

**Art Therapy Center for Children with Selective Mutism. Fostering Expression
and Empowerment through Art**

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Abstract

This thesis delves into the exploration of designing an art therapy center tailored for children with selective mutism. Selective mutism poses unique challenges in communication for affected children, hindering their expressive capacities. The study further investigates existing therapeutic spaces, identifying their strengths and limitations in addressing the individual needs of children with selective mutism. Through qualitative research methods, including interviews, case studies, and field studies, the researcher seeks to extract insights from professionals in the field, fostering a holistic and inclusive design approach. Ultimately, the thesis aims to propose a design for an art therapy center optimized for children with selective mutism. This design will incorporate evidence-based design principles, sensory considerations, and therapeutic methodologies to create a safe, supportive, and empowering space for children to express themselves through art. The outcomes of this research holds the potential to significantly contribute to the design of an art therapy center for children with selective mutism, enriching their lives and fostering a sense of empowerment through transformative art mediums.

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Chapter One | Introduction

1.1 INTRODUCTION

This study aims to examine the aspects of fostering genuine expression and empowerment through art therapy among children with selective mutism by designing an environment where every child, regardless of their verbal abilities, can discover their artistic voice and effectively communicate their thoughts and emotions. Furthermore, this study will focus on how interior design strategies and principles can be employed to develop a space that enhances expression and empowerment through art therapy. A study by *The Professional Counselor* by Lisa Camposano states that “art therapy provides a mute child with a nonverbal way to articulate feelings and fears.” (Lisa Camposano, 2011).

1.2 BACKGROUND OF THE DESIGN PROBLEM

Selective mutism is when a child speaks in familiar situations, like at home, but remains silent in other social settings, such as school or public places (Cedars et al.). These children can speak and become anxious around unfamiliar people like teachers or strangers (Cedars et al.). People often believe children with selective mutism are “shy” (Lisa Camposano, 2011). A survey revealed that about 70% of children with selective mutism were either misdiagnosed or not referred by their primary care physicians (Lisa Camposano, 2011); the authors explained that: “Selective mutism has largely gone unnoticed by most physicians who are not familiar with the key signs and symptoms, pediatricians commonly assume that the patient with selective mutism is simply exhibiting excessive shyness and reassure the parents that it is something the child will outgrow” (Lisa Camposano, 2011). There is a significant lack of support and research for children with selective mutism and ways to adequately express themselves without being forced

to speak. It has been studied that art therapy has the potential to establish connections between neural pathways associated with language in selective mutism (Heather, McLaughlin, 2004). This approach could offer valuable insights into methods for repairing language abilities (Heather, McLaughlin, 2004). Designing a space for children with selective mutism involves a great understanding of both the psychological condition and the principles of interior design. According to research by Steinhausen and Juzi (1996), environments play a significant role in the treatment of anxiety disorders in children, with well-designed spaces contributing positively to therapy outcomes. Within interior design, this problem creates an environment that is visually stimulating and psychologically reassuring (Steinhausen & Juzi, 1996). The space must be designed to reduce anxiety triggers and encourage self-expression (Messmer, 2019). Understanding the nuances of this condition and integrating them into the interior design approach is essential for creating a safe and nurturing environment for these children to explore their creativity and communication (Steinhausen & Juzi, 1996).

1.3 STATEMENT OF THE DESIGN PROBLEM

This researcher believes there is a lack of support and research for children with selective mutism. Art is a powerful and beneficial way for children to express themselves without speaking. Research indicates that early supportive environments are crucial in helping children with selective mutism overcome their communication challenges (Ford et al., 1998). However, existing therapeutic approaches often need a dedicated space designed specifically for children with selective mutism. Traditional therapeutic settings do not cater to the unique needs of children with selective mutism, making it essential to create a specialized environment tailored to their needs (Ford et al., 1998). The lack of designated art therapy centers for children with

selective mutism poses a significant challenge in providing effective therapeutic interventions; there is a need for a facility that combines evidence-based therapeutic techniques with creative expression through art, enabling these children to gradually build their confidence, enhance their communication skills, and integrate comfortably into social interactions (Dalene, 2012).

Moreover, existing research emphasizes the therapeutic potential of art in aiding communication and emotional expression in children (Malchiodi, 2005). Integrating art-based interventions within the context of an art therapy center could offer an integrated approach to addressing the challenges faced by children with selective mutism. However, more studies need to explore the specific design elements and environmental factors that can optimize the effectiveness of such a center (Malchiodi, 2005). Additionally, the design problem extends to the lack of awareness and understanding of selective mutism within the broader community, which often leads to stigmatization and social isolation of affected children (Cunningham et al., 2006). The Art Therapy Center for Children with Selective Mutism must provide a therapeutic space, raising awareness about the disorder and promoting social acceptance and inclusivity. Addressing these challenges requires a comprehensive approach encompassing architectural design and therapeutic technique. By creating a well-designed Art Therapy Center tailored to the unique needs of children with selective mutism integrating evidence-based therapies, it is possible to provide an innovative solution that enhances the lives of children affected by selective mutism and empowers them to thrive in social interactions.

1.4 THE PURPOSE OF THE DESIGN RESEARCH

The researcher has observed how Art Therapy Design benefits children aged 4-12 with selective mutism. The significance of this study and the topics that will be addressed will provide further insight and information to assist future studies and further exploration of this topic. The information provided aims to foster comfort, trust, and communication among children with selective mutism. It focuses on balancing stimulating and calming elements, optimizing functionality, and ensuring inclusivity. Ultimately, the goal is to design a space where every child feels supported, empowered, and able to express themselves freely during therapy sessions.

1.5 TYPOLOGY

The typology will be classified as a Wellness Center Occupancy due to its approach to mental well-being. Through tailored Art Therapy and supportive environments, the center fosters emotional healing, communication skills, and self-confidence among children, emphasizing a focus on overall wellness.

1.6 IMPORTANCE OF THE DESIGN STUDY

The Interior Design of therapeutic spaces, particularly for children with selective mutism, holds great significance in fostering a conducive environment for their growth and development (Ulrich, 1991). Designing a space plays a pivotal role in creating an environment that is not only aesthetically pleasing but also therapeutic and functional, directly impacting the well-being of the occupants (Ulrich, 1991). For children with selective mutism, the design of the interior space can influence their comfort and willingness to engage in therapeutic activities.

One of the critical aspects of research is designing sensory-friendly environments within an Art Therapy Center. Sensory environments designed to accommodate the sensory sensitivities of individuals can have a calming effect, reduce anxiety, and enhance overall well-being (Cruse, 2020). Research indicates that by integrating sensory design principles, such as soft lighting, soothing colour palettes, and tactically pleasant materials, the Interior space can provide a haven where children with selective mutism can express themselves comfortably (Cruse, 2020).

The Interior Design research focuses on the arrangement and accessibility of art materials and therapeutic tools. Studies emphasize the impact of the physical arrangement of spaces on promoting creativity and engagement in artistic activities (Warner, Myers, 2010). It is essential to design the interior layout to encourage free expression and creativity while also considering the specific needs of the children. The arrangement of furniture, art supplies, and interactive elements can enhance the children's overall experience, making the art center a space where they can explore their creativity and gradually overcome communication challenges (Joanna, 2023).

1.7 RESEARCHERS' RATIONALE

The researcher has always felt that art is an excellent form of communication, no matter the individual's abilities. In their perspective, the world has many diverse individuals, each with their unique abilities and challenges. Everyone must have the opportunity to flourish and express themselves authentically. This worldview is rooted in the belief that inclusivity and accessibility are moral imperatives and essential elements for an equitable society. The proposed topic of designing an Art Center for children with selective mutism resonates deeply with this worldview by recognizing the importance of communication beyond traditional verbal methods and providing a nurturing environment for self-expression. The researcher has a deep connection

with this topic as they experienced it. Around the age of three, they began experiencing selective mutism, which made them feel at ease speaking with a minimal number of people. This condition poses significant challenges in their school life and interactions with others. Their mom and teachers made every effort to assist them, but they discovered that the true breakthrough came when they turned to art as a means of self-expression. Through their research, they found that there was a lack of support and research for children with selective mutism to express themselves adequately. A study done by Lisa Camposano states that “Selective mutism has largely gone unnoticed by most physicians who are not familiar with the key signs and symptoms. Pediatricians commonly assume that the patient with selective mutism is simply exhibiting excessive shyness and reassure the parents that it is something the child will outgrow. In many circumstances, parents simply wait for the child to “outgrow” this disorder, not realizing that the absence of proper treatment can lead to lifelong psychological problems (Shipon-Blum, 2007).” Therefore, the researcher wants to explore this because the role of art therapy enhances nonverbal communication skills and provides a means for self-expression among individuals with communication challenges.

1.8 RESEARCH QUESTION

How can interior design strategies utilizing ecological system theory be applied to designing an art therapy center to enhance expression and empowerment through art for children with selective mutism?

1.9 HYPOTHESIS

An Art Therapy Center designed specifically for children with selective mutism, using interior design elements and ecological system theory to design a transformative and empowering space. It serves as a starting point for future research and exploration into the potential benefits of art therapy in enhancing the communication and self-expression abilities of children aged 4-12.

1.10 THEORETICAL FRAMEWORK

Ecological Systems Theory, developed by Urie Bronfenbrenner, is a theoretical framework that examines human development within multiple interconnected social systems. This theory states that individuals are influenced by various environmental factors, ranging from immediate family and peer relationships to broader cultural and societal contexts (Bronfenbrenner, 1979). According to this theory, human development is best understood by considering the multiple layers of influence surrounding an individual, emphasizing the importance of studying individuals in their various ecological contexts (Bronfenbrenner & Morris, 2006).

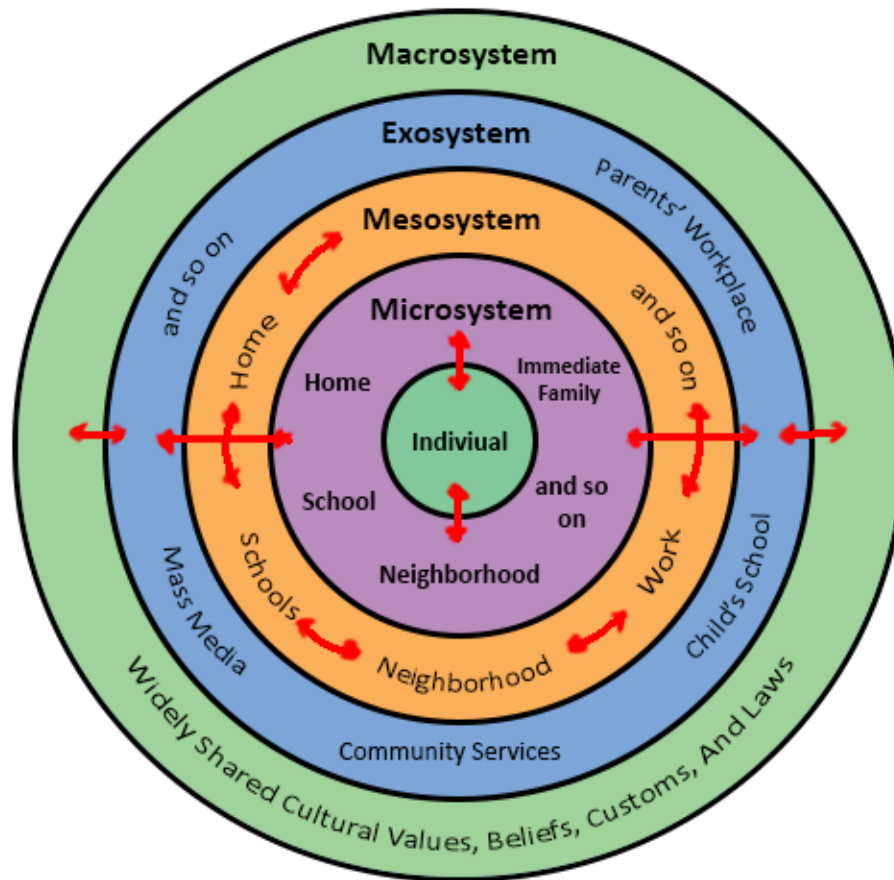


Figure 1: *Ecological Systems Theory*, Adapted from (Cormac, 2017).

1.11 CONCEPTUAL FRAMEWORK

The researcher believes that Ecological Systems Theory, proposed by Bronfenbrenner, offers a rich and nuanced framework that is particularly apt for research on an Art Center for Children with Selective Mutism. This theory delves into the interconnected layers of influence that shape an individual's development, ranging from the immediate microsystem (family, school, and peers) to the mesosystem (interconnections between these microsystems) and further out to the ecosystem (indirect external environments like parents' workplaces) and the macrosystem (cultural norms and societal values). This theory provides a comprehensive lens for

children with selective mutism, whose communication and social interaction challenges are often influenced by a complex interplay of factors. This framework explores how the Art Center fits into the intricate fabric of these children's lives. It enables an in-depth analysis of how the center can serve as a supportive microsystem within the larger mesosystem of family and school.

Additionally, understanding the ecosystemic influences, such as community perceptions and support networks, is critical for the center's effectiveness. This multi-layered approach ensures that the research addresses the immediate needs of the children within the art center but also considers the broader social, cultural, and familial contexts, leading to the development of interventions that are not only impactful but also culturally sensitive and sustainable over the long term. By employing the Ecological Systems Theory, the researcher can offer insights that extend far beyond the confines of the art center, contributing significantly to the understanding and support of children with Selective Mutism within their diverse and interconnected environments

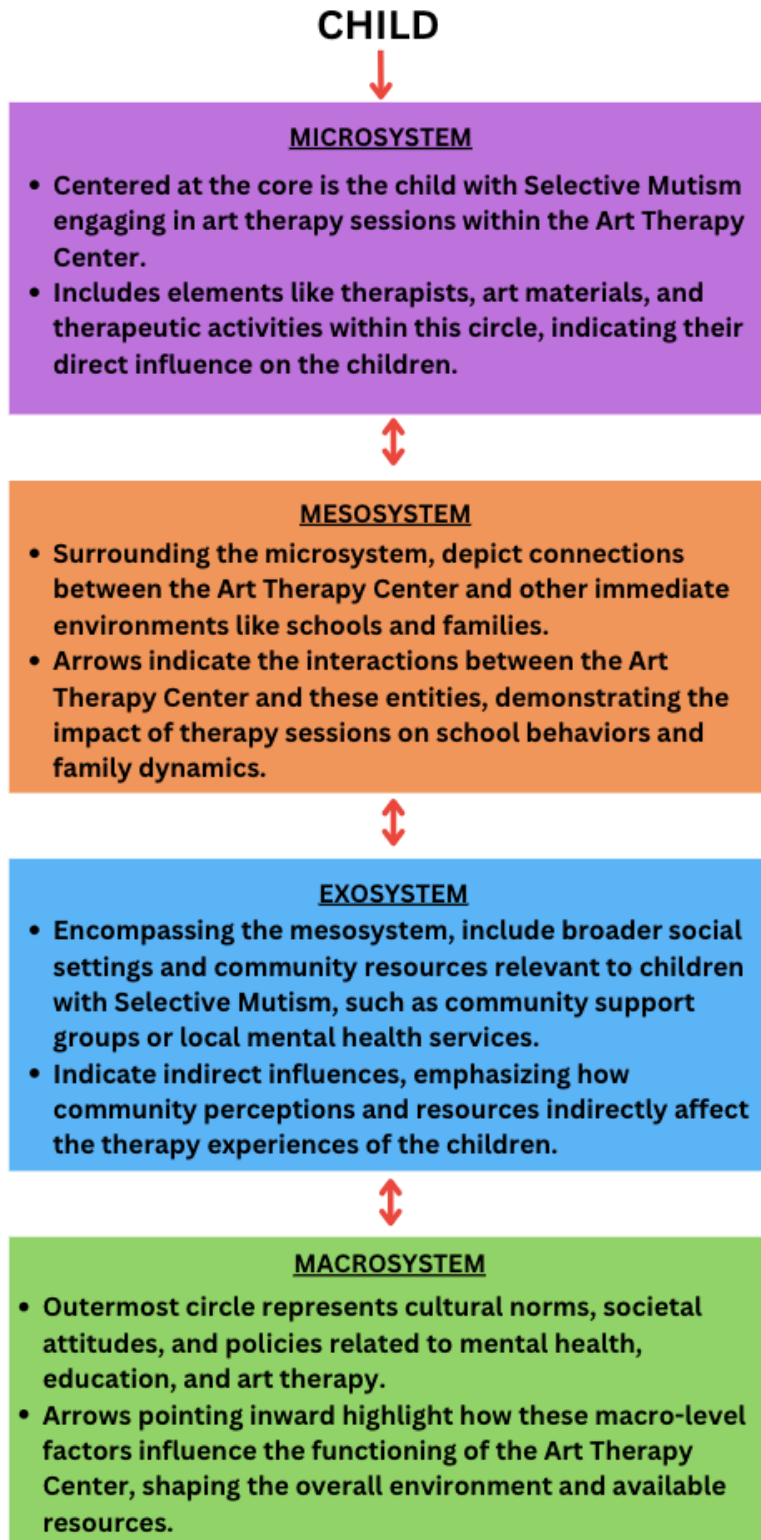


Figure 2: *Conceptual Framework*, Angelica Spano 2023.

1.12 SCOPE OF THE STUDY

This research began in the summer of 2023 and will be completed in December 2023. This study is conducted for children with selective mutism aged 4-12. The study meets Humber College REB approval. The study ran for four months between June 2023 and November 2022 and will be a basis for developing a model Interior Design proposition in 2024. Throughout the summer months from June to August, the researcher did preliminary research and conducted a more profound and better understanding of their topic. At the beginning of September 2023, the researcher began creating their thesis paper. The timeline of the paper is broken up and completed over several months. The thesis paper included case studies, scholarly journals/articles, and raw data. Throughout the study, each chapter analyzes and discusses how Interior Design aspects will aid in the final thesis design. Chapter 2 is where literature reviews are done to gather information about interior design aspects of Art Therapy Centers catering to children of Selective Mutism and how it can foster self-expression. In Chapter 3, the research design and methodology are conducted, outlining the methods employed to collect data from administrators, architects, and designers. The chapter discusses the rationale for selecting participants, details the data collection methods, including questionnaires and surveys, and mentions the raw data results retained by the researcher. Chapter 4 summarizes the findings from both the building study and the client/user study, which will allow for a clear distinction between the presentation of data and the analysis and interpretation of the findings. Chapter 5, which is the final chapter, will provide a final summary and conclusions as well as recommendations for both clients/users and the building to address past research findings and suggest potential directions for future actions. Once each chapter is finalized and completed, the researcher will develop the final paper by December 2023, and the final model will be completed by April 2024.

1.13 LIMITATIONS OF STUDY

While researching the Art Center for Children with Selective Mutism, limitations may need to be acknowledged. The study's qualitative nature can make it context-specific and challenge its generalizability. The findings are rooted in the environment of the Art Center and the specific experiences of the children involved. Additionally, the study's limited duration, spanning only four months, might restrict the depth of insights that could be gained over a more extended period. The study's reliance on self-reported data opens the door to potential biases. Participants' responses could be influenced by various factors, impacting the accuracy and objectivity of the collected information. Another aspect is the scope of the study, which concentrated solely on the Art Therapy Center. This narrow focus overlooked external variables, interventions, or support systems that could play roles in the children's progress. Understanding the complexities of selective mutism requires a broader lens, considering influences from family dynamics, school environments, and social attitudes.

1.14 SUMMARY

In summary, this study will focus on understanding and investigating Interior Design aspects that aid children with selective mutism, where they can express themselves through art. In Bronfenbrenner's Ecological Systems Theory, this research delves into the environmental factors shaping children's experiences affected by Selective Mutism. Acknowledging the limitations in qualitative studies and case-specific research, the study navigates the challenges of understanding a highly nuanced psychological condition. It addresses the unique needs of these children through a multidisciplinary approach, intertwining insights from psychology, education, and Art Therapy. In essence, this thesis transcends the conventional boundaries of psychological

research. It not only informs the design and operation of a specialized Art Therapy Center but also provides invaluable insights into the world of children struggling with selective mutism. It urges educators, and psychologists to embrace innovative, multidisciplinary approaches that can transform the lives of these children, offering them not just a voice but a canvas upon which to express their innermost thoughts and emotions.

1.15 TERMS & DEFINITIONS

The following terms and definitions provide insight and significance to the research study.

Art Center: A designated space with materials and resources where individuals, especially children, engage in artistic activities for therapeutic, educational, or creative purposes.

(American Art Therapy Association, 2013).

Art Therapy: A mental health profession that uses the creative process of art-making to improve and enhance the physical, mental, and emotional well-being of individuals of all ages (American Art Therapy Association, 2017).

Selective Mutism: Selective Mutism is an anxiety disorder primarily observed in children, where they consistently cannot speak in certain social situations despite speaking in other settings (American Psychiatric Association, 2013).

Anxiety: An emotion characterized by feelings of tension, worried thoughts, and physical changes such as increased blood pressure. It is a natural response to stress (American Psychological Association, 2021).

Ecological Systems Theory: This is a theoretical framework that examines human development within the context of multiple interconnected social systems, emphasizing the influence of the environment on individual growth (Bronfenbrenner, U, 1979).

Chapter Two | Literature Review

2.1 INTRODUCTION

The literature reviewed for the study are scholarly peer-reviewed articles and case studies. The literature begins with a historical overview of Art Therapy Centers to help better understand these centers and the Interior Design of the times. The review then transitions to an overview of Art Therapy Centers to understand what exists today. The researcher then discusses the future views of Art Therapy Centers. Next, the limitations are discussed based on the researcher's literature reviews, which identify inclusion and exclusion criteria for the literature. Following the limitations are the literature reviews that the researcher reviewed. Each piece of literature has unique features within the interior design aspect of art therapy centers that aid the researcher in gaining a better understanding of their topic. All the research collections are relatively current, dated between 2011 and 2022.

2.2 HISTORIC OVERVIEW OF ART THERAPY CENTERS

Art therapy Centers have undergone significant evolution due to changing societal perceptions of mental health. In the early 20th century, the concept of Art Therapy as a formalized practice emerged (smw, 2021). Mental health institutions began incorporating Art Therapy into treatment protocols, emphasizing the therapeutic benefits of creative expression (Rubin, 1999). Art Therapy became a legitimate therapeutic approach during the mid-20th

century, especially in the post-World War II era (Junge, 2016). Often housed in psychiatric hospitals, these centers embraced innovative Interior Designs that prioritized a sense of calm and security (Malchiodi, 2012). Utilizing subdued colours, natural light, and comfortable furniture, these spaces aimed to create an atmosphere conducive to healing (Malchiodi, 2012). In the 20th century, they witnessed a shift in mental health approaches, marked by a focus on community-based care (Jutras, 2017). Art Therapy interiors became more diverse, reflecting the cultural and individual preferences of the communities they served. Spaces became more vibrant, incorporating a wide array of colours and textures, reflecting the diversity of clients and the therapeutic creativity they engaged in (Betts, 2019). In the 21st century, Art Therapy Centers have further transformed, embracing technology and adaptable design concepts (Zubala et al., 2021). With the rise of digital art therapy, centers have integrated advanced technologies, offering virtual art sessions and interactive installations (Zubala et al., 2021). Interiors became dynamic, accommodating traditional art mediums and digital interfaces (Zubala et al., 2021). Spaces became flexible, allowing various therapeutic activities and group sessions (Lazarl, 2018).

2.3 CURRENT OVERVIEW OF ART THERAPY CENTERS

Art therapy Centers have become very transformative, driven by advancements in research, technology, and a heightened awareness of mental health (American et al. Association, 2021). Today's Art Therapy Centers are diverse, spanning clinical settings, schools, community centers, and online platforms (American et al. Association, 2021). Integrating evidence-based practices, these centers offer a wide array of therapeutic approaches tailored to individuals of all ages, from children to seniors, addressing various mental health challenges such as anxiety,

trauma, and neurodevelopmental disorders (American et al. Association, 2021). One evident trend in modern Art Therapy centers is the emphasis on inclusivity (McFerran et al., 2021). Therapists are increasingly trained in culturally competent practices, ensuring that Art Therapy is accessible and relatable to individuals from diverse backgrounds (Copeland, 2006).

Moreover, Art Therapy is a tool for social change, advocating for mental health awareness and breaking down societal stigmas surrounding mental health issues (Shukla et al., 2022). Technology has revolutionized Art Therapy delivery. Online Art Therapy platforms have emerged, providing virtual therapy sessions and creative interventions (Zubala et al., 2021). These platforms offer convenience and facilitate global collaboration among therapists, researchers, and clients, enhancing the overall impact of art therapy (Zubala et al., 2021). Furthermore, incorporating digital art tools and virtual reality into therapy sessions has opened new avenues for creative expression, especially for individuals with physical limitations or those seeking unique therapeutic experiences (Zeevi, 2021).

2.4 FUTURE VIEWS ON ART THERAPY CENTERS

The design of Art Therapy Centers is significant, aiming to create spaces that promote holistic healing and creative expression. Scholars and practitioners propose an integrative approach incorporating psychology, architecture, and interior design principles to foster therapeutic environments. According to Malchiodi (2012), the design of Art Therapy Centers should prioritize safety, privacy, and accessibility, ensuring that children feel secure in their creative explorations. Research emphasizes the significance of natural elements in Architectural Design, suggesting incorporating plants and natural light, which has been proven to enhance emotional well-being and reduce stress (Schweitzer et al., 2004). Additionally, soothing colour

schemes and soft textures can create a calming atmosphere conducive to self-reflection and creativity (Smith, n.d). Emphasizing the symbiotic relationship between therapeutic outcomes and the physical environment, the future vision for Art Therapy Centers lies in integrating these insights, creating spaces that inspire, heal, and empower individuals on their mental health journeys.

2.5 LIMITATIONS OF STUDY

The literature reviews on the Xinglong Lake Children's Art Center, Studio-Based Art Therapy Education, and Informing Design with People with Complex Communication Needs through Art Therapy provide valuable insights but come with limitations. The Xinglong Lake case study, while rich in architectural details, needs broader contextual analysis and might carry bias due to its focus on the architects' vision, potentially neglecting diverse user perspectives.

In the second review, "Studio-Based Art Therapy Education," The researcher found that the study lacks real-world proof and does not consider opposing viewpoints, making its practical usefulness unproven and unquestioned.

While highlighting the potential of non-verbal communication, the Journal on Informing Design with Art Therapy lacks specific HCI context examples. It could benefit from a more nuanced approach considering cultural variations and situations where verbal communication might still be necessary for individuals with complex communication needs.

These limitations underscore the need for further research, empirical validation, and a more comprehensive understanding of the discussed concepts to enhance their practicality and effectiveness in diverse settings.

2.6 CASE STUDY: XINGLONG LAKE CHILDREN'S ART CENTER

The Children's Art Center is more than just a physical space; it is a sanctuary where children's creativity and imagination are set free. This literature review delves into the unique design elements and the underlying philosophy that make this center a space of inspiration for young minds and visiting tourists.

The architects' vision was guided by a profound respect for the environment, evident in their choice of a circular base that embraces the land's natural contours. This circular design, influenced by Malevich's Supremacism art, integrates the fundamental elements of squares and circles (Xinglong, 2022). The square, representing stability and imagination, and the circle, symbolizing movement and exploration, form the core of the building's aesthetic (Xinglong, 2022). By tearing through the blue canopy of the sky, the Children's Art Center invites children to soar boundlessly in their imaginations (Xinglong, 2022).

The architects' innovative use of colour transforms the Children's Art Center into a vibrant and lively space. Departing from the mundane grayscale, the interior bursts with vivid hues. Red, chosen for its enthusiasm and imagination, dominates the interiors, while the blue roof evokes a sense of fantasy, encouraging children to dream of limitless possibilities (Xinglong, 2022). The large white base embodies innocence and simplicity, serving as a canvas for children to paint their dreams (Xinglong, 2022).

Beyond its aesthetic brilliance, the Children's Art Center excels in its functional layout. Three distinct streamlines: leisure, exhibition, and office. They provide a seamless flow, ensuring that every corner serves a purpose. The architects have created distinct zones for children and adults by strategically dividing the exhibition space and coffee office. This deliberate separation

grants children their realm, a unique, pure, and fascinating world where their creativity knows no bounds.

The architects have skillfully integrated the outdoors into the interior spaces through strategically placed windows. These windows provide breathtaking views of the lake and the rising sun and visually extend the children's play area. By allowing natural light to flood the exhibition and shop areas, the architects have created a sense of depth, enhancing the overall experience for children and visitors.

The Children's Art Center in Chengdu stands as a testament to the power of architectural innovation in nurturing creativity. The architects have crafted a haven where children's imaginations take flight by harmonizing with nature, employing vibrant colours, designing functional spaces, and seamlessly integrating with the environment. This center caters to young minds' needs and captivates the hearts of visiting tourists, making it a space of creativity. The Children's Art Center is not merely a building; it is a transformative experience, inspiring generations to explore, dream, and create.

2.7 JOURNAL: STUDIO-BASED ART THERAPY EDUCATION

The intersection between art therapy and architecture is a growing interest among practitioners and educators. This literature review explores the unique relationship between those who create and design, emphasizing the essential continuity between the external physical environment and the inner psychological realm of individuals. The review critically examines the open studio concept in art therapy and its parallels with architectural education. Through an analysis of art therapists' and architects' challenges, this review proposes a studio-based model of art therapy education inspired by architectural studio formats.

Architectural design, as a creative and complex form of expression, integrates practical needs with cultural values (Cahn, 2011). The traditional apprenticeship model in architecture has transitioned into a studio-based format, where students collaborate closely with experienced designers (Cahn, 2011). The design studio is the focal point for architectural education, integrating various aspects of the profession, including design, history, theory, and technical expertise (Cahn, 2011). Students engage in a multidimensional learning process, emphasizing the integration of diverse subjects and creative exploration through physical form (Cahn, 2011).

Drawing parallels between art therapy and architectural education reveals commonalities in integrating artistic expression with theoretical and technical knowledge (Cahn, 2011). Adopting a studio-based model in art therapy education inspired by the architectural studio format makes it possible to bridge the gap between the artistic and therapeutic aspects of the discipline (Cahn, 2011). Such a model encourages reflective practice, fosters a deep connection to art-making, and promotes the integration of diverse fields of study. By embracing the holistic approach of the design studio, art therapy education can nurture reflective practitioners capable of seamlessly integrating art, therapy, and self-expression (Cahn, 2011).

Integrating art therapy and architectural education through a studio-based model promises to transform both fields. By emphasizing the centrality of art-making, encouraging reflective practice, and fostering a comprehensive understanding of the relationship between the inner psyche and the external environment, this proposed educational approach has the potential to create a new generation of practitioners capable of navigating the intricate interplay between art, therapy, and design. Art therapy education can evolve through thoughtful integration of studio practices, empowering future therapists to engage with their craft authentically, empathetically, and effectively.

2.8 JOURNAL: INFORMING DESIGN WITH PEOPLE WITH COMPLEX COMMUNICATION NEEDS THROUGH ART THERAPY

Human-centered design methodologies, such as participatory and co-design, are essential for inclusive design processes. However, these methodologies often rely on verbal communication, posing challenges for individuals with limited or impaired speech abilities (Lazar et al., 2018). While prior research has offered strategies to accommodate these challenges, they tend to constrain participants' involvement and limit the scope of co-creation. This literature review explores the potential of art therapy as an alternative framework, focusing on non-verbal communication through creative expression. This review aims to broaden the understanding of design engagements by analyzing art therapy practices, especially for those with complex communication needs.

Art therapy, rooted in the 1940s, integrates art and psychology to facilitate therapeutic interventions (Lazar et al., 2018). Unlike traditional psychotherapy, art therapy emphasizes the creative process and resulting artwork as forms of expression (Lazar et al., 2018). This approach views images not as diagnostic objects but as messengers conveying emotions and thoughts. In art therapy, creative art-making is considered a valued form of communication, acknowledging that many individuals cannot or choose not to express their feelings verbally. This perspective challenges the dominance of verbal discourse in collaborative design processes, offering an alternative way to understand participants' experiences and needs.

Art therapy recognizes materials as a language of expression, allowing participants to communicate their emotions and thoughts without words. This perspective challenges the notion that verbal discourse is the only valid form of communication in design engagements. By understanding materials as a medium for expression, designers can expand the communicative

possibilities within co-creation processes, enabling individuals with complex communication needs to participate actively (Lazar et al., 2018).

Art therapy provides a safe and supportive environment where participants can freely express themselves. This approach contrasts with the constraints imposed by open-ended verbal prompts, allowing for more genuine and uninhibited expression (Lazar et al., 2018). Designers can learn from this approach by creating inclusive spaces that encourage diverse forms of expression, fostering a sense of belonging and empowerment among participants.

Art therapy recognizes the importance of sustaining participants' expressions beyond therapy sessions. This long-term perspective often challenges design engagement's limitations (Lazar et al., 2018). Designers can benefit from understanding the lasting impact of participants' expressions, ensuring that co-created solutions continue to address their needs in real-world contexts (Lazar et al., 2018).

By embracing the principles of art therapy and human-computer interaction (HCI), researchers can enhance their understanding of co-creative design engagements (Lazar et al., 2018). Art therapy offers valuable insights into non-verbal communication, emphasizing the significance of creative expression as a form of dialogue. By integrating these insights, researchers can develop more inclusive and empathetic design methodologies, ensuring that individuals with complex communication needs actively participate in the design process. Moreover, this approach challenges the discourse on making, expanding the definition of makers and making practices to include diverse voices and experiences (Lazar et al., 2018).

Art therapy provides a transformative perspective on communication, emphasizing the richness of non-verbal expression (Lazar et al., 2018). By drawing lessons from art therapy practices, HCI researchers can foster more inclusive, empowering, and meaningful co-creative

design engagements (Lazar et al., 2018). This literature review calls for a shift in conceptualizing design methodologies, urging designers to recognize the diverse ways individuals communicate and encouraging the development of innovative, non-verbal-centric approaches in human-centred design processes.

2.9 SUMMARY

The three literature reviews collectively innovative and transformative approaches within art and design. The Case Study: Xinglong Lake Children's Art Center reveals an integration of architectural design principles with artistic philosophy, creating a vibrant and functional space that nurtures young minds' creativity and captivates visitors. The architects' fusion of environmental respect, imaginative design elements, and spatial organization embodies an inspiring sanctuary for creative expression.

The review on Studio-Based Art Therapy Education explores the intersection between art therapy and architecture, highlighting the shared significance of integrating artistic expression, theoretical knowledge, and practical skills. By proposing a studio-based model in art therapy education inspired by architectural formats, this review suggests a holistic approach that can bridge the gap between the artistic and therapeutic aspects of the discipline, fostering an integration of diverse fields.

Finally, the review on Informing Design with People with Complex Communication Needs Through Art Therapy challenges the conventional reliance on verbal communication in design methodologies. This review advocates for a shift in inclusive design processes by emphasizing art therapy as a non-verbal communicative framework. It recognizes creative expression as a valued form of communication, emphasizing the transformative power of visual

language and materiality. By embracing the principles of art therapy, HCI researchers are urged to develop more inclusive and empathetic design methodologies, ensuring the active participation of individuals with complex communication needs.

Together, these literature reviews redefine conventional boundaries in art and design, advocating for innovative and inclusive approaches that celebrate creativity, self-expression, and meaningful human interactions for children with Selective Mutism.

Chapter Three | Data Collection

3.1 INTRODUCTION

In chapter three, diverse methods of data collection for this study will be explored, all designed to address the following research question: "How can Interior Design strategies utilizing ecological system theory be applied to the design of an art therapy center to enhance expression and empowerment through art for children with Selective Mutism?" The researcher hypothesized that utilizing a mixed methodology approach involving interviews with design professionals, social workers, art educators, literature reviews, field observations, and case studies would provide adequate data to address the study's central question. This data allows for an understanding of how Art Therapy impacts children with selective mutism. Furthermore, the data gathering corroborated the researcher's hypothesis, indicating that an art therapy center designed specifically for children with selective mutism using interior design elements can be a transformative and empowering space. It serves as a starting point for future research and exploration into the potential benefits of art therapy in enhancing children's communication and self-expression abilities.

3.2 RESEARCH DESIGN AND METHODOLOGY

The study's objective determined the research design and methodology, incorporating various qualitative methods to support the research approaches. The researcher used three types of data collection: case studies and scholarly articles from peer-reviewed journals, which were addressed in chapter two. The study utilized qualitative data through open-ended interviews conducted with design professionals and interviews with social workers and art educators. Moreover, a field study at Art Therapy Centres was done by observation.

3.3 PARTICIPANT SELECTION WITH RATIONAL

When gathering data from interviews and field studies, it was crucial to choose suitable individuals or locations that offered the researcher specialized knowledge pertinent to creating an Art Therapy Center. The researcher contacted seventeen potential interviewees through Google searches and referrals, and only three respondents agreed to be part of the research. Participants were contacted via email, utilizing introduction letters (see Appendix A), consent forms (see Appendix B), follow-ups, and coordinating schedules—all facilitated through email. Once the participant agreed upon a time and date that worked for both parties, a consent form was emailed (see Appendix B). The researcher selected the interviewees based on what would be most beneficial to their research. The researcher categorized the potential interviewees based on interior Designers who specifically design for wellness and individuals who deal with kids with selective mutism and art. These participants are located across Canada, with some residing in Ontario and others in Alberta. Once an interview was confirmed, the researcher referred to a script (see Appendix D) that clarified the study's objective, emphasized the significance of their involvement in the research, and conducted an interview script (see Appendix C). In terms of

each participant, a coding method was used; it serves as an ethical measure designed to safeguard the interviewees and all participants during data collection, enabling them to discuss sensitive topics freely. To conduct the observation field study, the researcher contacted three art therapy studios. In terms of the field study, the researcher communicated in person to conduct the field study, take notes, and analyze the space.

3.4 ETHICAL ISSUES/CONSIDERATIONS

The Research Ethics Board at Humber College ensured the safety and comfort of all participants in the study. Researchers sent introduction letters and informed consent forms beforehand for approval, and participants received these documents before the interviews. The consent form outlined participants' rights during the interviews, requiring their signature to participate. Humber College confirmed that no vulnerable participants were involved, and all participants' identities were protected using an alphabetical coding system. Participation in the interviews was voluntary, allowing participants to withdraw at any point. They were free to ask questions before, during, and after the interviews. Humber College approved the study.

3.5 DATA COLLECTION, RECORDING REMOVAL, STORAGE AND ELIMINATION

The data was attained through literature reviews, Interviews, and Field Observations. Interview questions were created to obtain information that would support the design decisions based on the user's experience within the space (see Appendix C). Questions were created for designers who have designed within the wellness industry, social workers, and art educators. This consisted of 15 open-ended questions regarding their expertise within the specialty. Before each Interview began, the researcher gave each participant a letter code. Each Interview took

place digitally and was either audio recorded or written down by the researcher. Few interviewees emailed their responses, as their schedule was busy. The observation field study took place in one art therapy center; the researcher analyzed the space and recorded their notes and observations. Throughout the study period, all raw data and recordings were securely stored on a USB drive owned by the researcher. The researcher continuously reviewed and analyzed the data during the study. At the end of the study, all digital raw data, including participant names, company names, recordings, consent forms, and materials, was deleted from the researcher's laptop and USB drive. It was then safely transferred to a confidential drive protected by the Humber College thesis faculty. This digital raw data was handed over to faculty when the researcher submitted the thesis paper to Humber College and remained securely stored for an entire calendar year. These precautions were taken to safeguard the participants' identities in this research study. After one full calendar year, the raw data will be permanently deleted.

3.6 ESTABLISHING CREDIBILITY

Before initiating the main study, the researcher conducted a thorough questionnaire validation process. Faculty advisors at Humber College reviewed all questions and consent forms. The faculty examined these interview questions to ensure their ethical relevance and alignment with the purpose of the research study. The researcher compared and analyzed the responses from these participants. The researcher identified consistent patterns and prevalent themes. This data, crucial for establishing credibility, was used to inform the study's development and to devise practical solutions and strategies for enhancing wellness design. The researcher and art therapy center communicated the parameters of the observation field study. The researcher

ensured that the literature reviews utilized scholarly articles from peer-reviewed journals, thereby reinforcing the credibility of the study's theoretical framework.

3.7 DATA ANALYSIS METHODOLOGY

A comprehensive qualitative methodology was employed to investigate the transformative potential of art therapy for children with selective mutism. The research utilized various qualitative approaches such as case studies, content analysis, constant comparison analysis, and descriptive statistics to analyze the data thoroughly. Keywords, key phrases, and recurring themes were meticulously identified through content analysis, enabling the recognition of patterns and repetitions within the qualitative data collected, both historical and present. The transcripts of interviews with participants were conducted to ensure a comprehensive record of their responses, insights, and perspectives, fostered a deeper understanding of their experiences, and contributed valuable qualitative data to the research analysis. Additionally, commonalities among photographic materials were analyzed for ethnographic studies, focusing on recurring elements to gain insights into the participants' experiences. Furthermore, in adherence to ethical guidelines, field testing involves the analysis of physical areas of study.

3.8 METHODOLOGICAL ASSUMPTIONS

This study's philosophical approach centred on comparing and contrasting various elements such as the conceptual framework, literature reviews, interviews, case studies, and field study observations. The conceptual framework and literature reviews were the foundation for the entire research study, offering scholarly perspectives on existing art therapy centers. Interviews and case studies contributed to the investigation by unveiling contrasting themes and fresh

insights, aligning with the researcher's main question and hypothesis. The gathered data was instrumental in shaping the conceptual framework, demonstrating the interconnectedness of different data methods.

3.9 METHODOLOGICAL LIMITATIONS

The main Methodological Limitation of this study was that since selective mutism is a tiny percentage of individuals, only a few people have experience within that field, giving the researcher very few people to be interviewed, which consisted of a social worker, art educator, and interior designer. Since there was such a limited number of people to interview, it could have significantly affected the findings of the study. As there was also a short timeframe to find interviews, it caused crucial individuals with valuable insights for the research to be missed.

Chapter Four | Findings and Analysis of the Findings

4.1 INTRODUCTION

Data was collected within this chapter through literature reviews, case studies, interviews, and a field study. The results of these findings assisted in understanding the proper design solutions for an art therapy center and incorporating wellness design strategies. The combined results from the diverse data collection methods were instrumental in shaping the understanding of appropriate design solutions and strategies for art therapy centers. Moreover, integrating wellness components in the research findings highlighted the importance of creating environments that facilitate therapeutic activities and promote overall well-being for clients and professionals involved in the art therapy center.

4.2 DESCRIPTION OF PARTICIPANTS

This study's participants were meticulously selected, considering specific criteria. This section delves into the qualifications and attributes that enabled these participants to provide insightful responses to the researcher's interview questions. To ensure utmost confidentiality, as per the guidelines set by Humber College's Research Ethics Board outlined in chapter three, participants were assigned unique codes. These codes were implemented to maintain strict confidentiality standards throughout the research process. The interview questions consisted of design-based practices and the overall wellness needs of children. The first participant (A1) was a social worker experienced in working with children diagnosed with selective mutism who deeply understood how environmental spaces can significantly impact a child's wellness requirements. The second participant (A2) was a school teacher who designed their classroom to prioritize the wellness of their students; their teaching method is art-based, emphasizing learning through creative expression. The third participant (A3) is an Interior Designer based in Alberta who designs commercial spaces to help kids reduce their anxiety within a space, making them feel more comfortable. Furthermore, a field study was undertaken at an Art Therapy Center in Toronto, involving direct observations and interactions within a real-life environment, which provided invaluable data on how design solutions and wellness strategies were implemented in practice. By immersing in the actual settings, the researcher observed the dynamics, assessed the functionality of the space, and gathered qualitative data that needed to be captured through other methods. Table 1 demonstrates the participants involved in the study.

Table 1: Participants in the Study

Interview	
A1	Experienced social worker specializing in selective mutism among children, with deep insight into the impact of environmental spaces on a child's well-being.
A2	A teacher prioritizes student wellness by designing a classroom focused on creative expression through art-based learning.
A3	An Alberta-based Interior Designer specializes in creating anxiety-reducing commercial spaces for children, ensuring their comfort and ease.
Field Study	
B1	Art Therapy Center in Toronto

4.4 FINDINGS

The table below represents and explores the responses from each participant; in the upcoming section, participant responses will be examined in depth, with a meticulous analysis of the themes that surfaced during the interviews. The responses from participants A1-A2 will be presented in a table format (Table 2), outlining the significant themes highlighted by the participants alongside the researcher's insights. For the interview questions, please refer to Appendix C. While responses will be paraphrased, essential participant ideas will be quoted directly.

Table 2: Interview Responses

Q1: What are some effective strategies to strike a balance between privacy and openness spaces for children with Anxiety?	
Common Responses:	Additional Information from Participants:
<ul style="list-style-type: none"> - Emphasize the creation of specific zones within shared spaces, accommodating diverse needs. This involves encouraging open dialogue and actively involving children in shaping their personal environment. Incorporating adaptable elements, such as flexible dividers and varied seating arrangements, is essential to cater to individual preferences and promote a sense of autonomy. Additionally, considering micro-environments and differentiation within a larger space acknowledges each child's unique requirements. Seeking professional guidance when needed ensures the optimal design of spaces for children's emotional and cognitive development. By providing private retreats and communal areas with suitable amenities, we can contribute to a holistic approach that fosters a positive and supportive atmosphere for children to thrive. 	<p>A1</p> <ul style="list-style-type: none"> - Create designated private spaces for quiet time - Encourage open dialogue about feelings - Set boundaries for online activities - Involve children in decision-making about their personal space - Seek professional guidance when needed <p>A2</p> <ul style="list-style-type: none"> - Importance of considering micro-environments, small spaces within a larger space, for children's well-being. - Need for quiet spaces in Early Years classrooms for calm and more open areas for social interaction. - Similar approach in outdoor spaces with large areas for physical activity and smaller private spaces for mindfulness. - Mention of differentiation based on children's needs within a space. <p>A3</p> <ul style="list-style-type: none"> - Designate quiet zones or retreat spaces for children seeking solitude. - Equip these areas with comfortable seating, soft lighting, and calming elements. - Use flexible room dividers or screens to adjust privacy levels in larger spaces. - Create semi-private spaces within larger areas for adaptability. - Offer a variety of seating arrangements such as individual pods, small group seating, and larger communal areas. - Allow children to choose their level of social interaction based on comfort.

Q2: What are important considerations when choosing colour schemes for a therapeutic space to promote a tranquil atmosphere?

Common Responses:

- The key to creating a calming and tranquil environment, especially in spaces for children and treatment/recovery areas, involves carefully selecting colours. Emphasizing soothing tones like blues, greens, and earthy hues is crucial while avoiding bright, vibrant colours that may lead to overstimulation. Neutral colours and natural materials contribute to a calming atmosphere, and an organized, uncluttered space is essential for promoting tranquillity. In energetic play spaces, vibrant colours like reds, oranges, and yellows may be suitable, but subdued tones, pastels, and soft colours are preferred for treatment and recovery rooms.

Additional Information from Participants:

A1

- Emphasizes the importance of choosing soothing colours like blues and greens to prevent overstimulation in children.

A2

- Recommends neutral colours and natural materials to create a calming environment.
- Stresses the significance of an orderly and uncluttered space for a tranquil atmosphere.
- Warns against using bright-coloured walls, furniture, and decor, as they can have the opposite effect and disrupt the calming atmosphere.

A3

- Energetic play spaces emphasize vibrant colours.
 - Include colours: red, oranges, yellows, saturated greens, teals, and purples.
 - Design for treatment and recovery rooms centers on subdued colours.
 - Preference for soft and muted tones, including pastels and light colours in contemporary murals.
 - Soft and muted colours contribute to a calming environment.
 - Nature-inspired colours such as greens, blues, and earth tones are recommended.
 - Colours like greens, blues, and earth tones are often linked to tranquillity.
 - Aim to create a peaceful atmosphere in treatment and recovery spaces.

Q3: How can furniture arrangement in spaces support various therapeutic activities without overwhelming the children?

Common Responses:

- These responses highlight the importance of intentional and thoughtful design in creating a conducive learning environment for children. The emphasis on arranging furniture to create distinct zones for various activities, incorporating the Reggio Emilia Approach, and using child-sized furniture underscores the significance of tailoring the space to meet the developmental needs and preferences of the children. The mention of the environment as "the third teacher" and the use of transparent materials reflects a commitment to fostering an aesthetically pleasing and engaging atmosphere that stimulates learning. Additionally, the focus on providing flexibility in seating options and promoting autonomy through easily accessible storage solutions demonstrates a holistic approach to supporting children's physical and cognitive development within the designed space.

Additional Information from Participants:

A1

- Arranging furniture to create different zones based on activities (colouring area, play area, talk therapy area, etc.).

A2

- The Reggio Emilia Approach in Italy was introduced by Loris Malaguzzi.
- Concept of the environment as "the third teacher" influencing children's learning and interactions.
- Arranging materials in aesthetically pleasing ways.
- Use of transparent materials such as glass containers to hold materials.
- The physical arrangement of the space contributes to children's independent use of materials and understanding of the space.
- The space is designed to make sense to children as they navigate it.

A3

- Choose child-sized furniture to signal that the space is meant for children.
- Offer various seating options for therapeutic activities, such as soft seating, floor cushions, and chairs with varying support levels.
- Flexibility in seating encourages children to select what is most comfortable for them.
- Ensure easily accessible and organized storage solutions to promote independent retrieval and putting away of materials, fostering a sense of control and autonomy for children.
- Set tables at the children's height, with adults adjusting to their level during activities.

Q4: What are some effective lighting fixtures that can provide adequate illumination while promoting a soothing ambiance?

Common Responses:

- Creating a comfortable and calming atmosphere is a key focus. Soft and diffused lighting, adjustable brightness, and warm tones are consistently mentioned. Additionally, there is a preference for fixtures that resemble those found in a home environment rather than clinical spaces. Light sensitivity in individuals with anxiety is highlighted, emphasizing avoiding harsh shadows and opting for different lighting options. Overall, the responses emphasize the importance of creating a soothing and familiar environment through thoughtful lighting choices."

Additional Information from Participants:

- A1
- Effective lighting fixtures: pendant lights, recessed lighting with dimmer switches, and soft LED strips.
 - Features adjustable brightness and warm tones for a relaxing atmosphere.
- A2
- Types of lighting: soft overhead lighting, floor and table lamps, mini-lights, etc.
 - Avoid overhead fluorescent lighting in some classrooms.
 - Use of floor lamps and softer forms of lighting throughout the space.
- A3
- Choose fixtures emitting soft, diffused light to minimize harsh shadows and create a gentle ambiance.
 - Soft lighting is generally more comfortable and contributes to a calming atmosphere.
 - Opt for dimmable lighting fixtures for flexibility in adjusting light levels.
 - Different lighting options are optimal due to light sensitivity in individuals with anxiety.
 - Use fixtures resembling those in a home rather than clinical spaces for familiarity and safety.
 - Prefer lamps or pendant lights over fluorescent tube lighting for a more comforting environment.

Q5: Considering the sensory needs of children, how would you address the texture of fabrics and materials used in furniture and decor?

Common Responses:

- Creating a sensory-rich environment for children involves thoughtful consideration of various textures and materials. This includes seating options with different textures to cater to individual preferences and incorporate toys that offer diverse sensory experiences during play sessions. It's essential to emphasize the impact of textures on children's interactions with materials and space, with specific examples such as pillows featuring sequined fabric and the suggestion of stapling textured fabric to boards, furniture, or bulletin boards.
- The choice of materials is crucial, with a recommendation to opt for natural fibres like cotton or linen for quickly removable items like pillows and blankets. Natural fibres not only provide breathability but also offer a softer feel compared to synthetics. Soft materials such as rugs and cushions contribute to sound absorption and comfort. For permanent surfaces, medical-grade vinyl seating or hard plastic chairs and stools are suggested, with the option to attach removable cushions for added comfort. These recommendations not only enhance the sensory experience for children but also consider cleaning and maintenance considerations.

Additional Information from Participants:

A1

- Seating with various textures for children to choose from based on preferences.
- Toys offer different sensory experiences, which is essential for play sessions.

A2

- Emphasizes the impact of various textures on how children interact with materials and space.
- Specific examples of pillows with sequined fabric for sensory experiences.
- Suggests stapling textured fabric to boards, furniture (secured shelf), or bulletin boards.
- Mentions other materials like corrugated cardboard and bubble wrap for similar purposes.
- Highlights incorporation of textures into play and artistic experiences for children.

A3

- Choose natural fibres like cotton or linen for quickly removable items (pillows, blankets).
- Natural fibres are breathable, hypoallergenic, and have a softer feel than synthetics.
- Soft materials like rugs and cushions enhance sound absorption and comfort.
- Opt for medical-grade vinyl seating or hard plastic chairs/stools for permanent surfaces.
- Attach removable cushions to hard plastic chairs or stools for added comfort.
- These recommendations are suitable for cleaning and maintenance considerations.

<p>Q6: What elements could be considered to create an inviting and comfortable waiting area for both children and their families, taking into account potential anxieties?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Expressing appreciation for the thorough and thoughtful approach to designing a child-friendly waiting area. The response may highlight the importance of creating a positive and stress-free environment for children and families, acknowledging the detailed consideration of specific elements such as seating, decor, interactive features, and themed elements. It may also commend the emphasis on providing amenities that cater to the needs of families, such as accessible restrooms and a snack station. Overall, the response could convey admiration for the comprehensive and child-centric design that aims to enhance the overall waiting experience. 	<p>A1</p> <ul style="list-style-type: none"> - Emphasizes keeping the space simple and free from excessive stimuli. - Focuses on creating a calm and welcoming atmosphere for children and families. <p>A2</p> <ul style="list-style-type: none"> - Mentions specific elements to consider for the waiting area, including: <ul style="list-style-type: none"> - Soft seating - Colorful and calming decor - Interactive toys/games - Kid-friendly artwork - Ample natural light - Designated spaces for different age groups - Soothing background music - Informational displays to address potential anxieties. <p>A3</p> <ul style="list-style-type: none"> - Waiting rooms are designed with children in mind. - Create a check-in or reception desk that greets guests wonderfully, using themed desks to convey that it's not a regular clinic. - Each check-in is designed to be a delightful part of the children's adventure, aiming for a positive first impression to set the tone for the waiting experience. - Themed seating is implemented to create an immersive environment, offering various comfortable options like chairs, benches, and cozy nooks with cushions. - Seating arrangements are diverse, accommodating individuals, couples, and larger families. - A separate gaming or play area is provided, featuring books, toys, hands-on playboards, video games, slides, or soft play climbable

	<p>sculptures to distract and engage children in positive activities, reducing anxiety.</p> <ul style="list-style-type: none"> - Clear signage and wayfinding elements are incorporated to help families navigate the waiting area easily, reducing uncertainty and contributing to a more comfortable experience. - Amenities catering to family needs are included, such as accessible restrooms, changing stations, and a snack or drink station to enhance overall comfort and convenience in the waiting area.
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<p>Q7: What elements would you include to ensure a sense of familiarity and security for the children?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Creating a welcoming and secure environment for children involves incorporating familiar items like pictures, books, board games, and stuffed toys from their homes or schools. Additionally, designating quiet areas and sensory play zones with activities like sand and water play enhances the space's coziness. Providing dedicated areas for creative activities such as painting, clay modelling, wire art, and building activities encourages hands-on learning and creativity. Implementing colour and theme coding in different spaces, along with child-friendly signage and distinctive door markers, ensures easy navigation for children of different ages. Personalization plays a key role, including whiteboards with the child's name and themed toys like a stuffed animal elephant in a jungle room. This contributes to familiarity and security, particularly during appointments. 	<p>A1</p> <ul style="list-style-type: none"> - Inclusion of familiar pictures, books, board games, and stuffed toys to create a sense of safety. - These items may be found at home or school. - The aim is to make children feel the same sense of safety as in their familiar locations. <p>A2</p> <ul style="list-style-type: none"> - Quiet areas for children to cozy up in. - Sensory play areas, including sand and water activities. - An area dedicated to creative activities like painting, clay modelling, and wire art. - An area for building activities, fostering hands-on learning and creativity. <p>A3</p> <ul style="list-style-type: none"> - Implement colour-coding and theme-coding in various spaces for familiarity and easy navigation. - Craft signage that doesn't rely on reading abilities for accessibility to all children. - Use distinctive colours and images on doors,

	<p>like a purple room with a hippo and a yellow room with a lion, as wayfinding markers for different age groups.</p> <ul style="list-style-type: none"> - Allow for personalization with a whiteboard displaying the child's name to welcome them to their appointment. - Include personalized items in the space, such as toys matching the theme, like a stuffed animal elephant in a jungle room. - Incorporate comforting items to create a sense of security for young patients during appointments.
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<p>Q8: What are some effective methods for incorporating natural elements into a space to establish a connection with the outdoors and promote a sense of calmness?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Creating a nature-inspired and calming environment involves incorporating various elements. This includes employing effective methods such as using large windows, natural materials like wood and stone, and incorporating water features. Additionally, gathering fallen nature items like branches and rocks and honouring Indigenous ways of knowing promotes a deeper connection to the land. Providing direct access to outdoor spaces or unobstructed views, using murals depicting landscapes, and installing sky ceilings with lighting are effective ways to bring the outdoors inside. Adding indoor plants, choosing a variety of shapes and sizes, and opting for low-maintenance varieties further enhance the overall ambiance. These approaches collectively contribute to establishing a serene and nature-connected atmosphere, fostering a sense of calmness for 	<p>A1</p> <ul style="list-style-type: none"> - Effective methods for incorporating natural elements: large windows, indoor plants, natural materials (wood, stone), water features, and nature-inspired artwork. - These approaches establish a connection with the outdoors. - Promotes a sense of calmness in the environment. <p>A2</p> <ul style="list-style-type: none"> - Emphasis on gathering "fallen nature" items like branches, pine cones, rocks, and driftwood. - Importance of honouring Indigenous ways of knowing and considering reciprocity with the land. - Suggestion to think about what can be given back to the land if something is taken. - Mention using baskets to add a natural element and soften the space. - Inclusion of flowers, plants, water fountains, etc., to bring outdoor elements indoors and promote calmness.

occupants.	<p>A3</p> <ul style="list-style-type: none"> - Provide direct access to outdoor spaces or create areas with unobstructed views of nature. - Design with large windows for expansive views of the outdoor environment. - Foster a connection to nature for occupants to experience its benefits firsthand. - Use murals and art depicting landscapes for a calming effect when direct access is impossible. - Install sky ceilings with lighting to mimic the sky, creating a sense of openness. - Consider introducing indoor plants for a touch of nature in the space. - Choose a variety of plants with different shapes and sizes. - Opt for low-maintenance plant varieties to thrive in the indoor environment.
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<p>Q9: What strategies would you employ to minimize noise within the space, ensuring a quiet and focused atmosphere?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Designing a quiet and acoustically optimized environment involves the strategic placement of sound-absorbing materials, utilizing noise-cancelling devices, implementing designated quiet zones, incorporating soft furnishings like area rugs, drapes, and pillows, installing acoustic panels, and using materials such as cork or felt pads on furniture. Additionally, using noise-reducing headphones, especially for children, can enhance the overall sound experience. It's essential to absorb or separate sound whenever possible, use fabric wall panels for sound dampening, opt for soft furnishings 	<p>A1</p> <ul style="list-style-type: none"> - Strategic placement of sound-absorbing materials - Noise-canceling devices - Implementing designated quiet zones - Using soft furnishings - Acoustic panels <p>A2</p> <ul style="list-style-type: none"> - Incorporating area rugs or small carpets - Draping fabric - Pillows - Felt pads on chairs - Cork materials or flooring - Noise-reducing headphones for children <p>A3</p>

<p>and carpets to enhance absorption and designate separate rooms for louder activities, such as playrooms. This comprehensive approach ensures a more peaceful and acoustically pleasant space.</p>	<ul style="list-style-type: none"> - Absorb or separate sound whenever possible - Use fabric wall panels for sound dampening - Opt for soft furnishings and carpets to enhance sound absorption - Designate separate rooms for louder activities, such as playrooms
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<p>Q10: How would the design of a collaborative area encourage social interaction among children while considering their selective mutism challenges?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Strategies and design principles prioritize the importance of play in child development and recognize the diverse ways in which children engage with their surroundings. We create a universal language of play by fostering a supportive environment that encourages imaginative play, social interaction, problem-solving, and self-regulation. From collaborative play areas to no-pressure zones, the design is intentionally inclusive, allowing children to navigate their comfort levels. Incorporating active play elements and gradual exposure to social interactions caters to various preferences. Moreover, emphasizing positive reinforcement, recognition, and collaborative displays ensures that every child feels valued and contributes to the overall sense of teamwork within the space. These thoughtful design choices aim to create an environment where play becomes a holistic and enriching experience for every child. 	<p>A1</p> <ul style="list-style-type: none"> - Encourages play without the need for verbal communication - Allows children to engage in imaginative play comfortably without speaking <p>A2</p> <ul style="list-style-type: none"> - Collaborative areas include construction/block play, socio-dramatic play areas, art studio, loose parts, light tables, sensory tables, etc. - Provides opportunities for social interaction - Promotes problem-solving skills - Helps in developing self-regulation skills <p>A3</p> <ul style="list-style-type: none"> - Play is a universal language. - Active play activities like slides and ball pits are incorporated into play spaces without requiring communication. - Establish a no-pressure play zone for children to engage in unstructured play freely. - Gradually introduce interactive play zones promoting collaboration and social interaction. - Use engaging games and group activities as icebreakers to foster a positive environment. - Design areas allowing gradual exposure to

	<p>social interactions, enabling observation before active participation.</p> <ul style="list-style-type: none"> - Create spaces for reflective activities or moments of solitude to provide a sense of control and security. - Designate quiet spaces for children to engage in reflective activities. - Establish areas within collaborative spaces that emphasize positive reinforcement. - Use recognition boards, achievement displays, or dedicated areas to celebrate the contributions of all children. - Encourage collaborative artwork and displays that involve the input of all children. - Promotes a sense of teamwork and provides a tangible representation of the collaborative efforts within the space.
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<p>Q11: What types of artwork or wall decor are commonly associated with fostering a positive and supportive atmosphere in a space?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Highlight the importance of thoughtful and purposeful artwork in various spaces. Whether fostering a positive atmosphere through calming nature scenes and inspirational quotes, co-constructing spaces with children to reflect their preferences or incorporating playful and whimsical elements to create a lighthearted ambiance, the common thread is the impact of art on the overall environment. From nature-themed artwork promoting tranquillity to murals guiding desired atmospheres and even the inclusion of children's own creations for a personalized touch, it's evident that art plays a crucial role in enhancing well-being, creating a comforting atmosphere, and fostering a sense of ownership and 	<p>A1</p> <ul style="list-style-type: none"> - Artwork or wall decor associated with fostering a positive atmosphere: calming nature scenes, inspirational quotes, vibrant abstract art, and personalized or culturally relevant pieces. - These elements can enhance ambiance, promote well-being, and create a comforting environment. <p>A2</p> <ul style="list-style-type: none"> - Preference for children's artwork in spaces designed for them. - The space should reflect the children; ideally, it should be co-constructed with them. - Emphasis on considering the space as belonging to the children, with adults being guests in that space. <p>A3</p>

pride.	<ul style="list-style-type: none"> - Scenes of nature, including landscapes, animals, and plants, create a calming and positive atmosphere. - Nature-themed artwork fosters tranquillity and a connection to the outdoors. - Playful and whimsical artwork, such as colourful illustrations, contributes to a lighthearted and joyful atmosphere. - Wall murals with animal characters engaged in social play provide a visual guide for desired atmospheres. - Illustrations in dental and medical spaces depict animals happily undergoing check-ups or seeking medical care. - Daycare and church murals feature characters engaged in hopscotch, swinging, and team sports activities. - Positive affirmations, motivational quotes, and encouraging words are daily reminders of resilience and self-worth. - Artwork created by children or featuring their creations fosters a sense of ownership and pride. - Displaying children's drawings, paintings, or crafts creates a personalized and supportive environment.
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<p>Q12: How would you approach the selection of furniture to ensure it combines functionality and aesthetic appeal effectively?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Creating an effective and user-friendly space involves careful consideration of specific needs, user preferences, and the purpose of the area. A thorough layout analysis and a focus on ergonomic design, quality materials, and versatile furniture pieces are essential. In the case of spaces catering to children, it's crucial to ensure furniture is appropriately scaled, provides varied seating 	<p>A1</p> <ul style="list-style-type: none"> - Focus on the specific needs of the space and its users. - Conduct a thorough analysis of the space's purpose, layout, and user preferences. - Consider ergonomic design, quality materials, and versatile pieces to enhance functionality and visual appeal. <p>A2</p>

<p>options, and is proportionate to table heights. Incorporating adaptability and flexibility into furniture choices is vital, allowing for easy reconfiguration based on different activities and group sizes. Prioritizing durability and ease of maintenance contributes to the longevity and aesthetic appeal of the space. Moreover, aligning furniture selection with the overall design theme and colour palette enhances the environment's cohesive and visually pleasing aspect."</p>	<ul style="list-style-type: none"> - Furniture should be to the scale of the children. - Include various seating options (stationary, rocking, fidget chairs). - Ensure chairs are proportionate to table heights. - Consider castors on tables for flexibility in changing the space based on children's needs. <p>A3</p> <ul style="list-style-type: none"> - Choose adaptable and flexible furniture. - Opt for pieces that can be easily reconfigured for different activities and group sizes. - Enhance functionality and versatility through adaptability. - Prioritize durable materials for regular use, especially in high-traffic areas. - Consider ease of maintenance and cleaning for longevity and aesthetics. - Align furniture selection with the overall design theme and aesthetic of the space. - Choose pieces that complement the environment's colour palette, style, and theme.
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<p>Q13: How can you create therapy spaces that accommodate both individual sessions and group activities, ensuring they are versatile and flexible in their usage?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - The comprehensive and thoughtful suggestions provided for creating therapeutic spaces. It may include expressing appreciation for the emphasis on creating a soothing atmosphere, maintaining flexibility, and ensuring inclusivity in the design. Responders might also highlight the recommendations' practicality, such as using neutral colours, modular furniture, and adaptable layouts to accommodate various therapy needs. 	<p>A1</p> <ul style="list-style-type: none"> - Mentioned neutral colours and calming elements for a soothing atmosphere. - Recommended incorporating storage solutions to maintain a clutter-free environment. - Highlighted the importance of seamless transition between individual and group sessions. <p>A2</p>

	<ul style="list-style-type: none"> - Adjustable lighting and flexible partitions are recommended for creating versatile therapy spaces. - Emphasized the use of modular furniture arrangements and movable furniture. - Suggested regularly assessing user needs and adjusting the space for maximum flexibility. <p>A3</p> <ul style="list-style-type: none"> - Choose modular and flexible furniture for easy rearrangement in individual and group sessions. - Use mobile furniture like lightweight chairs and tables for quick layout changes. - Designate zones for different activities, such as individual therapy, group therapy, and multi-purpose activities. - Clearly define areas to enhance adaptability and functionality. - Integrate mobile dividers or screens for temporary partitions when needed, balancing privacy and an open layout. - Ensure selected furniture is accessible and inclusive, considering diverse user needs, including those with mobility challenges. - Select pieces that accommodate a range of abilities and promote inclusivity.
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<p>Q14: What are some effective strategies for managing natural light, ensuring privacy, and fostering a welcoming ambiance in various settings?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Provide various creative and practical solutions for enhancing both privacy and the overall ambiance of a space. They emphasize the use of adjustable window coverings, translucent materials, and decorative elements like window murals to balance natural 	<p>A1</p> <ul style="list-style-type: none"> - Using adjustable window coverings, such as blinds or curtains. - Incorporating sheer or translucent materials for diffused light. - Using frosted glass or window films for privacy.

<p>light, privacy, and aesthetics. Incorporating these ideas can contribute to a welcoming and comfortable environment, especially in settings like clinics or spaces designed for children, where the atmosphere is crucial in creating a positive experience.</p>	<ul style="list-style-type: none"> - Incorporating warm, soft lighting fixtures to enhance the atmosphere. - Strategically placing indoor plants for a touch of nature and a comfortable environment. <p>A2</p> <ul style="list-style-type: none"> - Light filtering blinds for filtering light and maintaining visibility of the outdoors. - Netting and sheer fabric are used to soften the space while filtering the light. <p>A3</p> <ul style="list-style-type: none"> - Double-sided window murals utilized for privacy screens in clinics and dental practices - Murals feature landscape scenes and friendly animals to compensate for the absence of an outside view - Purpose: Allow diffuse light in through the window while ensuring privacy for occupants - Application on glass doors for privacy and theming individual rooms - Example: Rooms themed as the "hippo room" or "lion room" for easy identification - Goal: Create a welcoming atmosphere, especially for children, signalling that the space is designed for them and not a clinical or scary environment
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<p>Q15: What are some strategies for creating a supportive environment that allows the involvement of parents or guardians in the therapy process without causing disruption to the therapeutic setting?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Each approach aims to support families in therapy by addressing different aspects of their needs, from physical spaces to communication methods and overall comfort. 	<p>A1</p> <ul style="list-style-type: none"> - Having a separate play area from the therapy area. - Children can play while parents observe or communicate with the therapist. - Parents have their own separate seating area.

	<p>A2</p> <ul style="list-style-type: none"> - Regular communication through meetings or updates. - Establishing clear boundaries and guidelines. - Providing orientation sessions. - Incorporating family therapy sessions. - Encouraging active participation through structured activities or observation. <p>A3</p> <ul style="list-style-type: none"> - Establish a separate sitting area for adults in the therapy space. - Enable parents to observe sessions without interference. - Incorporate observation rooms for discreet parental observation. - Facilitate witnessing the therapeutic process without direct participation. - Minimize disruption during therapy sessions. - Emphasize the creation of a comfortable waiting area for parents. - Provide a gaming or activity area to entertain siblings during sessions.
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<p>Q16: How would you integrate storage solutions within the space to keep the space organized and clutter-free?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - N/A 	<p>A1</p> <ul style="list-style-type: none"> - Integration of smart storage solutions like built-in shelves, cabinets, and multifunctional furniture. - Utilization of vertical storage options and hidden compartments for space efficiency. <p>A2</p> <ul style="list-style-type: none"> - Use transparent storage materials (bins, jars, etc.) to make materials visible to children. - Encouragement of children to return materials to their designated places after use.

	<ul style="list-style-type: none"> - Organization of materials by colour, especially in art studios, to facilitate access, tidying, and care of materials. <p>A3</p> <ul style="list-style-type: none"> - Incorporate mobile storage units with wheels for easy mobility in the space. - Enhances organization by allowing flexible storage arrangements tailored to different therapy sessions. - Built storage solutions and book cubbies within themed benches for clients. - Hidden storage prevents rooms from becoming cluttered. - Cabinets with doors conceal clutter, offering a tidy appearance and can be locked to restrict access. - Open shelves at children's height for items they need easy access to. - Tuck away items for adults' access. - Provide dedicated personal storage for clients. - Options include lockable cabinets or cubbies for therapists' confidential materials and children's personal belongings and toys.
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<p>Q17: What measures would you take to ensure the safety of children within the space, considering both the layout and the choice of materials?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Creating a diverse, engaging, and safe environment is paramount for the well-being of children. This entails providing varied areas and materials to cater to diverse interests while ensuring compliance with safety regulations, from ESA approval for electronics to the use of fire-resistant and hypoallergenic materials. Collaborative spaces promote a cooperative atmosphere, eliminating 	<p>A1</p> <ul style="list-style-type: none"> - Offering a variety of areas to choose from. - Providing various items made of different materials and fabrics. - Allowing children to choose areas or items that offer the most safety. <p>A2</p> <ul style="list-style-type: none"> - Ensuring electrical materials, devices, and lighting are ESA-approved. - Design clear pathways for the easy flow of

<p>material competition and ensuring clear pathways for easy movement. The emphasis on features like padded floors, corner bumpers, and easy-to-clean materials underscores a commitment to both physical safety and hygiene. In essence, the common response revolves around crafting spaces that are vibrant, stimulating, and, above all, secure, fostering the holistic development of children.</p>	<p>children through the space.</p> <ul style="list-style-type: none"> - Avoiding clutter in the space. - Providing ample materials for children to engage with. - Promoting collaboration among children. - Eliminating the need for competition for materials. <p>A3</p> <ul style="list-style-type: none"> - Use padded floors in play areas for cushioning during active play. - Install corner bumpers on hard furniture edges for additional safety. - Prioritize durable materials that can withstand wear and tear. - Choose materials that are easy to clean and sanitize for a hygienic environment. - Select non-toxic and hypoallergenic materials for furniture, flooring, and decor. - Ensure materials are inert once cured to minimize the risk of allergic reactions or exposure to harmful substances. - Opt for fire-resistant materials for furniture and furnishings, especially in areas where children spend extended periods. - Confirm that all products are fire-rated for enhanced overall safety.
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<p>Q18: What are some elements that could be incorporated into the space to create an environment that fosters a sense of hope, inclusivity, and empowerment for children with selective mutism?</p>	
<p>Common Responses:</p>	<p>Additional Information from Participants:</p>
<ul style="list-style-type: none"> - Fostering a child-friendly environment involves recognizing diverse forms of communication, initially non-verbal, and providing tools like writing and play. With representation and displayed artwork, child-centric spaces empower children by offering agency and ownership in their interactions. 	<p>A1</p> <ul style="list-style-type: none"> - Children can communicate without using words until they are comfortable doing so. - Use of writing or play as a means of expression. - Inclusion of toys, paper to write or draw on, and puppets to express emotions.

<p>When addressing selective mutism, themed decor, such as nature, underwater, or positivity themes, creates supportive atmospheres fostering calm, curiosity, and inclusivity. These environments not only engage visually but also contribute to the overall well-being of children by promoting empowerment and a sense of belonging.</p>	<p>A2</p> <ul style="list-style-type: none"> - Children should see themselves represented in the space through materials, texts, and artwork. - Their artwork should be displayed on the walls. - Children should have agency in the space, choosing how they interact and what materials they use. - Co-constructing spaces with children gives them ownership and empowers them as valuable contributors. - This process validates, empowers, and nurtures their sense of belonging and well-being. <p>A3</p> <ul style="list-style-type: none"> - Themed decor for children with selective mutism should aim to create a sense of hope, inclusivity, and empowerment. - Nature-themed decor, including tree graphics, woodland murals, and nature-themed furniture like log benches, can foster a calming and nurturing atmosphere, promoting a connection with the natural world. - An underwater or ocean theme featuring marine life wall decals, calming blue hues, and ocean-themed furniture can evoke tranquillity and openness, contributing to a positive and inclusive ambiance. - A space exploration theme with cosmic wall murals, celestial decor, and space-themed furniture can inspire curiosity and wonder, encouraging children to explore and express themselves. - An adventure and exploration theme incorporating world maps, globes, and explorer-themed decor celebrates diversity and different cultures, fostering curiosity and inclusivity. - A "Garden of Positivity" theme with flower decals, positive affirmations, and garden-inspired decor that symbolizes growth, positivity, and a nurturing environment. - Uplifting wall murals featuring scenes of
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	nature, positive affirmations, or characters conveying strength and resilience can create a visually engaging and encouraging atmosphere.
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Q19: Would you like to add anything else?	
Common Responses:	Additional Information from Participants:
<ul style="list-style-type: none"> - N/A 	<p>A1</p> <ul style="list-style-type: none"> - Children with selective mutism or anxiety-related illnesses need a sense of control. - Feeling in control reduces their anxiety. - Offering choices to these children is crucial. - Therapeutic activities should align with therapy goals. - Children should be allowed to select each therapeutic activity. - This approach is essential for the therapeutic process. <p>A3</p> <ul style="list-style-type: none"> - Themed decor in therapy centers for children has multiple purposes in enhancing the therapeutic environment. - It creates a comforting and familiar atmosphere, reducing anxiety and fostering a sense of security for children. - Utilized in transitional spaces like waiting areas, themed decor ensures a consistent therapeutic atmosphere throughout the center. - Themed decor provides visual stimulation, capturing children's attention and creating an engaging environment for therapeutic activities. - It serves as a motivational tool, aligning with therapeutic goals and making sessions more appealing to children. - Specific themes can complement therapeutic techniques, such as a nature theme for outdoor activities or a calming underwater theme for relaxation exercises.

4.4.1 CASE STUDY AND INTERVIEW RESULTS COMPARISON

The literature review and the interview question results consistently emphasize creating spaces that cater to the diverse needs of children, balancing privacy and openness, and incorporating elements that foster a positive and calming atmosphere. Both sources highlight the significance of well-thought-out design elements, such as colour, flexible furniture, and integration with nature, in nurturing creativity and well-being. One consistent theme is the attention to colour psychology in designing spaces for children. The literature review underscores the importance of vibrant hues in the Children's Art Center to stimulate creativity. At the same time, the interview responses highlight the preference for soothing colours in therapeutic environments to prevent overstimulation. The alignment in emphasizing colour as a powerful design element across both sources is noteworthy. The literature review and interview responses also stress the need for adaptable and flexible spaces that accommodate various activities and cater to individual preferences. The literature review discusses the intentional layout of the Children's Art Center, creating distinct zones for children and adults. At the same time, the interview responses provide specific strategies, such as flexible furniture and modular arrangements to enhance functionality and adaptability in spaces for children. Surprisingly, the interview responses introduce the importance of considering safety factors, such as ensuring electrical materials are ESA-approved and incorporating fire-resistant materials in areas where children spend extended periods. While safety is not explicitly discussed in the literature review, it aligns with the overarching theme of creating spaces that prioritize the well-being of children. The lack of explicit information in the literature review regarding using themed decor in therapeutic spaces for children, as suggested in the interview responses, is notable. The interviews recommend incorporating themed decor to create a comforting and engaging

atmosphere, aligning with the literature's focus on the aesthetic and creative aspects of the Children's Art Center. In summary, while there is consistency in the emphasis on specific design principles, the interviews contribute new insights, such as safety considerations and the use of themed decor in therapeutic spaces, which should have been explicitly discussed in the literature review. Integrating findings from both sources provides a comprehensive understanding of the design elements that contribute to creating effective and nurturing spaces for children.

4.4.2 JOURNAL 1 AND INTERVIEW RESULTS COMPARISON

The findings from the literature review align closely with the responses obtained from the interviews, indicating consistency and reinforcing the critical themes explored in the academic literature. The literature and interviews emphasize the importance of creating environments that balance privacy and openness, particularly in spaces designed for children. Integrating natural elements, such as plants and nature-inspired artwork, to promote a calming atmosphere is a common thread in both sources. The significance of considering individual needs within a space and providing options for diverse preferences is a shared principle in both the literature and interviews. One notable consistency is the emphasis on the role of the environment in influencing individuals' psychological states, a concept central to art therapy and architectural design. The literature review proposed a studio-based model for art therapy education inspired by architectural studio formats, and the interviews further support the idea of creating spaces that cater to different sensory experiences, therapeutic needs, and individual preferences. Surprisingly, the interviews provided additional insights into the importance of thematic decor in therapeutic spaces for children with selective mutism or anxiety-related illnesses. While the

literature review focused on creating a conducive environment, the interviews highlighted the therapeutic benefits of themed decor in reducing anxiety, fostering a sense of security, and aligning with therapeutic goals. This finding adds a nuanced layer to the discussion on the intersection of art therapy and architecture, suggesting that themed decor can play a vital role in enhancing the therapeutic experience for kids. However, it is important to note that the literature review did not extensively cover the specific impact of themed decor on therapeutic outcomes, making this a surprising and valuable addition to the interview responses.

Additionally, the literature review did not explicitly address the importance of themed decor in waiting areas, an aspect highlighted in the interviews as crucial for creating a positive and immersive experience for children. Regarding the need for more data, both the literature and interviews provide comprehensive insights into integrating art therapy and architectural principles. However, the literature review should have delved into the specific details of waiting area design in children's settings, such as themed seating, interactive toys, and designated spaces for different age groups. The interviews filled this gap by emphasizing the significance of creating welcoming and distraction-oriented waiting areas for children and families. The interview findings largely align with the literature review, emphasizing the importance of creating well-designed, inclusive, therapeutic spaces. The interviews provide additional insights into the role of themed decor in therapeutic settings, particularly for children with specific needs, and highlight the importance of designing waiting areas in children's settings to enhance the overall experience for children and their families.

4.4.3 JOURNAL 2 AND INTERVIEW RESULTS COMPARISON

The findings from the interview questions align with the literature review on several vital points. The literature review emphasizes creating inclusive and comfortable spaces for individuals with complex communication needs. The interview responses consistently highlight strategies for achieving this goal, such as designing micro-environments within larger spaces, providing quiet retreats, and offering diverse seating options. Both sources stress the significance of accommodating diverse needs to create a well-rounded environment. The literature review introduces the potential of art therapy as an alternative framework for inclusive design processes, focusing on non-verbal communication through creative expression. The interview responses indirectly support this idea by emphasizing soothing colours, natural materials, and nature-themed decor to create calming and positive atmospheres. These elements, highlighted in the interviews, resonate with the literature's exploration of non-verbal communication through visual and sensory stimuli. Surprisingly, the interview responses provide additional insights not explicitly addressed in the literature review. For example, a notable finding is the emphasis on nature-themed decor and its impact on reducing anxiety and fostering a sense of security in therapy centers for children. This aligns with the literature's focus on art therapy and non-verbal communication, demonstrating that visual elements can be crucial in creating therapeutic and inclusive environments.

Additionally, the interview responses highlight the importance of providing choices to children, particularly those with selective mutism or anxiety-related illnesses, to give them a sense of control. This aligns with the literature's emphasis on art therapy as a form of expression that allows participants to communicate their emotions and thoughts without words. The concept of choice and agency in the design of spaces for therapy participants echoes the literature's call

for a shift in how design methodologies are conceptualized, encouraging designers to recognize diverse ways individuals communicate. While the interview responses complement and support the literature, more specific data should be given regarding art therapy's direct application or effectiveness in designing inclusive spaces. The interviews provide practical strategies for creating inclusive environments. However, there is room for further research to explore how art therapy principles can be implemented and assessed in real-world design processes. Overall, the interview findings enrich the discussion on inclusive design and offer valuable insights into the practical application of non-verbal-centric approaches in human-centred design processes.

4.5 FIELD STUDY OBSERVATION FINDINGS

This field study is coded as B1 and is referenced in Table 1. To ensure that the field study is kept anonymous. The field study was done at a public Art Therapy Center. No sessions occurred during the visit, and staff were not visible in the photos. The researcher took notes and took photos during their observation, which can be seen in Figures 3-4.

FIELD STUDY NOTES

- Space was very light and open. They had a light colour palette with wooden and brick elements
- You are welcomed at the reception area with a fluted wooden wall detail behind the reception desk
- White painted walls throughout the whole space, with an exposed brick in the entry / kitchen area
- Space was very small and intimate with separate room for private Art therapy sessions
- No designated group Art therapy it gets set up in the reception space
- Lots of windows which gave natural lighting and the outside view gives inspiration to the children
- Waiting area felt welcoming and had some games for the children to play at when waiting, however it was small with not much seating
- Two types of storage areas one was in the reception area which was open and accessible to kids other storage was in a separate space with push to open cabinets which are only accessible to staff
- Small kitchenette for staff and kids that was white high gloss on the lower cabinets and a lacquer wood finish on the upper cabinets.

Figure 3: Field Study Notes Group B1

FIELD STUDY NOTES

- One type of flooring throughout the space which was LVT
- White ceiling tiles throughout the space
- Not much colour in the space, the art supplies and toys were the only things that brightened up the space
- Staff room was located upstairs with more storage
- Good amount of artwork was displayed, children's artwork was shown as well as prints, which didn't overwhelm the space

Figure 4: Field Study Notes Continued Group B1

When the researcher entered the space, they were immediately struck by the inviting ambiance that enveloped the room. Natural light poured in through large, open windows, casting a warm and welcoming ambiance across the entire area. The atmosphere was airy and serene, creating a comfortable environment for kids to be creative. The space itself was impressively big, there were three private rooms, each thoughtfully designed to facilitate focused and intimate art therapy sessions. These rooms had all the necessary art supplies and tools, ensuring the kids had everything they needed to unleash their creativity. However, there was a limitation when it came to group sessions. The challenge arose from the fact that group activities had to be arranged in the waiting/reception area, as shown in Figure 5. While this area served as the initial point of entry, its primary function was not conducive to hosting group sessions. The arrangement posed a logistical hurdle, making it less than ideal for conducting collaborative and interactive art activities.

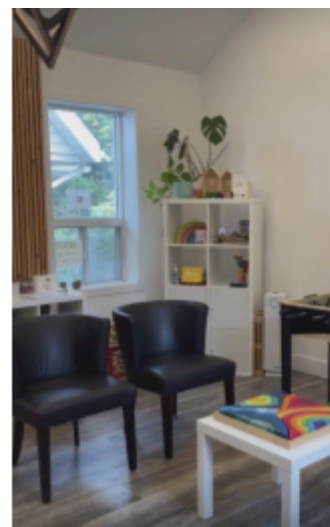


Figure 5: Waiting Area that Transforms into Group Sessions

Figures 6 and 7 vividly illustrate the thoughtfully designed storage area in the reception/group therapy area dedicated to art supplies and toys for the kids. The arrangement was meticulously planned, ensuring accessibility for the little ones. The items were strategically placed within easy reach, fostering independence and encouraging creativity. Despite the limited space, the storage solutions provided a diverse range of options, catering to the varied interests of the children. In this intimate space, the



Figure 6 : Kids Storage Shelves with Toys

available variety of toys and supplies might have been modest in quantity, but they were precisely calibrated to fit the room's dimensions, making the most of the available area. The careful selection of items ensured that the children had ample choices without overwhelming the space, striking a perfect balance between functionality and aesthetics. One of the notable features of this storage area was the vibrant array of colours on the shelves. The shelves did not just focus on practicality; they also considered the visual appeal of the space. By incorporating various colours, the storage area transformed into a lively and stimulating environment. These vibrant hues enhanced the overall aesthetic and captivated the



Figure 7 : Kids Storage Shelves with Art Supplies

young minds' imagination, making the storage area more inviting and engaging for the kids. This careful attention to detail, combining accessibility, variety, and visual appeal, created a storage area that not only served its practical purpose but also contributed to the overall ambiance of the room. It became a space where children could explore, play, and freely express themselves, fostering creativity and joy in their activities.

After entering the reception/art area, to the left is the kitchenette and second storage area, which are shown in Figure 8 and Figure 9, which showcase the thoughtful design of the space. The exposed brick walls add a touch of rustic charm, creating a warm and welcoming atmosphere for everyone who steps inside. This unique design element not only adds character but also serves as a backdrop for the creative energy that fills the room. In Figure 8, attention is

drawn to the kitchenette, a practical area dedicated to staff and children. This space has facilities for washing up after engaging in art sessions. It is designed to be functional yet user-friendly, ensuring that everyone, including the young participants, can comfortably clean up after their creative art sessions. The kitchenette reflects the careful consideration given to the needs of both the staff and the children, promoting a sense of inclusivity and ease within the art center.

Adjacent to the kitchenette, Figure 9 reveals a closed-off storage area designed with a modern push-to-open mechanism. This storage solution combines functionality with sleek aesthetics, providing a secure space for art supplies and other materials. Unlike open shelving units, this closed-off storage area is inaccessible to the children. Its purpose is to maintain organization and tidiness without compromising the safety of the young visitors. This design choice ensures that the art center remains organized and clutter-free, promoting a conducive environment for creativity and learning.

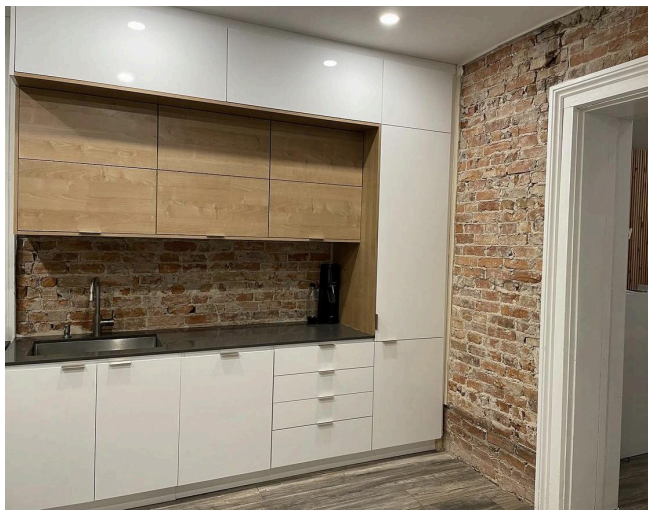


Figure 8: Staff and Kids Kitchenette

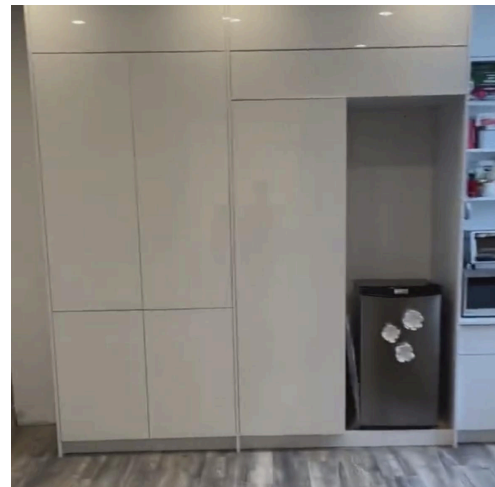


Figure 9: Closed-off storage area

In Figure 10 and Figure 11, we can observe intimate and personalized one-on-one art therapy sessions. The setting is carefully designed to create a nurturing and non-overwhelming

environment for the participants. The space is small yet cozy, providing security and comfort.

The room is furnished with an art desk specifically meant for the children to express themselves creatively through various art mediums. In this intimate space, two chairs are dedicated to the therapists and the child, fostering a close and supportive therapeutic relationship. The arrangement encourages open communication and a strong bond between the therapist and the child, promoting a safe environment to explore their emotions and thoughts. Additionally,

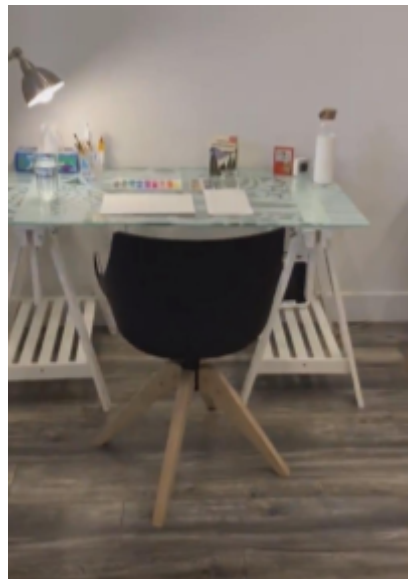


Figure 10: Individual One on One Art Therapy Desk

the room features a well-equipped kitchenette, similar in design to the one depicted in Figure 8.

The kitchenette includes a sink and storage facilities, ensuring practicality and functionality within the limited space. This design allows for basic necessities without overcrowding, maintaining the cozy and intimate atmosphere essential for practical one-on-one therapy sessions. The consistency in the design of the kitchenette across different therapy spaces creates a cohesive and harmonious aesthetic throughout the therapeutic environment.



Figure 11: Storage Area in One on One Art Therapy Room

4.7 SUMMARY

The data collected from interviews, case studies, and a field study greatly aided the researcher's central question of how design strategies and principles can be employed to develop an inclusive Art Therapy center that enhances expression and empowerment through art for children with selective mutism. The collected data supports the researcher's vision for an Art Therapy Center. The three data collection methods have furnished valuable information that will significantly influence the final design. The case studies offered details about established buildings, particularly therapy centers that endorsed the wellness design approach and aligned with the feedback gathered during interviews. The interviews were conducted with experts and professionals in the field, providing valuable firsthand perspectives and allowing for a deeper understanding of the challenges and opportunities faced in creating effective art therapy centers. The insights shared by these individuals contributed significantly to the research findings.

Additionally, the field study yielded invaluable insights into the practical implementation of design solutions and wellness strategies. Immersion in real-life settings allowed researchers to observe dynamics, evaluate space functionality, and collect qualitative data that might be missed using alternative methods. The combined results from these diverse data collection methods were instrumental in shaping the understanding of appropriate design solutions and strategies for art therapy centers. Moreover, integrating wellness components in the research findings highlighted the importance of creating environments that facilitate therapeutic activities and promote overall well-being for clients and professionals involved in the art therapy process.

Chapter Five | Recommendations and Implications

5.1 INTRODUCTION

This chapter delves into the exploration that links the previously examined chapters, uniting the analyzed results of literature reviews, in-depth interviews, and a field study conducted by the researcher. It answers the research questions that guide the study: "How can Interior Design strategies utilizing ecological system theory be applied to the design of an art therapy center to enhance expression and empowerment through art for children with Selective Mutism?" The answers to these questions are rooted in the research findings, firmly connected to the theoretical framework of Ecological Systems Theory, as conceptualized by Urie Bronfenbrenner. This framework serves as a lens through which we examine human development within interconnected social systems. Specifically, the exploration centers on how the Art Center functions as a vital microsystem within the larger mesosystem of family and school. Furthermore, this chapter not only delves into theoretical and conceptual frameworks but also materializes the researcher's vision through sketches and plans for the building located at 1402 Queen St W, in Alton, Ontario. Through these visualizations, the researcher illustrates how users will occupy and interact with the space, providing a tangible and practical dimension to the theoretical groundwork.

5.2 CONCEPTUAL DIAGRAMS AND MODELS

The concept for this space is rooted in the idea of paint brush strokes, particularly in fostering an environment where children can express themselves freely. The organic strokes of a paintbrush envision a free-flowing space that mirrors the uninhibited creativity of children. The choice of this concept is deeply informed by extensive research and interviews, consistently

revealing a desire for children to have the freedom to self-expression and cultivate a strong sense of belonging. The space is intentionally crafted to provide a canvas for the vibrant imaginations of children, encouraging them to explore and create within a nurturing atmosphere that embraces the joy of self-expression. A paintbrush is a powerful symbol of self-expression in design because it embodies creating and leaving a personal mark. The paintbrush becomes a metaphor for the children's journey in expressing themselves in the context of a space built for children. Paint Brush strokes are as spontaneous, diverse, and original as children's interpretations and expressions of their thoughts and feelings. Incorporating paintbrush-inspired design features, such as fluid lines, brilliant colours, and dynamic shapes, provides a setting that visually expresses the freedom and originality associated with artistic expression. The design, similar to a child's paintbrush, encourages kids to interact with and personalize their environment by allowing them a sense of play and exploration within the space. This illustration is a continual reminder that the space is a blank canvas through their imagination, creating a link between the evident environment and the limitless universe of their creativity. Figures 13 and 16 are conceptual diagrams that encapsulate the various forms of fluidity that convey the freedom and individuality inherently linked to artistic expression. These illustrations are powerful visual narratives, capturing the liberating journey unfolding within kids' self-expression. Figures 14 and 17 represent the conceptual models that cultivate an atmosphere of play and exploration within the space. These models allow the children to engage with and personalize their surroundings, transforming the environment into a dynamic playground for their creative endeavours.



Figure 12: Self-Expression in Curved Paint Strokes
Source: n.d. Ink Brush Stroke No2. Desenio. Retrieved November 17, 2023, from <https://desenio.ca>

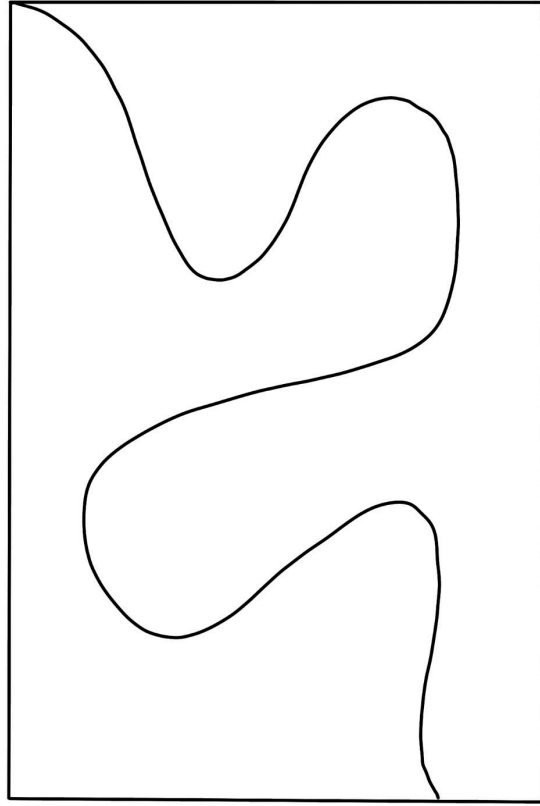


Figure 13: Diagram Exploring Self-Expression in Curved Paint Strokes (Spano 2023)

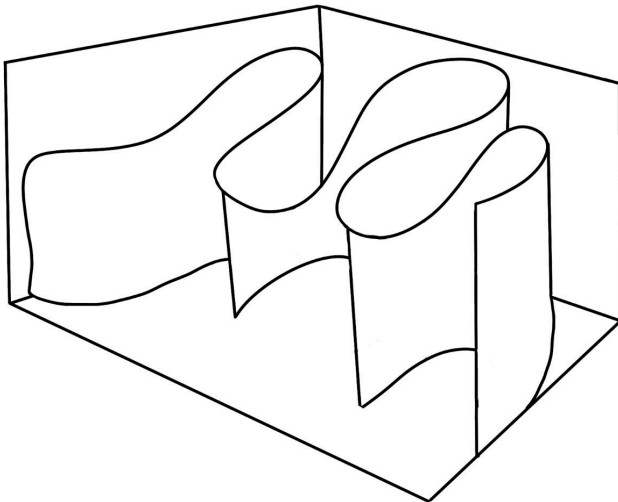


Figure 14: Model Exploring Self-Expression in Curved Paint Strokes (Spano 2023)



Figure 15: Self-Expression in Linear Paint Strokes
Source: n.d. Black and White Brush Stroke. PopCanvas. Retrieved November 17, 2023, from <https://popcanvas.co>

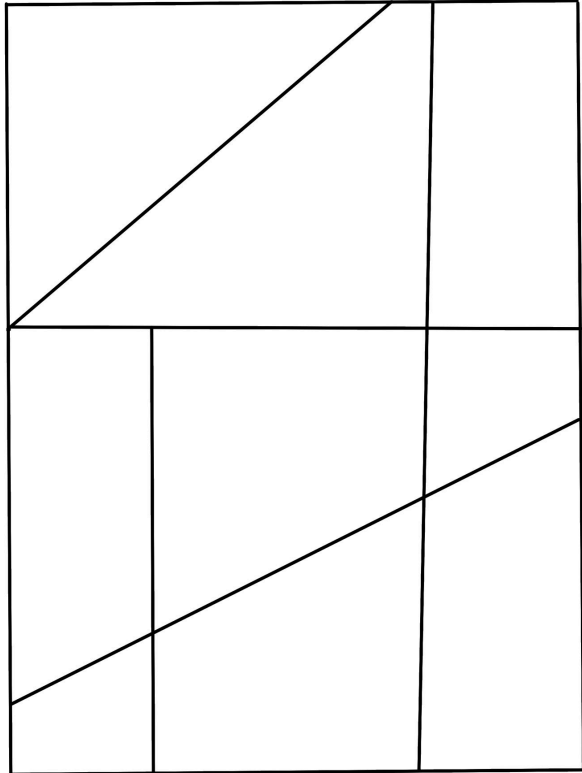


Figure 16: Diagram Exploring Self-Expression in Linear Paint Strokes (Spano 2023)

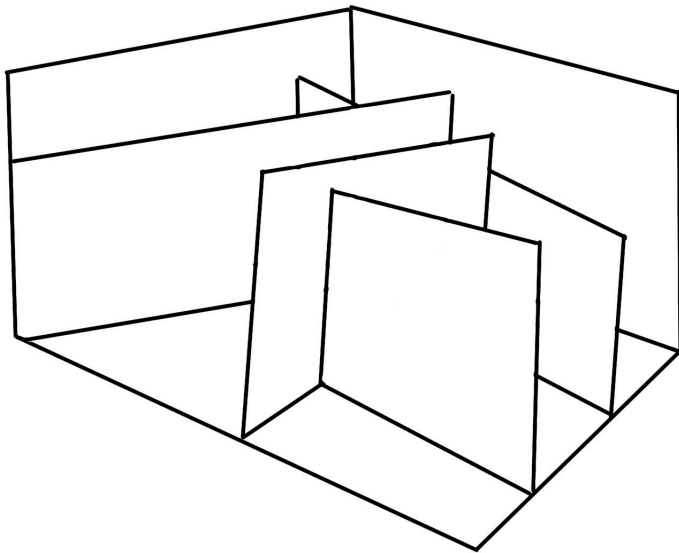


Figure 17: Model Exploring Self-Expression in Linear Paint Strokes (Spano 2023)

5.3 PARTI DIAGRAMS

Figure 18 represents the researcher's abstract response to the chosen theoretical site regarding design strategies that empower self-expression. The parti diagram is a continual reminder that every corner, every wall, is a blank canvas waiting for their imagination's brushstrokes. This symbiotic interaction between the physical surroundings and their infinite imagination ensures that the Art Therapy Center becomes an environment where the borders between space and imagination vanish.

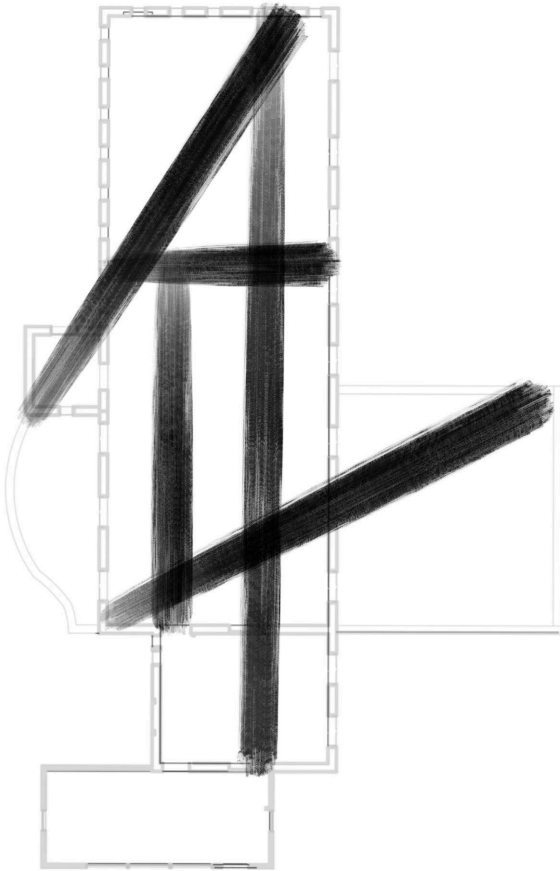


Figure 18: Parti Diagram Exploring Self-Expression in Linear Paint Strokes (Spano 2023)

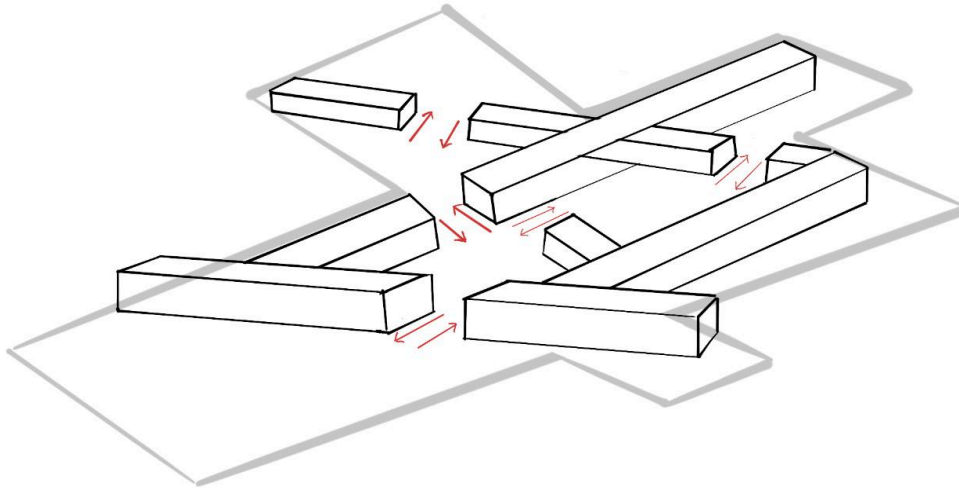


Figure 19: 3D Parti Diagram Exploring Self-Expression in Linear Paint Strokes (Spano 2023)

5.4 ADJACENCY MATRIX AND PROGRAMMING MATRIX

Tables 3 and 4 showcase the Adjacency Matrix and programming matrix, illustrating the potential spaces integral to an art therapy center tailored for children with selective mutism. Data collection methods inform the selection of these spaces. These identified spaces are strategically aligned with the principles of Urie Bronfenbrenner's Ecological Systems Theory, which examines human development within the intricate interplay of multiple interconnected social systems. These programs are preliminary and subject to change throughout the design process. The flexibility to modify both the proposed spaces and programs during the design phase of the thesis project underscores a thoughtful consideration of each space's attributes within the theme of an Art Therapy center. This adaptive approach serves as a guiding principle for effective space planning.

Table 3: Adjacency Matrix

SPACE	ADJACENCY	PUBLIC ACCESS	DAYLIGHT	PRIVACY	PLUMBING
1. Reception	2. 7. 8. 11.	Y	Y	N	N
2. Waiting Area	1. 7. 8. 11.	Y	Y	N	N
3. Admin Storage	4. 9. 10.	N	N	Y	N
4. Printer/Fax Room	3. 9. 10.	N	N	Y	N
5. Utility Room	6.	N	N	Y	Y
6. Supply Storage	5. 12. 13.	N	N	Y	N
7. Coat Storage	1. 2. 8.	Y	N	Y	N
8. Public WR	1. 2. 7. 12. 13.	Y	N	Y	Y
9. Staff WR	3. 4. 10.	N	N	Y	Y
10. Staff Room/ Kitchen	9. 3. 4.	N	N	Y	Y
11. Art Gallery	1. 2. 19.	Y	N	N	N
12. Individual Art Therapy Room	13. 15. 16.	N	Y	Y	Y
13. Communal Art Therapy Space	12. 14. 18.	Y	Y	N	Y
14. Hand Wash Station	12. 13.	Y	N	N	Y
15. Quiet	12. 16.	Y	Y	Y	N

Area					
16. Sensory Room	12. 15.	N	N	Y	N
18. Play Area	13. 14.	Y	Y	N	N
19. Offices	11.	N	Y	Y	N

Table 4: Programming Matrix

SPACE	QUANTITY	DESCRIPTION	LAYOUT	FURNITURE	EQUIPMENT	LIGHTING
Reception	1	Patient Drop off/ Pick up and Check in	Open	Reception Desk, Seating	Computer, Monitor Phone Unit, Fax Machine/ Printer	Task Lighting, Recessed Lighting, indirect light fixtures
Waiting Area	1	Patient and Parent Waiting Area	Open	Seating, Coffee/ End Table	Television Monitors, Access to wire technology	Task Lighting, Recessed Lighting, indirect light fixtures
Admin / Staff Storage	1	Storage Area for Staff and Admin	Private	Shelving, Filing Cabinets	Storage for patient records	Recessed Lighting
Printer/Fax Room	1	Printing Area for Admin and Staff	Private	Sortage, Shelving	Printer, Fax Machines	Recessed Lighting
Utility Room	1	Supports Building System	Private	N/A	N/A	Recessed Lighting
Supply Storage	2	Storage for Art Supplies and Other Necessities	Private	Sortage, Shelving	N/A	Recessed Lighting
Coat	1	Area for Patients	Private	Rods	N/A	Recessed

Storage		and Staff to Hang Coats/Bags etc				Lighting
Public WR	2	For Staff and Patients	Private	Sink Toilet Upper and Lower cabinetry	One child change table	Recessed Lighting
Staff WR	1	Strictly for Staff only	Private	Sink Toilet Upper and Lower cabinetry	N/A	Recessed Lighting
Staff Room	1	Staff Break room and Kitchenette	Semi-Private	Seating, Tables, Sink, Fridge, lockers	Kitchen equipment, Microwave	Recessed Lighting, indirect light fixture
Art Gallery	1	Area to Display Kids Art Work for Visitors to see	Open	N/A	N/A	Recessed Lighting
Individual Art Therapy Room	6	One on One Art Therapy Rooms	Private	Seating, Desks, Storage, Sink	N/A	Recessed Lighting
Communal Art Therapy Space	4	Group Art Therapy Rooms	Semi-Private	Seating, Tables, Storage	N/A	Recessed Lighting
Hand Wash Station	2	Station for Kids to Wash Hands	Open	Sink, Storage	N/A	Recessed Lighting
Quiet Area	1	Area for Kids to Individually work on art quietly	Private	Seating Nooks, Tables, Seating	N/A	Recessed Lighting
Sensory Room	1	Space to Manage Kids Anxiety	Private	Seating	Special Objects	Task Lighting, Recessed Lighting, indirect

						light fixtures
Play Area	1	For kids to go to when waiting for their therapy session or just a space to have fun	Open	Seating, Table	Toys	Recessed Lighting
Offices	5	Area for employees to do work when not in therapy sessions with kids	Private	Desk, Storage, Seating	Computer, Monitor Phone Unit, Fax Machine/ Printer	Recessed Lighting
Suites	7	Room for kids and parents to stay when travelling from afar	Private	Bed, Dresser, Side Table	Tv	Recessed Lighting

5.5 BUBBLE DIAGRAMS

The Bubble Diagrams are preliminary layout suggestions in Figures 20 and 21 and are subject to potential change during the design phase. These diagrams have been strategically positioned within the chosen building to present spatial relationships more accurately and comprehensively. Aligned with the programming and adjacency matrix (refer to Tables 3 and 4), these Bubble Diagrams serve as visual aids, offering a clear and cohesive representation of the envisioned spatial configurations, emphasizing their dynamic connection with the overall design framework.

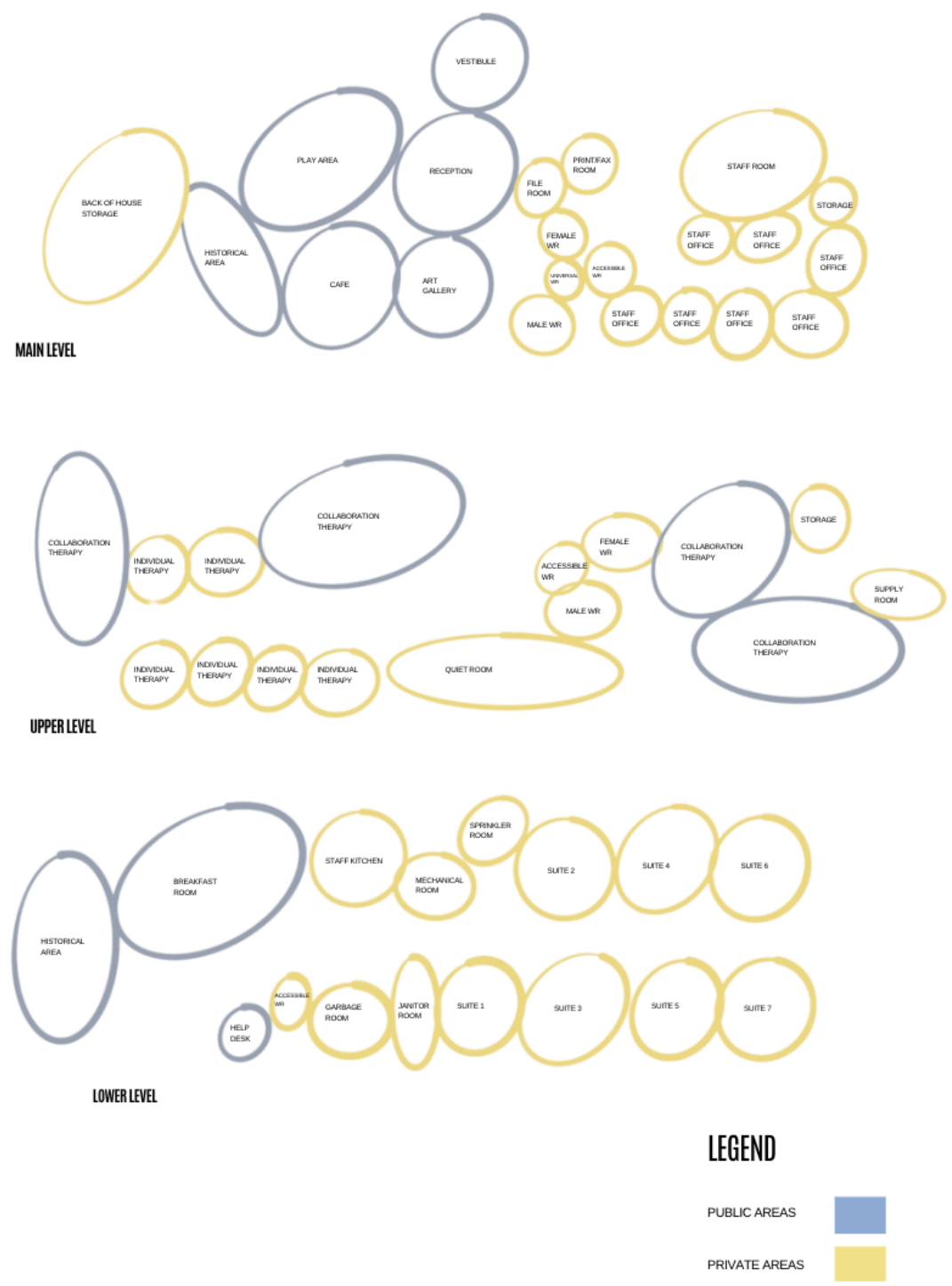


Figure 20: Bubble Diagrams (Spano 2023)

5.6 BLOCK PLANS

The Block Plans are preliminary in Figures 22 and 23 and are subject to potential change during the design phase. The block plan demonstrates a more defined and detailed design plan in regard to the bubble diagrams in Figures 20 and 21 and places each space according to the building envelope, considering the columns and boundaries within the space.

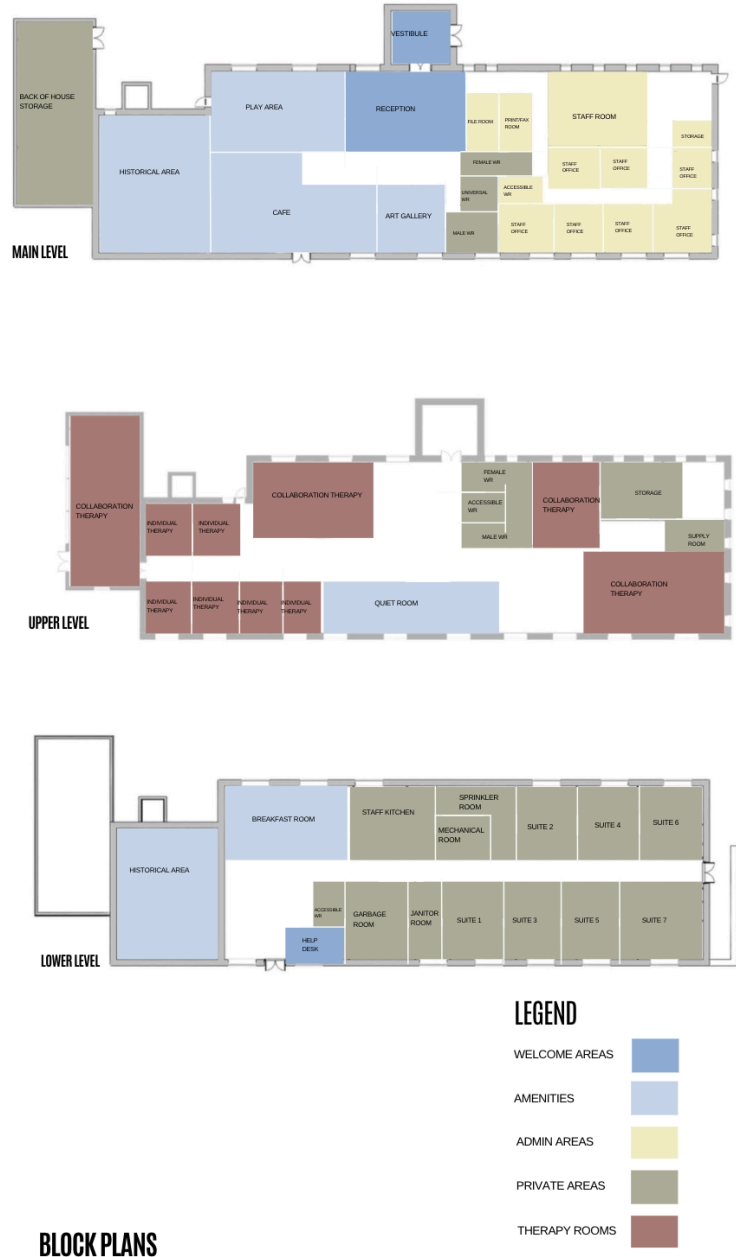


Figure 21: Block Plan (Spano 2023)

5.7 TEST FITS

Throughout this paper, a recurring theme identified by the researcher revolves around establishing an environment that fosters self-expression and creativity. In response to this finding, the researcher has integrated clearly defined spaces designed to nurture these aspects. The researcher has developed four distinct test fits for spaces where creativity holds significant importance: the collaborative art therapy room, individual art therapy room, Quiet Room, and Sensory Room.

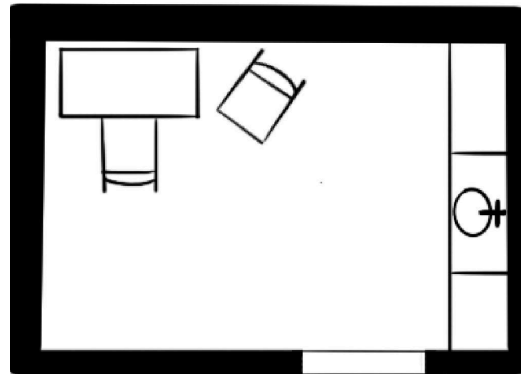
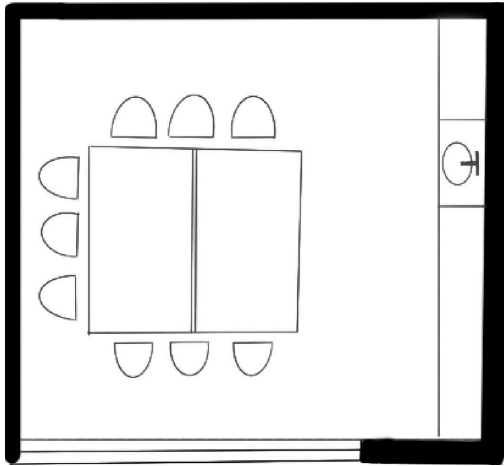


Figure 22: Collaborative Art Therapy Room (Spano 2023) **Figure 23: Individual Art Therapy Room** (Spano 2023)

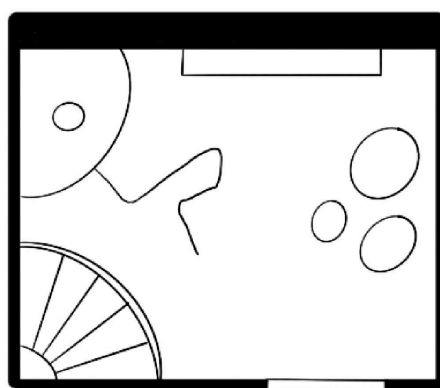
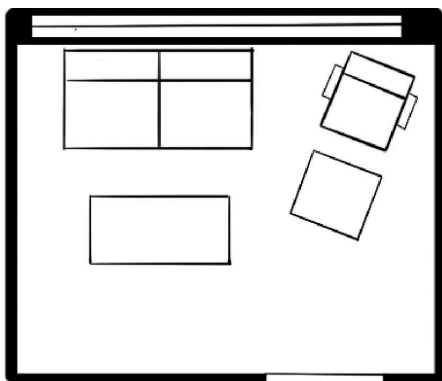


Figure 24: Quiet Room (Spano 2023)

Figure 25: Sensory Room (Spano 2023)

CONCLUSION

In conclusion, this study delved into the significance of fostering genuine expression and empowerment among children with selective mutism through the innovative lens of art therapy. The central question, "How can Interior Design strategies utilizing ecological system theory be applied to the design of an art therapy center to enhance expression and empowerment through art for children with Selective Mutism?" guided the researchers' exploration, and the findings reveal a nuanced interplay between interior design and ecological systems theory. The Ecological Systems Theory in the research and design process gave a comprehensive understanding of the intricate layers influencing children with selective mutism. By analyzing the microsystem of family, school, and peers, exploring mesosystemic interconnections, and extending to the broader ecosystems and macrosystems, the study aimed to create a holistic intervention. The Art Center emerged not merely as a microsystem but as an integral part of the larger mesosystem, weaving into the social fabric of the children's lives. This approach ensured that the design addressed immediate needs and considered broader social, cultural, and familial contexts. The research also highlighted the importance of ecosystemic influences, such as community perceptions and support networks, in shaping the effectiveness of the Art Center. This multi-layered approach ensures that interventions are impactful, culturally sensitive, and sustainable over the long term. The Ecological Systems Theory, therefore, served as a guiding framework that extended beyond the confines of the Art Center, contributing significantly to the understanding and support of children with selective mutism within their diverse and interconnected environments. Reflecting on the study results underscores the importance of recognizing the possibilities for additional investigation. Future studies could delve into aspects that this research may have not fully covered. For instance, the investigation into biophilic design principles, known for reducing

stress and anxiety, could have been expanded. Exploring how biophilic design elements complement and enhance the therapeutic environment could provide valuable insights. This avenue of research could pave the way for a more comprehensive and holistic approach to designing therapeutic spaces for children with selective mutism. Overall, this study addressed the immediate research question and opened doors for future inquiries that could further refine and augment our understanding of creating empowering environments for children with selective mutism through art therapy and interior design.

REFERENCES

- American Art Therapy Association.(2021). What is Art Therapy? Retrieved from <https://arttherapy.org/about-art-therapy/>
- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Anxiety*. (n.d.). American Psychological Association. Retrieved October 4, 2023, from <https://www.apa.org/topics/anxiety/>
- Art Therapy in the Digital World: An Integrative Review of Current Practice and Future Directions*. (2021, March 12). Frontiers. Retrieved November 29, 2023, from <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.600070/full>
- Betts, D. J., & Deaver, S. P. (2019). *Art Therapy Research: A Practical Guide*. Routledge.
- Blog | Art Therapy vs. Art as a Therapeutic Approach*. (2021, March 5). Science Museum of Virginia. Retrieved November 29, 2023, from <https://smv.org/learn/blog/art-therapy-vs-art-therapeutic-approach/>
- Bronfenbrenner, U., & Morris, P. A. (2006). The Bioecological Model of Human Development. In R. M. Lerner & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (pp. 793–828). John Wiley & Sons, Inc.
- Bronfenbrenner, U. (1979). *The ecology of human development: experiments by nature and design*. Harvard University Press.
- Building Childcare Art Center With 5 Simple Steps*. (2023, August 21). Childcare Renovation Singapore. Retrieved November 29, 2023, from <https://www.childcarerenovation.com/building-childcare-art-center/>

- Camposano, L. (2011). *Silent Suffering: Children with Selective Mutism*. 11.
<http://tpcjournal.nbcc.org> doi:10.15241/lc.1.1.46
- Cruse, C. (2020, August 20). *Sensory Rooms May Help Ease Student Anxiety*. Schoolyard Blog | Teacher Resources | School Specialty. Retrieved November 29, 2023, from
<https://blog.schoolspecialty.com/sensory-rooms-may-help-ease-student-anxiety/>
- Cunningham CE, McHolm AE, Boyle MH. Social phobia, anxiety, oppositional behavior, social skills, and self-concept in children with specific selective mutism, generalized selective mutism, and community controls. *Eur Child Adolesc Psychiatry*. 2006 Aug;15(5):245-55. doi: 10.1007/s00787-006-0529-4. Epub 2006 May 9. PMID: 16685476.
 Diagnostic and Statistical Manual of Mental Disorders (5th ed.)
- Doby-Copeland, C. (2006). *Cultural Diversity Curriculum Design: An Art Therapist's Perspective*. ERIC. Retrieved November 29, 2023, from
<https://files.eric.ed.gov/fulltext/EJ777012.pdf>
- ElizabethCahnMAAT, RA, LMHC (2000) Proposal for a Studio-based Art Therapy Education, *Art Therapy*, 17:3, 177-182, DOI: 10.1080/07421656.2000.10129696
- Erickson, Dalene, "Selective Mutism And Art Therapies" (2012). Theses and Dissertations. 1283. <https://commons.und.edu/theses/1283>
- Ford, Mary & Sladeczek, Ingrid & Carlson, John & Kratochwill, Thomas. (1998). Selective Mutism: Phenomenological characteristics. *School Psychology Quarterly*. 13. 192-227. 10.1037/h0088982.
- Garner, Rick. (2016). *Digital Art Therapy: Material, Methods, and Applications*. Spring;2(1):63-72. doi: 10.1089/cap.1992.2.63. PMID: 19630623.
- Howie, P., Prasad, S., & Kristel, J. (Eds.). (2013). *Using Art Therapy with Diverse Populations:*

- Crossing Cultures and Abilities*. Jessica Kingsley Publishers.
- Junge, M. B. (2016). History of art therapy. In D. E. Gussak & M. L. Rosal (Eds.), *The Wiley handbook of art therapy* (pp. 7–16). Wiley Blackwell.
- Jutras, M. (2017, March 2). *Historical perspectives on the theories, diagnosis, and treatment of mental illness*. British Columbia Medical Journal. Retrieved November 29, 2023, from <https://bcmj.org/mds-be/historical-perspectives-theories-diagnosis-and-treatment-mental-illness>
- Lazarl, A., Feuston, J. L., Edasis, C., & Piper, A. M. (2018, April). Making as Expression: Informing Design with People with Complex Communication Needs through Art Therapy. 16. <https://dl.acm.org/doi/pdf/10.1145/3173574.3173925>
- Lynn Kapitan, Mary Litell & Anabel Torres (2011) Creative Art Therapy in a Community's Participatory Research and Social Transformation, *Art Therapy*, 28:2, 64-73, DOI: [10.1080/07421656.2011.578238](https://doi.org/10.1080/07421656.2011.578238)
- Malchiodi, C. A. (Ed.). (2005). *Expressive therapies*. Guilford Press.
- Malchiodi, C. A. (Ed.). (2012). *Handbook of art therapy* (2nd ed.). The Guilford Press.
- McFerran, K.S., Song, J.E., Musicka-Williams, A., Dumaresq, E., Bibb, J. (2021). Creative Arts Therapies as Social Inclusion Promotion. In: Liamputtong, P. (eds) *Handbook of Social Inclusion*. Springer, Cham. https://doi.org/10.1007/978-3-030-48277-0_121-1
- McLaughlin, H. (2004, April). Narrating the silence, a reflective case study: Art Therapy with a Latency Aged Girl with Selective Mutism. 99. <https://spectrum.library.concordia.ca/id/eprint/7967/1/MQ94773.pdf>
- Messmer, Kaitlin, "Art and Play Therapy for Children with Anxiety" (2019). *Undergraduate Honors College Theses 2016-*. 73. https://digitalcommons.liu.edu/post_honors_theses/73
- Selective Mutism*. (n.d.). Cedars-Sinai. Retrieved October 4, 2023, from

<https://www.cedars-sinai.org/health-library/diseases-and-conditions---pediatrics/s/selecti-e-mutism.html>

Smith, A. (n.d, February 26). *The Benefits of a Calming Colour Palette*. Medium. Retrieved November 29, 2023, from

<https://shropshireinteriordesignstudio.medium.com/the-benefits-of-a-calming-colour-palette-5ef5179be290>

Steinhausen HC, Juzi C. Elective mutism: an analysis of 100 cases. *J Am Acad Child Adolesc Psychiatry*. 1996 May;35(5):606-14. Doi:

10.1097/00004583-199605000-00015. PMID: 8935207.

Shuangyu, H. (2022, August 25). *Xinglong Lake Children's Art Center / REL ARCHITECTS*. ArchDaily. Retrieved October 4, 2023, from

<https://www.archdaily.com/987740/xinglong-lake-childrens-art-center-rel-architects>

Shukla A, Choudhari SG, Gaidhane AM, Quazi Syed Z. Role of Art Therapy in the Promotion of Mental Health: A Critical Review. *Cureus*. 2022 Aug

15;14(8):e28026. doi: 10.7759/cureus.28026. PMID: 36134083; PMCID: PMC9472646.

Ulrich, Roger. (1991). Effects of interior design on wellness: Theory and recent scientific research. *Journal of health care interior design : proceedings from the ... Symposium on Health Care Interior Design*. Symposium on Health Care Interior Design. 3. 97-109.

Rubin, J. A. (1999). *Art therapy: An introduction*. Psychology Press.

Warner, Scott & Myers, Kerri. (2010). *The Creative Classroom: The Role of Space and Place toward Facilitating Creativity*. *Technology Teacher*. 69.

Appendices

Appendix A: Letter of introduction Designer



Humber College Institute of Advanced Learning, Faculty of Media and Creative Arts (FMCA).
Bachelor of Interior Design Program
205 Humber College Boulevard Toronto, ON, M9W 5L7

Hello xxxxxx,

My name is Angelica Spano

I am a fourth-year Interior Design Degree student at Humber College Institute of Advanced Learning, in the Faculty of Media and Creative Arts (FMCA). I am conducting a study examining An Art Therapy Center for Children with Selective Mutism for my Senior Interior Design Thesis. My investigation is about the relationship between the design of interior spaces and the well-being of its occupants.

The purpose of this letter is to ask if you will be willing to participate in a future call or email where I will ask 15-25 questions about your experience with [redacted] design for kids. The call will take 1 hour or less of your time. The outcome of my interview will aim to substantiate design decisions that will guide the development of my thesis project throughout the academic year 2023/24. It is my understanding that you have currently or have participated in the design management of [redacted]. That is why I am interested in your experiences related to the design of an anxiety free space.

Your participation in the interview is completely voluntary. Your identity is confidential and is kept anonymous. Your name will not be identified in the final paper. Information collected from your interview will be coded alphanumerically. The information gathered from the interview will be stored for one year in a secured digital file on the Humber College cloud service and destroyed after 1 year.

If you agree to an Interview it is under the supervision of Humber College Research Ethics Board, and you will be asked to provide consent to audio/video record the interview. This will aid me in capturing all your answers. You are free to accept or decline the recording of the interview without penalty and still participate in the interview. Please let me know your preference before the start of the interview. If you do not wish to show your face in a video call format, you will have the option to turn off your camera or conduct the interview by telephone.

If you agree to an interview, then my next step will be to arrange a date and time that is agreeable to you. I look forward to learning about your experiences in [redacted]. Your participation is greatly appreciated.

Sincerely,

Angelica Spano

Appendix A: Letter of introduction to Social Workers and Art Educators



Humber College Institute of Advanced Learning, Faculty of Media and Creative Arts (FMCA).
Bachelor of Interior Design Program
205 Humber College Boulevard Toronto, ON, M9W 5L7

Hello xxxxxx,

My name is Angelica Spano

I am a fourth-year Interior Design Degree student at Humber College Institute of Advanced Learning, in the Faculty of Media and Creative Arts (FMCA). I am conducting a study examining An Art Therapy Center for Children with Selective Mutism for my Senior Interior Design Thesis. My investigation is about the relationship between the design of interior spaces and the well-being of its occupants.

The purpose of this letter is to ask if you will be willing to participate in a future call or email where I will ask 15-25 questions about your experience with [redacted] kids with selective mutism. The call will take 1 hour or less of your time. The outcome of my interview will aim to substantiate design decisions that will guide the development of my thesis project throughout the academic year 2023/24. It is my understanding that you are [redacted]. That is why I am interested in your experiences related to working with kids with selective mutism.

Your participation in the interview is completely voluntary. Your identity is confidential and is kept anonymous. Your name will not be identified in the final paper. Information collected from your interview will be coded alphanumerically. The information gathered from the interview will be stored for one year in a secured digital file on the Humber College cloud service and destroyed after 1 year.

If you agree to an Interview it is under the supervision of Humber College Research Ethics Board, and you will be asked to provide consent to audio/video record the interview. This will aid me in capturing all your answers. You are free to accept or decline the recording of the interview without penalty and still participate in the interview. Please let me know your preference before the start of the interview. If you do not wish to show your face in a video call format, you will have the option to turn off your camera or conduct the interview by telephone.

If you agree to an interview, then my next step will be to arrange a date and time that is agreeable to you. I look forward to learning about your work in [redacted]. Your participation is greatly appreciated.

Sincerely,

Angelica Spano

Appendix B: Informed consent form

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the proposed procedures. It describes the procedures, benefits, risks, and discomforts of the study. It also describes your right to withdraw from the study at any time.

Purpose of study: _____

Procedures involved in the study: _____

Confidentiality of Research Records:

- Only the researcher has access to contact information and responses
- Your personal identifying information will only be used to contact you. Your responses will be recorded on a form that contains a code number created by the researcher.
- After interviewing you or if you decline to participate, the researcher will take a black marker and cross through your name and information. At the end of the study, the contact sheet will be shredded or digitally destroyed, leaving no possible way to match code numbers/responses with your name.
- Your personal/individual responses will not be given to judges or court personnel.
- During the study, all data will be kept in a locked, secure, filing cabinet, equivalent container, or secured digital storage within the Humber College School of Applied Technology IT system.
- By using code numbers, if the results were subpoenaed, your individual responses could not be singled out

Potential Risks and Discomforts:

- No physical, social, or economic risks are posed to participants.
- *Participating in the study will not affect your current legal status, services provided, or status in the related program.*
- *Breaking confidentiality and mandatory reporting.* If a participant provides detailed information about crimes committed that are unknown to the court (a crime that you were not caught, charged, or convicted of) the researcher will be legally obligated to report the crime to the court or appropriate authorities. Similarly, if participants discuss plans to harm themselves or others during an interview, and the interviewer perceives the threat to be real and imminent (going to happen soon), the researcher is obligated to report the threats to the appropriate authorities. To reduce the likelihood of this risk, the researcher will instruct the participant to refrain from providing information about specific criminal behaviors and to only respond using the response options for questions provided in the phone interview, virtual or in-person meeting.

Potential Benefits: By participating in this study, you will get an opportunity to provide information about how the interior space and amenities impact well-being and productivity; identify positive and negative aspects of the related facility, and potentially improve the services provided. This is a participant's chance to give the design research community feedback on the operations of _____.

Voluntariness & Withdrawal from Study:

Your participation in this study is strictly voluntary. If you choose to participate in the interview, you may end the interview at any time.

I have read the material above, and any questions I asked have been answered to my satisfaction. I understand a copy of this form will be made available to me for the relevant information and phone numbers. I realize that I may withdraw without prejudice or penalty at any time.

Participant Consent

Please circle one:

I agree to participate in this study: Yes No

I agree to be [video recorded](#) Yes NoI agree to be [audio-recorded](#): Yes No

Print Participant name: _____

Participant Signature: _____ Date: _____

Participant Email address: _____

(To be filled out by student interviewer- Please Print)

Student Interviewer: _____

Thesis Topic: _____

Date Of Request: _____

Appendix C: Interview Questionnaire

1. What are some effective strategies to strike a balance between privacy and openness spaces for children with anxiety?
2. What are important considerations when choosing colour schemes for a therapeutic space to promote a tranquil atmosphere?
3. How can the arrangement of furniture in spaces support various therapeutic activities without overwhelming the children?
4. What are some effective lighting fixtures that can provide adequate illumination while promoting a soothing ambiance?
5. What are some effective strategies for managing natural light, ensuring privacy, and fostering a welcoming ambiance in various settings?
6. Considering the sensory needs of children, how would you address the texture of fabrics and materials used in furniture and decor?
7. What elements could be considered to create an inviting and comfortable waiting area for both children and their families, taking into account potential anxieties?
8. What elements would you include to ensure a sense of familiarity and security for the children?
9. What are some effective methods for incorporating natural elements into a space to establish a connection with the outdoors and promote a sense of calmness?
10. What strategies would you employ to minimize noise within the space, ensuring a quiet and focused atmosphere?
11. How would the design of a collaborative area encourage social interaction among children while considering their selective mutism challenges?
12. What types of artwork or wall decor are commonly associated with fostering a positive and supportive atmosphere in a space?
13. How would you approach the selection of furniture to ensure it combines functionality and aesthetic appeal effectively?
14. How can you create therapy spaces that accommodate both individual sessions and group activities, ensuring they are versatile and flexible in their usage?
15. What are some strategies for creating a supportive environment that allows the

involvement of parents or guardians in the therapy process without causing disruption to the therapeutic setting?

16. How would you integrate storage solutions within the space to keep the space organized and clutter-free?
17. What measures would you take to ensure the safety of children within the space considering both the layout and the choice of materials?
18. What are some elements that could be incorporated into the space to create an environment that fosters a sense of hope, inclusivity, and empowerment for children with selective mutism?
19. Would you like to add anything else?

Appendix D: Interview Script

Hello!

My name is Angelica Spano. I forwarded an email to you on _____ 2023. We mutually agreed upon this date, and I was given permission to conduct this Interview.

As of now, I will begin recording this interview. To begin, I would like to thank you for responding to my email from _____ 2023, in which you generously agreed to take time out of your busy schedule for this interview. The interview is for my Bachelor of Interior Design thesis paper and will primarily be focused on the study of art therapy centers. The thesis will explore using interior design to create a self-empowering space fostering self expression. By integrating functionality, aesthetics, and psychology, it aims to create an environment that enhances productivity, inspires, and contributes to overall well-being.

I have _____ questions to ask and will begin with the first question....