep into subjects through the use of teaching materials is part of the Montessori philosophy. In a mainstream classroom, this opportunity may not present itself as teachers are often focussed on the 'free play' philosophy where they believe that children learn on their own without direction, guidance or specially demonstrated activities. From this perspective, the prepared environment in a Montessori early childhood centre has the potential to support the learning of children with Autism, but teachers need to be flexible in their approach.

It has always been recognised that social interaction is an area of difficulty for children diagnosed with Autism, but in the seventies Dr Lorna Wing and Dr Judith Gould (1979) defined the key areas by introducing the triad of impairments, including social competence as one of the main impairments. The parents that participated in the study were observed to struggle to justify this imbalance in skill level and wonder what it is that makes their children lack basic social skills when they can have extraordinary skills in other areas.

One parent spoke frankly about her own experience of her child before he attended Montessori early childhood education.

“And so at two, non-verbal, wouldn't make eye contact, social communication he was oblivious to other people, um, there were, a couple of people that could tap into him at times but it was very much on his terms” (participant 2).

She went on to state how his communication and social skills developed within the time he spent at a Montessori preschool, praising the Montessori philosophy for helping to instil qualities that she thought he may never have.

“Oh, um, communication wise I don't think there's, I don't think there's that delay now, I think he's quite articulate, and he can hold conversations with other kiddies and adults, more so if there's an interest there for him. He's still the ultimate narcissist (laughs). But it's not in that anti-social way it used to be. He'll engage in conversation and try to manipulate it back to what he wants, if you talk about dolls and princesses you know. He's got a lot more awareness of the world around himself now, so conversationally he can

communicate, he can get across what he needs and what he wants, like quite well, um, and he's forming, you know those social bonds, and those friendships that years ago, we weren't sure if it was going to be something that was possible for him" (participant 2).

It is not that children with Autism will never be able to learn these skills, but more that they are going to need specific teaching in these areas. Most children learn social skills by watching their peers, experimenting in imitation and refining their skills as they go. Children with Autism can find this difficult so they seem to miss many opportunities to practise these skills. Social skills and social situations need to be broken down, explained, and practised so children with Autism can absorb them at a level that makes sense to them. A young woman with Aspergers syndrome explained, "It's as if everybody is playing some complicated game and I am the only one who hasn't been told the rules (Sainsbury, 2000, p.8)". For children with Autism, Montessori education offers development of social skills, lessons on grace and courtesy, and an atmosphere of respect and tolerance. "Their lack of social understanding of rules and expectations prevents them from needing to fit in or please us, so we need to use their self-interest to make it worthwhile for them (Lindsay, Dockrell, & Strand, 2007, p.820)".

Basic skills like greetings, shaking hands, saying please, thank you and excuse me should be routinely practised each day in the Montessori classroom. Teachers can use mat time as an opportunity to role play scenario's that may occur in the classroom. As part of the day's structure, activities such as serving food or drink to other children, and waiting for a turn with a specific task provides children with Autism an active chance to involve themselves in these lessons. The repetition of these grace and courtesy skills develops an aptitude for social competence. However, opportunities such as trips or birthday parties that are not common place will require extra assistance as the complex environment can be confusing and frustrating for the child with Autism. The following quotes highlight this aspect of learning for children with Autism.

"Before he left Monty, they, they were just amazed, it was like he just went through every single activity in the big class... Um, he went to one birthday party and that was a disaster, um, and only because I knew that mother" (participant 1).

"Relationships with peers and other kiddies were... he didn't like large groups, so to try and engage him and get his attention, we really had to struggle with it, it was almost like it was physically hard for him to do" (participant 2).

"My son has always struggled with social issues, we have had to teach him how to talk in a social setting, ie: my name is, can I play with you? He doesn't get social interaction, he doesn't get games, that is, tag, he would think that the children were trying to hit him and not trying to play" (participant 3).

Each parent noted how their children had difficulty with social relationships and interacting with other children and the teachers, for example appearing aloof and indifferent to other people. Although language and communication are separate skills, it is important to note this under social

communication as children with Autism do not fully understand the meaning of common gestures, facial expressions or tone of voice.

The teachers responded with answers that interpreted the child's social behaviour in the classroom. Through observations the participants discussed the social issues that occurred and that were obvious in communal situations. They also commented on how Montessori early childhood education benefits the child through the consistent teaching of social skills woven into the philosophy and practised as part of the curriculum and culture of the classroom.

“Well, it's the individual learning and if they learn by themselves first and feel confident with themselves to interact with other children and group learning, and that, if they don't, if they're not sure of themselves, not ready to contribute to group learning then we leave them” (participant 4).

“Montessori is also a comfortable environment with furniture and equipment on children's level so that they don't feel lost or overwhelmed. The teachers are also very tolerant of each child, especially children with special needs, they also work with the parents to appreciate the challenges to the child” (participant 5).

“He seemed at times social, keen to get in on games but not knowing how... He may have never fitted in with the other children like his peers but Montessori could have helped him to learn those basic skills to feel more a part of a group” (participant 6).

The teachers comments lead me to believe that they are aware of the differences that children with Autism might face when it comes to social skills and are confident in the use of grace and courtesy lessons in the classroom with other children, but, are still challenged by how they can demonstrate these skills to children with Autism on a level where it is understood and adapted to suit the individual child's unique needs.

In early childhood, children are easily conditioned to the culture of the classroom and regular customs and routines. Some children subconsciously imitate the society around them, but they are often disadvantaged in not knowing how to appropriately perform in social situations. Montessori education offers a variety of lessons on social skills that can be practised and repeated within a safe, respectful environment, where they feel valued and validated in their contributions (Lillard & Else-Quest, 2006).

As language and communication are an integral component of social competence it is important to note how the parents and teachers responded to the question of communication issues. The parents revealed that the lack of communication skills was one of the first signs that their child may have Autism. It was also one of the more difficult symptoms as their children were unable to convey their feelings and added to a sense of frustration in both the parents and the children. This in turn, affects behaviour and can become an obstacle in learning and development in early childhood education.

“Yeah, cos I didn’t want him to be distressed, because he didn’t have the speech to tell me what was happening, is that, I mean at that age my girls were good at talking and they could tell you how their day was and if they were happy” (participant 1).

“So, he was completely, almost completely non-verbal till he was almost three, um, which you would be very familiar with. And so, at two, non-verbal, wouldn’t make eye contact, social communication he was oblivious to other people, um there were, a couple of people who could tap into him at times but it was very much on his terms” (participant 2).

“He tries to relate by quoting movie quotes and humour, which is funny if you have seen the film, and not so much if you haven’t” (participant 3).

These responses demonstrate that socio-emotional learning is most important to parents, while academic learning is often more important to teachers. Each parent also expressed a hope that their child would make friends and play with other children, rather than alongside them. This was something that they worked hard at themselves and what they wanted from Montessori early childhood education. The parents created strategies for communicating with others, in a way that complemented the child and made it possible for others to understand him, and this was followed through within the Montessori preschool environment. One of the participants also held a fear that their child wasn’t happy and wasn’t able to express that feeling to them. This is where open dialogue between teachers and parents is essential for effective practice.

The teachers too, were open to strategies that encouraged and reinforced effective communication and interactions. Allowing the child to be who they are and accommodating their language impairments fosters respect and facilitates literacy development at the child’s pace. This shows a willingness to adapt their practice, however, it was obvious that the teachers also need professional learning in order to successfully implement and exercise strategies to help children with Autism.

“Allowing a child, giving them time, the time to concentrate on , you know their own work and letting them grow and learning to discover themselves, there’s no, I feel like there’s no pressure to, to do you know testing, things like that...” (participant 4).

“The Montessori environment converses with children on a basic level, so therefore instruction is not confusing or overwhelming for children. The Montessori environment also works on an individual approach, and therefore lets children master their own tasks and accomplishments in their own time” (participant 5).

“He used to try and communicate with his mum and just yell, kind of in a scream way at her and hit the wall when he was mad and nod his head...He seemed at times social, keen to get in on games but not knowing how and his speech was a huge part of this” (participant 6).

All three teachers reiterated the individual approach of the Montessori programme to be consistent with the learning needs of the child with Autism. It was also reported that the child progressed

through the opportunity to work at his own pace. The print-rich Montessori environment with an emphasis on language works to include children with Autism. Montessori classrooms use specialised literacy activities such as the ‘sandpaper letters’, where the child uses their tactile senses and stage appropriate concrete materials (Patel, 2012).

Through the observation of children, and the progression of Montessori materials, children with Autism can develop language and communication skills easily. Montessori believed that language is absorbed through the environment and that children acquire literacy with little effort if it is presented in a natural way. Rich language development occurs in the prepared classroom through conversations and the ability to take command of the complexities that language holds (Montessori, 1912). The findings suggest that children with Autism learn language skills easily in Montessori early childhood environments through the demonstration of Montessori materials and social lessons.

It is hoped that the impact of these findings provokes further conversations in the Montessori community. From the insights gained through this study I anticipate a shift in the thinking of Montessori early childhood teachers and a progressive evolving of practices that relate to the inclusion of children with special needs, particularly children with Autism. I also hope that parents of children with Autism build stronger partnerships with these teachers and create open lines of communication regarding the unique needs of their child. Professional learning and critical reflection should become a priority for Montessori early childhood teachers to support children with Autism.

Impact on Practice

The impact on practice highlights the difference in attitudes of parents and teachers, the need for open dialogue and strong partnerships with parents about their particular children, the teachers need for critical reflection on their practices, the contingency for more professional learning and the reiteration of values that Montessori saw as social justice. These impacts will be discussed further, as will the impacts on practice, from a micro and a macro perspective.

Impacts on practice from a micro perspective include the opportunity for parents and teachers of children with Autism to be given a voice and allowed to express their honest lived experiences, and be listened to.

Impacts on practice from a macro perspective include the insights of this study to other parents of children with Autism and Montessori early childhood educators in Aotearoa New Zealand. It also allows other researchers to use this study as a point of reference for further investigation.

The acknowledgement of areas of Montessori practice that support children with Autism involve structure, routine, learning processes, social competence, language and communication, physical

development methods, the mixed age classroom, Montessori's 3 – 6 philosophy, accommodation of individual needs, deep interests, individual learning and sensorial development. These areas of practice need to be celebrated.

Issues for improvement included the difference in attitudes between parents and teachers, professional development and critical reflection for teachers and partnerships with parents. These issues need further discussion by the Montessori community.

Bennett, DeLuca & Bruns (1997) revealed that many teachers feel inadequately prepared to work with children with Autism, citing that a lack of knowledge surrounding the condition as their main challenge. This contributes to the difference in attitudes between the parent and teacher participants. Communication was another factor in the passing on of information between parents and the teachers. Many teachers feel that they are not privy to essential knowledge regarding the child and believe that this would benefit their teaching significantly. On the basis of my research, partnerships between parents and teachers of children with Autism should be open and honest. Candid discussions and dialogue should be respectful and reciprocal as a means to effectively implement practices that are conducive to the child's particular learning needs.

Parents concerns were based on behavioural issues and social/emotional conditions that impact on academic achievement, and the apprehension that policies are theory based and do not work effectively in practice or are too generalised. One parent in this study was even denied entry into a Montessori preschool because, her child had some toileting issues.

"I would have loved to have tried Montessori but we were declined until toileting (namely number 2's) were sorted out and by the time we were accepted at 3, they weren't"
(participant 3).

This is where philosophy and practice clash within the Montessori culture, particularly as seen in New Zealand (Scanlan, 2013). My own reaction to this outlandish request to have toileting issues 'sorted out' brings me back to the origin of Montessori's philosophy, where she worked with children with disabilities in an effort to include them and validate their learning needs.

This study examined the parents and teachers perspectives within the Montessori context and found benefits and challenges cited by all participants. The experiences associated with children with Autism in Montessori environments ranged from successful triumphs (the child who was appropriately supported when his deep interest in flags was validated and extended on in a positive learning environment) to bitter disappointments (the child that was denied entry into a Montessori preschool because he had toileting issues). The transformative data that came from one contributor was discredited by another, and only two out of the three teachers interviewed

showed any real understanding of the parent's perspective, and this was due to personal experiences with a family member who had Autism.

Assessing the differences in attitudes between the parents and teachers gave me an insight into the stark contrast of personal and professional experience. Professional experience consists of a few hours in a classroom each week, with colleagues for support, policies to fall back on and an array of resources for behaviour management. Personal experience is a 24 hour, 7 days a week job. Parents do not get paid, and children with Autism often do not give anything back in relation to emotional value. Often parents struggle to do the simplest of daily tasks, such as going to the supermarket for fear of inciting a 'meltdown' or being scrutinized by the public eye. They constantly fight for resources and support, and despite all this, love their child unconditionally, always putting their needs before their own (Bernhard, Lefebvre, Chud & Lange, 1995).

This selfless attitude cannot compare to that of an educator, even the most committed Montessori teacher. Montessori education fits a certain model and structure and many teachers will encourage the child with Autism to fit the mould, even when this is not possible. They see rigidity as the answer and parents fear that educators are not being flexible enough to support their child's unique needs. One parent expressed concern about staff who were stringent in their interpretation of the Montessori approach, despite the need for accommodation of her child's unique requirements.

"Because they're very strict, they're quite firm. And they don't put up with crying, you get, they get sat on a chair" (participant 1).

The parents all expressed the need for support of not only the child but the family as well and that a particular programme should be implemented to specifically deal with children with Autism on an individual basis.

A recent study found that although many Montessori early childhood educators were aware of the symptoms of Autism, the teacher's knowledge of self-efficacy in children with Autism was poor and was reflected in their attitudes towards children with Autism (Lightbody, 2013). Regardless of teaching experience, if an educator was unacquainted with unusual or unfavourable characteristics, then the educator would contribute to negative behaviour patterns by assuming a rigid role. The parents determined that teachers need specialised training and specifically designed professional development to keep abreast of the latest research and literature on children with Autism (Isaacs, 2012). It is hoped that one of the outcomes of this research is that more professional learning about Autism will be available to Montessori educators.

Montessori teachers found that the environment played a more effective role than that of a support teacher or learning assistant. Often a support teacher does not have knowledge of the Montessori

philosophy and therefore disrupts the flow of practices with their own teaching style. This can be confusing for the child with Autism and consistency in teaching methods is essential for positive social and behavioural outcomes. This supports a recommendation for teaching assistants who work in a Montessori context to be given professional learning on the Montessori method. Competent teachers seek to understand the child with Autism and serve their needs in a way that fosters respect and a belief in their potential as a learner (Morton, 2011).

Goodall (2014) examined contextual factors for teachers of children with Autism and found that the teachers are aware of meeting the children's needs, but they are often restrained by policy and practices. How teachers view children is significant in their approach. If the teacher sees the child with a disability as different or challenging, then they will unconsciously create an environment where the child is devalued and his strengths are not noticed. This attitude towards children with Autism is a key factor in the inclusiveness of teaching (MacArtney & Morton, 2011; Tait & Purdie, 2000).

While analysing the data I became aware of Montessori early childhood teachers who narrowly interpret Montessori's philosophy and will not budge from their own interpretation to accommodate a child with Autism. This devalues Montessori's call for social justice and greater flexibility for inclusion of all children in the Montessori method (Chisnall, 2011). A realistic look of how we critically reflect on our practices as effective teachers needs to be reviewed in light of these findings if we are to become true advocates of Montessori's writings.

It is unfortunate that many Montessori teachers do not feel competent enough to include a child with Autism into their programme. Parents, and Dr. Montessori herself, advocated for inclusive education with materials that meet the needs of these children. It is my perception that some teachers carry attitudes that Montessori is an elite education, and that only certain children fit the Montessori model. Anecdotally, I have researched Montessori preschool websites in New Zealand that actually state this as part of their entry and enrolment criteria. This is in contradiction to Montessori's own foundations for her work, where she created and developed her equipment with children that were perceived as having disabilities. The success she found with these children prompted her to further her work, pushing boundaries and assumptions back in the 1900's, and it is evident that these same assumptions are still alive today, but are not always practised.

Pickering (2013) reflected on Montessori practitioner's perspectives on self-review inquiry and professional learning. Her study revealed that teachers were reluctant to critique their own philosophy and practices and were concerned about discussing their professional knowledge with other teachers outside of their preschool. Sharing their understanding of Montessori practices seemed like a challenge for teachers.

As each teacher perceives Montessori education differently, learning priorities vary between preschools and philosophies are interpreted in various ways, depending on the knowledge and experiences of the collective preschool. The engagement of teachers in expert workshops and lectures that focus on supporting children with Autism, would encourage teachers to widen their views on early childhood education procedures, guide attitudes, and consequently enhance positive learning outcomes for children with Autism (Shuker, 2005).

Underlying theory of both Autism and Montessori philosophy needs to be brought to the forefront of the Montessori community and discussed. “A skilled and imaginative teacher prepared to enjoy and be challenged by the child seems repeatedly to have been a deciding factor in the success and educational placement of high-functioning, autistic children” (Newson, Dawson, & Everard, 1982, p.255).

Professional learning assists teachers of children with Autism to exert profound consideration involving aims, temperaments, and learning effects of *Te Whariki: the early childhood curriculum* (Ministry of Education, 1996). A proficient teacher has the ability to adapt theory and practices to foster the growth of an enriching, appropriate programme. Designing a curriculum with the unique learning needs of a child in mind, teachers can use their professional knowledge and experiences to decide how they configure teachable moments, freedom and the correct use of equipment. This is particularly important in a Montessori classroom where there is a specific sequence and structure to the day and to the activities that are demonstrated.

The parents I interviewed all believed that professional learning would help Montessori teachers reflect on their own personal values, beliefs, attitudes and philosophy, especially when taking into account children with Autism and the curriculum. The parent participants also all agreed that although Montessori is a structured environment, they wanted their children to be recognised as flexible learners and have their explorations valued as an important part of learning.

Professional learning helps to maintain procedures that are all-encompassing of children with Autism and their families. It provokes teachers to concentrate on expanding their views and vision for learning and teaching. In this way, teachers should form an understanding that all children have strengths and character which they bring to early childhood education and enrich the dynamics of the classroom. Teachers should learn to foster relationships with parents creating respectful bonds that scaffold reciprocal knowledge and information (Bennett, DeLuca & Bruns, 1997).

Inclusive education assists teachers in evaluating their programme through everyday reflection of teaching children with Autism. This information can then be applied to the curriculum and can be adapted to appreciate the child’s needs (Mitchell & Cubey, 2003). Most of all, an intimate

knowledge of the child is the key to best practice. Consistent communication with parents and a deep knowledge of the child can only help to meaningfully engage them in their learning potential.

Parents undergo a huge process once their child has been diagnosed with Autism Spectrum Disorder (Ministries of Health and Education, 2008). Adjusting to this diagnosis includes seeking out support networks, conducting their own research and an infinite amount of personal and professional development. Following this is a period of making peace with their child and an acceptance of their condition in a positive light (Catford & Ray, 1991). Once this state has been reached parents feel protective of their children and usually have a strong sense of what they want for them in terms of early childhood education. Partnerships with parents are vital for inclusive education to be successful.

Teachers and parents would benefit from discussion that is open and honest. For example, Individual Education Plans (IEP's) are critical for meeting children's needs. They allow all parties involved to have a say in the child's learning, and a plan can be put in place where the teachers are aware of the child's unique characteristics and needs, and are on the same page as the parents (Liberty, 2009).

Teachers should be capable of explaining their pedagogy to parents and articulate and share their rationale for curriculum decisions with parents. It is the teacher's job to integrate children with Autism meaningfully into the classroom. Parents often feel that it is their responsibility to protect the identity of their child and ensure that the child is being constructed in a positive manner (Liberty, 2000).

Connecting with parents indicates responsive relationships within the Montessori classroom, particularly for children with Autism. Valuing and seeking to acknowledge the family and their needs is instrumental in the success of the developing child (Mitchell, Haggerty, Hampton & Pairman, 2006). Parents' aspirations are an element of potential that needs to be taken into account when preparing and delivering the Montessori curriculum. Parents bring a unique knowledge base of their child and the experience of knowing how to contribute to their personal development without hindering their learning. Opening the door to parents of children with special needs leads teachers to improve and enhance their own practices, providing an opportunity to benefit the children with Autism who attend a Montessori programme, through tolerance, individual assessment and a carefully planned, conducive environment (Montessori, 1967).

No practice is perfect on its own, it is how it is interpreted and implemented that affects its effectiveness in the classroom. The prepared environment may hold everything that the child

needs, but unless there is a responsive Montessori teacher who is reflective and knowledgeable, the Montessori environment alone cannot help the child with Autism.

Impact of Methodology

The impact of the methodology was positive in the data that was collected and analysed. The narrative semi-structured interviews that took place were suitable for this study as they gained detailed, emotional responses that are not conveyed through other methods such as surveys. The importance of the inclusion of narratives was to give a voice to the parents and teachers of children with Autism. This was stated at the beginning of my thesis as one of aims of this study. Without narratives I would not have had my own assumptions challenged.

Nevertheless, the methodology also contained limitations. Limitations to this method can include bias beliefs and miscommunication of meaning, leading to a break in the trust between the participants and the researcher. However, I aimed to minimise any risks to participants during the study by following ethical guidelines, providing essential information, and treating the participants with complete respect and sensitivity (Roberts, King-Thomas & Boccia, 2007).

Yet another limitation is the fact that every child with Autism is unique and that every Montessori preschool is different remain the significant challenges to the findings. Just as Autism has a spectrum, Montessori in New Zealand also has a spectrum. Preschools vary from strict Montessori philosophy to a more relaxed, flexible Montessori approach adapted to our present time and place. The findings of this study need to be considered bearing these contextual differences in mind.

As my sample was small, the findings cannot be generalised to the whole Montessori and Autism communities. Each case is unique and personal perspectives and attitudes vary considerably between people, places and experiences. Hence, it is thought that the findings from this study are viewed as valuable for providing insights and provoking further comment.

Recommendations for Action

Short term goals for the future include giving parents and teachers the opportunity to voice their perspectives in detail and without judgement to enlighten others in similar circumstances.

Medium term goals include the study being presented at a Montessori Association New Zealand conference to challenge other Montessori teachers thinking, a link to the study to be uploaded onto the Autism New Zealand website to inform other parents of children with Autism, and in the AUT online and campus library as a point of reference for other students and teachers researching Montessori and/or children with Autism.

Long term goals include advocacy for inclusion and better understanding in terms of children with Autism. There should be more professional development specifically on Autism for Montessori early childhood teachers and active self-review practices for critical reflection. Parents should feel valued and welcome in Montessori early childhood education regardless of their child's unique needs and every effort should be made to build strong, reciprocal relationships between the home and the preschool.

Final Thoughts

Montessori founded her philosophy on children with special needs in the early 1900's. Her methods were controversial at that time but have remained successful in their correct implementation.

According to Montessori (Lillard, 2005; Pickering, 2004) children's learning is most beneficial when a range of specially designed learning materials are used to integrate sensory perceptions into their development. Over the last thirty years, many doctors confirming diagnoses for preschool children are referring parents to Montessori education, especially children with conditions such as Autism or Aspergers Syndrome (Siegel, 1996). This is because the Montessori environment is said to be conducive to consistent, calm, individual learning. The environment in the early childhood setting is prepared to ensure optimum learning opportunities irrespective of the child's age, character or ability.

As the Montessori approach has evolved and become a viable choice in early childhood education, we have maybe forgotten that it was originally intended for children with special needs (Flowers, 1993). To illustrate this point, Flowers (1993), discusses the effects of Autism and offers a project where Montessori children volunteer to 'teach' an autistic child, revealing that the natural structure of the Montessori classroom, where there is a purpose and a time for everything, is ideal for autistic children. Pickering (2004) also states that children with special needs can enhance their learning through opportunities to choose their own activities and apply themselves to physical materials.

Unfortunately, there is very little empirical research that I could find on the Montessori approach as an educational approach for children specifically with Autism spectrum disorder. Fidler (2013), truly believes that Montessori education can make a real difference for children who learn in different ways and who suffer from a range of emotional, behavioural and specific learning difficulties. But, on the basis of evidence in my study, the Montessori environment alone is not sufficient to support the learning needs of a child with Autism. It is up to the educator to teach the child through a method and practice that is adjusted to suit their needs (Montessori, 1936).

These findings cross-connected in a unique way between Autism and Montessori and I explored the themes through the perspectives of parents and teachers of children with Autism to investigate their perceptions of Montessori education as a harmonizing educational style for their child's learning and behaviour. I also supported my discussion with other literature and research that showed the context of the study, while highlighting findings that I found surprising; that is, the lack of professional learning that Montessori teachers undertake in reference to children with Autism. This was considered a significant factor that impacted on the development of a child with Autism in the early Montessori classroom. The prepared environment may be conducive, the structure and routine of the day and activities may be appropriate and sensorial. However, if the teacher is not professionally equipped or has biased beliefs about Autism, then the child will struggle and consequently fail.

Chapter Six – Conclusion

“If they can't learn the way we teach, we teach the way they learn” — O. Ivar Lovaas (Goldstein & Naglieri, 2013, p.xii).

Introduction

This thesis explored parents’ and teachers’ perspectives of children with Autism in Montessori early childhood environments. This final chapter includes a succinct summary of the aims, results and implications of my research. First I asked the question ‘Was my contribution as a researcher validated?’, then I discuss the limitations and suggesting recommendations for future research.

Was My Contribution as a Researcher Validated?

As one of only a few researchers in New Zealand studying aspects of the Montessori educational approach, I believe that my contribution will provide insights that lay the foundation for further studies in this area. I also believe that my contribution validates the voice of children with Autism and their families who live with the effects of this disorder each and every day. The struggles of these children and their families often begin in early childhood with the parent’s first introduction to education in those early years and progresses throughout the education system with hurdles and triumphs, successes and failures. By giving a voice to these children and their families, I hope to provoke the Montessori community to reflect on their professional learning, teaching and practices, and aim to make Montessori early childhood education a viable choice for parents of children with Autism.

Aims, Results and Implications

My aim was to understand the personal narratives of parents and teachers of children with Autism in Montessori early childhood environments. It was also to add to the limited research base on this subject and fill a gap in the literature. The narrative method of data collection proved most suitable for this study with detailed, honest responses to the interview questions. I was able to explore the authentic experiences of the participants and use a thematic analysis to further investigate emerging themes.

The emerging themes found that the Montessori early childhood environment supports children with Autism in the areas of structure, routine, learning processes, physical development methods, the mixed age classroom, Montessori’s 3 – 6 philosophy, accommodation of individual needs, deep interests, but most importantly, social competence, language and communication, individual

learning and sensorial development. This reinforces the point that the Montessori philosophy and foundations were built on practices that foster the growth of children with learning disabilities.

The results of this study showed the impact on practices included; the difference in attitudes of parents and teachers, the need for open, honest dialogue and strong, respectful relationships with parents of children with Autism, the need for teachers to consistently reflect critically on their own philosophy and practices, and the eventuality that Montessori early childhood educators require professional learning in the area of Autism and need to revisit the original values that Montessori based her method on.

The methodology used proved encouraging in the revelations that were made. The genuine narratives that were analysed gave a voice to those parents and teachers whose lived experiences can provide us with much sought after knowledge, to improve our teaching practices and further extend our assumptions about children with Autism.

In conclusion, Montessori early childhood education supports children with Autism, but there is more that can be done.

Limitations

The methodology used in this research study also contained limitations. Limitations in this study included the possibility of miscommunication of meaning while analysing the narratives, the small scale sample that was taken which cannot be generalised, and the uniqueness of each participants' experience. These challenges need to be considered when reviewing the results of this study.

Suggestions for Future Research

Emerging issues for children with Autism in any early childhood environment, but particularly in Montessori environments, seems to be the lack of teacher education surrounding special needs, particularly children with Autism. It is hoped that this research highlights the need for on-going professional learning for teachers throughout the Montessori community.

Ongoing professional learning could take the form of research studies, and some implications for future research have been included. This study has only looked at teacher and parent views, perceived barriers, opportunities and frameworks for reflection and inquiry within Montessori early childhood centres in New Zealand. It would add more to the understanding of the importance of research in Montessori education if the following suggestions were researched in more depth.

- How external criteria such as the Autism New Zealand's Guidelines can be used to guide self-review or inquiry in regards to children with Autism in Montessori early childhood centres.
- How professional development can be implemented to provide an evidence-base for learning outcomes for children with Autism in Montessori early childhood centres.
- A detailed action research study into Montessori teachers' professional learning and the differences in attitudes, teaching and practices before and after the professional learning took place.
- Mainstream versus Montessori: how differences create learning and how professional learning can enrich early childhood educators practices to support children with Autism.
- In what ways can a focus on self-review taken in the New Zealand education system lead to innovative approaches in Montessori education (Pickering, 2013).

These issues extend on from this study and would incite further discussion surrounding Montessori early childhood education and children with Autism.

Summary

Montessori stated, "Education is not what the teacher gives; education is a natural process spontaneously carried out by the human individual, and is acquired not by listening to words, but through experiences in the environment (Montessori, 1967, p.7)" The early childhood Montessori environment provides opportunities for children with Autism, to actively engage with sensorial equipment without unnecessary intervention. Dr. Montessori originally designed her philosophy to benefit children with special needs. With this success, her approach has grown and is now practised all over the world. Her tactile method supports current research where findings suggest that the optimum environment is one where children with Autism learn best through real-life, first hand experiences.

Early constructivist theories inform us that a structured environment and participating in appropriate experiences shape the child's learning and development. Children with Autism flourish in early childhood education where they are understood by their teachers and the programme is adapted to their individual needs. Montessori early childhood education consists of integral learning components in an atmosphere that uses materials to enhance the skills of children with learning differences. Combine this with teachers that are knowledgeable about children with Autism and who have strong bonds with the parents, this should become an ideal environment for the child with Autism to learn and thrive.

Dr. Montessori discovered that learning is also accomplished through movement. The impact of movement on learning and cognition is scientifically proven, and this is closely intertwined.

Montessori has movement at the core; no rows of desks, but rather an environment where children are actively engaged in their studies, and learning is not focused on rote drill and memorisation, but on a child's exploration of a concept until it is mastered; the process of learning being integral. This supports the child with Autism as it allows them to learn at their own pace and the focus is on the process and not the product.

This also highlights one of the many benefits of Montessori in an international community—the acquisition of skills and the sensorial materials are universal. No matter where a school is located or what language the child and teacher speak, the materials are effective learning tools. In this sense, Montessori education has not only stood the test of time but also transcends national boundaries and the barrier of language. Montessori's over one-hundred-year history makes it a proven, time-tested educational methodology (Keenan, 2008). However, I would argue that without continual professional learning, and critical reflection, this will not continue.

A true Montessori school is faithful to the methodology's focus on the child, continually incorporates new research in child development into its programme and continually strives to make the school environment more conducive to exploration and discovery for all learners. By creating these exceptional educational environments for children with Autism, we will maintain the integrity of Montessori in the 21st century (Keenan, 2008).

Appendices

Appendix A: Participant Information Sheet

Appendix B: Consent Form

Appendix C: Assent Form

Appendix D: Indicative Interview Questions

Appendix E: Welcome to Holland

Participant Information Sheet



Date Information Sheet Produced:

19th August 2013

Project Title

What are parents and teachers perceptions of autistic children attending Montessori early childhood education?

An Invitation

My name is Robyn Janes and this is an invitation to be part of my research about children with Autism in Montessori early childhood environments. I am doing this research as part of my Master of Education degree at AUT. Your participation is voluntary and you may withdraw at any time. Participants whether they choose to participate or not will neither be advantaged nor disadvantaged.

What is the purpose of this research?

The purpose of this research is to give parents and teacher's of autistic children a voice and gain an insight into whether the parent's and teacher's perceptions of the Montessori classroom complements the autistic child's learning and behaviour.

This research is anticipated, to benefit first and foremost, children with Autism, their parents and Montessori early childhood teachers of autistic children, by providing better understanding of the complementing themes and learning styles of children with Autism in Montessori early education settings.

How was I identified and why am I being invited to participate in this research?

Participants are volunteers found through advertisements in the Montessori Association Newsletter and the Autism New Zealand Newsletters, and invitations sent to Montessori preschools in the Auckland geographical area. Participants will voluntarily email the researcher, myself, to register their interest in being part of the research. Information and Consent forms will be sent out via email and once they have been returned, meetings will be set up at a time and place convenient for the participants. The participants will need to be parents of children with Autism who attend a Montessori preschool or teachers that are employed at a Montessori preschool who have had experience teaching children with Autism, residing in the Auckland geographical area.

What will happen in this research?

I intend to recruit 3 parents and 3 teachers, 6 participants in all voluntarily through the Montessori Association of New Zealand and Autism New Zealand. Participants will be chosen on a 'first come, first served' basis and must meet the criteria of having a child with Autism and be attending a Montessori early childhood preschool. Each participant will be initially interviewed individually for 30 – 60 minutes at a neutral location. A copy of the intended interview questions are attached to this form. Each participant will then be invited to a shorter, follow up interview or email of 15 - 30 minutes during which the participants will be given the opportunity to verify the initial interview transcripts and to further clarify any issues, or to raise any new themes. Each interview will be audiotaped and notes will be made throughout by the researcher, they will then be transcribed by the researcher and any identifying information changed or deleted. All participants will be provided with a copy of their interview transcript and asked to check the accuracy of the information and to make any corrections. After any requested changes were made, transcripts will be held by the researcher on a password protected computer and a copy will be held by the Programme Administrator at AUT in a locked drawer, separate to consent forms for a period of 6 years in accordance with AUT data protection procedures. Any information no longer needed will be shredded at the end of the research. All participants will be given a copy of the final research summary on completion.

What are the discomforts and risks?

There may be some discomfort for participants as the study touches on themes that may be emotional for parents and teachers. But let it be noted that I am not judging participant's perceptions and the interview may be stopped at any time, and the participant can choose not to answer any question they feel uncomfortable about.

How will these discomforts and risks be alleviated?

Participants may experience a low level of discomfort or embarrassment. If this is an issue, participants will be given the opportunity to decline answering the question, the interview may be cut short or the participant may wish to withdraw from the research. The participants may find the recounting of their narrative lived experiences somewhat emotional. There is no likely risk or discomfort to participants as a result of cultural, employment, financial or similar pressures. There is also provision of AUT counselling Services operating online or onsite at any of the three campuses. Their contact details are as follows: City Campus: 921 9992, North Shore Campus: 921 9998 and Manukau Campus: 921 9303. AUT Counselling services are available for same day or urgent appointments.

What are the benefits?

The potential benefits of this research to the participants, is to give them a voice and gain an insight into whether the parent's and teacher's perceptions of the Montessori classroom complements the autistic child's learning and behaviour.

This research is anticipated, to benefit first and foremost, children with Autism, their parents and Montessori early childhood teachers of autistic children, by providing better understanding of the complementing themes and learning styles of children with Autism in Montessori early education settings.

The benefits of the researcher include gaining wider knowledge and insight into this particular field and to complete a Master of Education degree. The wider community receives current research for reference and support in this area.

How will my privacy be protected?

Participant information forms and consent forms have been developed from templates provide by the University's Ethics Committee. These will be stored in a locked filing cabinet in the School of Education at AUT for the required six years. The names of the teachers and parents will be changed throughout the research project to protect confidentiality. Where a name is used, it will be a pseudonym.

What are the costs of participating in this research?

Participants will be asked to participate in an initial interview that is expected to be no longer than one hour and a follow up interview or email of not more than 15 minutes.

What opportunity do I have to consider this invitation?

Participants will need to complete invitation forms prior to first interview.

How do I agree to participate in this research?

Participants will need to complete consent forms (teaching staff and parents). These will be made available as soon as participants have expressed an interest.

Will I receive feedback on the results of this research?

The research will be available to all in the form of a written thesis. This will be available online from the AUT library website. The results could potentially be presented at the MANZ Conference following completion.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Anne Grey, anne.grey@aut.ac.nz, 921 9999 ext 7231

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEK, Kate O'Connor, ethics@aut.ac.nz , 921 9999 ext 6038.

Whom do I contact for further information about this research?

Researcher Contact Details:

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Project Supervisor Contact Details:

Anne Grey

anne.grey@aut.ac.nz

921 9999 ext 7231

Appendix B – Consent Form



Consent Form

For use when interviews are involved.

Project title: Parents and teachers perceptions of autistic children attending Montessori early childhood education

Project Supervisor: Anne Grey

Researcher: Robyn Janes

- ☐ I have read and understood the information provided about this research project in the Information Sheet dated 19 August 2013.
- ☐ I have had an opportunity to ask questions and to have them answered.
- ☐ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- ☐ I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- ☐ If I withdraw, I understand that all relevant information including tapes and transcripts, or parts thereof, will be destroyed.
- ☐ I agree to take part in this research.
- ☐ I wish to receive a copy of the report from the research (please tick one): Yes ☐ No ☐

Participant's signature:

Participant's name:

Participant's Contact Details (if appropriate):

.....
.....
.....
.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 19th August 2013

AUTEC Reference number: 13/188

Note: The Participant should retain a copy of this form

Appendix C – Assent Form

Consent and Release Form



Project title: Parents and teachers perceptions of autistic children attending Montessori early childhood education

Project Supervisor: Anne Grey

Researcher: Robyn Janes

- ☐ I have read and understood the information provided about this research project in the Information Sheet dated 19 August 2013.
- ☐ I have had an opportunity to ask questions and to have them answered.
- ☐ I understand that I may withdraw myself, my image, or any other information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- ☐ If I withdraw, I understand that all relevant information will be destroyed.
- ☐ I permit the researcher to use the audio recordings that are part of this project and/or any notes from them and any other reproductions or adaptations from them, either complete or in part, alone or in conjunction with any wording and/or notes solely and exclusively for educational and examination purposes.
- ☐ I understand that the audio recordings will be used for academic purposes only and will not be published in any form outside of this project without my written permission.
- ☐ I understand that any copyright material created by the interview sessions is deemed to be owned by the researcher and that I do not own copyright of any of the audio recordings.
- ☐ I agree to take part in this research.

Participant's signature:

Participant's name:

Participant's Contact Details (if appropriate):

.....
.....
.....

Date:

Approved by the Auckland University of Technology Ethics Committee on 19th August 2013
AUTEC Reference number: 13/188

Note: The Participant should retain a copy of this form.

Appendix D – Indicative Interview Questions

What is your experience with children with Autism?

Does the child suffer from social issues, language and communication problems or any sensory issues?

What is your perspective on Montessori early education?

Do you think that Montessori early education would complement children with Autism? If so, how?, If not, why not?

Is there anything else you would like to add?

Appendix E – Welcome to Holland

I am often asked to describe the experience of raising a child with a disability - to try to help people who have not shared that unique experience to understand it, to imagine how it would feel. It's like this.....

When you're going to have a baby, it's like planning a fabulous vacation trip - to Italy. You buy a bunch of guide books and make your wonderful plans. The Coliseum. The Michelangelo David. The gondolas in Venice. You may learn some handy phrases in Italian. It's all very exciting.

After months of eager anticipation, the day finally arrives. You pack your bags and off you go. Several hours later, the plane lands. The stewardess comes in and says, "Welcome to Holland."

"Holland?!?" you say. "What do you mean Holland?? I signed up for Italy! I'm supposed to be in Italy. All my life I've dreamed of going to Italy."

But there's been a change in the flight plan. They've landed in Holland and there you must stay.

The important thing is that they haven't taken you to a horrible, disgusting, filthy place, full of pestilence, famine and disease. It's just a different place.

So you must go out and buy new guide books. And you must learn a whole new language. And you will meet a whole new group of people you would never have met.

It's just a different place. It's slower-paced than Italy, less flashy than Italy. But after you've been there for a while and you catch your breath, you look around.... and you begin to notice that Holland has windmills....and Holland has tulips. Holland even has Rembrandts.

But everyone you know is busy coming and going from Italy... and they're all bragging about what a wonderful time they had there. And for the rest of your life, you will say "Yes, that's where I was supposed to go. That's what I had planned."

And the pain of that will never, ever, ever, ever go away... because the loss of that dream is a very very significant loss.

But... if you spend your life mourning the fact that you didn't get to Italy, you may never be free to enjoy the very special, the very lovely things ... about Holland.

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<http://www.our-kids.org/Archives/Holland.html>

retrieved 28th April 2013

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