

A Behavioural Approach to Developmental Art Therapy. A case study of utilizing this
approach with a young boy with Autism Spectrum Disorder

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Abstract

A Behavioural Approach to Developmental Art Therapy. A case study of utilizing this approach with a young boy with Autism Spectrum Disorder

Jade Powers

Autism Spectrum Disorder, a condition once thought to be rare, currently affects millions of people world wide. A “cure” for this illness currently does not exist, therefore making approaches to treatment and rehabilitation the most important considerations for families after diagnosis. This holistic narrative case study investigates and discusses the use of a behavioural approach to developmental art therapy as a therapeutic approach for a young child with Autism Spectrum Disorder (ASD). The current literature review investigates the causes, effects and the contemporary approaches available for treatment for children with autism, including the use of Applied Behavioural Analysis (ABA). The case study looks to describe and explore the melding of a behavioural approach, particularly the techniques and principles of ABA, with the use of developmental art therapy practice, as an approach to treatment for a child with autism. In this, it describes the work and therapy that transpired over a year and a half period with a twelve year old boy with autism utilizing this approach to therapy. The works of art created during the art therapy sessions are displayed and discussed as a way to illustrate the growth and development that occurred over the course of the therapy. The future potentiality of this approach for children with autism and its implications for art therapy practice are also investigated.

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A Behavioural Approach to Developmental Art Therapy. A case study of utilizing this approach with a young boy with Autism Spectrum Disorder

Introduction

Autism Spectrum Disorder (ASD) has become one of the most prevalent childhood disorders in this day and age, which effects every social class, every culture and continent throughout the globe. So much is still unknown about this debilitating disorder which affects young children in the first years of their life in three major areas of development; socialization, communication and play. Biological markers for diagnosis currently do not exist, where a diagnosis is based purely on observations of hallmark behaviours commonly associated with this illness. Causes and reasons for children acquiring such an affliction are currently being investigated, with no true or definitive leads at this point in time. All of this leaves many parents devastated and aimlessly hoping and yearning for a “cure”.

What is currently known is that at the present time, there is no “cure” per say for autism, making treatment approaches to therapy and rehabilitation the most important considerations after diagnosis. Not surprisingly, in the “absence of a cure” there are literally hundreds of therapeutic interventions, which claim to help children with autism to recover (Volkmar, 1999). While many therapies may claim to help children with autism, one therapy, that of Lovaas’ (1977, 1987) Applied Behavioural Analysis (ABA), has withstood the test of time and has come out on top as the most widely acknowledged and fundamentally affective approach to therapy for children with autism. Behavioural therapies, such as ABA, have often garnered misunderstanding and misinterpretation, primarily due to the history and controversy that has surrounded this type of therapy in

the past. Yet ABA has become one of the most respected, most efficient and worthwhile approaches to treating and working with young children with autism, because it works on teaching children with autism how to learn effectively.

Typically developing children learn about their world and build skills and abilities by imitating those around them. Children with autism generally do not possess this innate ability to imitate and to learn from their environment. ABA, which is based on the principles of learning theory and operant conditioning, looks to teach children with autism how to learn, particularly how to imitate, through the use of a multitude of prescribed techniques and procedures, aimed at promoting skill acquisition and growth. Tasks and skills are taught to children in a hierarchical nature, where skills are taught in succession as a way to build up a repertoire and strong skill based foundation. While ABA is a very effective therapeutic modality, many suggest that a multidisciplinary approach to therapy may be the most beneficial approach to treatment. A combination of professionals including Occupational therapists, Physio therapists, Speech Pathologists, and many others, all working together with the ultimate goal of rehabilitation seems to be the most optimal way to maximize a child's potential.

Art therapy is a relatively new profession in comparison to the traditional methods of treatment. Art therapy looks to work as a treatment modality through the use of art as the medium for healing. Art therapy has two camps of thought; "art psychotherapy" and "art as therapy". These two approaches to therapy are rooted in different theoretical ideologies dealing with how the art is used and the outcomes it produces. For the purposes of this project, the focus will be on "art as therapy" as the approach to art therapy. With this type of therapy, the creating of art and being with art materials

becomes the catalyst to therapeutic growth. Art can assist in self-expression, developing a sense of self-understanding and worth, and can be an outlet for those who have tried the conventional therapeutic modalities with little success. Many therapists utilize this type of therapy with individuals with developmental disabilities with incredible success.

This research project will look to explore and to discuss the use of developmental art therapy in combination with the principals and ideologies of ABA, as an alternative therapeutic choice for children with autism. A narrative case study will investigate and interpret the therapeutic work conducted over a year and a half with a twelve year old boy with autism utilizing this approach to therapy. This paper will describe the technique utilized in detail with images and narration to discuss how the approach was developed and implemented with this young child.

Overview of Literature

The literature surrounding Autism Spectrum Disorder (ASD), its causes, effects, and the available treatments is an area that is growing and developing every day. This disorder which was once thought of as a rare condition currently afflicts millions of people world wide and is at present ranked among one of the top most researched illnesses, alongside heart disease and cancer (National Alliance for Autism Research, 2005). This disorder is not isolated to only one area of the globe, it is a worldwide phenomenon. The magnitude of this disorder has been estimated to effect 1 child in every 166 births worldwide (Autism Society of America, 2006); a staggering revelation for a disorder that was once believed to have a “prevalence of around 2-4 per 10,000 children” only a short time ago (Wing & Potter, 2002, p. 151).

It was also believed that little could be done to save or to assist the “autistic” child, who no longer spoke or socialized with those around them. But today there are many effective and well documented treatment approaches, which have had great success with children with autism. None appear to be more effective at present than the methods of Applied Behavioural Analysis (ABA), an approach which looks to teach the child with autism how to learn. Along with many other effective treatment methodologies the use of art therapy as part of a treatment program has been identified as a potentially successful approach to therapy. Although the research is limited in this area, it seems as though it is a promising area in terms of providing an alternative learning tool and as an avenue for communication.

This is a review of the current literature as it pertains to Autism Spectrum Disorder, its history, characteristics, current research, potential causes, and treatment options and approaches.

Autism Spectrum Disorder

History

Autism Spectrum Disorder (ASD), a cognitive and neurodevelopmental syndrome which currently affects thousands of individuals worldwide, was brought to light in 1943, by German-born child psychiatrist, Leo Kanner (Bernard et al., 2001; Kanner, 1943; Sigman & Capps, 1997; Volkmar, Klin & Cohen, 1997; Wing & Potter, 2002). While working at John’s Hopkins’ University School of Medicine, Kanner (1943) published a ground breaking clinical depiction of eleven young children whom he believed had been born with a childhood psychosis, which he likened to schizophrenia. Kanner described children who he believed had been born without the innate need or desire to form

reciprocal relationships; something which typical children would do simply out of the necessity for survival. However, unlike his patients with childhood schizophrenia, these children were not departing from established relationships; these children had never formed relationships. Kanner went on to suggest that this group of children seemed to be satisfied to live in their own world with little to no contact with those around them, including their parents. Due to this peculiar behaviour, Kanner coined the term “early infantile autism” as a way to clinically define and characterize his young patients (Sigman & Capps, p. 3). The word “autism”, borrowed from Bleuler’s (1912) work with individuals with schizophrenia, literally translated meant to “escape from reality”, which was precisely how Kanner viewed this group of children (Volkmar et al., 1997, p. 11).

Kanner (1943) went on to discuss the repetitious and ritualistic behaviours the children often displayed, with particular attention on their “desire for sameness” (p. 249). A change in a child’s routine or an object placed in a new position could spark an uncontrollable tantrum or lead to self-injurious behaviour. Lack of language capabilities often compounded the situation, as the child was not able to verbally clarify the reasons behind, or for the behaviour. In fact, none of the children in Kanner’s group possessed any capacity for functional language. The children who could verbalize were considered to be echolalic, meaning they could repeat or memorize words, but that they truly did not possess the intent or function behind the sounds they made (Volkmar et al., 1997).

Kanner (1943) also illustrated skills that this group of children possessed that far exceeded their chronological age; for although this group of children scored extremely poorly on developmental assessments and would most likely have been diagnosed as “mentally retarded” or “feeble-minded”, many seemed to possess skills such as

memorization or mathematical deductions that could rival an adult (Kanner, p. 247).

However, when it came to following simple instructions, the task was often met with great difficulty. This separation of skill development was one more hallmark that differed this group of children from those who had been diagnosed with schizophrenia (Sigman & Capps, 1997; Volkmar, Klin & Cohen, 1997).

Diagnosis

It has been many years since Kanner (1943) introduced the world to “autism” and yet his research and descriptions of the children who were affected by this syndrome still holds strong in many ways. Autism Spectrum Disorder, the current clinical term for this syndrome, is presently categorized in the DSM-IV as a Pervasive Developmental Disorder (PDD) which has been noted to affect three major areas of development in those affected; including social relations, verbal and nonverbal communication and patterns of play (American Psychiatric Association, 1994). A diagnosis of this affliction according to the DSM-IV delineates that a child prior to the age of three exhibit at least six of the twelve behaviours distinct to autism. The criterion suggests that there needs to be at least two “qualitative impairments in social interaction”, at least one “qualitative impairment in communication” and at least one “restricted repetitive and stereotyped pattern of behavior, interest or activity” (American Psychiatric Association, p. 70-71). Since “biological markers” are currently not available as a means of diagnosis, it is the behaviours that a child exhibits that can distinguish a child with autism by as early as eighteen months of age (Hill & Frith, 2003; Hundert et al., 2001). Some studies have suggested that subtle signs of autism can be detected or noted in infants as young as 8

months, but that it is usually the lack of speech by the age of 3 or 4 that raises red flags and concern for parents and clinicians (NICHD, 2001).

Behaviours

Since autism is a disorder on a spectrum, symptoms and levels of ability can vary in intensity from “mild to severe” and can be drastically different from child to child (Hundert et al., 2001, p. 11). Behaviours which have been noted to be common amongst children with autism can include and are not limited to: delayed or absence of speech, repetitive and restricted stereotyped actions and movements, perseveration, little to no eye contact, obsessions, inappropriate attachment to objects, echolalia, inappropriate or spontaneous laughter, lack of play skills, hand or arm flapping, toe walking, unresponsiveness to verbal cues, complete rigidity, which often includes resistance to change in routines and many other behaviours unique to the individual with autism (American Psychiatric Association, 1994; Evans & Dubouski, 2001; Goldsmith, 1986; Henley, 1986; Hundert et al., 2001; Kornreich & Schimmel, 1991; Lamb, 2002; Lewis & Bodfish, 1998; Lovaas, 1993; Olney, 2000; Powers, 2000; Scanlon, 1993; Sigman & Capps, 1997; Wilson, 1977).

It has been well documented that many children with autism generally start out accomplishing developmental milestones on par with their peers, only to begin to lose their newly acquired skills and abilities around eighteen to twenty-four months of age (Lamb, 2002; Maurice, Green & Luce 1996; NICHD, 2001; Volkmar, Klin & Cohen, 1997; Wakefield et al., 1998). Children who had language suddenly lose their ability to communicate both verbally and non-verbally. Children, who once craved their mother's

attention, seem to revert into themselves and seek that solace that Kanner (1943) described, for reasons that are currently unknown.

It has also been suggested that approximately seventy-five percent of children with autism will also have an accompanying diagnosis of mental retardation which can also affect the severity and intensity of the behaviours a child can present with (American Psychiatric Association, 1994; Cowley, 2000; Hundert et al., 2001; Powers, 2000; Sigman & Capps, 1997).

Prevalence

Cases of autism in the United States have jumped “from 4 to 5 per 10,000 children in the early 1980’s” to “31.2 per 10,000 in 1997” (California Department of Developmental Services, 2003, p. 10; Haiken, 2004). It is currently believed that autism, which affects five times more males than females, will affect one child in every 500 births, making this illness more “common than Down syndrome or childhood cancer” (Cowley, 2000, p. 48; NICHD, 2001). It is currently unclear why the prevalence of autism is on the rise. Some believe like, Volkmar, et al. (2004) that this dramatic increase in diagnosed cases of autism is due to “changes in diagnostic practice, increased awareness of the disorder [and] earlier detection [methods]...” (p. 140), where as others such as Lamb (2002) believe that while the diagnostic tools have improved that there is a momentous increase in the number of children developing this affliction. Having said this, it is important to note that no one seems to know the true cause behind such a widespread worldwide syndrome (Hill & Frith, 2003).

Possible Causes

It was once believed that autism was caused due to insufficient and uncaring parenting, or what Bettelheim (1967) proposed as the “refrigerator mother” who was unloving and threatening to her youngster and thus causing them to revert into themselves for protection from the cruel world. Blaming the parent has long since been dismissed as a cause for autism, with current research and attention focusing on “genes, brain and mind and their interplay with environmental factors” (Hill & Frith, 2003, p. 2) with the “medical establishments [openly] acknowledging that some unknown environmental factors” such as viruses, may be involved in the cause of autism (Haiken, 2004, p. 110; NICHD, 2001). It has also been genetically found through the use of multiple twin studies, that there is a heritability factor for autism, which suggests that siblings of a child with autism are “36%” more likely to also be diagnosed with autism (Hill & Frith, p. 2). This has lead researchers to believe that there is in fact a genetic link for the cause of autism. In a recent study, Volkmar et al., (2004) suggested that the “vast majority of ASD [cases] arise on the basis of complex gene disposition” (p. 15). The NICHD (2001) suggested that potentially “as many as 10 or more genes on different chromosomes may be involved” in the cause of autism (p. 2). This could possibly help explain why only some children are affected by ASD and others are not.

Recently, non-genetic factors, such as immunizations, particularly the measles, mumps, rubella (MMR) booster shot, have emerged as a plausible cause for autism spectrum disorder. It is thought that through the courses of the 23 inoculations children under the age of two are required to take by law, that children develop mercury poisoning, “brain damage, gut inflammation and immune deficiency” (Haiken, 2004, p. 112) which manifest in autistic behaviours (Bernard et al., 2001; Cowley, 2000; Geier &

Geier, 2004; Hill & Frith, 2003; Volkmar, 2004). It has been widely noted that childhood vaccinations contained “thimerosal”, a mercury-based preservative (Bernard et al., 2001, p. 418; Geier & Geier, 2004; Volkmar et al., 1997; Volkmar et al., 2004). The idea is that children are exposed to high levels of neurotoxins which they are genetically unable to secrete from their bodies, unlike their healthy peers. As a result the poisons sit and cultivate in the intestinal tract and develop into a form of non-colitis symptoms (Wakefield et al., 1998). Many researchers suggest that children with autism are in fact displaying all of the classic symptoms of mercury poisoning, yet it is going undetected as such (Bernard et al., 2001; Cowley, 2000; Geier & Geier, 2004; Volkmar, 2004). Heightened concern has surrounded the Measles, Mumps, Rubella (MMR) booster shot which is typically administered to children around their first birthday. There have been numerous accounts of parents suggesting that their typically developing verbal child began to lose skills and verbal capabilities after they received their MMR shot (Lamb, 2002; Volkmar & Pauls, 2003; Wakefield et al., 1998). This theory also seems to coincide with the notion of typically developing infants losing their skills and abilities around 18 to 24 months of age which is the age when the course of legally required vaccination concludes.

However, it is important to note that not all children develop or have adverse effects to the immunizations and this may be where genetics becomes a factor. Due to the fact that ASD is a very complex disorder with no two children presenting in the same manner, current research and investigation into the many potential causes of autism remains ongoing. It may be years before we can truly understand the causes of this devastating disorder which affects so many.

Treatment Approaches

Knowing that there isn't a "cure" per se for ASD, treatment and interventions become paramount for individuals with autism. Over the years, numerous claims of "cures" for autism have materialized, with everything from bee sting therapy to exorcisms, which have had little to no success. Therapy is usually aimed at working on the "reduction of problem behaviours that interfere with learning and [the] fostering [of] growth in areas, including communication, cognition and self-help skills" (NICHD, 2001; Volkmar & Pauls, 2003, p. 1139). Some of the most popular interventions have included: behaviour modification, sensory integration, psychotherapy, holding therapy, play therapy, TEACCH, the use of medications, homeopathic remedies, nutritional food limiting and therapy as well as, creative arts therapies (Hundert et al., 2001; Lamb, 2002; Lovaas, 1987; Malchiodi, Kim & Choi, 2003; Maurice, 1993; Siegel, 1996; Volkmar & Pauls, 2003) While each of these therapeutic approaches has had some type of marginal success, many suggest that a multi-disciplinary approach to treatment is often the best route to take. Simpson (2001) describes children with autism as very complex individuals with deficits in "language, learning, sensory and behavior...in combination with their wide range of abilities...", which makes treating or working with individuals with autism an often "baffling" task to undertake as a clinician (p.68). Having said this, one approach has stood out as one of the most effective long-term treatment strategies; that of Applied Behavioural Analysis.

"Applied Behavioural Analysis is recognized as an essential and scientifically valid method of educating and managing [the behaviours of] children...with autism spectrum disorder...when used appropriately and consistently" (Simpson, 2001, p. 68).

Applied Behavioural Analysis

In 1987, Dr. Ivar Lovaas, clinical researcher at the University of California, published his research findings in the use of applied behavioural analysis (ABA) with young children with autism. Lovaas (1987) suggested that preschool aged children with autism, who received intensive one-on-one behavioural therapy for forty hours a week, could see a marked difference in behaviours and the severity of the autistic spectrum after two years of therapy (Hundert et al., 2001; Lovaas, 1987; Maurice, 1993; NICHD, 2001; Siegel, 1996; Volkmar & Pauls, 2003). Lovaas (1987) followed up with nineteen of the children in his study two years after treatment to find that nine of the children, who were now six years of age, had “achieved average or above average scores on individual intelligence tests and successfully completed grade one with no special assistance whatsoever” (Hundert et al., 2001, p. 7). Further follow up confirmed that the children of Lovaas’ research project, had maintained or had superior gains to their peers six years after the completion of the treatment (Hundert et al., 2001; McEachin, Smith & Lovaas, 1993).

It well known that typically developing children learn by imitating adults and their peers in their environment from a very young age (Maurice, 1993; Lovaas, 1987). The basic foundation of ABA is that children with autism do not learn like their typically developing counterparts. ABA looks to teach children with autism to learn how to learn (Volkmar & Pauls, 2003). What is interesting is that children with autism typically do not possess the spontaneous innate ability to imitate those around them (Evans & Dubouski, 2001; Goldsmith, 1986; Henley, 1986; Hundert et al., 2001; Kornreich & Schimmel, 1991; Lovaas, 1993; Maurice, 1993; Scanlon, 1993; Siegel, 1996; Wilson, 1977). A child

with autism typically needs to be taught how to imitate actions, behaviours or language in a highly structured manner. ABA focuses on teaching the child with autism the basic skills required to learn how to learn from their environment, by first teaching the child to imitate. In ABA, the use of discrete trial training (DTT) is utilized, an approach that looks to teach children in a sequential and developmental manner. The idea is to have the skills developmentally build upon one another to foster success and to build up a repertoire of understanding for the child.

Discrete trial training involves the breaking down of tasks into a series of manageable developmentally appropriate steps, which are taught over and over through the use of such techniques as: shaping, chaining, task analysis and modeling until the child is able to accomplish the task unassisted (Gabriels, 2003; Hundert et al., 2001; Lovaas, 1987; Maurice, 1993; Siegel, 1996). This is an involved process which takes often many trials for a child to acquire a skill. Each element of a task is broken down into an antecedent, “a cue or an instruction to the child”, the child’s response to the antecedent and the consequence of the child’s actions “delivered immediately after the response” (Hundert et al., 2001, p. 12). Consequence in ABA is delivered in the form of reinforcement, which can be a tangible item like a cookie or a toy or it can be through social praise like a high five or a tickle. Reinforcement is a “procedure of providing consequences for behaviour that increases or maintains the frequency of that behaviour” (Chance, 1998, p. 98). In ABA reinforcement is administered immediately after a behaviour so that the child first understands what is expected of them and also as a way to ensure that the desired behaviour is repeated. The objective is to “show the child benefits he cares about as quickly as possible...so that he finds his newly acquired

skill...to be a more efficient way of functioning than the behavior it replaced” (Siegel, 1996, p. 202). Throughout this intervention, prompts such as physical hand over hand prompting and verbal instructions are utilized by the therapist as a way to promote “errorless learning”, where the child is not able to make a mistake, but immediately shown via a physical prompt what is expected of them (Hundert et al., 2001, p. 16). This process is utilized to teach the child with autism in all domains of his or her life. This includes gross motor imitation, fine motor imitation, verbal imitation, self-help skills, academic skills, and any other areas of development relevant to that specific child (Hundert et al., 2001; Lovaas, 1987, 1993; Maurice, 1993).

Generalization of a skill is often a difficult area for children with autism to grasp. The issue is that children with autism tend to utilize cues within their learning environment as a way to learn a task (Hundert et al., 2001; Lovaas, 1987, 1993; Maurice, 1993, 1999). For example, a child may be able to acquire a skill with one therapist, but when the therapist switches with another, the child is no longer able to complete the task. This child is relying on the therapist as the cue for the correct response. This dimension of ABA is imperative to ensure that the child has truly learned the skill. In order to confidently say that a child has successfully mastered a skill, he or she must be able to demonstrate it “across stimuli..., across people...and across settings” (Hundert et al., 2001, p. 2). This is a complicated and often arduous task to complete, but necessary to ensure skill acquisition. Maintenance is often a very crucial element to ensure that a skill is not lost or forgotten.

ABA is a very strategic and highly structured form of therapy which utilizes many behavioural therapy strategies to teach individuals with autism how to effectively learn.

Targeted learning is evidence-based where outcomes are visible and measurable. The ABA therapist is responsible for recording valid information and discrete trial data as a way to track progress and missed attempts in the learning process. The main hope in ABA is to be able to capture a child's attention or interest for a moment as a means to introduce them to a whole new world of possibilities in learning and in reality. An ABA therapist must constantly think on her feet and be able to change, adapt and follow the lead of a child, as a way to collaboratively work with a child on their goals.

Early intervention is also a key element in this therapeutic approach, with current programming targeting children as young as 18 months of age to the age of six, as it has been suggested that a "child's brain is pliable, and there is a window of opportunity for recovery at a young age that diminishes as a child gets older" (Autism Canada, 2003, p.1; Hundert et al., 2001; Lovaas, 1987, 1993; Maurice, 1993; Siegel, 1996). That is not to say that an older child could not benefit from ABA, quite on the contrary, but it is saying that life changing therapy needs to begin as soon as possible if a child is to be able to function relatively successfully in the adult world.

ABA has received great criticism from time to time, in that people often believe that behavioural modification is invasive and that it makes children into mechanical robots. But, parents who have used this approach often view ABA in a very different light. Dr. Catherine Maurice (1993) penned a book recounting the recovery of her two children utilizing ABA as a therapeutic method. Maurice discusses the regression of her typically developing children and the routes she needed to take in order to find a therapy that would help to bring her children back. Maurice believes that ABA is "not some dehumanizing control of people through a cynical manipulation of rewards and

punishments, but rather a rational, empirical exploration of conduct,..., that [is] able to predict certain probabilities of behaviour, based on certain laws of learning” (1999, p. 2). Maurice has since gone on to develop programs rooted in ABA to work with children with autism, such as *Behavioural interventions for young children with autism: A manual for parents and professionals* (1996) which outlines developmental stages and ABA programs to implement with young children with autism.

The work of Ivar Lovaas was paramount in the foundation of a therapy that works to teach children with autism to learn. His work has been amended and built on to develop the various forms of ABA which are going on in therapy rooms around the world today.

Art Therapy

Art therapy, an approach which has been around since the 1930's, looks to reach and to work with individuals through the use of art, art materials and its many applications. In this discipline, there are two streams of theory which guide the practice. The first theoretical basis looks to art as an approach to psychotherapy, whereby the therapist and the artist use the art and the process to understand and to uncover the issues or concerns in a person's life at an unconscious level. The second theoretical camp, 'art as therapy', views the doing of art as the therapeutic approach, where the process of being involved with the art materials and creating works of art, is in itself therapeutic on many levels. This paper will focus on 'art as therapy' when referring to the practice of art therapy.

Since art, in its many forms and as a therapeutic process utilizes a language that does not require words, can be a vital way to reach individuals who seem to be

unreachable, particularly individuals with disabilities or those who have little to no verbal capabilities, as the art will often speak for itself.

“It has been almost four decades since Viktor Lowenfeld first expressed his conviction that it is our therapeutic and educational responsibility to bring to fruition the full creative potential of all individuals regardless of the severity of their disabilities” (Henley, 1986, p. 67). Art can be seen as an alternative avenue for nurturing creative potential, building self-esteem and allowing a space for self-expression, particularly for those who have attempted the conventional methods of talk therapy and have found little success (Evans & Dubouski, 2001; Goldsmith, 1986; Henley, 1986; Kornreich & Schimmel, 1991; Rees, 1998; Rubin, 1987; Stott & Males, 1984; Williams & Wood, 1977; Wilson, 1977). It is not necessarily the end product or the piece of artwork created during the therapy session that holds the therapeutic value; it is in fact the process and the exploration of self, through the use of the art mediums, which is most important. The art will often evoke feelings, sensations and understandings that may not be possible in conventional therapeutic modalities. Several therapists have attempted to use this form of art therapy with clients with disabilities with great success.

Roth (1987) developed a guided art therapy technique based on Skinner’s (1953) principles of behavioural therapy to work with and to assist individuals with developmental disabilities. Roth’s directive technique of “reality shaping” looks to teach individuals how to conceptualize and internalize schemas through the use of operant conditioning, modeling, shaping, prompting and positive reinforcement. Roth utilizes “complex two- and three- dimensional models” to help clients conceptualize the necessary elements required to create real world images in their artworks (p. 218).

Throughout this process of reality shaping, Roth has found that not only does the child generally succeed in creating what they had set out to create, but that the child begins to incorporate other themes into their work as well. Through this process, the clients are “led step by step to visually conceive more and more of their world. As they master stages of conception, they also acquire a belief in their own worth...” and abilities (Crawford, 1962, p. 68).

Roth used reality shaping to successfully teach a seven-year-old girl with developmental disabilities to draw a human figure; a task which was extremely difficult for this child to grasp prior to her therapy sessions with Roth. Roth has suggested that if a client is taught step by step through the use of a visual model of a concept, that the individual will eventually assimilate the process of what has been taught and will be able to make their own schema of how to create it on their own. This is a building steps model that helps a person to observe their world and to learn it in a way that works for them.

Scanlon (1993) an art therapist who also works with children with disabilities believes that behaviour modification is often the best approach to maximize the success of children who are on the autistic spectrum. Scanlon suggests that it is important to understand the stages of development in children’s drawings in order to gauge what stage of development a child is in during therapy. By having this knowledge, Scanlon states that the art therapist can present only the materials and activities that are developmentally appropriate for that child, thus making the experience more successful. Scanlon also believes that the therapist must take an active role, much like what Roth (1987) has described, in order for that child to fully internalize and comprehending the art therapy process.

Malchiodi, Kim & Choi (2003) have also discussed the importance of gauging a child's level of artistic development as a way to devise a more effective plan of treatment and to set up expectations of what the client is able to achieve. Malchiodi (2003) has developed a complete overview of the developmental stages of children's drawings based on previous work in the area of child art development. Malchiodi's stages of artistic expression draws on the works of Lowenfeld & Brittain (1987), Gardner (1980), Kellogg (1969) and Winner (1982). Malchiodi's stages "provide therapists not only [with] a method of evaluating development [by looking at formal elements in children's drawings] but also [a set of] norms for establishing goals for treatment based on the rich foundation of artistic development" (p. 104). By having this information about a child, a therapist can in essence plan to work at that child's level and can better anticipate where and how the child should grow developmentally.

Williams & Wood (1977) also believe this is the best approach to working with young children in general, but especially imperative when working with children with developmental disabilities. A child with a disability may be five years old chronologically, but may only be at a beginning stage in the art process. By understanding where a child is developmentally, the therapist can decide how to best assist their young client. Williams & Wood, look to art as a way to foster development in the realms of acquisition of skills and personal growth overall. They believe that the therapist who knows what developmental level to work at with a child will understand and acknowledge the expectations and will be more successful in assisting their clients to achieve their goals.

Stott & Males (1984) discuss the level of involvement of the art therapist and have suggested that involvement depends on the developmental level of the client. They feel that some clients may require a more directive hands-on approach, especially if the client is unable to spontaneously create or if the client requires assistance in focusing on the task at hand. Involvement can include verbal instructions, or working beside the client. Positive reinforcement is also a component that Stott & Males believe has a huge impact on encouraging the client to continue to attempt to try new materials and skills as well as to foster self-expression.

Art therapist, Henley (1986) believes that art therapists must be able to provide meaningful experiences within the therapeutic setting as a way to capture and involve the client in the therapeutic process. To do this, Henley suggests that sometimes it is necessary to have structure and a definite plan of action in order to ensure that the client is maximizing their potential. Henley believes that every person is innately creative and that it is up to the therapist to provide an environment and level of understanding that allows for creativity to occur. In the article, *Approaching artistic sublimation in low-functioning adults*, Henley discusses the approach he used with a client, Robert, a young man born with Down's syndrome. Henley discussed how Robert was artistically gifted, but that he would habitually perseverate and draw ritualistic patterns every time he picked up a writing tool. Henley discussed the necessity for intervention, structure and for hands-on prompting as a way to help Robert progress with his visual representations and developmentally. Henley suggests that at times it is often necessary for the therapist to intervene and direct the client's work as a way to break from stereotypical behaviour and to promote growth as a way to help the "stuck" client to become "unstuck".

Wilson (1977) used an approach quite similar to Henley's (1987) to work with her client, Elena, a young woman with "severe mental retardation". Elena's artworks could be described as "an endless, unvarying repetition" of circles with radiated lines through it. Wilson's goal with Elena was to help her to expand her "visual vocabulary" by working beside and with her on creating new forms using the circles she so perseverated on.

Through this hands-on approach to expanding her client's repertoire, Wilson introduced her client to new forms of art, such as clay, which seemed to really help Elena to understand and develop her artistic skill level. After two years of therapy, Elena progressed to include new shapes and figures into her repertoire of art competencies.

The approaches to art therapy which seem to work best with individuals with disabilities appears to be those which look to assist the client by working developmentally and through the use of hands on instruction. Art therapists who work with children with disabilities will often have to take on several roles during the therapeutic process; that of an artist, a teacher and of a therapist interchangeably as a way to assist the client in achieving their therapeutic potential (Banks, Davis, Howard & McLaughlin, 1993; Evans & Dubouski, 2001; Goldsmith, 1986; Henley, 1986; Kornreich & Schimmel, 1991; Kramer, 1977; Roth, 1987; Williams & Wood, 1977; Wilson, 1977). Clients will often be very apprehensive about attempting to work with art materials due to feelings of insecurity in their own work and the fear that they will be unsuccessful. However, by the art therapist putting themselves in various roles during the therapy sessions and by working with the client, it is hoped that the client will be open to express themselves in what ever form they choose it to be in. It is important to recognize that

guidance on the part of the therapist could and should assist the client in attempting to try to create what they may not have thought was possible.

Study Rationale

Research Methodology

For this research project, a holistic descriptive case study is used to express and to outline the phenomenon that occurred during the art therapy sessions with client/participant, Christopher. A holistic case study looks to explore all of the evidence and material collected during the research phase of a project (Harling, 2006; Schwandt, 2001). It does not look to break the research down; instead it prefers to examine the research materials in its entirety (Colorado State University, 2006; Harling, 2006). Yin (1989) suggests that a case study be used when the researcher wants to find out the how and the why of a subject matter. Yin furthers this suggestion where a case study can be especially useful when the researcher has little control over the events that are occurring during the research.

Case studies have historically been used in the fields of anthropology, sociology, psychology, education and social work, as a way to discuss and report on experiences with phenomena encountered in field work (Stake, 1995). The role of the case study is not to generalize findings to populations, but it is to present the phenomenon or experience to the community. Davey (2006) describes a case study as a “systematic way of looking at what is happening, collecting data, analyzing data and reporting the results” (p. 1). Others have described a case study as a simple narrative of events that have occurred (Colorado State University, 2006; Davey, 2006; Schwandt, 2001; Simon, 1969; Stake, 1995).

When I looked to all of the work that had been done with Christopher, I soon realized that it would not be a simple story to tell. At the conclusion of the art therapy sessions with Christopher, I had over 400 pieces of artwork and images that he and I had created during our time together. A holistic case study became the logical means to discuss all of what had transpired in its entirety. I felt that it was extremely important for the reader to see where Christopher had started and where he was at the end of the longitudinal study. Moreover, I wanted others to hear his story and I felt that a narrative case study would be the most appropriate way to illustrate the work that had transpired and as a way to see how Christopher developed and matured over the year and a half that he and I worked together.

While I was working in Christopher's class, I had the opportunity not only to work with him, but with his five other classmates. Each child required a slightly different approach or different technique to achieve a therapeutic alliance. Each child amassed an incredible amount of art and artworks, but with Christopher, there was a connection to the materials and to me, as a therapist, that made me chose him as my research subject. Every child that I worked with at Christopher's school, developed and matured over the course of therapy, but Christopher took his learning to another level. As you will see he was a fascinating individual on so many levels and one that I felt the world needed to be introduced to.

Theoretical orientation

My theoretical orientation has been influenced and developed by researching and interpreting many theorists and models of working with children with disabilities. First and foremost, my approach has been deeply rooted in the work of Dr. Ivar Lovaas and his

research findings into the use of Applied Behavioral Analysis (ABA) for working with young children with autism. I have also been influenced by the work of art therapist, Ellen Roth (1987) who utilized “reality shaping”; an approach based on the behavioural principles and concepts of B.F. Skinner, as a way to work with individuals with disabilities. The work of Malchiodi (2003) and her “Stages of artistic expression” has also impacted my theoretical focus, with an integrated developmental model based on the culmination of the works of Lowenfeld & Brittain (1987), Gardner (1980), Kellogg (1969), and Winner (1982) for working with children. The work of these therapists has influenced me to develop a method that looks to meld their concepts, theories and approaches into a therapeutic approach to working with children with autism. These concepts will be described in more detail in the case study portion of this paper.

Therapeutic Approach

My conception begins with first understanding the developmental artistic level of the child through the use of observation and by having the child draw freely. I believe that once I am able to comprehend the level of development of the child, that through the guidance of the work of Malchiodi (2003), I can then set appropriate and obtainable developmental goals for that child. This will also help me to appreciate the possible and appropriate developmental gains I could potentially expect with this child. After this has been established, I can then utilize the principles of behavioural therapy including the work of Lovaas (1987) and his concepts of ABA and the use of discrete trial teaching methodology, as well as to incorporate the behavioural techniques for art therapy created by Roth (1987). These therapists and their contributions to this project will ultimately be discussed in more depth in the case study.

The hope is that by breaking concepts down into manageable steps and by providing modeling, shaping, and prompting, that the child will be able to learn schemas for imagery, which will enhance the child's ability to acquire new skills and thus assist them in progressing through the developmental stages of art. The use of positive reinforcement is an essential ingredient in this process, which I feel encourages the child to continue and assists in developing a therapeutic alliance.

Research Question and Goal

My primary research question for this project was to investigate whether the principles of Applied Behavioural Analysis (ABA) could be combined with the concepts and principles of developmental art therapy to work with and to assist children with autism spectrum disorder. The hope was that by melding these therapeutic milieus into one approach that it would help children with autism to expand artistic repertoires, increase spontaneity and promote artistic autonomy. The hope was that by assisting the child in progressing through the levels of artistic development and expression that it would in turn promote artistic autonomy, by which the child now armed with many artistic schemas, could incorporate what he or she has learned into works they could create unassisted.

I utilized this behavioural approach to art therapy with a twelve year old boy named Christopher (the name has been changed to protect confidentiality) over the course of a 12 month period. This is a case study outlining the therapeutic journey that I took with Christopher.

The setting: A specialized educational environment

The education of children with disabilities, including children with Autism Spectrum Disorder (ASD) has evolved from the days when children were institutionalized and taken from their families (Provincial Health Ethics Network, 2001), into an enriching environment which looks to foster strengths by providing children with integrated experiences that focus on developing skills and abilities in all realms of education. The idea is to concentrate on the strengths of a child as a means to develop programs and strategies for helping a child to succeed in their educational endeavors. These days, parents are encouraged to be active participants in their child's learning process. The day school within which this case study was carried out, took this perspective to heart for educating all of its pupils.

The arts-based public elementary school, located in a large Canadian city, encouraged its students to maximize their educational potential by allowing the children to learn at their own pace and in their own way. This concept was further developed with the establishment of two classrooms specifically allocated and staffed with specialized teachers, for children diagnosed with Pervasive Developmental Disorder (PDD). The classrooms serviced children based on their age, where one classroom was designated for younger children between the ages of four to seven, while the other was for older children, ages eight to thirteen. Allocation into these specialized classrooms followed a process by which social service agencies, and hospitals made referrals to the special educational coordinator, who then submitted an application to the school Principal, in the hopes that a space would be available in one of two classrooms, as space was extremely limited in these specialized learning environments.

To ensure one-on-one attention and specialized learning, class size was kept to a minimum. The younger classroom maintained a student to teacher ratio of 9:3 where the children typically remained until they were about seven years of age. Children then proceeded to the older classroom, where the student to teacher ratio was 6:2. Children generally stayed for four years in this specialized classroom environment, after which they proceeded on to a high school setting.

This case study was carried out in the classroom designated for older children. During the course of the case study, the group consisted of six boys between the ages of eight and thirteen, who had all been diagnosed with some form of Pervasive Developmental Disorder (PDD). Due to the nature of this disorder, the children's levels of ability and cognition varied greatly. The teacher of the classroom had a specialized background in special education and Adlerian Psychology and he utilized an interesting approach with his students. A specialized educational aid was also an integral and highly valued member of this class. The philosophy of the classroom looked to offer a sense of freedom, in what would usually be a structured and regimented environment. It was understood that the children had work that needed to be accomplished daily, but it was known that the child could complete his work at his own pace and in his own time. The absence of a formal structure in the classroom seemed to encourage autonomy and growth in a way that was very unlike most typical classroom settings. The children received one-on-one attention throughout the course of the day, as required, but generally the children were able to function at a level of individualized independent study quite comfortably. The atmosphere seemed to have bred responsibility, respect and harmony within what one might consider an unlikely group of children.

The classroom teacher requested an art therapy student for the classroom, in the hopes that this therapeutic milieu would be beneficial for all its class members. The teacher had an incredible understanding of the therapeutic value of art and recognized the potentiality this type of therapy could have with children with autism. This attitude made my transition into the classroom a welcoming experience. His goal was to provide the children with the opportunity to grow and to explore through the use of artistic mediums. Art was already a major component of the classroom environment. He hoped that individualized and group therapeutic art sessions would enhance the learning and educational possibilities for his students. The teacher requested that the approach be based on the concept of “art as therapy”, as he felt that a psychotherapeutic approach to art therapy would not be an appropriate avenue to take with this particular group of children. Art therapy began in the classroom in January 2003 and continued until mid-April 2004, where Christopher had both individual and group art therapy sessions two to three times a week.

Limitations

Due to the lack of space within Christopher’s school, it was not possible to provide a private space in which to conduct art therapy sessions. As a result, sessions were conducted within the classroom space. This was a reality that was worked around in order to be able to provide services to this group of children. Providing therapy within the classroom was often both a hindrance, as well as an often interesting avenue for growth.

In working as both the researcher and the therapist on this project, I really had to constantly question my role and my capacity as a researcher. Verschuren (2003) questions “the researcher’s independence of [her] results...because the researcher plays

[such] an interactive role [in their project] instead of acting at a distance” (p. 122). This was definitely something I had to be completely vigilant of in terms of my role and the impact I could potentially have on the study. I had to be sure that I was not guiding the research and making it into something that I wanted it to be.

I did make interventions that had an impact and I did introduce materials that were of great interest to Chris, but I was also independent from Christopher; of his initiative and his drive. Chris was very much his own person and one who did what he wanted to do. He may have been open to suggestions and my attempts to teach him new skills, but he was the one who took hold of the process and forged ahead on a path that I could not have foreseen, predicted or forced. I was merely a guide in this entire process. As you will see from the case study, Christopher was the one in charge of the change and of the development that took place during our therapy sessions together.

Research

Data Collection

Data was collected in the form of artwork creations created by both the client and of my own models and case notes I wrote for each session conducted. The case notes included details on the methods and approaches utilized with the client, as well as documented information on how the artwork was created. The artworks were stored in folders created by each child and placed in an area within the classroom where the children and others did not have access. Each image or creation was numbered, labeled and photographed, with a description of what occurred during the session, recorded through observation, questioning and the approach utilized during that session. Verbalizations of the client were also documented; especially for those client’s who had

little to no verbalizations. All of the artwork created during the art therapy sessions were kept stored until the end of the therapy sessions, after which time, the child was able to take the pieces home. My models were also collected as a way to graphically show the approach that I have used with the child and also as a means to describe the successive use of the model as a therapeutic intervention when in comparison to the work of the client.

Data Analysis

The data for this research project was analyzed in two related ways. First the client's work was evaluated based on the criteria set forth by Malchiodi (2003) and her "Stages of Artistic Expression" (p.96-97), as a way to gauge the developmental level of the client and to appropriately develop interventions and approaches to treatment. This was done through observation and by focusing on the elements in the client's artwork. At the end of therapy, the data, a collection of images and works of art, were assembled and viewed on a comparative basis to see if there had been development and/or transformation in the artworks over the course of the art therapy sessions. Malchiodi's stages were be utilized again to assess the level of development the client ends in at the conclusion of therapy.

Ethical Considerations

In conducting research with human subjects, ethics and considerations therein become an area that requires careful contemplation, especially when working with a minor child as a research subject. It has been said that "free and informed consent is widely acknowledged to be at the core of the ethical treatment of human participants in psychological research" (Smythe & Murray, 2000, p. 312). Before any work began with

Christopher, it was imperative that informed consent be obtained from his legal guardian, his mother. A package containing information about the purpose of the research project, the method/procedure to be used in therapy, the goals and hopes from such a project, as well as the potential risks involved in the study were all provided to the parent so that she could make an informed decision as to whether her son would participate in the study or not. Christopher's mother was also informed that it was only under a voluntary agreement that Christopher be part of the study and that she was free to withdraw him at any time from the study for any reason without fear of loss of privilege of the art therapy sessions. After written consent was obtained, I continued to inform Christopher's mother of his progress and had a number of meetings with her, as a way to help me to put the pieces of what I was seeing in his artworks together.

Confidentiality was also an area that I wanted to ensure was maintained throughout the course of telling Christopher's story. "Confidentiality entails the researcher's promise that [all] personal and identifying information collected from research participants will be kept private" (Smythe & Murray, 2000, p. 314). In order to ensure confidentiality in this research project, all names and pertinent information have been changed to pseudonyms, as a way to protect those involved in this study. The geographic location, as well as, the location of the research will remain anonymous, also to protect the client. Any identifying graphic imagery and the name of the child was removed from all images to protect anonymity.

During educational supervision, a pseudonym was given and confidentiality was maintained with visual imagery by covering the child's name over with paper during presentation of materials to my fellow students.

I feel that I have taken every possible precaution to ensure that confidentiality is maintained and upheld in this research project.

Reflexivity

Reflexivity asks the researcher to look at the ways in which their own beliefs, involvement and experiences impact and informs their research (Nightingale & Cromby, 1999). This was something that I truly thought a lot about while conducting therapy and research with Christopher. In all honesty, my belief system, personal work experience and my background completely impacted the therapy I provided, the type of research and project I chose to work on.

For a number of years prior to my work with Christopher, I had the opportunity to work as an instructional therapist with preschool aged children with autism. During this time, I was trained and had developed an awareness for the use of Applied Behavioural Analysis, as a way to work with children with autism. Prior to this, I had worked with older adults with various disabilities, including many with autism, where different forms of therapy were utilized, most often unsuccessfully. Behaviours of individuals with autism can often be unexpected or stagnant, but with the children I worked with using ABA as a teaching method, I saw the children grow and develop in ways that I had never imagined. This became my bias for working with children with autism. I had seen this approach work so well, with many different children of various levels and abilities that I wanted to try it in conjunction with art therapy to see the potential results. As I had mentioned, I had the chance to work with all of Christopher's classmates during my time at his school and I utilized different therapeutic milieus depending on the needs of the child. With Christopher, I used this approach of melding ABA and art therapy into a

therapeutic approach that looked to help him learn, grow and to expand in ways that I could not have anticipated or predicted. My beliefs and experience in this realm definitely impacted the approach and techniques I applied to the therapy and the research I chose to conduct.

When I first began my work in Christopher's class, I wasn't sure of what type of research methodology I wanted to use with this research project. My allegiance had always been rooted in the empirical use of the quantitative research methodology, with its use of quantified data and the availability to generalize. However, knowing that I was a therapist conducting the research and using art and therapy as my phenomenon, I soon found that a quantitative methodology would not work with my sample and the type of research I was conducting. Knowing this, I carried all of the concerns any researcher has about their work and the validity of it, especially with all of the controversy that surrounds a qualitative research piece; that "qualitative methods are generally less compelling and less controllable" (Verschuren, 2003, p. 127) and far less respected than a quantitative approach to research. One source I found suggested that "the case study has long been stereotyped as the weak sibling among the social science methods" (Columbia State University, 2006). This was something that I was concerned about. I wanted my work to be valid and validated. I wanted it to be useful and worthy, but I was unsure how a qualitative case study would represent all that had been accomplished with this wonderful young child.

My next concern was that not only was I the researcher on this project but I was also the only therapist involved in the study. In my dual role, I constantly asked myself if I was driving the changes I was seeing in Christopher. I wondered if I was shaping the

research project into something that I wanted it to be. I constantly second guessed myself and asked if my findings were adequate and/or true or credible (Lincoln & Guba, 1985). These were all very valid concerns and questions a qualitative researcher would ask them him/herself. I could not help but think that if I had been doing a quantitative project, I never would have had these thoughts; the numbers and information would have spoken for itself. Having been a quantitative researcher as part of my job as an ABA therapist, I knew just by looking at the numbers that the child had acquired skills and I could visually see in graphs how far the child had come. But with the qualitative research methodology, I was relying on what I was seeing and recording during the therapy sessions.

When I actually sat down and thought about it, I realized that I did have data that was describing what I was seeing, Christopher's artwork. It really was tangible proof that could not be disputed when organized and viewed as a whole. Visual differences in his style and form can be noted through a comparative analysis of his work from when we started to where we ended our therapy sessions. Based on the use and work of Malchiodi (2003), I had a guide to assist me in this deliberation of his acquisition. It was not just me saying that this was happening; it was a graphically vivid depiction of change and growth over a year and a half period. Verschuren (2003) stated that a qualitative researcher must rely on "logical inference instead of statistical inference" (p.135), which I feel is often an easy thing to dispute. But in the light of actual and tangible work, I felt a bit more confident in my findings of this study. It was not the quantitative project I would have liked to have done, but I feel that this assists in adding an element of quantification that I can justify and utilize in my case study. I also realized that numbers can simplify the

complexity of a lived experience and by presenting a qualitative case study, the richness of Christopher emerges.

This research project is not looking to be generalized across the population of children with autism. I am not looking for this approach to therapy to be used with every child with autism. I am well aware of the limitations a qualitative research project holds. But what qualitative research does do is it looks to generate the need or desire for more knowledge and a deeper understanding of phenomenon (Stake, 1995). It looks to set up scenarios or hypotheses that require further testing and investigation (Colorado State University, 2006; Davey, 2006; Stake, 1995; Verschuren, 2003). It looks to be disputed and deliberated. With this case study, I hope to generate interest and awareness into alternative uses for art therapy and to address how different theoretical perspectives can be worthy advocates in therapy when used correctly.

Case Study

Christopher

Christopher was a twelve-year-old Caucasian boy who was diagnosed with PDD, particularly ASD at the age of two. While he was involved in art therapy, Chris was living at home with his mother, older brother, Michael and a cat named Fluff. Chris' mother was an extremely committed and deeply involved parent, who requested that everyone treat Chris as if he was just a "regular kid". She did not want him to receive any sort of special treatment simply because he had a diagnosis of autism.

At home, Chris was encouraged by his mother and brother to learn about his world by being a part of it and through the course of making mistakes and living life. Due to his mother's outlook and persistence, Christopher was able to cook, clean, to grocery

shop and many other tasks children his age were able to accomplish. It seemed that the persistence, teachings and philosophy of his mother made Christopher into a child who was not limited by his disability. He demonstrated skills that were developmentally appropriate and ahead of many of the members of his classroom setting. Chris presented as a very independent, well-mannered, fun loving child who was a joy to be around.

Christopher's older brother, Michael (the name has been changed to protect confidentiality), was a very important role model and person in Chris' life. According to Christopher's mother, the relationship between the two brothers developed rapidly in a very short period of time. Christopher had begun to take a greater interest in Michael and wanted to be a part of his world. Over the year that Chris was in art therapy, he and Michael spent a lot more quality time together, playing video games and watching wrestling. Chris would come into class saying his brother's name in relation to the works of art he created at the art therapy table. Mike became a huge part of Chris' life, and this became quite evident in our art therapy sessions.

At the beginning of the art therapy sessions (January 2003), vocalizations from Christopher could be described as echolalic, where he would often repeat sounds or sporadically utter words, such as "batman"; words which did not seem to carry a communicative basis behind it. Communication was frequently difficult for Chris, where it would be necessary for me to ask him a multitude of questions hoping that he would provide me with a "yes" or a "no" answer, or a physical prompt to his request. Christopher would often become visually frustrated with this process and it became necessary to have a wide variety of materials available for him to work with as a means to avoid this type of confrontation and frustration.

In the fall of 2003, it seemed that Christopher had found his voice. When he returned to school after summer vacation, he was able to clearly and distinctly verbalize the majority of his wants and needs within his classroom. For the first time, Chris was able to unmistakably and audibly ask me for “paint” and his vocabulary seemed to grow and become more comprehensible over a very short period of time. Occasionally it was still difficult for me to fully understand all of Chris’ verbalizations, but I felt that this could perhaps be related to the underdeveloped facial muscles responsible for speech rather than from lack of trying on Chris’ part. At the age of 12, Christopher had very little speech. In speaking with the Speech Pathologist at Christopher’s school, it appeared that the muscles in his face which are responsible for speech had not been used regularly and thus, were weak to the point where the strength was not there for fully capable communicative speech. He was attempting to converse with those around him, but the lack of tone and strength in his speech structure was just not available to Chris at that time. Having said that, Christopher was able to communicate with his teachers and his peers on a level that those around him could comprehend and this made a huge difference in his behaviour and attitude towards school. No longer did Chris have to act out as a way to have his needs met. He could simply ask for what he wanted.

Symptoms of autism can vary amongst individuals, but the literature often discusses the “desire for sameness” as a major hallmark of autism. This was a characteristic that Christopher displayed in many forms. Chris’ mother described him as a “creature of habit”, who was ruled by order and routine. In speaking with his mother, she discussed Chris’ desire to have order with regards to a collection of figurines and objects within his home environment. His mother stated that Chris could immediately recognize

if anyone had touched or moved his figures and he would become quite upset if anything was moved out of its designated place. Chris' mother also mentioned that Christopher was very particular about the clothing he wore. I had noticed that he would routinely wear the same pair of green pants, but I did not realize the significance of what I was seeing. His mother said that he would refuse to wear anything other than this particular pair of pants. To accommodate this desire and to reduce stress and frustrations in the morning, Chris' mother would wash the pants every evening so that he could wear them to school the next morning. Perseveration and routine were a huge part of Christopher's life and this became clearly evident within the art therapy sessions.

Prior Therapy

When Christopher was diagnosed with autism at the age of two, he was immediately enrolled in a specialized day program for children at a local psychiatric hospital. Chris remained in the program until he was six years of age. It was suggested at that time by the hospital staff and recounted to me by Chris' mother, that Chris would most likely never have functional verbal language capabilities in his lifetime. His mother was also told that he had a significant learning disability and would probably not succeed in the public school system, as he was "stubborn" and "unwilling" to learn.

At the age of six, Christopher was enrolled in the public school system and was placed in the classroom designated for young children with autism. At that time, Chris did not have the ability to verbalize and would often exhibit defiant acting out and stereotypic behaviours in the classroom. It was again suggested to Chris' mother that he not be placed within the public school system. With his mother's perseverance,

Christopher remained in the classroom for two years, but he had very little noticeable educational growth.

At the age of eight, Chris moved into the classroom for older children with autism. At that point, Chris still had very little verbal communication and he continued to exhibit physically aggressive stereotypic behaviours. There were instances of incontinence and acting out behaviour for the first year and a half that Chris was in this new classroom. During this time, Christopher had very limited educational developments. He was unable to read, to write, to do simple mathematics. He had great difficulty with problem solving, he was unable to copy off the board and he could not draw.

When I met Christopher, he had been in his classroom for almost three years. His teacher told me that his learning had recently begun to increase. He was able to count, to copy words off the board, and to do simple addition. He had begun to take an interest in drawing and had begun to verbalize sporadically. It was suggested by Chris' teacher that he had the ability to comprehend the majority of what was being said to him and asked of him, though he possessed a limited reciprocal vocabulary. His teacher believed that Chris had the ability to learn; it just seemed that his developmental gains took longer for him to acquire.

Beginning Diagnosis and Clinical Impressions

Since the diagnosis of autism is based solely on the behaviours one presents with, Christopher displayed a number of behaviours commonly associated with children with autism, including: little to no verbalizations, toe walking, echolalia, visual tracking of objects, verbal prosody (sing-song voice), adherence to routine and perseveration. Having said this, it is important to note that Christopher revealed a number of qualities that were

not typical, with the literature on children with ASD. Chris had incredible eye contact and a strong desire to be around people. He was able to understand and complete verbal instructions, and to form significant relationships with his peers, teachers and family members. He was extremely creative and had the ability to play spontaneously and without prompting. He had a great sense of humour and truly understood a good joke. A diagnosis of autism was made by a medical practitioner based on the constellation of these behaviours.

Goals for working with Christopher

Denzin & Lincoln (1994) suggest that the inner workings of conducting qualitative research will take the researcher where ever the data takes him or her. A researcher's experiences, background and theoretical orientation will shape the research, but in the end it is the participants and the phenomena observed that will make the research. When I began my work in Christopher's classroom, I went in knowing that I wanted to let the children lead the therapy and that I wanted it to be both an enriching and fun experience for all those involved.

In the beginning of therapy with Christopher (January 2003), the goals for therapy were set forth by his classroom teacher. The goals were to provide Chris with the opportunity to create art as a means to foster self-expression and self-exploration. For a child who was unable to fully verbalize his wants, needs and desires, it was hoped that the art therapy sessions could provide Christopher with an outlet or an avenue for free expression. I also hoped that through this process that self-esteem and self-worth could be nurtured and developed in a safe and client-directed atmosphere. When I began working with Christopher, my approach for our therapy sessions was based on the ideologies of

art as therapy, whereby creating the art would be the therapeutic process. At that time, Christopher had only just started to enjoy drawing and exploring art mediums. He had had little exposure to the materials and was still a bit apprehensive about the process.

Once I had begun to work with Christopher, the goals and my approach to therapy began to change and develop rapidly. Henley (1986) an art therapist, stated that he feels that every person is innately creative and has the ability in them and that as an art therapist that it is our duty to create an environment or a space that allows for this internal creativity to foster and develop. This inspired me to change my direction and outlook with Chris. I could see the potential in him and the desire from him to learn and to experience. The original goals encouraged me to utilize an 'art as therapy' approach to art therapy, where the child would lead the therapy and be free to create at will. As I watched and worked with Chris, I soon found that not only was he comfortable with me working beside him, but that he would often pick up on little suggestions or visual representations from my works and would add them to his own works of art. He was more than able to follow simple direction and seemed to be willing to experiment with new imagery and form. I also found that he would frequently require redirection and assistance on my part, as a way to help to move him through his graphic perseverations. He was a willing participant and seemed to have a great desire to want to learn. He had capabilities that I did not see often in a child with autism. He was immediately drawn to the art materials and I wanted to assist him on his journey. As Henley had stated, it was my responsibility as a therapist to help Christopher reach his maximum potential during our time together.

Henley (1986), Roth (1987) and Scanlon (1993) suggested that it will often be quite necessary for an art therapist to have structure, a hands-on approach, and a definite

plan of action when working with a child with a disability, as a way to ensure a positive growth experience. I felt that this was exactly what Christopher required if he was to develop and grow in his skill acquisition. When Christopher was left to his own devices, he would often become distracted and would persevere with the art materials. The goals for Christopher grew and changed as time went on, whereby I felt that it would be appropriate to work with increasing his skill level through the use of modeling and instruction, maintaining the goal to promote autonomy and self-expression in the process.

Session Synopsis

Throughout the course of our 36 therapy sessions, Christopher created over 400 pieces of work. This paper will address the crucial elements and areas of development made by Chris during therapy. Important images will be placed in the paper to visually address the areas of growth throughout therapy. These images act as a form of “thick description” (Patton, 2002) whereby the reader can see for him/herself and draw their own conclusions.

January to mid-April 2003

When therapy started with Christopher in January 2003, his teacher mentioned that Chris had only recently begun to draw. Knowing that I was going to be coming to his classroom, his teacher had introduced him to drawing using dots, much like a dot to dot game, as a way to create images. Christopher relied on this technique when we began working together. It was fascinating to watch him construct his images which he always did in a very rushed and hurried fashion. Chris would first make a skeletal outline of an image using dots, and then he would connect the dots with his marker to create the final

piece. The process was extremely quick and would only take about 15 seconds to complete (Figure 1).

During our time together, Christopher would repeatedly produce the same image over and over again with very little variation amongst a series of images; that of a very basic car. I immediately noticed Chris perseverated on this image and that he would produce as many as he could in a sort of ritualistic exact manner throughout the course of our sessions. Having worked with children with autism in the past, I understood the need and desire to persevere. I thought perhaps that he repeatedly drew this image as it was the only one he felt confident in producing and I certainly did not want to extinguish this process, especially if it was a comforting process for him to do. However, after a month of the same images, I felt as though Christopher was in a sense “stuck” in his imagery and development. Malchiodi (2003) suggests that children may often need “prompting or support from a skilled therapist” (p. 95) as a way to help them move ahead in their artistic expression. Appreciating his need to persevere, I attempted to try to work beside Chris as a way to introduce him to new imagery.

Based on my prior extensive work with children with autism, I automatically implemented the principles of ABA by which I meant to teach Chris how to create new images. I began this process by drawing beside Chris, focusing on drawing the image he was so fascinated with, that of a car. As a way to further this image, I added a figure to my image in the front seat of the car (Figure 2). By understanding Christopher’s artistic level of development, I was confident that he would be able to successfully recreate this very simple stick-like person if he so desired. Throughout my drawing process, I talked

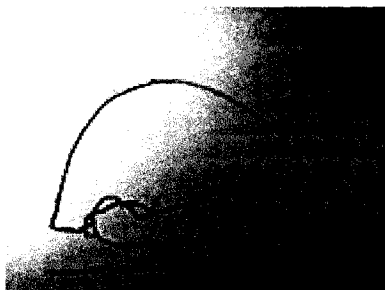


Figure 1

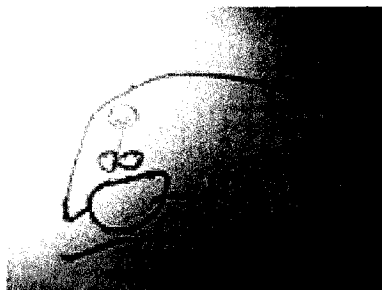


Figure 2

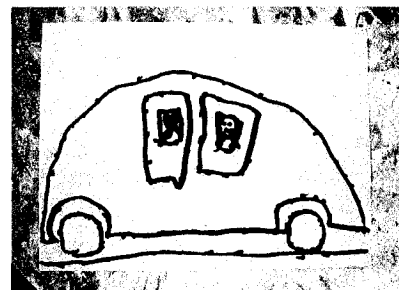


Figure 3

out loud about what I was doing in the hopes that Chris would see what I was creating and would perhaps utilize it in his own drawing. Christopher watched me create and he took it upon himself to replicate my imagery into his own work.

What surprised me next was that Christopher went a step further and actually added a person in the back seat, which he labeled as himself (Figure 3). By the end of our therapy sessions in April 2003, Christopher also added a steering wheel in front of the person in the front seat.

This process looked to build on and to follow the work that Christopher was already creating. I feel that had I not allowed for his perseverance to continue, I don't believe Christopher would have been as successful in developing his own schema of this image. It was more like I opened the door for him to move on and to add to his image, but a lot of what occurred was really all Christopher's doing and not mine at all.

This approach seemed to work well with Chris. He had the innate ability to imitate and the capacity to develop the images into his own representations. By the end of our therapy sessions in April 2003, Chris was able to make his own depictions of a cat, a house, a flower, a tree, a son, an apple and the beginnings of a person, all without the aid of a model. This was quite an accomplishment for a child who had only been introduced to art materials at the age of eleven. He seemed to take such pleasure in creating his

works of art and would often spend upwards of an hour at the therapy session creating, laughing and proudly showing off his work to all of those in the classroom setting. A therapeutic relationship quickly grew and Chris would regularly ask to come to the table to create. Not only was Chris able to formulate schemas in a drawing medium, he was also able to carry it over to other media such as clay, platercine and painting.

What is interesting to note is that over the course of our first four months together, as Chris began to formulate new imagery and developed new schemas, a new form of perseveration ensued. Christopher began to repeatedly draw a multitude of coloured circles all over his page. He would then make the circles into his newly acquired schemas (Figure 4). The circle imagery, much like the perseverated car, occurred over and over again in all of our sessions. I felt that perhaps this was Christopher's way of organizing and understanding what he had learned with me. Or maybe this type of perseveration was a soothing and comforting way for him to internalize a newly learned skill. Again, understanding the development of art in children's drawings, I knew that the circle was the image that is usually seen after the scribble stage in young children. Malchiodi (2003) believes that "children with developmental disorders are likely to have some sort of delay in artistic expression" (p. 95). Remembering this helped to remind me that Christopher

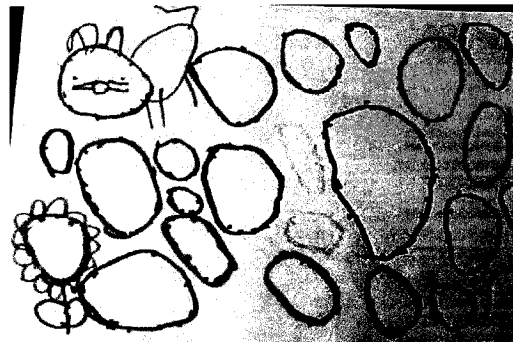


Figure 4

was really at the beginning stages in his artistic development and it gave me hope that I could help him to progress through the stages of artistic development if I was patient and continued to work with him in this manner.

As our sessions finished up in April 2003, I would suggest that Christopher was in the process of transitioning from what Malchiodi (2003) describes as the “Stage II: Basic forms stage” of artistic expression and into the beginning of “stage III: Human forms and beginning schema” stage of artistic development (pp. 96-97).

Malchiodi (2003) describes the “basic forms stage” as the phase which develops in children after they learn to scribble. In this period the child begins to develop forms and shapes and is able to relate the forms to objects and/or things in their own environment. During this time, the child experiments with “the mandala, circular shape, design or pattern and combinations of basic form and shapes...” (p. 96). Malchiodi states that the accomplishment of basic forms stage is a necessary precursors required for developing into the next stage of artistic expression; that of human forms and schemas. When I began to work with Christopher I definitely felt that he was working through this stage of development, with his experimentation with form and shape and his desire to convey objects and things from his environment in his imagery. By the end of our sessions together in April, I would suggested based on his newly acquired imagery, that Christopher was entering “Stage 3: Human forms and beginning schema” of artistic expression. During this phase, Malchiodi suggests that the child is beginning to depict “rudimentary human figures, [which] are often called tadpoles...human figures [which] are often primitive” (p. 96) and simplistic in nature. This stage looks for the child to develop an awareness of imagery without the need for scale, relationship to objects, or

composition. Christopher was definitely working his way into this stage of development with his awareness of human forms, which although were simplistic, they were definite and intentional human forms (Figure 5).

For a child who had apparently not been exposed to the arts, he had made substantial gains in development in a very short period of time. I was excited to see where he would go when we returned to work together in the fall. I had hoped that he would retain his newly acquired skills and that he would be ready to continue on our therapeutic path in the fall.

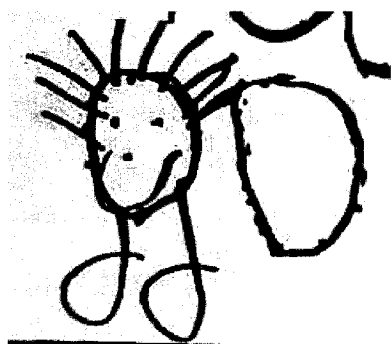


Figure 5

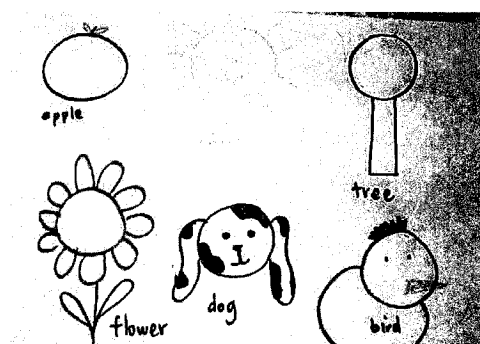


Figure 6

September 2003 to December 2003

September

When I returned to work with Christopher in the fall of 2003, things had changed and progressed immensely in the four months that we had been apart. It was as if over the summer he had found his voice and it seemed as though he was acquiring more speech every day. In the past comprehending what Chris was saying or asking of me was often a very difficult task. It was such a pleasure to see how expressive he had become and how he could now verbalize some of his wants and needs.

Familiar images and schemas returned in our sessions with the circular images and the car with the two people inside of it. I continued to provide Chris with different developmentally appropriate visual models that I would create beside him, as a way to further encourage him to venture out and to explore new imagery (Figure 6).

When watching Christopher work, it was always apparent that there was some sort of method or a definitive process for him to follow as a means for him to create. It was almost like watching a ritualistic step by step process which he repeated with every image he created. While I watched Chris paint, I realized that he definitely had a pattern that he followed to complete each piece. He would choose the first colour of paint in the tray and would take a large paint brush and would cover the entire page with one colour of paint. When this was completed, he would take another piece of paper and would move to the next colour of paint and cover that page in the exact same way. He would repeat this process until he had created one painted page per available colour in the tray, and then the process would begin again. I was really intrigued by his process and wondered what would happen if I painted beside him.

As usual, while I made my imagery, I talked out loud, describing what I was doing (Figure 7). I realized that Chris had been watching me paint when I saw him paint my image on his page, only to quickly cover it up with paint. I decided to try an intervention and provided Christopher only with a small paint brush to see what he would create, as I knew that he preferred to use the largest paint brush I had to paint. I told him to try it for one painting and that he could have the big paint brush back as soon as he was done. I provided Chris with positive reinforcement along with a new piece of paper and a

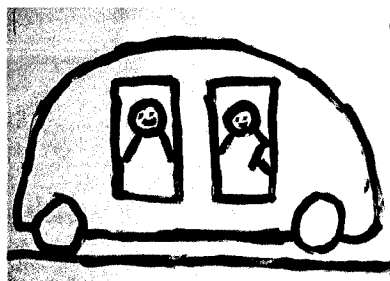


Figure 7

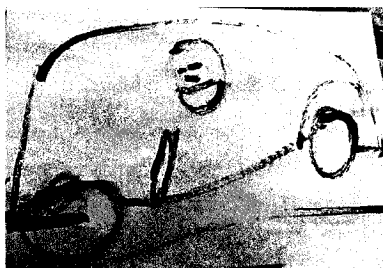


Figure 8



Figure 9

big paint brush immediately after he created an image with the paint. I only had to show and tell Christopher twice before he took it upon himself to paint me an image and then have the freedom to paint whatever he wanted. He caught on very quickly as to what I was looking for from him.

Throughout this process, Christopher played with me. He knew I wanted to see what he would create and he would paint the image, this time of the car with the person inside of it and would then pretend to try to paint over it (Figure 8). He wanted to see my reaction and then he would laugh out loud. This was purely a wonderful moment in our therapeutic relationship.

Many may perceive this type of intervention as limiting or an approach that placed constraints on the client, but in many respects, I felt that this intervention did just the opposite. I felt that this type of intervention introduced Chris to new possibilities and a new creative outlet with paint. I know that I would not have attempted this type of intervention had I not known this child as well as I did. But I knew that Christopher was comfortable with me working beside him, to me changing materials and with me guiding him through the art making process and so I was willing to take a chance to see if this approach would be successful and I truly felt that it was a break through.

During this session, familiar imagery, such as the car with the people inside it emerged, as well as the first human figure form he had ever made with me (Figure 9). Also this was the first time I had ever seen Chris paint or draw the letters of the alphabet. He had just begun learning his alphabet in the regular classroom setting and it was nice to see this transferring over into his imagery. Christopher had also begun to slow down with the process of his work. After a lot of prompting on my part to have him slow down and put time into his work, he had finally begun to do this all on his own. New imagery was appearing and Christopher's repertoire of skills was going ever steady.

During September, I attempted to work with all of the children in the classroom on shapes and shape formation, as a way to assist the children in drawing anything they wanted by looking at what shapes were involved. I believed this to be a developmentally appropriate way for the children to develop a sense of visual representation in their environment. Christopher responded to this approach very quickly and grasped the concept before a number of his classmates understood what they were supposed to do. Very little modeling was required for Chris for this technique and the imagery that came out of this was very impressive. He was immediately drawn to a container I had filled with googlie eyes, and took several sets of eyes and glued them to the page. He then took a marker and drew human forms to go with the eyes (Figure 10). He visually displayed to me that he completely understood what was required to make a person, where he included a nose and a mouth to the faces he created, something I had not fully investigated or worked on with him. I felt as if he was finally progressing through the stages of development and creating his own schemas.

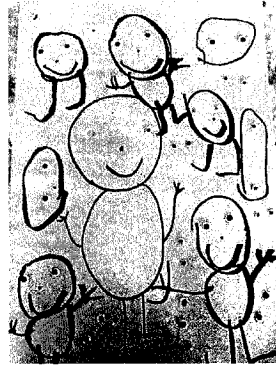


Figure 10

October

In October, Christopher seemed to be very interested in the work that I was doing with his classmates. As I did not have a private space to conduct the art therapy sessions, I worked with the children at a table at the back of the classroom. While I would work with the other children, Christopher would regularly approach the table waiting to come and work with me. On this particular occasion, I had been working with one of his classmates using stickers as a way to create images. While I was working, Christopher came to the table and tried to take a sheet of stickers of the letters of the alphabet. I had to remind him several times that he had to wait for his turn. When it came time for his session, Christopher immediately grabbed the letter stickers and began placing them on a piece of paper. While he did this he verbalized each letter with incredible accuracy.

In the past Christopher had such difficulty identifying any letters verbally; this was an incredible improvement and I was very impressed with his new knowledge and ability in this realm. Even more interesting was the word that he wrote with the letters, "poop". Christopher was very deliberate in writing this word with the stickers, as he would look at me after he put each letter on the page. I believe he was looking for my reaction to this word. When he finally completed the word, he laughed out loud and kept

saying “poop” over and over again. I have no doubt that he was aware of what he was writing and that he wanted it to have some sort of shock value to it, as he seemed quite pleased when my only reaction was to laugh at what he had made and verbalized. The more I laughed the more he wrote it on the page and continued to verbalize “poop, poop, poop”. I was so excited to hear him verbalizing and finally saw how my presence had an impact on him. I believe that at this point, our therapeutic alliance had moved to a new level.

During this time, Christopher became very animated and verbal with the images he was creating. A perfect example of this was when he created an image of a fire truck and which he picked up and moved back and forth making the siren noise of a fire engine. Due to this new skill and his verbalizations, I felt it appropriate to introduce puppets as a new media choice into the therapy session. Chris was immediately drawn to the model puppets I had already created and quickly took to making his own versions. Very little hands-on prompting or guidance was required at this point, as he was able to look at the model and figure out what he would need to do to reproduce his own puppets. I had made available pre-cut shapes for him to glue onto his paper puppet, but what I found was that he was more apt to take a piece of coloured paper and cut out his own shapes and forms for his puppets. I was extremely impressed with his ability to create his own forms and his dexterity and accuracy with the scissors. I was also very surprised to see the details he added to his puppets without any assistance whatsoever, that of nails on his dog puppet and his own variation of antenna on his butterfly puppets (Figure 11, 12). He was taking the time to paying attention to details; he was slowing down during the process and had become very precise and deliberate in his actions.

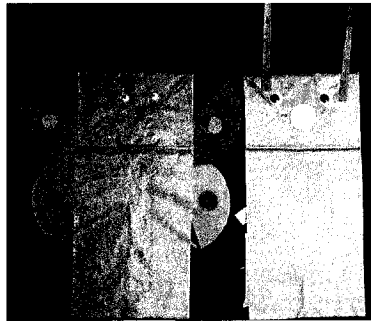


Figure 11

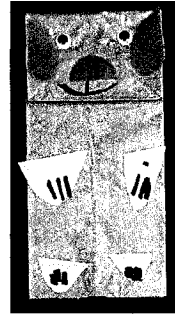


Figure 12

Once the puppets were complete, Chris and I animated the puppets together, each with a puppet on our hands. Christopher was extremely vocal during this time and was able to correctly verbalize what he had made. He was able to tell me that he had made a “dog” after which he would say “woof, woof”. This was the first time I had ever heard Chris verbalize in this manner and I praised him highly for all of his efforts. He was making his own choices and taking action without any prompting from me. He seemed to be so confident and pleased with what he had created. So much so that at one point he left the table to chase his teacher with the dog puppet pretending that the dog was biting him. This was an incredible session and a point where I believe that a sense of independence and autonomy emerged for Chris.

November

November saw independence and autonomy blossom in Christopher. During this month, a new image appeared one day while he was painting. When Chris was painting, he continued to use the method that I had shown him of using a small brush to make an image followed by a full colour page of paint. While Christopher painted his full page, I noticed him repeating the numbers 007, combined with other letters and numbers. He

would then make an outline of a figure, using two circles with two legs attached to it, or what could be referred to as a tadpole human figure (Figure 13). The only thing I could associate with the numbers 007 was James Bond, but I didn't feel that a child of his age would be interested in or exposed to such a character. When I asked him about what he had made, he mumbled something to me, but I could not get a definitive and clear answer as to what he had made. I was left wondering what this image was and what it meant to Christopher.

This image returned again in subsequent sessions, but evolved into a more complete image. 007 emerged on the bottom of his page, but this time it had a line drawn through the middle of it. A tadpole human figure drawn inside of a circle was also added to this picture (Figure 14). While he was drawing I thought I heard him mumble the words "die another day". Strange words for a child to say but, I actually remembered that that was the title of a James Bond movie that had only recently been released. At this point, I was sure that he was creating the opening sequence of the camera lens opening at the beginning of the James Bond movies. I asked Chris if he was drawing James Bond, 007 and he repeated the words "James Bond" and seemed visibly pleased that I finally understood what he was trying to create.



Figure 13

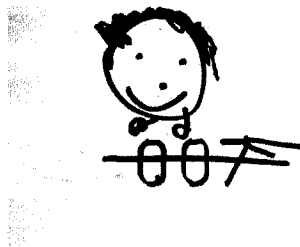


Figure 14

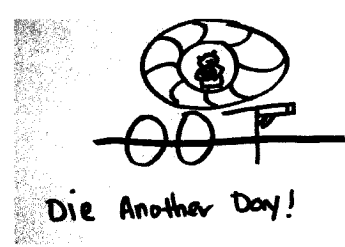


Figure 15

As I looked more closely at his images I realized that the two lines drawn on the end of the 7 was actually supposed to be depicting the gun; which is part of the 007 logo. With each image he produced, new details emerged. At one point, Christopher drew the James Bond figure inside of a circle, only to cover the image over completely with a red marker. This happened several times before I recognized this as the opening sequence of James Bond where the camera lens opens up and the viewer sees James Bond in a tuxedo with his gun in his hand. The lens then closes and the movie begins. I believe this is what Chris was trying to depict in his image. I continued to provide Christopher with models of this image as a way to assist him in formulating his image (Figure 15). At this time, I researched this image and downloaded many different pictures of James Bond to bring into our session. I also found the theme song and brought it in for Christopher to listen to on a CD walkman while he created his image. He seemed to really enjoy this and began to hum and sing the theme song as drew in future sessions.

During this time, I had been working with Christopher on developing his human figure drawing, by providing him with modeling and verbal instruction, as well as by pointing out body parts on his own person, as a way to help him to add details and to develop his tadpole human beings. One drawing that stood out was an image Chris created completely unassisted, an image of himself petting his cat, "Fluff".



Figure 16

For the first time, detail and realism emerged in his drawing, with the cat being drawn with four legs, a tail, whiskers, ears, nose and a big smile. The image Chris drew of himself was also very well done and showed movement with his hand on the cat, as if he were petting his favourite pet. This was the first time I had seen anything like this from Christopher and I was very impressed with his progress thus far.

In our final session in November, I decided to have the children create themselves out of various materials. I had a model of myself ready for the children to view and was amazed at how quickly Christopher was able to accomplish this task (Figure 16). He only relied on basic questioning from me, such as “what colour is your shirt?” to be able to find the correct colour of paper from the pile of coloured construction paper. He was able to accurately use the scissors to create all his body parts and clothing articles. The only time he asked me for assistance was to help him put the pieces together into one form. I was completely amazed with his representation of his own hands, as he traced his hands on the paper and then took the time to meticulously cut this difficult shape out. For my own human form, I had only used cut out circles for my hands, but on his project, Christopher took it a step further and added a wonderful touch of realism to his work. I was so surprised and pleased with Chris’ ability to think in such a way. This child had come a long way and I could visually see his progress. He was now able to take directives and to provide visual proof of his understanding and development.

December

December was a very short month due to the holidays, but Christopher continued to make incredible progress. During this time, Chris continued to draw his James Bond image, verbally labeling it as such and animating the image by turning the paper around

in a circle. I continued to draw and work beside Christopher all the while creating different imagery to help to expand his visual vocabulary. During one session, I drew an image of a police car and was astounded by Christopher's response to my drawing. This was the first time that he was able to draw a car without the use of the dots to help him in his construction (Figure 17). For this image, he took his time and paid particular attention to details, such as the red and blue lights atop the police car. Not only did Christopher put a police officer in the front seat, but he also added what looked like a very unhappy person in the back seat of the cruiser. He was verbally able to label the image as a "police car" and then animated the image by moving it back and forth across the table making the sound of the police car siren.

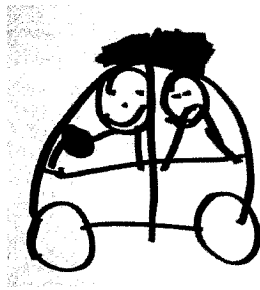


Figure 17

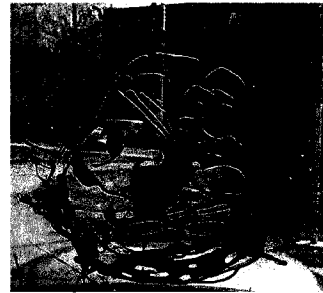


Figure 18

Also during this time, Christopher drew the letters "IGA" in red on a piece of paper. When I asked him what he had created he replied with "IGA shopping". In speaking with his mother in the past, she had mentioned to me that Christopher had loved going to the grocery store shopping and I believe this is why he chose to create this image.

In December, I received a box of donations from Crayola and Sandylion, a sticker company. Christopher was so excited to try out all of the new materials. In one session, Chris took out a package of stickers and started applying them to a piece of paper. He

found a sticker of a girl with a watering can and stuck her to the page. He then found a football helmet and put it on the girl's head and said, "WWE football". I was really surprised with Christopher's knowledge and the awareness to know that a helmet goes onto a person's head. I could never underestimate Christopher's inner knowledge or his abilities.

In my donation box, I also received a product called "Window Clingers". This product was a set of paints which when dry became a medium that would stick to any glass surface. The process for the "Window Clingers" began with tracing the outline of an image, which has been placed under a clear plastic sheet, with a black thick paint. The next step is to then fill the spaces in with colour. The image took about 24 hours to be completely dry and able to hang on a window surface.

I began a session modeling the "Window Clingers" technique for Christopher, after which he was able to complete his own pieces unassisted. He was so willing and able to just explore and understand how to make the pieces all on his own. Chris followed all the steps and was accurate and spontaneous with his choices. After he completed his first cling he kept asking for "more". I showed Christopher how he could create his own template image as a way to make his own personal window clings. He seemed to really love this and ended up creating three of his own window clings; that of "a cat", "a tree" and one of himself (Figure 18). When his images had dried he was so excited to place his work on the window. He stood back and admired his work, pulling everyone over to see what he had made. It was so nice to see him being so independent and willing to take risks with his work.

The progress Christopher made from September to December was incredible and visually evident. Chris had learned to slow down and to pay attention to what he was doing and to add in important details to make his work more and more realistic. A sense of pride in his work and himself had developed, as was evident in his behaviour while he was creating and how he behaved after he completed his works. His verbalizations had progressed to the point where Christopher could tell me about what he was creating and that he could express how he felt about what he had created.

Graphically, Chris had in a very short period of time progressed through Malchiodi's (2003) "Stage III: Human forms and beginning schema" (p. 96) of artistic development, which as stated earlier, looks for the child to be able to experiment with human form and objects in a manner that isn't concerned with realism. During this time, Christopher had begun to create accurate and more developed human figures and he had continued to expand on his previously learned schemas. I saw how his images had been building blocks, where he had practiced the images and was now able to add appropriate details and elements in accordance with his developmental level. The hope was that this type of development and exploration of art mediums would continue into the last four months of our art therapy work.

January to April 2004

January

With the return of art therapy came the resurgence of James Bond. Chris had always been allowed and encouraged to choose the medium to use during our sessions, to which he almost always chose to draw with the Mr. Sketch smelly markers. For one of our sessions, I chose to be directive and the only medium I put out on the table was

plastercine. My rationale for this type of directive therapy session was to see if Christopher would be able to generalize the skills he had learned with the drawing media to another medium choice. This is something that is regularly performed in ABA practice to see if the child has truly mastered a skill. In this, the child is often put through trials across different people, places and activities to see if the skill is retained (Hundert et al., 2001). I had hoped to see if Christopher could transfer over all he had accomplished with the drawing and painting mediums with this new material. I had used clay with Christopher in the previous year and from this I knew that he was not tactile defensive and that it was an experience he seemed to enjoy. The results were incredible.

Christopher immediately was drawn to the plastercine and he began to create a human figure with a full trunk, arms, legs and a head. When he had completed it, he looked at me and said it was “Dawn” or “Donna”, a name I had not heard from him before (Figure 19). He then went on to make three different representations of James Bond; one with James in the middle of the circular camera lens, the next a representation of a picture I had brought into the class of James Bond and the final piece with James in a tuxedo inside of a box with the 007 underneath it (Figure 20). It was amazing to see him so intent and precise on everything he was creating. His representations were very accurate and extremely well thought out and executed. He was also very verbally expressive during this session, repeating “James Bond” and “gun”, all the while moving the piece in a circular motion.

He then created a “dog”, which he labeled as such and which he animated and moved around the table barking. This was the first time I had seen him create a 3 dimensional dog, with an eye on each side of its head.



Figure 19



Figure 20

Christopher then made a police car with a “policeman” inside of it. He also picked up this piece and moved it along the table making the noise of the siren. This session just affirmed the developmental gains Christopher had achieved thus far.

During January, I revisited the use of shapes as a means to visually create objects. I began by creating a model for Christopher to work with, as a way for him to see what shapes he could use as a way to create the image in his mind (Figure 21). Christopher, still fixated on James Bond, created an exceptional representation of James in his tuxedo with the use of the shapes (Figure 22). He went through an entire container of letters and numbers to find the 007 and he was meticulous at the placement and creation of the 007 insignia. Christopher clearly knew what he was creating and he now had the skills to be able to create such wonderful imagery unassisted.

February

In February, Christopher expanded his artistic repertoire in ways that I would have never considered or dreamed of. The month began with perseverated visual representations of James Bond drawn in pencil. At this point, I had literally a hundred drawings of James and his gun. With every picture I could see his ability and skill level growing. New images appeared, such as exceptionally accurate depictions of a cat, a dog

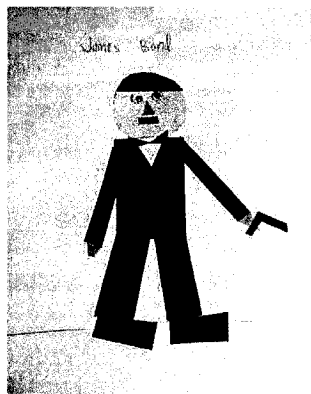


Figure 21



Figure 22

and a human figure, who he labeled as his mother. This figure of his mother was very unlike all of the human figures he had been drawing. This figure was drawn with a square shape for the trunk, which was very unlike the circular trunk I had been drawing for Chris as a model. This figure also had long hair drawn around its head and face, which I had never seen him do before. It was nice to see his figure drawing changing and evolving into a stronger, more realistic and developmentally appropriate graphic representation.

On the days that I am not in the classroom, Chris' teacher kept his drawings in a pile for me to see when I came in for our next session. One day, I was totally shocked to pick up Christopher's pile and to find an image of two appropriately drawn human figures inside of what looked to be a wrestling ring, labeled with the letters WWF. I immediately remember Chris' mom telling me how much he loved to watch wrestling with his older brother Michael on Monday evenings. I had hoped that this image would occur again in our therapy sessions together. When I asked Christopher about his image and he responded to me verbally by saying "w w e wrestling". I knew nothing about wrestling, but I did know that wrestling had recently changed its initials from WWF to the WWE and I knew that it had to do with wrestling. When I asked him who the people were in his pictures, I was able to definitively understand the name to be "Stone Cold", a

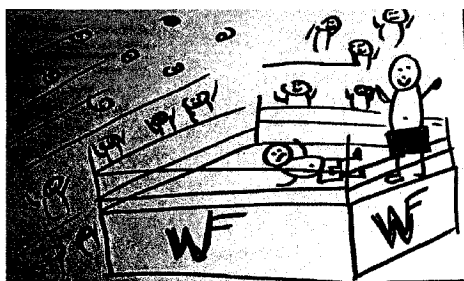


Figure 23

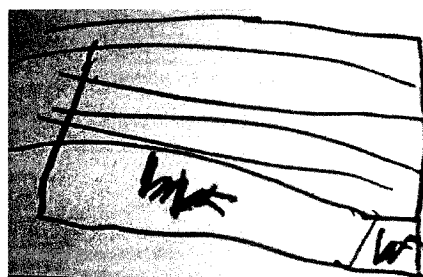


Figure 24

wrestling character of the WWE wrestling line up. I was so surprised by this image and so caught up in it all that I created a model that was at a developmental level far above Chris' capabilities (Figure 23). But what was incredibly interesting was that Christopher attempted to recreate the extremely difficult image (Figure 24). My image was drawn as a perspective drawing of the wrestling ring, something far above his level, but his drawing was a great attempt at a new schematic form and one that he attempted to assimilate in later sessions. I was so pleased with this new development and his level of confidence that allowed him to take a chance to try to create something new. Little did I know that Christopher had a few new schemas that he wanted to show me.

During one of our sessions, an image of a child on a skateboard emerged. This human figure was a visual representation of the developmental gains Chris was acquiring during his time with me. This figure for the first time had a fully coloured trunk, it had coloured in shorts, and it had legs with feet, as well as hair. This figure was drawn on a skateboard that had wheels and was inside of what looks to be a half pipe ramp. This image was a major milestone in his artistic abilities. His forms in the past were what could be called x-ray images, which were not coloured in or displayed with appropriate details. I had seen this skateboarder image in the previous semester, but the previous image was very primitive in comparison to this one, with the figure drawn as an x-ray,

tadpole figure on a straight line. This new schematic image appeared to have movement and a depth that I had not been witness to before. I was shocked.

Throughout this session, I heard Christopher mumbling what I thought sounded like “the Hulk”. I figured he must be talking about the wrestling character Hulk Hogan, and so I was not prepared for the image that surfaced during our session, as I was very wrong in my assumption. For his image, Christopher began with a green marker making a coloured in circle, which he made into a face with black hair. He then proceeded to make a green coloured trunk with legs and arms. He next used a purple marker and created what looked like shorts on the figure he had made. I immediately realized that he was not talking about Hulk Hogan, he was in fact talking about “the Incredible Hulk” (Figure 25). I was stunned with all of these new developments. He then went a step further and created a yellow figure in much the same way he created the Hulk, but he labeled this yellow character as “Mario” from the Super Mario Brothers. He continued to draw these new characters, adding more and more detail with each picture.

It must be understood that all of these new images occurred during the same session; All at once. It was as if he had jumped into a new artistic developmental level in one session. Malchiodi (2003) would suggest that these visual representations could be classified as “Stage IV: Development of a visual schema” stage, where she suggests that children in this stage will “rapidly progress in their artistic abilities” (p. 97). This was most definitely true for Christopher. To me it seemed as if he was so excited to finally be able to be fully understood by those around him, that he wanted to get as many visual messages out while he could. It was as if a door had been opened to him and he was now able to walk through it and express himself in a visually graphic manner. I can only



Figure 25



Figure 26

imagine how it must have felt for him to finally have someone fully understand what he was trying to express.

During this time, I got in contact with Christopher's mother to discuss the new images that had come into the therapy session. She explained to me that Christopher had recently taken a huge interest in playing videogames with his older brother Michael, which included a James Bond game, an Incredible Hulk game and a Super Mario Brothers video game. The relationship between Chris and Michael had begun to form around these video games and the Monday night wrestling. Interestingly enough, this was all coming out in his artworks in a very visual way.

As the sessions continued in February, other schemas emerged such as the one which depicts "Pizza Hut", a favourite place of his to go for dinner, as well as a new image of an "ambulance" which was very appropriately coloured and styled. Anyone from the outside would have been easily able to identify what Christopher was creating and it was very exciting, not only for myself but, for Chris as well. During this time, an incredible graphic representation of "Spiderman" materialized, complete with the red and blue outfit with a large spider on the chest. On the back of this image, Christopher drew "Spiderman" again, but this time without his mask on (Figure 26). He said it was "Peter",

which is the human name of Spiderman. At this point, there are really no words to describe how I felt in regards to the changes I was seeing in Christopher. He had come so far and it was really only just the beginning of his journey.

I did not have to wait long for Christopher to introduce me to yet another new schema. He created an image with me that I felt showed his true desire for me to fully understand him and what he was trying to create. Christopher drew a human face with a black hat on the head. He pointed to the image and said something that I believed was “Wayne” and then he quickly went on to the next image. In the next image, he drew what looked to me like a human figure wearing a red outfit with black shorts and what looked to me to be a hockey stick in his hands. When Chris again said it was “Wayne”, I immediately thought it might be Wayne Gretzky, a very famous hockey player. Christopher shook his head and continued to draw more pictures. The entire time I asked him questions about what he was making but unfortunately, I could not seem to understand what he was creating. He was not becoming frustrated with me, he just continued to draw. I continued to make models of hockey games, because I believed I understood what he was trying to make. At one point, I asked the child care worker if she could come and if she could assist me in decoding what Chris was verbalizing and



Figure 27

what he was drawing. But neither of us could decipher what he was trying to say to us.

He continued to draw and created an image of a number of human forms, all wearing different coloured clothing and each with different hair and details. On one figure he added glasses and blond hair, all the while saying to me what now sounded like “Wayne flow”. I kept trying to figure out what he was saying to me. But I just could not seem to understand. He then drew an image of what looked like five human figures in a blue outlined box. He again drew one of the figures wearing glasses. During this drawing, Christopher was humming a song and banging the table. He was also continually looking at this picture and giving it a thumbs up motion and smiling. I really had no idea what he was trying to say to me, but I immediately recognized the song he was humming as a Queen song, “Bohemian Rhapsody”. It finally dawned on me what he was trying to tell me with his pictures. He was recreating imagery from the movie “Wayne’s World”. When I asked him if it was in fact Wayne’s World, Christopher looked at me and smiled (Figure 27). It was a long process that neither of us gave up on and we figured out how to communicate through the use of his and my imagery.

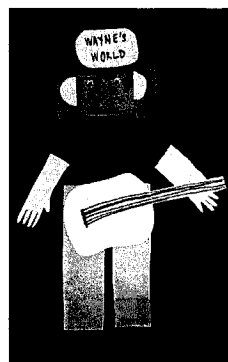


Figure 28

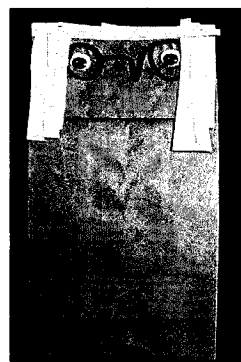


Figure 29

I then realized that he had also been saying the “party on”, a very famous line from the movie. But without the context, it just did not make sense to me at the time. I felt as though this was an unprecedented break through not only in our work together, but also in our therapeutic alliance. Neither of us was willing to give up until the other fully understood what was trying to be said both visually and verbally.

March

Even with the March break interrupting out sessions together, Christopher continued to work on his “Wayne’s World” imagery, adding greater detail and focusing on the use of colour and the depiction of each of the characters with greater accuracy. I attempted to bring the puppets back into the therapeutic space during one session so that Chris could continue to work on his skill acquisition and verbalizations. After I completed my puppet of “Wayne”, Chris immediately went to work creating the counterpart, “Garth” (Figure 28, 29). We played with the puppets after they were completed. At one point, Chris took the hand of the “Wayne” puppet and made it play the paper guitar it was holding, making the noise that a rock guitar would make. It was an incredible integration for Christopher and one that I had not witnessed before. On Chris’ puppet of “Wayne”, he attempted to write letter on the character’s hat. I believed that he was trying to write “Wayne’s World”, which is what it says on “Wayne’s” hat in the movie. I felt so impressed with his attention to details. Although he did not know how to spell the words, and it was only a succession of E’s, this was a huge accomplishment for him. Christopher was growing in leaps and bounds with every session we had together.

During another session, I attempted to use shapes to create the “Super Mario Brothers” that Christopher had created in the past. I used the shapes and made an image

of “Mario”. Chris immediately reacted and created his version of Mario’s brother “Luigi”, who wears a green outfit. It was an incredible response to my work and one that I had hoped would occur. It was interesting to see how well formed the figure he created were, including details, such as the letter “L” on Luigi’s hat. During this time, Chris was extremely verbal, saying the characters names “Mario” and “Luigi” and repeating “Nintendo game” with clarity and accuracy.

During March, Christopher continued to expand on his internalized schemas, by trying new media and by developing his work. Chris surprised me one day with an image of characters in a wrestling ring. One of the characters was lying on the ground with a red mark around his eye. Christopher pointed to the character lying on the ground and said to me “boo, boo bleeding” (Figure 30). He also pretended to cry. I was so surprised and happy to see how Christopher had begun to fully understand and to explain his world through the use of his imagery. The connections were becoming abundant and his skill level was ever increasing.

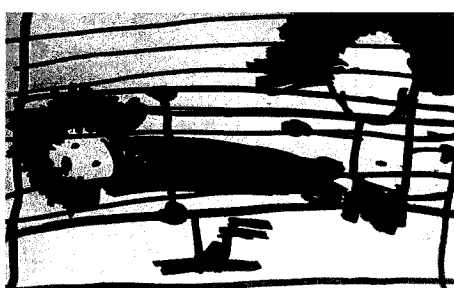


Figure 30

April

In April, I attempted to use clay and platercine with Chris with exceptional and unexpected results. I began the session by creating a two-dimensional model of two wrestlers fighting in a wrestling ring. Chris smiled at my work and proceeded to develop a three-dimensional model of a wrestling ring with two three-dimensional wrestlers inside of it (Figure 31, 32, 33). Christopher played with the wrestlers by walking each one into the ring and enacting a wrestling match, complete with a wrestling belt as the end prize of the fight. I was completely flabbergasted with this display. This was a schema that he had created and developed all on his own. He was showing me what he knew and I sat there impressed the entire time. I would not have created a three-dimensional ring; it was just not something I would have thought to do at that point in time, as I would have felt it was above his developmental level. I had never shown him how to create such a work; it was all his own doing. Christopher amazed me with his inability to have barriers in his work. I was so pleased that he had developed this skill all on his own merit.

During our last session together, Christopher decided that he wanted to use the “Window Clingers”. Completely unassisted, Chris drew imagery of his newly acquired schemas and followed the steps necessary to create his own window clings (Figure 34). When I went to the school the following day, Chris had taken the completely dry window

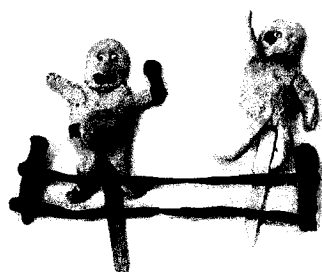


Figure 31

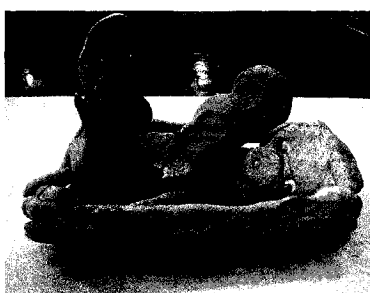


Figure 32



Figure 33

clings and placed them on the window without assistance from anyone. He seemed so proud of his work, pulling everyone over to the window to have a look at his work. This to me was a mark of his independence and pride in his art creations. Finally what I would consider to be the beginnings of autonomy for Christopher.

At the end of our therapy sessions together, I would suggest based on Malchiodi's (2003) "Stages of artistic expression", that Christopher had moved from "Stage II: Basic Forms" or a beginners stage of development and into "Stage IV: Development of visual schema" (p. 97); a stage almost on target for his chronological age. During "Stage IV", children begin to dawn realism and begin to depict appropriate imagery with more concentration on scale, relationships of objects and perspective. As can be seen in his imagery and to my complete surprise, Christopher had developed and grown so much in such a short period of time. He had begun to create human figures with appropriate full colour and suitable details, all on his own merit. I would almost be so bold as to suggest that by the end of our therapy sessions, that Christopher had begun to dabble into "Stage V: Realism", which suggests that children during this stage will depict "what they perceive to be realistic elements in their drawings" (p. 97). In his imagery, he was attempting to add in elements that were developmentally appropriate and far and above



Figure 34

where he began with me (Figure 35, where he began) (Figure 36, 37, where he ended).

He still had a lot to develop, but his intentions and abilities in April 2004, when looked at in accordance with Malchiodi's scale, appear to rank him inline with children of his age group. He had grown and developed in ways that no one could have imagined or anticipated. He was a child who was now in love with the arts. Art appeared to give him a sense of pride, accomplishment and was a catalyst for visual communication with others, something I didn't see when I started working with him.

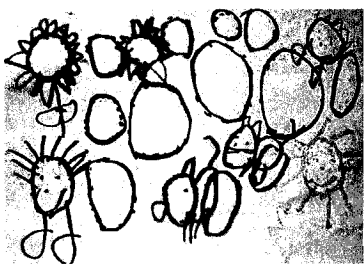


Figure 35



Figure 36

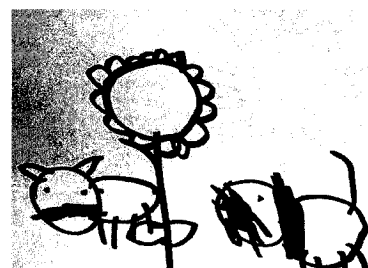


Figure 37

Discussion

A behavioural approach to art therapy

When this research project began, my primary research question was to investigate whether the principles of Applied Behavioural Analysis (ABA) in combination with the concepts and principles of developmental art therapy could assist children with autism through expanding their creative repertoires, increasing spontaneity and promoting artistic autonomy. Based on my previous extensive experience in working as an ABA therapist with this population, I had hoped that I would be able to meld these theoretical orientations into a technique that could provide children with autism with an alternative therapeutic approach to art therapy. It seemed like a natural approach to develop, but when I went to look for literature or for other art therapists who were

utilizing a similar approach, I found that there were very few art therapists who would even consider using a behavioural approach to art therapy. From what I had seen and heard it seemed as though behavioural therapy had a very negative reputation in the field of art therapy; where Skinner was seen as the “bad man” and behavioural therapy an invasive approach to treatment.

This belief I believe is rooted in the historical development of art therapy as a profession and continues in the current prevalence and belief in a psychotherapeutic approach to art therapy practice. This was something I had to recognize and accept as being part of a very Freudian, psychoanalytic educational graduate program and profession. But what I could not grasp or see was how I was supposed to use a Freudian, talk-therapy approach to effectively work with children who did not have the capacity to verbalize or communicate their ideas or conceptions of their artworks to me as their therapist. I could not help but feel that my work would end up being based on my assumptions because there was not the depth of a verbal exchange. In retrospect, I am confirmed that the approach I took was the best one. However, given the stance of the researcher in qualitative research as a subjective instrument, I cannot discount my personal biases in this reflection.

Finding the work of art therapist Ellen Roth (1987) and her approach to “reality shaping”, as a way to teach art conceptions to children with developmental disabilities, inspired me to hold tight to my thoughts, ideas and beliefs and to attempt to put my theory and ideologies into practice. Roth had had great success while using behavioural principles to help children conceptualize and develop their own schemas. I believed that

Roth's approach, further enhanced with the principles of ABA could be a very effective approach to working with children with autism.

Based on the literature and on my own experience in working with young children with autism, more often than not children with autism are visual learners (Grandin, 1995). I had the opportunity to work with a number of children, who learned about their world through the use of visual cues. They learned to label, receptively and expressively, items in their world through the use of pictures and graphics. They learned to communicate non-verbally through the use of a system called the "picture exchange communication system" (Frost & Bondy, 1994). And they learned pre-requisite skills for school and life through the principles and methods of ABA. Having seen children with severe autistic like behaviours, as well as little to no verbal capacities, do so well with the ABA approach to therapy, I immediately made the link to art therapy as an obvious therapeutic choice.

I had always found that art was an outlet that helped to calm an upset child or provided a passage for an aggressive child who didn't know how to channel his anger. Not once did I ever have a child refuse or decline an invitation to create with me. Art always seemed to be an avenue that was safe and unthreatening for a child who seemed to be pulling away from all that was around him.

When I began my work in Christopher's class, I felt an immediate desire to attempt to use a behavioural approach to our art therapy sessions. Chris had so many similar characteristics to the children I had worked with in the past and I wanted to see if a behavioural route would be helpful for him. With his best interests in mind, I discussed my approach with Chris' teacher and found that he too was quite adamant that a

psychotherapeutic approach to therapy not be used with his students. We discussed how I would attempt to use a developmental approach mixed with principles of ABA, as a way to expand repertoire, build skills, work with behaviour and attempt to promote self-confidence and autonomy. We both agreed that I would work with the children at their developmental level and that I would attempt to follow the child, all the while indirectly teaching and developing schemas through the use of an ABA methodology.

With Christopher, I saw a child who seemed so open to learn and to explore artistically. A therapeutic relationship with Christopher developed very quickly. He was always eager to come to the table and work with me. He was a child that was completely drawn to the arts and art mediums and I saw his potential in such a short period of time. This is one of the main reasons why I chose to attempt to use my approach to art therapy with him.

With permission from his mother, I began the art therapy sessions by observing his skill level, all the while observing his behaviour in terms of verbalizations and/or traits of autism. I immediately witnessed Christopher's strong desire and/or need to persevere with his imagery. In my past, had seen children persevere before in various capacities; be it through repetitive verbalizations, through consistent movements, children who had great difficulty with change in routines and transitions, and in children's artworks. As mentioned in the case study, Christopher perseverated and presented with the "desire for sameness" in a great majority of his daily routine. During our therapy sessions, Chris' perseveration was extremely prevalent, where at the conclusion of our therapy, I had literally hundreds of the same drawings with precise and exacting details.

Perseveration

It has been suggested that children with autism will often have deficits or difficulty when it comes to spontaneity and imagination (Evans & Dubouski, 2001; Hundert et al., 2001; Lovaas, 1987; Maurice, 1993; Siegel, 1996). This can have a huge impact on creativity and in turn play and artistic expression. Children with autism can often become stagnant in their art creations and play and will choose to persevere or repeat images or activities with little variation. Perseveration can be compared to Kanner's (1943) description of the "desire for sameness". It is currently thought that this type of behaviour may be necessary and acts as a "soothing activity and as a self-protective strategy to better cope with sensory hypersensitivity" or as a way to intake and understand their world (Onley, 2000, p. 242). Having worked with a number of children with autism in the past, I was well aware of perseveration and how it seems to work in the mind of someone with autism. I had read a number of sources including the works of Temple Grandin (1995), a very bright and well educated woman with autism. In many of her stories, she talked of the need and desire for sameness and the need to repeat things over and over or to persevere as a means of comfort and understanding. She often refers to the feelings it produces and how it is often a necessary element in her life. Knowing and understanding this, I really wanted to make sure that I did not disrupt this feeling of comfort or security in Christopher. I did not want to take that away from him but, I did want to enhance his learning.

In wanting to keep my philosophy of following the lead of my client, I worked with and through Christopher's need to persevere. By doing this, I feel that a therapeutic alliance grew and developed because I did not want to change Christopher and what he needed to do; I wanted to only enhance his abilities and to assist him in

developing new skills. I worked and learned about the things he enjoyed, such as wrestling, James Bond, video games and Wayne's World. I attempted to heighten his learning curve, by becoming versed in what he wanted to show me. I feel that this helped Christopher to trust and to explore in an environment that celebrated his accomplishments. It also helped me to clearly see and to understand what he was trying so desperately to communicate to me in his imagery. For myself, I feel that therapy started on the day that I was able to convey to him that I understood that he was drawing images of James Bond. I can remember the look on his face and the feeling I had that we had just been able to communicate through the use of the art materials. Art in essence gave this child a voice. He was able to draw the things in life that he most enjoyed and he was able to share this experience with someone else. Imagery and visual representations developed and blossomed with Christopher after this time, with the emergence of so many other vivid depictions. I believe that had we not worked with his desires and through his perseverations, that our relationship would not have developed and that Chris would not have progressed in the ways he did.

In my therapy with children with autism in the past, I had worked with so many children who needed to perseverate, the most common of which was hand flapping. Many of the parents that I worked with wanted this behaviour stopped as soon as possible, as they were embarrassed by this when they went out with their child in public. I found this to be a difficult decision to make; to stop something that was a necessary thing in their life. I would always attempt to try to give the child some other avenue of socially appropriate behaviour, as a way to keep what they internally needed, but to manifest it in a more "acceptable" manner. With Christopher, to many it may seem

outrageous to have allowed him to create the same image hundreds of times, but when I look to see how he developed and moved through Malchiodi's (2003) stages of artistic expression, from stage two to the beginning of stage five in a year and a half, I feel that this was the right approach for this child. I believe that his need to repeat imagery helped him to develop his skills and abilities in a way that was cohesive and a positive experience for him. He was given the opportunity to expand his skill level in a manner and at a pace that was suitable for him. I never pressured him to change or to grow; this was something he accomplished all on his own merit.

I must point out that I was extremely fortunate to have had such an extensive amount of time and availability to devote to this young boy. We worked together for a year and a half, two to three times a week. In the "real world" this would have most likely not have been plausible due to the expense and time constraints of a therapist. I took absolute advantage of this opportunity and utilized it to its fullest, with Christopher's interests in mind.

Developmental Art Therapy

"There is substantial evidence that children pass through more or less predictable stages of artistic development that are [related to] age and that can be [distinguished through] formal elements [in] their drawings" (Kaplan, 2003, p. 28). The developmental process is usually not linear in nature. Children may move back and forth amongst the stages, or may remain in a stage for an unspecified period of time. It is all a learning process, where children move back and forth, as a way to experiment with new skills and to build on their schemas (Malchiodi, Kim & Choi, 2003). It is generally acknowledged that children with developmental disabilities will often have delays when it comes to

chronological age and their age of artistic development (Malchiodi et al.). For instance a child, such as Christopher, may be twelve years of age chronologically, but may only be at the same artistic developmental stage as a typically developing three or four year old child. In Christopher's case, I feel that his delay seemed to have a lot to do with lack of exposure and direction with art materials, as well as his past learning experiences in the school system. Regardless of the reasons for the delay, Malchiodi, et al., suggest that it is often imperative for child to have interventions or support on the part of a "skilled therapist" as a way to help them progress and develop artistically.

Stott & Males (1984) encourage the use of a developmental art therapy approach to working with children with disabilities, as it assists the therapist in deciding on interventions, and creating and meeting obtainable and realistic goals in therapy. If the materials provided to the clients are too difficult or complicated for them to use, the chances of that client wanting to continue the exploration or learning process in subsequent sessions is diminished. It is important to provide developmentally appropriate materials and tasks that look to promote success, which in turn can foster skill acquisition and self-esteem.

I utilized Malchiodi's (2003) stages of artistic expression as a guide for developmental awareness. Malchiodi's work is a culmination of the works of Lowenfeld & Brittain (1987), Gardner (1980), Kellogg (1969) and Winner (1982). Malchiodi outlines six major areas of artistic development for children ages 18 months to twelve years of age and onwards. Malchiodi not only provides detailed and operational formal elements for easy deciphering of level of development in her chart, but she also provides

a small image as a visual for comparison of what that stage of development typically looks like.

Throughout the therapeutic process with Christopher, I continually reevaluated his level of development. It was imperative that I understood where he was so that I could appropriately gauge the materials I put out on the table, so that the models I was drawing would be developmentally obtainable, and to see how he was progressing. This was a very important element to my practice with Christopher. I wanted him to be successful and I wanted the therapy sessions to be enjoyable. By knowing his continual developmental level, I was more able to accurately develop plans and interventions that promoted therapeutic growth.

Over the year and a half, I could visually see Christopher developing and growing as an artist. His tadpole people grew bodies and then legs, arms, hair and even glasses. His cars became clearer and more detailed; he no longer relied on the dots as a means to draw his car. His graphic abilities expanded and became more and more precise. To watch him grow was an incredible experience. His growth was especially obvious when all of his 400 works were laid out

ABA

In the beginning of therapy with Christopher, I routinely provided him with visual models and options for his level of development. At times and when deemed necessary, I would take his hand and physically prompt or guide him through the process. This method is routinely administered in ABA, as a way to have the child physically experience how it feels to complete a new task for a visual representation may not be sufficient enough for absorption of the skill (Scanlon, 1993). With Christopher, I wanted

him to experience how it felt to create new shapes and forms; to get him used to feeling what it felt like to make a circle or a triangle. This technique was utilized as a way to show him and to provide him with new directions for imagery and developmental growth. It was all accomplished with developmental gains in mind and he was very susceptible to this approach. I am not suggesting that every child will be as willing or as accommodating as Christopher was to this technique. But it worked extremely well for him and his development seems to show this growth. It is well known that autism spectrum disorder often effects spontaneity and the imagination, which have a huge impact on creativity and in turn play and artistic expression (Evans & Dubouski, 2001; Hundert et al., 2001; Lovaas, 1987; Maurice, 1993; Siegel, 1996). It is often necessary to teach children how to be creative and to learn something that is not routinely innate. ABA looks to teach children how to learn through the use of various techniques and methods of attainment.

Throughout the process of therapy, I used a number of concepts and techniques I had learned as an ABA therapist. The most common technique I used was Discrete Trial Teaching (DTT). In DTT, a new task is broken down into manageable pieces and taught to a child in isolation, until the child is able to complete the entire task unassisted. With Christopher, I often used this approach while I was creating the models for him. While I would draw beside Christopher, I would usually talk out loud about what I was creating. I would go step by step, describing and showing him how I created something in a broken down and simplistic manner. The idea is to have the skills developmentally build upon one another as a way to foster success and to build up a repertoire of understanding for

the child. By teaching tasks in this manner, the child is able to see how elements are combined and developed in a manner that is conducive to learning.

In ABA, DTT is used to teach children a multitude of tasks, everything from self help skills to readiness skills for school. In this the methods of shaping, chaining, modeling, as well as repetition are large components which help the child to learn and to practice a new skill. Throughout the process, positive reinforcement was used to encourage behaviour to increase in frequency or for it to be seen again. Positive reinforcement was a huge component to my work with Christopher. He was rewarded with continual praise and acknowledgement for every successive image or creation he made. I hoped that this would help him to want to continue and to work by building up his self confidence and self-esteem.

Generalization

In ABA, it is imperative that new materials and mediums are routinely introduced to the client, as a way to expand repertoires and schemas. While doing this, it is important to note that many children with autism may be very tactile defensive. They may refuse to use materials which are sensorily offensive to them, particularly materials such as clay or platercine (Scanlon, 1993). With Christopher, I was very fortunate that he enjoyed all of the materials that were introduced to him. I always had Mr. Sketch scented markers available which he loved, while one of his other classmates was completely adverse to the strong scents of the markers and refused to use them.

Through providing and exploring new materials and mediums, I was able to gauge and to see how and if Christopher was accomplishing his artistic milestones. In ABA, this step is called generalization and it is routinely done to see if a child is able to

generalize newly acquired skills across therapists, environments and materials. Children with autism can often become stagnant and only learn certain elements of tasks in certain environments or with certain people. This can make generalization often a very difficult task. Christopher was a child who was very unlike any child I had worked with in the past. He was more than able to create what he wanted and what he had learned with a variety of mediums and in different environments. Generalization was never an issue with Chris. He retained and his abilities grew regardless of the amount of time we were apart and where or how he created his artworks. This was an incredible accomplishment for a child who was described to me at the beginning of therapy as a child who did not have the “capacity” to learn. He was more than able to learn and more than able to teach those around him about his world through his imagery.

Behaviour

Christopher was always happy when he was creating and this carried over into his school time and home environment. Over the course of our therapy, his acting out behaviours lessened in the classroom environment and a relationship grew with his family at home. Can I say for certain that it had to do with the art therapy sessions? One can only guess, but I feel that art provided him with an outlet for expression, a voice and a communication tool which he had so long been without. With the children I had worked with in the past, the majority of their negative attention seeking behaviour was primarily due to the fact that the child was unable to express his/her wants and desires to those around them. They would often become very frustrated by this and so they would act out negatively to get attention. It appears that in the past that Christopher acted out because he could not convey his needs to anyone around him without having to physically take

the person to what he wanted or by becoming aggressive and angry. As I mentioned earlier, by the time therapy ended with Chris he had very basic language capabilities, and he could verbally ask or express his needs in the classroom to his teachers and his peers. Art provided him with a second avenue of expression, where he could, in a sense, discuss his favourite things, like wrestling, video games and movies to those around him. His mother had informed me that he continued to draw while he was at home as well. The expression on his face when someone finally understood what he was trying so hard to convey to them through his art was such a memorable and exhilarating experience. I can remember the look in his eyes when I asked him if he was drawing “James Bond” or when I finally understood that he was drawing “Wayne’s World”, it was a look of accomplishment and vindication for all of his efforts and labours.

Therapeutic Alliance

“What is important in establishing [a therapeutic] alliance is not the therapist’s theory nor how empathetic the therapist thinks he or she is, but rather whether the patient thinks the therapist is present with them or understands them” (Riolo, 2005, p. 1). I feel the strong therapeutic alliance he and I developed over a year and a half of working together indeed facilitated Christopher’s progress. During our time together, I feel that our relationship grew for a few reasons. First and foremost, I followed Christopher’s lead in a positive manner. I think this is extremely important with a child who has exhibited acting out behaviours in the classroom setting. When Chris worked with me, he was continually praised for his efforts, but he knew that he was not to act up or that he would lose the art time as a consequence for that day. This was a rule that was outlined to all of the students on the first day of therapy and one that I rarely had to carry out.

Art was a huge reward for Christopher and so he did his best to ensure that he would be able to come and work at the table. Christopher was given choice and a chance to showcase himself. I provided him with direction and stability, but in a manner that did not squash his creativity or inner creations. In our therapy sessions, while giving him a chance to make a number of decisions, I also imposed a structure into the environment. Henley (1986) suggests that it is often quite necessary for a therapist to have a structure in therapy to ensure that clients maximize their full potential. Perseveration was a huge part of what Christopher did at the time and I needed to ensure growth and development. Due to this, I continually modified materials and tools and brought in new visual aids and experiences to help him move through his perseverations and onto new learning experiences. While doing this, I worked developmentally to ensure that no task or material was too difficult for him to be successful. His growth and development were at the forefront of every therapeutic choice I made while I was working with Christopher. I gave him the respect and dignity he deserved. I never once underestimated his abilities and always hoped for more. In looking at Christopher's file and the reports and comments that people had made about him over his years in the educational system, I was dismayed that others did not see the potential I saw in him. He was so intelligent and willing to learn and to please. He required an approach that looked to broadcast his abilities in a different manner. I believe that art therapy opened the door for this boy and made him into someone who was happier, more self confident and willing to take risks and this came through in his artworks.

Future research

The approach I used for this research case study melded the principles, methods, and techniques of a behavioural approach with a developmental art framework into a treatment that uses art therapy to work with children with autism. For children who are typically visual learners, this approach allows for an alternative mode of therapy and of treatment.

For a therapist to adequately attempt this approach, it is important that he/she understands and appreciates the developmental milestones attributed to children as they grow. Both developmental art therapy and the principles of Applied Behavioural Analysis utilize a child's developmental level as a means to build a treatment plan. It is also important that a therapist understands and values the prescribed steps and techniques of the ABA approach, as it is formulaic in nature with a proven track record for being helpful for working with children with autism. A therapist must be versed in these two models in order to adequately provide materials, direction and goals for his/her clients.

Further research and investigation into this approach and its application with other children with autism is necessary. As mentioned earlier, a multi-disciplinary approach to therapy is often the most successful route for children with autism. This approach could be utilized in conjunction with other therapeutic milieus as a way to assist in maximizing a child's potential. Art as therapy cannot be underestimated as a valuable tool for therapy and this needs to be explored and researched further in the future.

This approach was very successful with Christopher; however, part of the success was because he was so amenable to creating and communicating with art. Further research should investigate possible generalized use and considerations of any limitations for children with autism.

References

- (2005). Research in Autism. Retrieved September 8, 2005 from *National Alliance for Autism*, www.naar.org/research/spons_research.asp
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Autism Canada. (2003). Characteristics of Autism Spectrum Disorder. Retrieved November 5, 2005 from <http://www.autismcanada.com/what.htm>
- Autism Society of America. (2006). Facts and Stats. Retrieved January 20, 2006 from <http://www.autism-society.org/site/PageServer?pagename=FactsStats>
- Banks, S., Davis, P., Howard, V.F., & McLaughlin, T. F. (1993). The effects of directed art activities on the behavior of young children with disabilities: A multi-element baseline analysis. *Art Therapy: Journal of the American Art Therapy Association*, 10(4), 235-240.
- Bernard, S., Enayati, A., Redwood, L., Roger, H., & Binstock, T. (April 2001). Autism: A novel form of mercury poisoning. *Medical Hypothesis*, 56 (4), 402-471.
- Bettelheim, B. (1967). *The empty fortress: Infantile autism and the birth of self*. England: Free Press of Glencoe.
- Bleuler, E. (1912). Dementia Praecox or the group of schizophrenics. Translated Zinkin, J. (1950). New York, NY: International Universities Press.
- California Department of Developmental Services. (2003). *Autism spectrum disorders. Changes in the California caseload. An update: 1999-2002*. CA: California Health and Human Services.
- Chance, P. (1998). *First course in applied behavioral analysis*. Pacific Grove, CA: Brooks/Cole Publishing Company.
- Colorado State University. (2006). Conducting case studies. Retrieved January 10, 2006 from <http://writing.colostate.edu/guides/research/casestudy/pop3d.cfm>
- Cowley, G. (2000). Understanding Autism. *Newsweek*, July 3, 46-54.
- Crawford, J. W. (1962). Art for the mentally retarded: Directed or creative? *Bulletin of Art Therapy*, 2(2), 67-72.
- Davey, L. (2005). The application of case study evaluations. Retrieved January

10, 2006 from www.ericdigest.org/1992-5/study.htm

- Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the field of qualitative research. In Denzin, N. K., & Lincoln, Y. S. (Eds.). *Handbook of qualitative research*. (pp. 1-17). CA: Sage.
- Evans, K. & Dubouski, J. (2001). *Art therapy for children on the autistic spectrum*. London: Jessica Kingsley Press.
- Frost, L. & Bondy, A. (1994). *The picture exchange communication system: Training manual*. Cherry Hill, NJ: Pyramid Educational Consultants.
- Gabriels, R.L. (2003). Art therapy with children who have autism and their families. In C.A. Malchiodi, *The handbook of art therapy*. (pp. 193-206). New York: Guilford Press.
- Gardner, H. (1980). *Artful scribbles*. NY: Basic Books.
- Geier, D.A. & Geier, M.D. (2004). A comparative evaluation of MMR immunizations and mercury doses from thimerosal-containing childhood vaccines on the population prevalence of autism. *Med Sci Monit*, 10 (3), 133-139.
- Goldsmith, A. (1986). Substance and structure in the art therapeutic process – working with mental handicap. *Inscape, Summer*, 18-22.
- Grandin, T. (1995). *Thinking in pictures and other reports from my life with autism*. New York: Vintage.
- Haiken, M. (Sept. 2004). Lost causes no more. *Alternative Medicine*, (70), 70-74, 116-118.
- Harling, K. (2006). An overview of case study. Retrieved January 10, 2006 from http://www.farmfoundation.org/projects/documents/1_harling.pdf
- Henley, D. R. (1986). Approaching artistic sublimation in low-functioning adults. *Art Therapy: The Journal of the American Art Therapy Association*, July, 67-73.
- Hill, E.L. & Frith, U. (2003). Understanding autism: Insights from mind and brain. Retrieved November 3, 2004 from *The Royal Society*, www.icn.ucl.ac.uk/dev_group/documents/hill_PT_03.pdf
- Hundert, J., Walton-Allen, N., Earle-Williams, K., Sim, M., & Cope-Scott, K. (2001). *Intensive behavioural intervention: A manual for instructor therapists. Intensive early intervention program for children with autism*.

ON: Behaviour Institute.

- Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2, 217-250.
- Kaplan, F. F. (2003). Art-based assessments. In Malchiodi, C.A., *The handbook of art therapy*. (pp. 93-105). NY: Guilford Press.
- Kellogg, R. (1970). *Analyzing children's art*. Paulo Alto, CA: Mayfield.
- Kornreich, T.Z. & Schimmel, B.F. (1991). The world is attacked by great big snowflakes: Art therapy with an autistic boy. *The American Journal of Art Therapy*, 29, 77-84.
- Kramer, E. (1977). *Art therapy in a children's community*. NY: Shocken Books.
- Lamb, L. (2005). Autistic spectrum disorder. An interview with author-advocate Mitzi Waltz. Parent Centered Guides. Retrieved on November 9, 2005 from http://www.patientcenters.com/news/waltz_2002_interview.html.
- Lewis, M.H. & Bodfish, J.W. (1998). Repetitive behavior disorders in autism. *Mental Retardation and Developmental Disabilities Research Reviews*, 4, 80-89.
- Lincoln, Y. S. & Guba, E. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Lovaas, O. (1977). *The autistic child: Language development through behaviour modification*. NY: Irvington Publishers, Inc.
- Lovaas, O. (1987). Behavioural treatment and normal educational and intellectual functioning in young autistic children. *Journal of Consulting and Clinical Psychology*, 55, 1, 3-9.
- Lovaas, O. (1993). Afterword. In C. Maurice, *Let me hear your voice. A family's triumph over autism* (pp. 324-326). NY: Fawcett Columbine.
- Lowenfeld, V., & Brittain, W. L. (1970). *Creative and mental growth*. (5th edition). NY: The Macmillan Company.
- Malchiodi, C. A. (2003). Stages of artistic expression. In Malchiodi, C.A., *The handbook of art therapy*. (pp. 96-97). NY: Guilford Press.
- Malchiodi, C. A., Kim, D.Y., & Choi, W.S. (2003). Developmental art therapy. In Malchiodi, C.A., *The handbook of art therapy*. (pp. 93-105). NY: Guilford Press.
- Maurice, C. (1993). *Let me hear your voice. A family's triumph over autism*. NY:

Fawcett Columbine.

Maurice, C., Green, G., & Luce, S. (1996). *Behavioral interventions for young children with autism. A manual for parents and professionals*. Austin, TX: Pro-Ed.

McEachin, J.J., Smith, T., & Lovaas, O.I. (1993). Long term outcome for children with autism who received early intensive behavioral treatment. *American Journal of Mental Retardation*, 97, 359-372.

National Institute of Child Health and Human Development. (2001). Autism Facts. Retrieved on November 6, 2005 from, www.nichd.nih.gov/publications/pubs/autismfacts.pdf

Nightingale, D. & Cromby, J. (Eds). *Social constructivist psychology. A critical analysis of theory and practice*. Buckingham: Open University Press.

Onley, M. F. (2000). Working with autism and other social communication disorders. *Journal of Rehabilitation*, October-December, 239-250.

Patton, M. Q. (2002). *Qualitative research and evaluation* (3rd ed.). Thousand Oaks, CA: Sage.

Powers, D. (2000). Children with autism. A parent's guide. (2nd ed). MD: Woodbine House.

Provincial Health Ethics Network. (2001). Autism. Retrieved January 5, 2005 from www.phen.ab.ca

Rees, M. (1998). *Drawing on difference. Art therapy with people who have learning difficulties*. London: Routledge.

Riolo, J. A. (2005). Thoughts on the therapeutic alliance. Retrieved on January 10, 2006 from Psychjourney, www.psychjourney.com/Thoughts%20On%20Therapeutic%20Alliance.htm

Roth, E. (1987). A behavioral approach to art therapy. In Rubin, J.A. (Ed.), *Approaches to art therapy* (pp. 213-232). NY: Brunner/Mazel.

Rubin, J. A. (1987). *Approaches to art therapy*. NY: Brunner/Mazel.

Scanlon, K. (1993). Art therapy with autistic children. *Pratt Institute Creative Arts Therapy Review*, 14, 34-43.

Schwandt, T. A. (2001). *Dictionary of qualitative inquiry*, 2nd ed., London: Sage Publications.

- Siegel, B. (1996). *The world of the autistic child. Understanding and treating autistic spectrum disorder*. NY: Oxford Press.
- Sigman, M. & Capps, L. (1997). *Children with autism. A developmental perspective*. MA & London: Harvard University Press.
- Simon, J. L. (1969). *Basic research methods in social science*. New York, NY: Random House.
- Simpson, R. L. (2001). ABA and students with autism spectrum disorder: Issues and considerations for effective practice. *Focus on Autism and Other Developmental Disabilities*, 16(2), 68-72.
- Skinner, B.F. (1953). *Science and human behavior*. New York: The Free Press.
- Smythe, W.E. & Murray, M.J. (2000). Owing the story: Ethical considerations in narrative research. *Ethics and Behavior*, 10 (4), 311-336.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stott, J., & Males, B. (1984). Art therapy for people who are mentally handicapped. In Dalley, T. *Art as therapy* (pp. 111-126). London: Routledge.
- Verschuren, P. J. (2003). Case study as a research strategy: Some ambiguities and opportunities. *International Journal of Social Research Methodology*, 6 (2), 121-139.
- Volkmar, F.R. (1999). Lessons from secretin. *The New England Journal of Medicine*, 341 (24),
- Volkmar, F. R., Lord, C., Bailey, A., Schultz, R. T. & Klin, A. (2004). Autism and pervasive developmental disorders. *Journal of Child Psychology*, 45 (1), 135-170.
- Volkmar, F.R., Klin, A., & Cohen, D.J. (1997). Diagnosis and classification of autism and related conditions: Consensus and issues. In D.J. Cohen & F.R. Volkmar (1997). *Handbook of Autism and Pervasive Developmental Disorders*. (2nd ed.). New York: John Wiley & Sons.
- Volkmar, F. R., & Pauls, D. (2003). Autism. *Lancet*, 362(9390), 1133-1141.
- Wakefield, A. J., Murch, S. H., & Anthony, A. (1998). Ileal-lymphoid-nodular hypoplasia, non-specific colitis and PDD in children. *Lancet*, 351, 637-641.

- Williams, G. H. & Wood, M. M. (1977). *Developmental art therapy*. Baltimore: University Park Press.
- Wilson, L. (1977). Therapy and practice of art therapy with the mentally retarded. *The American Journal of Art Therapy*, 16, 87-97.
- Wing, L. & Potter, D. (2002). The epidemiology of autistic spectrum disorder: Is the prevalence rising? *Mental Retardation and Developmental Disabilities Research Reviews*, 8, 151-161.
- Winner, E. (1982). *Invented worlds: The psychology of the arts*. Cambridge, MA: Harvard University.
- Yin, R. (1989). *Case study research: Design and methods*, rev. ed. Newbury Park, CA: Sage.