

**An Art Therapy Approach:
Children who are Blind and Hypersensitive to Touch**

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Abstract

The development of the tactile sense in children who are blind is essential for these children to advance. The following paper gives an introduction and an overview to the importance of the tactile sense in children who are blind. This paper aims to define and identify the role that a hypersensitivity to touch and/or tactile defensiveness plays in their overall development. Key elements from the literature and eleven semi-structured interviews with the professionals who work with these children are combined to construct an art therapy approach. The main goal of this approach is to foster a sense of tactile development in children who are blind and tactile defensive. The research done thus far in this area is sparse. Further knowledge and research are needed in order to advance this particular area of research. The implementation of an art therapy approach for this population can be fundamental in aiding their overall development.

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Chapter 1: Introduction

The focus of this research project concerns children who are blind and the development of the tactile sense, specifically for those children who are tactile defensive (Ayres, 1972). A combination of literature from a variety of disciplines concerning children who are blind, tactile development/defensiveness and art therapy, as well as data collected by way of a total of eleven semi-structured interviews with teachers and therapists who have and continue to work with children who are blind, inform and construct the following research. Due to the lack of literature concerning specifically art therapy and children who are blind, the Historical/Theoretical method with a focus on Construction research best serves the purposes for the creation of an art therapy approach. The formation of an art therapy approach to aid in the development of the tactile sense, for the child who is blind, is of utmost importance for the child's cognitive development as well as emotional and social development. The research concerning children who are blind, tactile defensive, and art therapy is scarce. The following research project aims to further the research in this area through the construction of a specific approach and the inclusion of various techniques to be used when working with this population.

A myriad of disciplines incorporate distinct approaches which continue to foster the tactile sense in children who acquire sensory dysfunctions. There are a number of populations in which sensory dysfunctions are an issue, children with autism, children with ADD/ADHD, children with non-verbal learning disabilities, children with developmental disabilities and children who are blind. Jean Ayres, (1972) an

occupational therapist, developed the theory of ‘sensory integration’. The three principles in applying direct ‘sensory integration’ intervention include, first, providing enriched experiences to take in deep pressure touch (Ayres, 1972). The second principle focuses on the facilitation of the parasympathetic autonomic nervous system, in other words, decreased arousal (Farber, 1982) and the third principle concerns increased tactile activities initiated specifically by the child (Sears, 1981). Physical therapy uses activities to focus on aiding children who are tactile defensive (Cheatum & Hammond, 2000). Lillie Neilsen, (1991) a founding member in practice and research, with children who are blind, developed the ‘Little Room’: an enclosed space in which children who are blind can explore a multiplicity of different textures. Nicodemus (1999) explains the ‘Snoezelen’ room, first created by Jan Julsegge and Ad Verheul, in 1975. Nicodemus states, “The ‘Snoezelen’ room is a multi-sensory stimulating environment specifically designed for individuals with severe sensory impairment, autism, or multiple disabilities” (p. 1). In the educational realm there are a variety of pre-Braille approaches to aid in the development of the sense of touch (Lueck, Chen & Kekelis, 1997; Timmins, 1997).

1.1 Visual impairments: Definitions and Causes

Children who are blind or visually impaired are a heterogeneous group of individuals. Barraga & Erin (1992) state the reasons for their heterogeneity due to elements such as the onset of blindness, level of vision, etiology of eye condition, and presence or absence of additional disabilities. One major element that defines blindness and visual impairment is visual acuity: the ability to distinguish very fine detail from a definitive/precise distance (Webster & Roe, 1998). *Congenital blindness* refers to visual

impairment or blindness which is present at birth; *acquired/adventitious* blindness or visual impairments develop some time after birth (Barraga & Erin, 1992). Congenital and acquired blindness or visual impairments are distinctly different. A myriad of definitions and causes subsist within the terms congenital and acquired blindness or visual impairment. *Cataracts* occur when the lens of the eye clouds, and vision is blurred. The density, size and location of the cataract in the lens will effect the child's visual acuity. Cataracts are caused by rubella or may be hereditary (Pogrund, Fazzi & Lampert, 1992). *Cortical visual impairment* is caused by damage to the posterior visual pathways leading to the visual cortex of the brain. Children with a cortical visual impairment may have light perception and some may have peripheral vision (Webster & Roe, 1998). *Glaucoma* is a condition in which a build up of aqueous humour causes pressure on the eye. This pressure can generate blurred vision and can eventually lead to blindness (Pogrund, Fazzi & Lampert, 1992). *Optic atrophy* is a condition wherein the nerve fibers, which transmit information from the eye to the brain, are affected. The milder form has a gradual onset of deterioration, the more severe form is recessive and is present at birth or within the first two years of life (Webster & Roe, 1998). *Retinal detachment* is the result of a separation of the retina from the middle layer of the eye, which produces a blind spot. The causes of this condition vary, from a blow to the head to gradual tearing of the retina (Pogrund, Fazzi & Lampert, 1992). *Retinopathy of prematurity (ROP)* sometimes known as *retrolental fibroplasia (ROF)* is caused by arrested or abnormal growth of the blood vessels in a baby's eyes and is most common in children who are premature. Depending on the area affected, results can vary from total blindness to some residual vision (Pogrund, Fazzi & Lampert, 1992). *Trauma* or *infection* can also be the cause of varying

degrees of blindness or visual impairment (Webster & Roe, 1998). Due to the varying causes and effects of blindness or visual impairment some children are able to use residual vision, whereas other children must rely on their remaining senses, to learn about their environment.

For the purpose of this research the focus is on those children who gather information through sound, smell, taste, and most specifically the sense of touch/tactile sense. The development of the tactile sense is of utmost importance for children who are not able to rely on their sense of sight. Their hands become their eyes.

1.2 The Sense of Touch

The tactile sense/sense of touch is engaged and complex, as are the senses of smell, sight, taste and sound. The tactile senses' primary purpose is to process information taken in through the skin (Stock-Kranowitz, 1998). Touch is a *proximal/near* sense. Stock-Kranowitz (1998) states that touch is "essential for our survival, the near senses respond to what is happening in our own bodies" (p. 41), "they lay the groundwork for a child's healthy development" (p. 42). *Active* and *passive* touch are related to the manner in which one is involved with an object or another person. There is great debate as to the superiority of one or the other. However, it seems that each has merit and practicality. Active touch is defined as independent activity (McLinden & McCall, 2002), and/or both handling objects and moving across a surface (Cheatum & Hammond, 2000). In contrast, passive touch is defined by Cheatum and Hammond (2000) "when someone or something (such as an insect) contacts a part of the body" (p. 224). The tactile sense consists of two receptors, the *protective/defensive system* and the

discriminative system, each play an integral part in the development of the tactile sense. The protective/defensive system aids one to become aware of danger, such as boiling water; this system reacts to stimuli. Whereas, the discriminative system allows one to locate where one is being touched on the body and to discriminate between various elements, such as textures, temperature and weight. The discriminative system develops and matures as the defensive/protective system becomes suppressed however is still intact (Barraga & Erin, 1992; Cheatum & Hammond, 2000; Stock-Kranowitz, 1998; McLinden & McCall, 2002).

Tactual perception is another element which is incorporated in the development of the tactile sense. McLinden and McCall (2002) state “Tactual perception implies a conscious awareness of the information that comes through sensation” (p. 146) and Cheatum and Hammond (2000) explain tactual perception as the ability “to identify where on the body they have been touched, how they were touched, and even how many times they were touched, a phenomenon that is possible because of the *localization of touch*” (p.225). Tactual perception evolves and develops over time and exposure to stimuli, as does the discriminative system, therefore it is possible to make a direct correlation between the two components. If a child’s tactile system is off-balance, various tactile dysfunctions can occur. The *inability to locate touch/hyposensitivity to touch*, *tactile deprivation*, and *tactile defensiveness/hypersensitivity to touch* are a few of the tactile dysfunctions (Stock-Kranowitz, 1998).

1.3 Hypersensitivity to Touch and/or Tactile Defensiveness

For the purpose of this research the focus is on tactile defensiveness and/or hypersensitivity to touch. Tactile defensiveness was a term coined by an Australian occupational therapist, Jean Ayres (1972) within her theory of 'sensory integration'. Ayres (1972) explains that tactile defensiveness occurs when the discriminative dorsal column medial lemniscal system fails to exert its normal inhibitory influence over the anterolateral system. Due to this breaking down of systems, protective, flight behavior, and strong emotion become the responses to light touch. If a child were consistently controlled by their protective system, the exploration of their environment would be lacking, which could cause deficits in many areas of development. Royeen and Lane (1991) contend that "tactile defensiveness can potentially and negatively affect almost all aspects of human occupation or activity across the life span, but most especially the *affective domain and related social development*" [italics mine] (p. 108). The concept of tactile defensiveness continues to be researched and developed. Royeen and Lane (1991) purport that theorists continue to branch out and build on Ayres' (1972) original point of view. Therefore, rather than being taken in many directions, the definition and understanding of tactile defensiveness continues to be refined over time. Interestingly enough, stemming from Ayres' research, two definitions for tactile defensiveness and/or hypersensitivity to touch have emerged in the literature. Cheatum and Hammond (2000) state:

Tactile sensations (impulses) sent through the large nerve fibers, which are supposed to block the painful stimuli from the small nerve fibers, are not working. With tactile defensiveness, therefore, even normal touches to the surface

of a child's skin, such as the feeling of clothes on the body, produce a negative and often painful reaction. (p. 240)

Whereas, Royeen and Lane (1991) define tactile defensiveness as:

. . . observable aversive or negative behavioral responses to certain types of tactile stimuli that most people would find to be non-noxious (nonpainful). Simply stated, tactile defensiveness is the inability to interpret appropriately the affective (rather than the perceptual) meaning of touch or touch experiences within the context of the situation and in a way meaningful for use by the organism. (p. 112)

The main features which are incorporated with hypersensitivity to touch include the avoidance to touch another person or specific objects, a strong reaction to perceived painful touch, and atypical emotional responses to specific tactile stimuli (Royeen & Lane, 1991). It is stated that the core to identifying tactile defensiveness, is the presence of a consistent pattern or a substantial number of negative or aversive reactions to touch (Ayres, 1972; Royeen & Lane, 1991).

For the child who is blind, developing the tactile sense is of utmost importance. The child uses his/her fingers to learn about the environment and to distinguish varying objects. Therefore the sense of touch bears distinct relevance for the child's cognitive development (Timmins, 1997). In the case of the child who is blind or learns through the tactile sense, acquiring a 'tactile dysfunction' such as tactile defensiveness and/or hypersensitivity to touch may have an immense negative impact on one's growth and development. The visual arts are one area in which the possibility of continuing to develop the sense of touch is possible.

1.4 The 'Visual' Arts and Art Therapy

Viktor Lowenfeld (1952/1982) is an art educator who stressed the importance of art and creativity for a child's development. Lowenfeld (1982) depicts art and the sensory experience:

We learn through our senses. The ability to see, feel, hear, smell, and taste provides the contact between us and our environment. But the process of educating children can sometimes be confused with teaching certain limited, predetermined responses, and the curriculum in public schools tends to be little concerned with the simple fact that man, and the child too, learns through these five senses. The development of perceptual sensitivity, then, should become a most important part of the educative process. Yet in most areas other than the arts, the senses are apt to be ignored. The greater the opportunity to develop an increased sensitivity and the greater the awareness of all the senses, the greater will be the opportunity for learning. (p. 4)

Lowenfeld's awareness to the importance of the development of the five senses may perhaps have been influenced by the work that he did with children who are blind or visually impaired. Lowenfeld (1982) explains that from his experience, working with children who are blind and partially sighted stemmed the theory of 'visual' and 'haptic' learning. Lowenfeld describes these concepts as:

The visually minded person is one who acquaints himself with his environment primarily through the eyes and feels like a spectator. The person with haptic

tendencies, on the other hand, is concerned primarily with his own body sensations and subjective experiences, which he feels *emotionally* [italics mine].
(p. 326)

Thus far, the literature pertaining to art therapy with children who are blind is limited. Rubin (1984) claims that the literature is sparse and oftentimes condescending in relation to children who are blind, and the use of art.

1.5 Developmental Theory and Art Therapy Approaches

The following art therapy approach stems from an amalgamation of developmental theory, and developmental art therapy approaches, which are informed by Williams & Wood (1977), as well as Aach-Feldman & Kunkle-Miller (2001) and an adaptive art therapy approach, implemented by Anderson (1992).

Developmental psychology and theory have been informed by the work of many theorists including Montessori (1966), Piaget (1959), Erikson (1963), and many more. One universal characteristic of developmental theory is change (Slee & Shute, 2003). Piaget's (1896-1980) theory of cognitive development and Montessori's (1870-1952) theory of development informs the following art therapy approach. Crain (1985) explores Montessori's theory of development. Maria Montessori's theory stemmed from her educational work with people living with developmental disabilities. Montessori held that children followed developmental *sensitive periods*, these periods integrate the need for: order, details, use of hands, walking and language (Montessori, 1994). Montessori's focus on sensory awareness and development are integral components, for this research. As well, her belief that children develop individually, in their own time, and that this

development should be fostered by allowing the child to lead are crucial to the core of this art therapy approach (Montessori, 1991). Piaget's theory of cognitive development also focuses on stages through which children develop skills. His stages include the sensorimotor period, pre-operational period, concrete operational period, and formal operations period, each equally important for development. Although Piaget places specific age ranges for each of the periods or stages defined, in the case of the child who is blind these ages may not apply in the same manner (Piaget & Inhelder, 1969). The importance, which Piaget places on the child's interaction with the environment, is of utmost worth, for the construction of the following art therapy approach.

The general principles of Williams & Wood's (1977) developmental art therapy approach include a child's need for stimulating and enticing materials. The purpose of art making is to increase: self-esteem, the ability to use one's hands, as well as conceptual skill-building. Emphasis is also placed on the process of individuation, specifically building one's own personality. When in the role of the art therapist, one must transform with the client's progress beginning in a directive stance, moving to insuring success by redirection, reassurance, and restructuring. Later providing suggestions and working on appropriate behaviour, eventually simply providing support and limits (Williams & Wood, 1977).

Aach-Feldman and Kunkle-Miller's (2001) art therapeutic approach stems from their work with children with varying developmental and emotional disabilities. Their focus is on representational development, they implement Piaget's stages of development, and believe that art therapy is process oriented, affective and emphasizes the use of the senses. The art therapist plays a very active role in this approach. The

therapist moves from establishing direct contact, to implementing direct intervention. One must also feel comfortable enough to engage in the play process with the client. They often employ the use of pre-art materials such as natural materials, or food (safe/digestible), in the beginning stages of the art therapy experience (Rubin, 2001).

Anderson's (1992) adaptive art therapy approach asserts that *all* children should be given the opportunity to be involved in art experiences because it is a greatly beneficial learning process. She also believes that all art experiences can be adapted for all children, and these experiences should be designed to meet emotional, physical, and educational needs. In the capacity of the therapist one becomes an active participant, also working with the art materials. In addition, one must have strong problem-solving and observational skills in order to adapt art experiences, to the strengths and needs of the client (Anderson, 1992).

The examining of a combination of literature from a variety of disciplines with a focus on children who are blind, tactile development, tactile dysfunctions, and art therapy; in addition to data collected by way of semi-structured interviews with a varying number of professionals who work with children who are blind construct the following research. The following research paper aims to investigate the importance of the development of the tactile sense in children who are born blind. The research aims to identify diverse areas of development affected in children who are born blind and have a tactile dysfunction, as well as methods used to aid in the development of the tactile sense. The formation of an art therapy approach to aid in the development of the tactile sense, for the child who is blind, is the eventual outcome of this qualitative study.

Chapter 2: Methodology

2.1 Participants

The sample interviewed consisted of a total of eleven interviewees, ten females and one male, of varying ages. All interviewees worked within a segregated school for the blind in a metropolis in North America. One week prior to the interviews an indefinite number of people were given the list of questions (Appendix A). The following week a total of eleven interviewees agreed to participate in the interviews. The sample interviewed included five classroom teachers, one Itinerant teacher, one Occupational Therapist, one Orientation and Mobility specialist, one Special Care Counselor, one Resource teacher and one Drama Therapy Intern.

The five teachers interviewed had varying roles within the school. One teacher taught French as a second language and cycle one of elementary school to young blind and children with multiple handicaps. A second teacher taught seven high-school age students who were learning academically between grades six and nine. A third teacher taught students between the ages of five and six. A fourth teacher worked with students between the ages of ten and sixteen who live with a developmental delay as well as blindness or a visual impairment. This teacher focused on teaching independent skills such as: dressing, traveling, communicating, and self-care. The fifth teacher taught four students with multiple handicaps between the ages of four and five years. The Orientation and Mobility specialist taught safe and independent travel techniques to the students who were blind or visually impaired but ambulatory. The Resource teacher taught all of the students within the school. The following subjects were either taught as a

class or to individual students within a class: science, Braille, language, music, communication, math, art/cooking, and swimming. The Occupational Therapist's job description included working with students on different impaired aspects which could affect the student's daily performances. These aspects could be having an impression on one's emotional, psychological, or physical functions. The Itinerant teacher's position included traveling to various public schools and working one-on-one with students who are visually impaired and integrated into this school system. This role could include teaching Braille, updating and supplying materials and/or equipment, as well as communicating with the classroom teacher. The Itinerant teacher stated, "It really depends upon the needs of the child in each school". The Special Care Counselor worked with the students on varying adaptive daily living skills including: socialization, dressing, self-care, and gross and fine motor skills. In addition, the Special Care Counselor would often take the students on various outings, for example: to eat at a restaurant; to go bowling; to go shopping; to watch a movie at the cinema. The Drama Therapy intern focused on working one-on-one and in group situations with many of the students within the school.

Each person interviewed had varying numbers of years and months of experience working with these children. The specific time of experience for each interviewee is as follows: twenty-six years, twenty-four years, twenty-two years, sixteen years, seven years, six years, five years, four years, three years, nine months and four months. The children and adolescents with whom each of the interviewees had worked ranged from the ages of prenatal to twenty-one years. Prior to each interview the interviewees were asked to read and complete an interview consent form (Appendix B), an information

consent letter (Appendix C) and an information letter form (Appendix D). Moreover, they were asked if they had any questions and if so the interviewer answered the questions. This particular sample of participants was chosen due to their experience working with children who are blind and the development of the tactile sense.

2.2 Apparatus

The materials incorporated for the purpose of this research project included the semi-structured interview questions designed and written by the researcher, with the intent to gain insight and information for the formulation of an art therapy approach. In addition, technical devices used in the process of information gathering consisted of one tape recorder and three audio tapes. These devices were used to maintain detailed and accurate data from the interviewees' interviews.

2.3 Procedure

This study was conducted within a segregated school for the blind with a number of teachers, therapists and counselors. One week prior to the interviews an indistinct number of people were given the list of interview questions (Appendix A). The researcher explained that she was collecting data for her research project, which focused on children who are blind and have a hypersensitivity to touch. The following week a total of eleven interviewees agreed to participate in the interviews. A total of ten semi-structured interviews were conducted in person, by the researcher, within the school setting on April 21, 2004 and April 22, 2004. The eleventh interview, due to time constraints, was conducted in person, by the researcher, in the researcher's home on April

26, 2004. Prior to each interview the interviewee's were asked to read and complete the following forms: interview consent (Appendix B), information consent (Appendix C) and an information letter (Appendix D), after which they were asked if they had any questions and if so the questions were answered by the interviewer. The interviewer was sure to reinforce/reinstate the definition of the term 'children who are blind' for the purposes of this research project. The term was more specifically defined as 'children who do not have residual vision'. Therefore children who are not able to see light, shadows, colours, etc. The significance of this component was reiterated before each interview was conducted.

The interviewees were encouraged to relax and answer the questions in conjunction with their education and experience, rather than answering all eight questions. Due to the nature of the interviews, with most interviewees, additional questions were spurred by the researcher to clarify or elaborate on some of the answers given. The interviewees were asked whether they felt comfortable being tape-recorded. All of the interviewees agreed to being tape-recorded. Following the interview, the information consent form and information letter were given to each interviewee for their records. The interviews lasted anywhere from twenty minutes to 1 hour.

The researcher and interviewer had worked within this particular school setting for a total of eight months prior to conducting these interviews. This factor may have had an affect on those being interviewed. The interviewees' knowledge of art therapy, the relationships which had formed between interviewer and interviewee, prior knowledge of the interviewer's research topic, as well as the relationships formed between the students and the interviewer are aspects which could have given bias to the answers presented.

However, it is difficult to say to what extent and how these factors may have affected the answers given by the interviewees.

Each of the eleven semi-structured interviews were typed verbatim and printed by the researcher. The researcher followed various steps used in *data reduction* (Cherry, 2000). The answers to questions number one through eight were divided into categories, which corresponded with the question answered. Eleven interviewees answered question number one. Therefore each answer to question number one was placed under the heading of the question (See Appendix A). This procedure was followed for each of the eight questions. The data from the answers was organized into various groups based on similarities and differences within the answers as well as relevance to the research question. The researcher continued to implement a deductive reasoning process, with a focus on the answers which pertained to the justification and formulation of an art therapy approach for children who are blind and tactile defensive. Cherry (2000) defines the process of deductive reasoning as, “the combination of several independent variables to predict change in a dependent variable” (p.59). In order to preserve anonymity the participants involved in the research project are referred to as ‘interviewee’.

Chapter 3: Findings

Due to the nature of semi-structured interviews, with most interviewees, additional questions were spurred to clarify and elaborate on some of the answers given. The interviewees were encouraged to choose and answer the questions with which they felt most comfortable, in accordance with their own education and experience. Therefore, eleven interviewees answered question number one and two. However questions three, four, and six were answered by nine of the interviewees. Question number five was answered by six of the interviewees. Questions number seven and eight were completed by a total of eight interviewees.

3.1 Importance of the Tactile Sense

According to all of the interviewees the importance of tactile development in children who are blind was rated high. The majority of the participants rated the importance of tactile development a ten (with a rating of ten being the highest Appendix A). One participant rated the importance of tactile development a nine. A number of the interviewees offered explanations for rating the development of the tactile sense as extremely important in children who are blind. Their explanations considered the sense of touch as a sense, which these children rely very heavily on for exploration, and understanding of the world around them. One interviewee elaborated on the sense of touch, “their tactile sense is what connects them with the rest of the world. Especially, specifically looking at Braille, this is their access to information so definitely, definitely tactile development is very high”. Braille is a reading system specifically learned through

touch. Therefore Braille can be defined as a student's connection to the environment that surrounds him/her. Incorporating the child's other working senses, taste, sound, and smell, in conjunction with the sense of touch, was pointed out as being essential to their development. "Because once you take away one sense, particularly vision, you have to rely a lot on your other senses. One of the senses which gives you the most information about what's in your environment is your sense of touch" proclaimed one of the interviewees. "Well, the hands would be their eyes", was a final statement given.

3.2 Developmental Needs

While many of the interviewees stated that the developmental needs for children who are blind are the same as for any child, one interviewee was quoted as saying, "It's the same, but how we get there might be different." The interviewees focused on varying areas as being essential developmental needs for a child who is blind. Many of the interviewees viewed similar areas of development as being most crucial for children who are blind. These developmental needs are broad in scope however are also interconnected. The interviewees focused on language development as well as language vocabulary retention, which involves the development of communication skills. The development of a child's communication skills can also have an effect on concept as well as social development. The development of fine and gross motor skills as well as tactile development was stated as being essential to the child's overall development. One interviewee explained the importance, "They need to go and do a lot of touch and do a lot of activities. They need to be shown things, a lot of hand over hand work to show them, to get them to experience things that normal children see. The big challenge I guess you

could say is linking real objects in the world. Giving them all the information we get so easily everyday”.

These children need to learn spatial concepts, body awareness, and self-help skills in order to be able to function in the world. Together these developmental milestones aid the child to become comfortable in one’s immediate surroundings. These factors are also helpful for the child to build relationships with others around them and to go through the process of individuation. Cognitive development can be fundamental in aiding the child to grow to his/her full potential. The development of cognition will have an effect on all other areas of development. Emotional development and the capability of expressing oneself were pointed out by some of the interviewees as specific developmental needs. One interviewee made a unique statement, “The imaginative world I feel is a very high developmental phase, that sometimes is overlooked, but is very important with blind children”.

One interviewee elaborated on the reasons why these developmental milestones are fundamental for these children to attain. The interviewee expressed, “But if he was not so fortunate with his gross motor abilities at least he would have to have the other parts of his development. They would not even compensate for the lack of gross motor, but I think that the other ones are, make a young person better equipped to face the world of schooling and academics and so on and so on. Even to relate and make friends and become social, socially appropriate with other sighted peers”.

3.3 Therapeutic Needs and/or Goals

The interviewees conveyed an array of diverse therapeutic needs or goals for children who are blind. As with any client who is involved in therapy, one interviewee made a crucial statement, “I think probably it’s the child themselves that would determine the therapy. It might be as simple as expanding their creativity or it might be as complicated as working on a specific problem area”. Several interviewees focused on the need to provide support and guidance for the child to build skills in order to live in a ‘sighted world’. The interviewees went on to specify goals that would help the children to move and use their hands as well as their bodies. These goals being to explore their environment and to get to know the world and objects which exist around them. One interviewee claimed the use of the hand, specifically the palm, the fingers and the finger tips as therapeutic goals, “One therapeutic *goal*, really just for the blind, you’ll find a whole lot which goes with the tactile development, in-hand manipulation skills, development of discrimination, development of stereonosis, which is trying to, being able to recognize what you’re touching without necessarily seeing it. You work a lot with sensation in the tip of the fingers in preparation for the Braille”. This interviewee went on to include specific techniques used for the development of these skills, “really introducing them to lots of different textures and to really move the manipulation from inside the hands to the fingers. To be able to individualize the finger movements also, which is important for the reading of Braille”.

One interviewee focused on specific services, Orientation & Mobility, Occupational Therapy, and Physiotherapy, for these children. This interviewee was quoted as saying, “*There* should be lots of intervention, for blind children when they’re

growing up”. Learning about oneself as a person, establishing a self-concept, as well as self-esteem, in conjunction with building social skills were also described by a number of the interviewees. A final answer reads, “I believe it’s the same as someone who is sighted, building their self-esteem and building the sense of confidence, a relationship to self and the world around them”.

3.4 The Effect of a Hypersensitivity to Touch on Tactile Development

Five of the interviewees touched upon the effects of a hypersensitivity to touch on the development of the sense of touch. The answers reflected the component related to exploring one’s surroundings and the lack of this stimulation for a child with a hypersensitivity to touch. Consequently, the interviewees felt that the child would be limiting, and restricting themselves from all that exists within their world. It is important to quote one interviewee’s answer, with a focus on the tactile sense, “I also feel that the blind children, probably we can’t fully understand the tactile sense. We probably make judgments according to our thing but maybe some *children* are so sensitive it’s almost like it’s too much for them or something, rather than not wanting a part of it. I think we need to respect that and try to help them come to *a more comfortable* level. Their sensitivity level is more delicate, I think”.

3.5 The Effect of a Hypersensitivity to Touch on other Areas of Development

The interviewees explored many differing areas of development. They expressed that a hypersensitivity to touch would in fact have an effect on other areas of development. Concept development was reiterated by a number of interviewees. More

specifically within the area of sensory discrimination, which in essence serves to distinguish and identify objects in the world around them. A second area, which relates to concept development involves body awareness. This may be hindered by a hypersensitivity to touch. One interviewee added the ability or lack of ability to learn to read Braille. Moreover, some interviewees stated that a hypersensitivity to touch could affect a child's self-esteem, individuation, and interpersonal relationships. One interviewee explained, "No matter what you are dealing with everything is interconnected".

3.6 Methods to Aid in the Development of the Tactile Sense

The interviewees shared a variety of the methods that they have incorporated in practice as well as methods gained over time. One method, which was voiced by a number of the interviewees, includes the use of real objects, specifically when learning a new concept or unit. One interviewee explained, "Whatever we do I always try to, I always make an effort to find real objects that will specifically describe or encompass what I am talking about. We have brought real animals, we have climbed trees to find the different layers on the trunk". Another interviewee gave examples such as the use of three-dimensional objects, clay sculptures and cut-outs as alternatives when the use of real objects is not possible, for example to explain a mountain. Numerous interviewees pointed out the incorporation of all the working senses. Therefore, adding the sense of taste, smell, and sound to an exercise can be helpful. Many interviewees integrate the use of brushes and massage "to prepare the body to accept outside stimuli". They would lightly brush or massage the children's hands, palms, and fingers to 'awaken' the child's

senses. One interviewee gave a specific example of the use of brushes, “I have even used a brush to prepare the children, to receive information on paper, because I find that many children, at the beginning of their Braille readiness, the Braille dots are very hypersensitive for them. They want to scratch them or they feel they want to curl up their fingers because it’s too much to take. You know it’s too overwhelming, so I have to use the brushes”.

Incorporating various fabrics was also described by many. One method includes the exploration of a ‘tactile’ book; a book made up of different textures and fabrics. Another method implemented, incorporates specific technique, “You can start *by* having a child playing in flour, trying to find some of his favorite toys, whether it be beads, blocks, or anything like that. Once he can tolerate the flour very well, in certain areas in the bucket you could put a little bit of water. He’s searching for what he likes, but then whoops in one corner it’s a little wet. Gradually he becomes more tolerant and then obviously the final goal would be to have a dough type substance where he would search for beads or something inside. You can do it with flour, you can do it with oats, you can do it with shaving cream, you can do it with all different textures. We always start with some of the textures which are easier to tolerate. So we’re looking at more dry or hard textures and then slowly incorporate more of the wet”.

The following suggestions were pointed out as reminders for the person who is working with the child throughout the entire process. When one is introducing new or unknown textures be sure to encourage rather than force the child to touch or explore the new substance. In addition, allow this exploration to occur at the child’s pace, do not rush the process. Introducing and describing the objects, fabrics, or textures is necessary for

the child's success. One interviewee added the element of introducing things in a fun way, as well as "trying to pair the icky stuff the child doesn't want to touch. Maybe adding a pleasing smell, like if jello feels yucky at least it smells good or if taste, even taste. So, try and pair other positive senses with that negative response". An interesting point expressed by one of the interviewees incorporates the act of copying, "other methods to prepare their sensitivity would be to sometimes mirror things together, because it develops one's awareness of other people. It's a way for reaching out to another child and to learn to be more sensitive to another child's movements and later on feelings."

One point refers to the surroundings or environment in which one introduces the objects or substances to be explored. An interviewee claimed that this environment should be comfortable and in some cases familiar to the child. A pair of interviewees noted the importance of exploration. "It's just a lot of experience, a lot of opportunity to touch and explore everything in their environment", was offered by one interviewee. A second interviewee claimed, "That's really number one, providing the experience to touch, it really helps."

3.7 Methods used specifically in Art

When considering the theme art the interviewees provided a myriad of approaches used to lessen tactile defenses. The interviewees incorporate varying materials into the students' art-making process. They integrate the use of traditional and non-traditional materials, including edible substances. Two interviewees suggested cooking and/or baking. This activity encourages the students to touch, smell, and even

taste various ingredients such as: flour, porridge, pudding, cookie dough, Jell-O, and more. One interviewee pointed out the exploration of the various art materials as being one technique used. The interviewee stated, “To feel the materials. To be able to recognize them. To see what they can do with them. If they don’t like the materials at the beginning, to help them do it. To help them be more comfortable with using a variety of different materials.”

Materials described by many of the interviewees included: paint, crayons, glue, scissors, pre-cut shapes, modeling dough, clay, plaster of Paris, papier-mâché, tissue paper, wicky sticks, pom poms, eggshells, rough paper, felt paper, soft cotton, shaving cream, as well as pipe cleaners. Many of the interviewees used finger painting exercises with their students. Some of the interviewees would add tactile ingredients, such as sand to the finger paint for increased texture. Therefore, while the student is finger painting as well as once the paint has dried the sense of touch would be heightened. The interviewees focused on exploring diverse materials as a crucial part of the art curriculum. One interviewee expressed that sometimes the students simply play, “We play sometimes with shaving cream or Jell-O or pudding or whatever. That helps a lot actually, the shaving cream, it’s got a good smell and it’s not so offensive to touch as some of the other things that you might be playing with in art.”

3.8 Effective Treatment Modalities

The interviewees focused on a pastiche of alternative treatment modalities for the students. Many of the interviewees reiterated the importance of incorporating all of the child’s senses, hearing, tasting, smelling, and touching. One interviewee stated, “They do

a lot of sensory integration where they're getting all of them working together." One interviewee suggested the use of music. In addition, the use of Physical and Occupational Therapies were offered. The provision of many opportunities was reiterated by many of the interviewees. One interviewee claimed, "I mean mostly with a blind child it's probably mostly because they don't know what it is and they don't know what it does and they don't know if it's gonna hurt them, or it feels icky and they just want to know what it is," and went on to explain, "I mean if I put a blindfold on you and put a whole lot of things in front of you, you probably wouldn't want to touch it."

3.9 Awareness when working with these Children

A variety of additional topics were discussed within the semi-structured interviews. In relation to the interviewees' experiences, many very important points were mentioned. For the purpose of this research the following section will include quotes from the interviewees which apply to one's awareness as well as the way in which one could work with children who are blind. One interviewee explained, "Developmentally when we use language or sighted, quote unquote sighted things, I think that it should absolutely be used with our kids, like I see this, I saw that..." Another interviewee claimed, "I've seen children, they're children which are not very active motor wise, which are not like crawling or jumping or you know doing crab crawls or anything like that, the development, the tactile development is affected because the strength is just not as much there." A final suggestion made by one interviewee included, "So, there's a lot that you have to consider that you just don't know almost..." (One example could be whether a child has touched a hot burner).

Chapter 4: The Art Therapy Approach

The combination of developmental psychology and theory, as well as developmental and adaptive art therapy approaches forms the base of the following art therapy approach. Jean Piaget's (1897-1980) theory of cognitive development, Montessori's (1870-1952) theory of development, Williams & Wood's (1977), and Aach-Feldman & Kunkle-Miller's (2001) developmental art therapy and adaptive art therapy implemented by Anderson (1992) inform the art therapy approach.

Incorporating the sensorimotor stage of development and the sensitive period from birth to age six, therefore focusing on the development of the senses, establish this art therapy approach. Montessori (1966) and Piaget (1929) each believe that this stage is most crucial to one's development, Piaget to cognitive development and Montessori to physical and psychological development. Montessori and Piaget consider these stages as the time in which a child is constructing his/her personality through experiences with their environment. For a child to interact with their environment they must have the need, want, and desire to explore this environment. Without this desire the child will remain an 'observer' to the environment which surrounds them. For the child who is blind the desire to explore the unknown must be fostered for his/her overall development.

Art is a modality that incorporates all of a person's working senses, smell, sound, taste, sight, and touch. Oftentimes, one's therapeutic goal in art therapy, with various populations is increasing sensory awareness or sensory experiences. In the literature, which incorporates this goal, authors do not elaborate except to say that art making allows for a greater sensory experience (Rubin, 2001; Anderson, 1992; Scanlon, 1993).

For children who are blind, developing their sense of touch, sensory awareness or sensory experiences will aid in the development of other areas: mobility, spatial concepts, gross and fine motor coordination, language, body concept, Braille reading, cognitive abilities, motor skills, social relationships, emotional and conceptual development as well as others (Hill & Blasch, 1980; Hill, Rosen, Correa & Langley, 1984; Hollins, 1989; Warren, 1984). In the following art therapy approach the number one goal of therapy is to aid the child in developing his/her sense of touch or lessening his/her level of tactile defensiveness. Combining diverse sensory experiences complements the following goals: increases self-esteem, self-expression, communication, independence, sensory awareness, self-concept, interpersonal skills, autonomy, exploration, and self-confidence as well as many others. Children who are blind are unique and require therapeutic needs at varying ages and stages of development. Therefore, the utopian goals would be structured individually for each child.

4.1 Initial Assessment

The art therapist should take the opportunity to conduct an assessment on the child before beginning therapy. In order to conduct the assessment the art therapist will gather information from varying resources. The procedure of assessment would differ from client to client. The process may take a few hours for one client or a few days for another. The power of observation is essential to this particular population, children who are blind and tactile defensive. One should observe the potential client in a variety of natural settings, such as classroom, home, or outdoors, with a particular awareness for

clues that speak to a hypersensitivity to touch. The way in which the child interacts with their environment and/or space would yield pertinent information.

Stock-Kranowitz (1998) offers clues to look for when assessing these children.

Does the child stand in one spot? Does the child attempt to move in space? How does the child move from one place to another? Will the child initiate contact with other students, materials, or activities? These observations will help indicate where the child's spatial and tactile development lay. One should also pay close attention to the way in which the child interacts with others around him/her. The art therapist should answer the following questions. How does another person approach the child? How does the child react when touched, or when someone is near them? How does someone get the child's attention? Does the child react differently depending on the person?

These clues will aid the art therapist to determine the way in which they will interact with the child. When the child is asked to do a specific activity, which incorporates the use of touch, the art therapist may look for the following: is the child engaged?; how does the child interact with the materials given?; does he move away, touch them lightly, or scream and/or throw the materials?; does the child's reaction depend on the material being given?; if the activity is explained in detail before the child is expected to start, how does the child react? (Stock-Kranowitz, 1998) These are signs that could assist the art therapist in planning introductory sessions. While one is observing, they are looking for hints that would reinforce or emphasize a hypersensitivity to touch. One key element to ask oneself is, does the child seem to be in pain when they are touched or when they are asked to touch certain objects or materials?

While one is observing the child in his/her natural setting it would be useful to interact with the child. Upon initial observation, the art therapist is advised to communicate with the child. One way, would be to introduce oneself to the child and ask permission to join in on the task being completed. If the child allows, work side by side paying close attention to the child's reactions: to yourself; the materials; and the surrounding environment. The aim and goal of this interaction is to gain a sense of where the child is most sensitive. In conjunction, this interaction will give the art therapist leads on how to organize and implement the art therapy sessions for the child. Moreover, this opportunity will better inform the art therapist as to the needs of the child and consequently the goals to be carried throughout the sessions.

In addition to observing the child in his/her natural setting it would be beneficial to have an informal interview with those people who are closest to the child. Ideally, one would want to discuss the child with those people whose involvement would prove to be most relevant to the area of the development of touch. Supposing those people who are most informed regarding the child are his/her parent(s), caregiver(s), teacher(s), or perhaps educational assistant(s), approach them with questions regarding the child's tactile defensiveness or development of touch. The questions asked should include questions related to "how the child receives, interprets and consequently acts upon different types of sensory information during a given task", explained by McLinden & McCall (2002).

Stock-Kranowitz (1998) presents suggestions to ask those who are in close contact with the child. Can you describe your child and/or student when he/she is asked to play with various objects (give examples: stuffed animals, ball, water, building blocks,

modeling dough)? Be sure to include a wide variety of textures as examples, soft, hard, smooth, rough, pliable, 'goosey', cold, hot, wet, etc. Ask them questions related to cooking. Does the child help in the kitchen? If the child does help what types of ingredients will he/she touch? In combination ask how the child reacts if he/she touches something that he/she does not typically touch. The answers to these questions will aid the art therapist in knowing what activities to begin with in therapy. An important question to ask the person being interviewed would pertain to whether the child has ever had an experience in which they have touched something that has harmed them, and would harm any other person. The example given in the semi-structured interviews referred to touching a hot burner. This information will aid the therapist in knowing what textures or temperatures to avoid. It will also give the therapist a sense of why the child may be less apt to explore objects in their environment. Once the initial assessment has been completed and the therapist has a sense of the client as well as his/her hypersensitivity to touch the therapist will begin planning for the art therapy sessions to follow.

4.2 The Role of the Art Therapist

The role of the art therapist in this particular approach incorporates the viewpoints of Williams & Wood (1977), Aach-Feldman & Kunkle-Miller (2001), as well as Anderson (1992). The role of the art therapist is to be first facilitator, second observer, and third active participant. When working with this population the art therapist must have excellent skills in problem-solving, active listening, observation, sensitivity, creativity, and of utmost importance, patience.

In the introductory sessions, the art therapist will be included in the process, taking a more active role, aiding the child with deciphering, recognizing, and exploring various materials. As Aach-Feldman & Kunkle-Miller (2001) explain, these beginning sessions allows the therapist an opportunity to establish contact with the client through active participation. The building of a trusting relationship will be of utmost importance with this particular population. If the client has not previously partaken in a certain activity the exploration and demonstration of the art activity may need to be shown hand over hand. The therapist should allow the client to proceed with the exploration at his/her own pace.

As the client becomes more comfortable with the therapist, the materials, as well as the art process the therapist can begin to take on the role of facilitator. The art therapist will allow the client to choose the activity or the materials to be used in the session. The therapist may need to suggest activities, however he/she should always give the client options at this point. This will aid in fostering the goals of independence, self-esteem and self-confidence. In this position the therapist would intervene or become active again only if he/she sensed frustration in the client or was asked for help and deemed it necessary (Williams & Wood, 1977).

The role of observer would be in play at all times during the sessions and the art therapy process. Williams & Wood (1977), stress the role of the observer in their developmental art therapy approach. When working with this population the therapist will at times be in a position to explain what the client has produced. In this role it is often most successful if the therapist does not interpret, however describes the client's product in detail. Include the senses that were involved in the art making process. An

example would be the different sounds that applying paint to a surface can make, soft, noisy, startling, etc.

The role of observer is of utmost importance throughout the process. In order to respond, to reinforce, and assist in attaining their goals the therapist must be in the position of observer. The use of verbal prompting and verbal explanation is also a must when working with this population. Anderson (1992), claims:

The language used to present art experiences and to discuss art processes and products needs to be embellished with analogies and metaphors that go beyond visual experiences and rely on all the other senses. For example, colors could be associated with objects or experiences in the environment. Blue could be described as associated with the feel of water, red with heat or hot-tasting spices such as chili or red peppers. Metallic could be described not only as shiny but as being like the tin foil used to wrap food for baking. (p. 90)

Throughout the process the art therapist's role will have to adapt to the client's position. Wherein the client is exploring new media for the first time the therapist will have to return to the role of active participant until the client becomes familiar and comfortable with the new material presented. In the role of therapist it is also crucial to allow the client to take the lead. As was mentioned in the semi-structured interviews pressuring or forcing a client to try something new could be detrimental to their development.

4.3 Interacting with a child who is blind

The information given in the semi-structured interviews as well as the researcher's own experience aid to define the importance of the ways in which one interacts with this population. When working closely with children who are blind remember to introduce one-self when one enters a room, so as not to startle the child. You will need to address the child by name, due to the fact that the child cannot see (Harrison & Crow, 1993). In the beginning, the art therapist will need to guide the child through the room that will be used. During the first session, as client and therapist become acquainted, the therapist should walk around the room, with the child, pointing out where particular things can be found. As was mentioned in the interviews the ideal place for therapy to occur would be a space familiar to the child, either in their school, home, or rehabilitation centre. In such a case the art therapist would only have to introduce the child to the placement of the art materials and any other objects which he/she has added to the room. However, if such a place is not feasible the art therapist will have to introduce the child to the room as a whole, including light switches, doors, sinks, tables, chairs, shelves, cupboards, etc. The therapist should focus on enabling maximum mobility within the room and enabling easy independent access to the art materials in the room (Anderson, 1992).

When an art therapist works with a child who is blind one can expect to produce many adaptations, with the process and the materials. Anderson (1992) explains some of the adaptations that may need to be put in place. She specifies the following adaptations: a consistent work area; different size containers for different paint colours; utilizing a tray to provide working space limits; placing a piece of tape, dab of glue or a rip in one corner

of the paper to provide a point of orientation; and securing the tray to the table with C-clamps and/or tape. The interviewees also suggested various adaptations for the children. For the child who is tactile defensive allowing him/her to paint with gloves on their hands is helpful. When creating sculptures out of clay being able to manipulate the clay in a plastic bag can assist in relieving some of the child's anxiety. Many other adaptations will be needed on a one-to-one basis throughout the art therapy process.

4.4 The Art Therapy Process

The focus of the initial sessions will be to build rapport between the client and the therapist. At this time the therapist and/or client will have set out specific goals, aside from the development of the tactile sense, to be attained throughout the length of therapy. Montessori (1966) stresses the importance of developing the sense of touch, or the use of the hand. Montessori states, "The human hand, so delicate and so complicated, not only allows the mind to reveal itself but it enables the whole being to enter into special relationships with its environment." (p. 81) These goals will depend on the client and his/her needs. As is noted in both the literature and the semi-structured interviews the therapeutic goals for these children will be determined on an individual basis, as with any other child. One client may need to foster independence, self-esteem, and exploration. While another client may need to focus on building a self-concept, appropriate social skills, and the use of their hands. Clements & Clements (1984) explain that as most people, children who are blind have difficulty expressing their emotions freely. The art therapy space is one in which the child can feel comfortable and at ease with expressing

one's emotions. This expression of emotions can be done verbally, by explaining one's art process or product, or physically by the way in which the client manipulates the materials. One component that was reiterated throughout the semi-structured interviews, was the incorporation of all other working senses within the process of art making. Therefore, the art therapist should make a concerted effort, not to overload the senses, but to combine the client's other working senses within the art process. One example includes listening to the paint as it is being applied to the paper and exploring this sound. Applying paint to a plain white 8x10 sheet of paper will make a different sound than applying paint to a piece of sandpaper or a sheet of tissue paper. A second example involves using products that have a built-in scent, markers, modeling dough, paint, or stickers (Anderson, 1992). Encourage the client to describe what they smell and elaborate on the description, to include comparisons and perhaps feelings. Clements & Clements (1984) offer an excellent description of the sensory experience involved in the process of art making:

The hiss of the printmaking brayer in the ink and its squeak as it goes on the paper, the clay that smells like the beach, the squeak and squeal and gasoline smell of marking pens, the swish of the paintbrush in the rinse water, the patting noise as the paint-laden brush leaves the paint jar, the clatter of tumbling wood blocks, the smack and thud of clay being wedged, the minty clean smell of paste, the squeal and thud of the loom packing the weft, the rhythmic slicing purr of scissors cutting paper, the cherry smell of the soap as hands and brushes are cleaned, the squealing scrunch as nails are pressed into styrofoam - (p.116)

In the beginning sessions the art therapist will take a directive stance, choosing what activities the client partakes in. The materials used should be adapted to be used with the client. Therefore, to begin the materials may be solid, soft or hard. The first few art therapy sessions could be spent simply exploring the various materials. The art therapist and client may need to sift through all of the materials together at the same time to name and describe them. Depending on the client's previous art experiences this process could take more than the first few sessions. In order for the client to become comfortable with the materials and the process returning to previous art activities, from time to time, will be beneficial. The client may be encouraged to begin a new art activity with materials previously used or add onto a previously created art piece. This encourages the client to explore at a relaxed pace because they are more familiar and comfortable with the materials. Throughout or at the end of the art therapy session the art therapist must be sure to allow time for the client to discuss his/her art process and final product. The discussion or explanation of his/her process is another point at which various goals can help to be fostered.

When the art therapist deems the client ready to explore materials that incorporate more of the wet and 'goeey' substances these materials should be introduced with activities that have been accomplished in previous sessions.

The following chapter explores varying art activities, which are to be implemented at varying times throughout the art therapy process. These art activities are designed to be helpful guidelines when working with this population. The activities that one chooses to carry out will vary greatly with the client. The client may begin therapy ready to engage in activities that fall under the mid-session category. Some clients may

never reach the end art activities. The key is not to follow the guidelines exactly. Many of the activities presented will need to be adapted for each client. The distinction is to follow the client.

Chapter 5: Art Activities

Harrison and Crow (1993) state, “Unconventional methods may be needed to motivate and interest a child – There’s no one right way – If it works it’s the right way”. (p. 105)

5.1 Beginning Art Activities

In the beginning of the art therapy sessions it would be advantageous to use materials that will not cause a strong negative reaction. According to a number of the interviewees, typically materials that are dry, solid, soft, or hard would be ideal. The client who is blind as well as tactile defensive will more than likely not take to any ‘gooey’, or wet materials. Therefore the following activities are to be used in the beginning phase of therapy. The key to the beginning stages is to have the client explore various media. The process by which he/she achieves the exploration is crucial to the client’s success. Therefore, allow the client to explore at his/her own pace. The following activities have been gained from literature, semi-structured interviews as well as personal experience. Swenson (1987) offers the following activities:

Materials: Large styrofoam packing pieces (such as those used to protect stereo components); styrofoam packing chips of different shapes; toothpicks; pipe cleaners.

Directions: Cut the packing pieces into sections. Place a variety of chips and toothpicks in a bowl. Let the child choose a styrofoam section to serve as a base

for the sculpture. Encourage tactual exploration of its shape, including holes, bumps, corners, and rough and smooth edges. Demonstrate how to stick a toothpick through a packing chip and attach it to the base. Pipe cleaners may be used in addition to toothpicks. The child can bend or curl them into a variety of shapes before adding them to the sculpture. (Swenson, p. 122)

Goals: exploration of materials, fine motor skills, creativity, and self-expression.

Materials: Glue or paste; 5-6 small boxes of varying sizes and shapes.

Directions: Encourage the child to spend some time building with the boxes.

When a pleasing arrangement has been chosen, the sculpture can be glued together. (Swenson, p. 122)

Goals: gross and fine motor skills, exploration, self-confidence, and imagination.

Materials: Large sheet of paper or cardboard; assorted kinds of tape – Scotch tape (on dispenser), masking tape, colored tape, packing tape, graphic art tape; scissors; feathers.

Directions: Let the child examine the different kinds of tape and discuss their characteristics and uses. Guide the child in cutting or tearing short pieces of tape and sticking them to the table edge where they can be found easily. The child can then attach feathers to the paper using tape. This activity can be repeated with many other types of household objects, such as bottlecaps, styrofoam packing chips, and screws. Children often like to test their taping job by holding the picture upside down to see if anything falls off. (Swenson, p. 122-123)

Goals: movement, use of the hands, exploration, gross and fine motor skills, and spatial development.

Clements & Clements (1984) suggest the use of various materials that when drawn with will leave a slightly raised line on the paper:

Materials: Grease pencils; china-marking pencils; crayons; oil pastels; paper.

Directions: Have the client choose one or a number of marking tools and a piece of paper. Allow the client to explore by applying different levels of pressure and amount of marks. (p. 125)

Goals: creativity, sensory awareness, and fine motor skills.

Materials: Dull pencil; aluminum foil; metal foil; acetate; styrofoam meat trays.

Directions: Have the child choose which paper to use. Place the foil or acetate on a pad of rubber or newspapers. Allow the child to delve into the process by creating any design that comes to them. (Clements & Clements, p. 125)

Goals: independence, creativity, concept development, body awareness, and self-expression.

Materials: Pipe cleaners; bare wire; styrofoam piece.

Description: Have the client choose a piece of styrofoam to use as a base. With the use of pipe cleaners or bare wire encourage the child to bend and twist the material into any shape warranted. Explore different ways of incorporating both the bare wire and the pipe cleaners.

Goals: exploration of materials, autonomy, identifying objects, and self-esteem.

Materials: Velcro; pre-cut paper (made into a book); cardboard; textiles; cloth; fabrics (all different types); scissors.

Description: Introducing varying types of textiles, cloth, fabrics (see Appendix E), and having the client explore them with all of their working senses. After exploring the various textiles, cloth, and fabrics encourage the client to use scissors to cut shapes out of the materials and Velcro the shapes onto paper, to make a book, poster, or simply collage. If the client decides to make a book ask them to either create a story or name the book.

Goals: sensory awareness, concept development, self-concept, individuation, distinguishing textures, communication/language skills, and self-expression.

Materials: Spray bottles; powdered tempera paint (all different colours); water; paper; tape.

Directions: In spray bottles mix a portion of water with powdered tempera paints. One bottle per colour. The client can “spray paint” on a piece of paper taped to the wall, on the floor, or on a long table. This activity incorporates the sense of hearing with the sense of touch. Encourage the client to name or define the sounds as well as the feel of the paint, which may be in a puddle or dripping down the page.

Goals: body awareness, sensory awareness, language/communication skills, exploration, spatial concepts, self-expression, autonomy, and creativity.

5.2 Mid-way Art Activities

Once the client has become comfortable with the therapist and the process, it is time to begin to introduce more of the wet, or 'goeey' materials. As was explained in the interviews, the way in which one introduces these materials will be very meaningful to the client. At this point it would not be advisable to thrust the client into an activity such as finger painting. However, the introduction of paint could be made in a more structured way, with the use of paintbrushes. The client may respond well to modeling dough or plasticine although may not respond well to clay. Clay can be cold, wet, unmanageable, and overwhelming for the client at this point. Yet modeling dough or plasticine has a drier consistency, which is easier to control. Introducing collage may be warranted at this point in time.

Some suggestions for mid-way activities would be to revisit or return to some of the activities that were rendered in the beginning sessions. At this point the client can begin to add to these processes. For example the client may choose to add paint to the styrofoam sculptures.

Swenson (1987) explains the first activity:

Materials: Glue or paste; large sheet of paper or cardboard; a variety of common paper products (e.g., paper plate, tissue paper, old Braille worksheet, wax paper, newspaper, paper towel, tissues).

Directions: Let the child assist in collecting the different kinds of paper from around the house or classroom. Discuss the attributes and purposes of each. Tactually demonstrate how to tear a paper slowly into an interesting shape,

discarding the excess. When the child has torn all the paper items, the collage can be assembled by gluing the papers onto the large sheet. (p. 123)

Goals: independence, communication/language skills, fine and gross motor development, self-expression, emotional development, body awareness, and concept development.

Flowers (1992) recommends a variety of ways to implement collage:

Materials: Dried weeds, dried flowers, pebbles, sticks, string, pine cones, glue, bark (good size pieces).

Directions: After you have gathered your materials and let them dry, arrange them on the bark. Then put a dab of glue under each piece and let them dry. Glue a loop of string on the back for a hanger. (Flowers, p. 11)

Goals: self-confidence, body movement, and imagination.

Materials: Plastic bag, white glue, cardboard, egg shells (at least six eggs).

Directions: Either boil the egg and remove the shell when it is cool or punch small holes in the ends of the shells and blow the egg out uncooked. Put the egg shell in the bag. Roll, punch, squeeze the bag until the egg shells are in the desired size pieces. Put glue on the surface and carefully place the egg shell in place or sprinkle it on the glue. Make a picture, an egg shell tower, your name or a design. When it dries, run your fingers over it. (Flowers, p. 15)

Goals: sensory awareness, fine and gross development, spatial concept development, self-expression, and emotional development.

Materials: Aluminum foil, wax paper, plastic wrap, sandpaper, glue, pretty piece of wallpaper.

Directions: Smash the different materials into balls. Glue on the surface. Make a picture. Make your name. Make a design. See how tall you can make it. (Flowers, p. 18)

Goals: imagination, emotional development, language/communication skills, body awareness, individuation, and concept development.

Materials: Popcorn, beans, rice, white glue, cardboard (painted or covered with construction paper).

Directions: Glue the construction paper to the cardboard. Make a design with the beans, rice, and popcorn. Make a picture. Make a progression from small to big. (Flowers, p. 21)

Goals: sensory awareness, fine and gross motor development, exploration, creativity, and self-expression.

Materials: Finger paint, liquid hand soap, mittens, newspaper.

Directions: Hang the paper on the wall so the child can use their hands outstretched. Mix the paint with a little soap. Put the mittens on and put them in the paint. Put the mittens on the paper. (Flowers, p. 66)

Goals: body awareness/movement, sensory awareness, concept development, self-confidence, and creativity.

Materials: Paint; paintbrushes; variety of paper, tissue, wax, construction, corrugated, etc; canvas.

Description: Have the client investigate the different types of paper and choose one piece. With a paintbrush have the client paint while paying close attention to his/her other working senses.

Goals: independence, body awareness/movement, sensory awareness, language/communication skills, fine and gross motor skills, and self-expression.

Materials: Plasticine; modeling dough; carving tools; piece of wood; styrofoam tray.

Description: Encourage the client to first and foremost manipulate the plasticine or modeling dough, making several shapes with the substance. Next encourage the client to connect the various shapes using the piece of wood or styrofoam tray as a base for the sculpture.

Goals: fine and gross motor skills, body awareness/movement, exploration, concept development, self-esteem, creativity, imagination, and self-expression.

Materials: Brown paper bags; paper plates; glue; pre-cut foam or paper shapes; string; yarn; popsicle sticks; oil pastels; crayons.

Description: Have the client combine the materials either on the brown paper bags or the paper plates to create a puppet of any kind. Once the puppet has been finished encourage the client to invent a character including a name, home, personality, friends, etc.

Goals: sensory awareness, concept development, individuation, language/communication skills, imagination, creativity, self-esteem, emotional development, social skills, and self-expression.

Materials: Plexiglas; paper; paintbrush; paint; rollers.

Description: Have the client use the roller to roll their choice of paint onto the sheet of Plexiglas. Next, have him/her use the paintbrush or any other tool to create shapes, or designs, in the paint. Then have him/her place the sheet of paper over the Plexiglas and roll, using the clean roller, over the paper. Once this is finished the client can lift the piece of paper from the Plexiglas. Allow the paint to dry and investigate the shapes and designs created.

Goals: body awareness/movement, creativity, gross and fine motor skills, self-expression, self-confidence, individuation, self-esteem, and sensory awareness.

5.3 Ending Art Activities

At this point in time the client will be prepared to explore the 'gooey' substances or materials. This is the point at which the client may want to explore finger painting. A number of the interviewees suggested the following; to begin this process, the therapist may want to suggest covering the hand or fingers with something, perhaps a piece of plastic wrap and/or wax paper. As the client begins the process the plastic wrap and/or wax paper will eventually wrinkle and the client's whole hand has the potential of working with the finger paint.

Materials: Wood pieces; sponges; paint; paper; canvas.

Description: The wood pieces and sponges are previously cut into a variety of shapes. The client is encouraged to place the various shapes into the paint and stamp onto the piece of paper or canvas.

Goals: sensory awareness, concept development, body movement, self-expression, autonomy, and identifying/distinguishing objects.

Throughout many of the semi-structured interviews the following ideas were expressed as an art activity.

Materials: Finger paint; eggshells; sand; liquid soap; beans; sparkles; large piece of paper.

Description: This activity could be prepared beforehand or the client could mix the ingredients of their choice with the finger paint. The activity would simply be to use their hands and fingers to ‘play’ in the finger paint to create a painting. The process of this activity includes the handling of the final product, once dried.

(Interviewees)

Goals: independence, sensory awareness, emotional development, gross motor skills, body awareness/movement, and exploration.

Materials: Black poster paint, *or any other colour* [italics mine], liquid hand soap, balloons, white construction paper.

Directions: Mix the paint with a little soap. Blow the balloons up. Don't make them so big that you can't grab hold of them easily and manipulate them. Tie the ends. Dip the balloon in the paint and blot it on the paper. Rub it on the paper. Drag it on the paper. (Flowers, p. 34) *Roll up the paper and throw the paper around.* [italics mine]

Goals: concept development, individuation, body movement, sensory awareness, creativity, and self-concept.

Materials: Red and yellow poster paint, liquid hand soap, cooking baster, eye dropper, vinyl.

Directions: Mix the paint with a little soap. Fill the cooking baster with the red paint and dribble or gush it all over the vinyl. Fill the eye dropper with yellow paint and dribble or gush it all over the vinyl. Compare the two. Did the baster make a different pattern than the eye dropper? What color did the two paints make when they met each other on the vinyl? (Flowers, p. 38)

Goals: concept development, sensory awareness, imagination, and language/communication skills.

Materials: Ice cubes, finger paints, liquid hand soap, white finger paint paper.

Directions: Put an egg size gob of paint on the paper. Plop the ice cube into the paint. Add a little soap. Move the ice cube through the paint and all over the paper. Try to keep going until the ice cube is melted. (Flowers, p. 45)

Goals: sensory awareness, emotional development, identifying objects, and body movement.

Materials: Poster paint, liquid hand soap, cars – little, big, with fat wheels, with skinny wheels, paper bag.

Directions: Mix the paint with a little soap. Drive the car through the paint. Drive the car on the paper. (Flowers, p. 57)

Goals: body awareness/movement, self-expression, sensory awareness, and individuation.

Materials: Poster paint – red, yellow, blue, green, liquid hand soap, golf ball, tennis ball, nerf ball, small football, basketball, felt.

Directions: Mix the paint with a little soap. Roll the golf ball in the red paint. Roll it on the felt. Roll the tennis ball in the yellow paint. Roll it on the felt. Roll the nerf ball in the blue paint. Roll it on the felt. Roll the small football in the green paint. Roll it on the felt. *The therapist* can stand across the table from the child with felt on the table and roll the ball back and forth to each other. (Flowers, p. 58)

Goals: individuation, body awareness/movement, social skills, language/communication development, identifying/distinguishing objects, and emotional development.

Materials: Vaseline, finger paint, liquid hand soap, roll – paper towel, wrapping paper, toilet paper, etc., aluminum foil.

Directions: Mix the paint with a little soap. Add a gob of Vaseline and mix together. Roll the roll in the mixture and roll it onto the aluminum foil. (Flowers, p. 67)

Goals: sensory awareness, concept development, and creativity.

Materials: Poster paint – red, orange, green, liquid hand soap, apple, orange, cucumber, black fine line marker, white construction paper.

Directions: Mix the paints with a little soap. Slice the apple, orange and cucumber in halves. Dip the apple in the paint and on the paper as many times as you wish. Do the same with the orange and the cucumber. Do all three on one paper or make a separate paper for each. Use red for the apple, orange for the orange, and green for the cucumber, or mix the colors up and make the apple orange or green etc. When dry outline the shapes with the marker. (Flowers, p. 74) (In the case of the child who is blind he/she could outline the shapes with glue or string.)

Goals: concept development, sensory awareness, communication/language skills, and fine and gross motor skills.

Materials: Finger paint – brown, sand or cornmeal, liquid hand soap, white finger paint paper.

Directions: Sand and cornmeal are very similar in the feel and effect. I use whichever is handy. Mix the sand or cornmeal or both into some finger-paint and soap. Swirl the mixture around on the surface. Make a design, Make a picture. Make your name. (Flowers, p. 75)

Goals: concept development, language/communication skills, sensory awareness, and self-expression.

Materials: Cooked pasta – any shape, poster paint – green, liquid hand soap, white glue, paper plate.

Directions: Mix the paint with the limp pasta. Scoop the mixture onto the paper plate. Smash it, swirl it, roll it around. (Flowers, p. 81)

Goals: sensory awareness, concept development, self-expression, imagination, and fine and gross skills.

Materials: Plaster of Paris, water, pitcher, paper clip, sand in a box or shallow tray.

Directions: Get the sand damp. Press your hand into the clay. Make sure it has made a deep enough impression. Mix the plaster of Paris with the water according to the directions on the box. You can mix it right in the pitcher. Pour into the hand impression. Bend a paper clip and stick it into the plaster for hanging later. Let dry. (Flowers, p. 116)

Goals: body awareness, concept development, self-concept, individuation, and autonomy.

Materials: Bar soap, water.

Directions: Cut the soap into small chunks and some larger chunks. Soak them in water. When it is nice and gooey, mold the chunks into shapes and stick them

together. Make a person. Make a shape. Make your name. When it dries, it can be your very own, personal soap. (Flowers, p. 120)

Goals: concept development, autonomy, self-concept, and sensory awareness.

Materials: Newspaper strips, white flour, water, poster paint, bowl, balloon.

Directions: Blow up the balloon and secure the end. Mix the flour with water until it is the consistency of gravy. The strips are easier to work with if they are about 1" to 2" wide and about a foot long. Dip the strips, one at a time, into the gravy. As you pull the strip out, run two fingers down the front and back of the strip removing excess paste. Wrap the strip around the balloon and smooth it down. Repeat until the balloon is covered with a light layer. Let it dry and repeat the process. When you are all finished, you can either pop the balloon with a pin or let it wither away all by itself. Decide what you are going to make out of your shape and paint it. (Flowers, p. 121)

Goals: sensory awareness, concept development, fine and gross motor skills, and imagination.

Materials: Clay; sculpting tools; piece of wood; styrofoam tray; water.

Description: Have the client investigate and manipulate a manageable piece of clay. Encourage him/her to use the sculpting tools to make different indents, designs, shapes, etc.

Goals: sensory awareness, fine and gross motor skills, self-concept, creativity, self-expression, and confidence.

Throughout this particular art therapy approach the client's main goal is to develop his/her tactile sense. Complementing and in addition to this goal communication skills and emotional development should be incorporated into varied sessions. Inviting the client to discuss his/her feelings and emotions during the process of art making is imperative to the client's progress. Depending upon the individual client a number of diverse and personal goals should be fostered throughout the sessions. Over the course of therapy the therapist should be attentive to the following indicators of growth: the client's comfort level with the art materials and the therapist, the client's ability to explore the materials independently, the client's tolerance level when introduced to new or 'goeey' materials, and the client's disposition throughout the session. Remembering of course that each and every client is unique and has their own strengths and needs.

Chapter 6: Discussion

The literature and the findings from the semi-structured interviews conducted support the development of an art therapy approach for children who are blind and tactile defensive. Strickling (2003) states, “The blind child is often hesitant to explore because of fear of the unknown. He is also discouraged from exploration by adults who are overprotective. Without concrete experiences, the child will not develop meaningful concepts or the language to describe or think about them.” (p. 5) In the therapeutic space of the art therapy room the child is encouraged to explore different materials and mediums to facilitate the development of the tactile sense. In addition to this exploration the child will have the opportunity to work on other personal goals that may need to be fostered. Aach-Feldman & Kunkle-Miller (2001) purport that many children with autism are tactile defensive. However, through the exploration of art materials in an art therapy session, with a focus on encouraging contact with the environment, the development of the tactile sense can be fostered and advanced. The significance of exploring the sense of touch and additional goals in an art therapy session is furthered by the therapeutic space. Lonker (1982) explains that those children who cannot gather sensory information are also at risk of not developing skills of independence and self-confidence.

Many of the techniques used and methods offered by the interviewees can be incorporated into art therapy sessions. In addition, many of the developmental and therapeutic needs depicted in the interviews could be potential goals for specific clients, depending on individual needs and interests. Children who are born blind are a population who are under-represented in the area of art therapy. The researcher proposes

the following reasons and/or myths: lack of vision; inability to make art; not benefiting from involvement in the visual arts; participating in the visual arts would be frustrating; music therapy would be more beneficial. Swenson (1987) contradicts this notion, "Young visually impaired children, like their sighted counterparts, need opportunities for creative expression. In fact, their need may be greater because of the extremely structured nature of much of their learning." (pp. 120-121) The research findings from the semi-structured interviews also contradict these myths or ways of thinking. The interviewees imply a need for children who are blind to be involved in creative art making. The development of the tactile sense for a child born blind, according to those interviewed, is an important element for the child's development and learning process. According to the answers given it is important for various areas, developmentally, emotionally, cognitively, and socially. It is important for their growth and development to be in tune with the feelings and associations which could present themselves in an art therapy session. It is definitely pertinent for these children to not feel different from their same age peers, or incapable in areas in which they are just as capable of succeeding.

This particular study was limited in scope, proving it is essential that this area of inquiry continue to be researched and refined. In particular, implementing the art therapy approach and tracking results throughout the process. Thus far, much of the literature, which pertains to children who are blind and tactile defensive, remains in the profession of Occupational Therapy. The continuation of research in the area of art therapy would be beneficial to children who are blind and tactile defensive as well as the art therapy domain.

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Appendix A

Interview Questions

For the purposes of this research, 'children who are blind' refer specifically to children who do not have any residual vision.

1. On a scale of one to ten, where would you place the importance of the tactile development in children who are blind?

LOW 1 2 3 4 5 6 7 8 9 10 HIGH

2. What do you feel are the developmental needs for children who are blind?

3. What do you feel are the therapeutic needs for children who are blind?

4. How do you think a hypersensitivity to touch/tactile defensiveness affects the development of the tactile sense in children who are blind?

5. Do you think a hypersensitivity to touch would affect other areas of development?

6. Are there methods which you have incorporated, to aid in the development of the tactile sense?

If so, can you describe some?

7. Specifically in art, what are some of the methods you have used to lessen tactile defenses? Can you describe them?

8. In regards to a hypersensitivity to touch what are some treatment modalities that you have found effective?

Appendix B

Interview Consent Form

I the undersigned, _____

Authorize, _____ Stephanie A. McMath _____

To audio record, transcribe, and publish any information deemed appropriate, for educational/research purposes.

However, I make the following restrictions:

I understand that:

Taking part in this interview is completely voluntary.

It is my right to decline to answer any question that I am asked.

I am free to end the interview at any time.

My name and identity will remain confidential.

I have read this consent form. I have had a chance to ask any questions concerning areas that I did not understand.

Signature of Interviewee

Date

Signature of Interviewer

Date

Appendix C

Consent Information Letter

Art Therapy Student: Stephanie A. McMath
Concordia University, 1455 De Maisonneuve Blvd., West.

Supervisor(s): Louise Lacroix, ATR

Background Information:

One of the ways art therapy students learn how to be art therapists is to write a research paper that includes information collected from a number of sources. The purpose of doing this is to help them, as well as other students and art therapists who read the research paper. To increase the students and art therapists knowledge in giving art therapy services to various populations. The long-term goal is to benefit and inform those who may engage in art therapy in the future.

Permission:

As a student in the Master's in Creative Arts Therapies Program at Concordia University, I am asking your permission to conduct an interview with you. I am also asking your permission to audio record the interview conducted. A copy of the research paper will be bound and kept in the Concordia University Library, and another in the Program's Resource Room. This paper may also be presented in educational settings or published for educational purposes in the future.

Confidentiality:

As an interviewee, it is understood that your confidentiality will be respected in every way possible. Neither your name, nor any other identifying information will appear in the research paper.

Advantages and Disadvantages to Your Consent:

To my knowledge, this permission will not cause you any personal inconvenience or advantages. You may agree to all or some of the requests on the accompanying consent form. As well, you may withdraw your consent at any time before the research paper is completed. To do this, or if you have any questions about this research study, you may contact my supervisor, Louise Lacroix at 1-514-848-2424 xt. 7384.

If at any time you have questions regarding your rights as a research participant, you may call Adela Reid, Compliance Officer, in the Office of Research.

Adela Reid, Compliance Officer
Office of Research, GM-1000, Concordia University, Montreal, Quebec H3G 1M8
Phone: 1-514-848-7481
Email: adela.reid@concordia.ca

Appendix D

INFORMATION LETTER

Research Study:

How might, art therapy as a treatment approach,
 foster tactile development in children
 who are blind and tactile defensive?

You are invited to take part in a research study. This project will provide the basis for the Master's Research Paper for *Stephanie McMath* in the Graduate Program in the Creative Arts Therapies at Concordia University in Montreal, Quebec. This study is investigating the *importance of the development of the tactile sense in children who are blind. The construction of an art therapy approach to help foster tactile development in children who are blind and tactile defensive, is the specific focus of the research.* Previous research documenting children who are blind and the development of the tactile sense, supports the notion that the development of the sense of touch, can be extremely crucial for other aspects of a child's development. The literature written from Occupational Therapists, a variety of Educators, Researchers and other professionals, place an emphasis on tactile development, in children who are blind. However, the literature pertaining to children who are blind and art therapy, is lacking if not absent. The construction of this art therapy approach will help to inform other professionals of the importance as well as the weight of working, in the visual arts, with people who are blind. This research will provide a basis for future work, in art therapy, with these children. This research may also stimulate other professional art therapists to work with children who are blind.

The information obtained through this project will be added to other information gathered for this study. The combination of literature, theory and interviews from people who work with children who are blind, will help to inform the research project. I am conducting semi-structured interviews, wherein the interviewee will be asked to answer a number of questions, at their own discretion. These interviews will be audio recorded, with the interviewee's consent, to aid in the accurate collection of the data. The purpose of the interviews, is to gain personal knowledge, from the professionals who work closely, with children who are blind; as well as to further the data relating to the subject of the research project, the development of the tactile sense in children who are blind and tactile defensive. The information from the interviews will also add to the construction of the art therapy approach.

This information will be used primarily for the researcher's Research Paper. Subsequent to completion of *Stephanie McMath's* studies, the data may be used for future presentations and publications. All personal information will be kept private; no details through which you could be identified will be used in this paper, presentations, or in any publication.

The information will be kept for at least 5 years after the study is done. The information will be kept in a locked filing cabinet. Your name and any other identifying information will never be used in any presentations or publications of the study results.

Thank you. If you have any questions about this study, please contact the Master's student or her supervisor. If you have any questions about your rights as a research participant, please contact Adela Reid in the Office of Research.

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Appendix E

Suggested Art Materials

Acetate

Aluminum foil

Beads

Beans

Bells

Brown paper bags

Bubble wrap

Burlap

Buttons

Candle wax bits

Canvas

Chalk

Chalk pastels

Clay

Construction paper

Corduroy

Cornstarch

Cotton balls

Couscous

Crinoloine

Drinking straws

Feathers

Felt

Finger paints

Flour

Foam

Found objects

Glue (sticks, paste, white)

Gravel

Hole punch (varying shapes)

Jell-o crystals

Lace

Lentils

Lotion

Macaroni

Magnets

Markers (scented)

Masking tape

Mosaic tiles

Newspaper

Newsprint

Oil paint

Oil pastels

Paint brushes

Paint rollers

Paper rolls

Pencil crayons

Pine cones

Pipe cleaners

Plaster

Plasticine (scented)

Plastic utensils

Plastic wrap

Plexiglass

Pom poms

Popsicle sticks

Rice

Rubber

Sand

Sandpaper

Seashells

Scissors

Scotch tape

Silk

Sparkles

Sponges

Sponge brushes

Spray Bottles

Stapler

Stones

Straw

String

Styrofoam (all forms)

Tempra paint

Terry cloth

Tissue paper

Toothpicks

Velcro

Velour

Velvet

Watercolour paint

Wax crayons

Wax paper

White paper

Wire

Wood pieces