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The Public-School Environment And Day Treatment Programming Perceived Positive Environmental Supports As Antecedent Stimuli In A Public-School Day Treatment Classroom

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THE PUBLIC-SCHOOL ENVIRONMENT AND DAY TREATMENT PROGRAMMING

PERCEIVED POSITIVE ENVIRONMENTAL SUPPORTS

AS ANTECEDENT STIMULI IN A PUBLIC-SCHOOL

DAY TREATMENT CLASSROOM

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Abstract

The physical environment of a classroom can serve to meet the unique needs of students, but the focus on the specific tangible elements of the classroom is limited. There are minimal guidelines that inform teachers as to how to use these elements of the environment in teaching practices. The decision-making process for these situations is often left to inexperienced teachers and is not fully utilized as a resource within the classroom. The purpose of this qualitative research is to examine the environmental factors that contribute to a positive learning environment for public school students who exhibit challenging behavior. Based on the experiences of professional staff, this study will specifically identify and determine some of the beneficial antecedent stimuli, or the physical aspects, of a learning space for those students whose behavior precludes them from accessing their typically developing peers. The remote interview procedure for this study included fifteen educators who had worked in a public-school day treatment program within a public school district in Southern Maine. An interview was the tool used to gain qualitative data for this study. In general, the participants shared that access to space, having specifically trained adults, and pro-actively managing the environment were all positive contributors to perceived success. This study shares specific perceptions and interpretations of staff members working with a unique population of students and offers future research ideas in the areas of antecedent manipulation towards a more successful public-school day treatment environment.

Dedication

I dedicate this work and document to the kids of Ledyard High School Circle of Friends club. It was through the foresight and hard work of one teacher that opened my eyes to what was missing from the lives of children with disabilities. That one experience led to a lifetime of dedication to make sure that all children get what they need to be successful in life.

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Chapter One: Introduction

There are many aspects to programming which can support a student in learning behaviors that are more conducive to a regular education classroom setting (Yeung et al., 2016). By reducing undesirable behaviors, a student can access the least restrictive environment (LRE) and continue with their education on a typical trajectory with their neurotypically developing peers (NDP), those who have statistically average developmental, cognitive, and intellectual abilities (Brusie, 2017). According to De Matos and Morgado (2016), through socialization and exposure to the mainstream aspects of the public-school setting, despite challenging behavior, the student will continue to develop the skills necessary to become a productive and safe member of the community. The authors also promoted and challenged others in the classroom community to be exposed to multiple types of learning styles and supported the students with disabilities in a general acceptance by peers as well as low frequency of behaviors (DeMatos and Morgado, 2016).

The focus of this study was to document the perceived environmental supports within a day treatment (DT) classroom that, in the opinion of specialists interviewed, contributed to an increase or decrease in a student's targeted behavior of concern. The collection of perceived supports resulted in a conducive list of environmental recommendations that will benefit future staff in creating positive learning environments for students who engage in challenging behavior. The findings of this study serve to support the consistent application of program structures that support this population of students in accessing their right to public education. The value of this research was to study the components of a positive learning environment and the perceived influence of these components in decreasing the frequency and duration of challenging behavior.

The knowledge developed about the environmental components will be shared with other educators to support the generalization of the findings.

Statement of the Problem

A specific population of students requires additional supports to access the general education setting within any public-school setting (Maine Department of Education, 2021). These supports can come in the form of direct care or consultation by specialized, trained school employees. At times, these students engage in behavior that is physically aggressive and destructive. This behavior typically results in moving to or remaining in a location that limits access to NDPs, for the safety of all personnel and the student's dignity. When a student's challenging behavior precludes access to the general education setting, the public-school department, under the Individuals with Disabilities Education Act of 2004 (IDEA) guidance, is required to make accommodations and modifications to the student's programming.

Historically, when a student engaged in elevated destructive or aggressive types of behavior, they were sent to residential facilities to receive their education and practice other elements of daily life (Eisenberg, 2014), as this is the safer option for the student and school. In more recent decades, public education has adopted a system of care to meet the needs of these children in the LRE or the public-school setting (DeMatos and Morgado, 2016). A separate educational environment, or self-contained classroom, is available to students who need formalized structured schedules and skills related to regulating and managing behavior and emotions. This change in environment does not come without difficulty, however. According to DeMatos and Morgado (2016), there is considerable disagreement about what factors are most conducive to an educational environment for students who engage in challenging behavior or have behavior disorders. Within that controversy is a general lack of research on the specific

elements that serve as positive antecedents in a learning environment (DeMatos and Morgado, 2016). There is little research about the particular elements of the environment that help to establish these positive behavior changes.

The problem with this study was that professionals' decision-making and real-life application of using the environment as an antecedent has not been well studied but is paramount to this work's purpose. While there are instruments that focus on specific educational and behavioral aspects of programming in relation to a teacher's professional evaluation, the minimal focus and dedication to the contributing environmental factors in behavior are consistent. One document by Pearl et al. (2018), the "Quality Indicators for Classrooms Serving Students with Autism Spectrum Disorder," approaches the use of measured observational quality indicators to provide substantive and appropriate feedback to the teacher of the classroom (Pearl et al., 2018). However, the document lacks objective and tangible access to environmental strategies employed or recommended.

Purpose of the Study

Some studies have analyzed the physical attributes of an environment, such as the one conducted by Barrett et al. (2015), which examines different aspects of a general education classroom and its students. There continues to be minimal research on the environmental factors that are conducive to the existence of a public-school day treatment program. Research with a focus on special education students having access to these resources is also minimal. The designation of tangible and objective environmental consistencies designed to support the establishment of DT classrooms in public schools is not well researched or widely available. The purpose of this study was to explore the experiential knowledge based on professionals' decision-making processes when establishing environments in public school DT settings.

Research Questions

The research questions examine how the shared experiences of professionals who work in DT programming can realize and articulate successful environmental components of established DT classrooms. Documentation of experiences of the professionals interviewed and their current work in a public-school day treatment classroom portrayed their perceptions of environmental stimuli that can increase or decrease a student's targeted behavior. Additionally, the researcher explored professionals' understanding of the relationship between the environmental supports within a successful DT classroom and those that limit positive response within this same classroom. The following research questions guided this qualitative study:

Research Question 1: What do professional staff (teachers/specialists) describe as perceived quality indicators (antecedent interventions) of a prescribed environment for day treatment programming in a public-school setting?

Research Question 2: How do experienced professional staff implement or change the environment (antecedent) to establish students' success for day treatment classrooms in a public school?

Research Question 3: How does experienced professional staff (teachers/specialists) know that a change in behavior has occurred due to specific stimuli in the DT environment?

Conceptual Framework

In order to appropriately frame this study, the theory of behavior management was used as a scaffold to understand how changes in the environment impact behavior. Within behavior management theory lies social cognitive theory, as proposed by Bandura (1986, as cited in Cooper, Heron and Heward, 2020). The theory of behavior management is a tangent of applied

behavior analysis, often referred to as ABA, and assists this researcher in defining objective elements of the work. ABA is utilized as a scientific approach to understanding behavior and can be a therapeutic intervention targeted to improve or redirect specific behaviors. ABA manipulates variables that reinforce optimal educational performance to parsimoniously change the environment and, thereby, change the behavior.

Further enhancing the principles of behavioral management theories, Bandura (Cordier and Diers, 2018) ascertained that connecting processes occur between stimuli and responses, and the environment influences behavior. Within social cognitive theory, Bandura claimed that human functioning is a product of the mutual interaction of environmental events, behavior, and personal factors (Cooper, Heron and Heward, 2020). In 1977, Bandura acknowledged that internal states, the environment, and behavior all affect one another (as cited in Cooper, Heron, and Heward, 2020).

By utilizing the theory of behavior management, one can discover common elements that create a positive and supportive environment for students that engage in physically and environmentally disruptive behaviors (Cooper, Heron and Heward, 2020). In a day treatment (DT) classroom or any environment, specific elements within the teaching staff's control serve as antecedents for behavior (Cooper, Heron and Heward, 2020). According to Cooper, Heron, and Heward (2020), changing the environment and manipulating the environmental variables to elicit a positive response from the student increases the amount of time that the student is available for instruction and learning. Practitioners have observed consistent antecedents, such as lighting and ambient noise, that trigger appropriate behavioral responses and used those antecedents to create DT classrooms that support students with multiple needs.

Behavior management as a conceptual framework supports teachers/specialists in creating learning environments that, based on the experience of the teacher/specialist, provide a tangible, reinforcing component to programming. According to Cooper, Heron, and Heward (2020), behavior results from interaction within the environment and response to stimuli based on a history of interactions with that particular stimulus. When a teacher consistently manipulates an environment to change a behavior, the teacher creates an opportunity for operant conditioning. Operant conditioning outlines procedures that characterize the behavior as a modification of reinforcement or punishment, resulting in a connection between the targeted behavior and the expected result or consequence (Cordier and Diers, 2018). When a setting event, also known as an antecedent, occurs, it produces an effect in which someone is more or less likely to engage in the targeted behavior. When the teacher/specialist manipulates the antecedents to elicit a specific, appropriate behavioral response and the behavior is immediately reinforced, there is a likelihood that the individual will engage in the behavior that caused the reinforcement more often (Cooper, Heron and Heward, 2020). The teacher/specialist in this situation is also reinforced by reducing challenging behaviors or increasing specific skill acquisition.

Assumptions, Limitations, and Scope

Within this work, the researcher fosters inherent assumptions necessary to generalize the information and experiences of those interviewed as part of the research process. Additionally, the participants will respond to all interview questions openly and honestly and draw upon their specific and professional opinions. There is an assumption that the practitioners who work in the TRAILS program (Trust, Respect, Achievement, Instruction, Life Training, and Success) have had a positive experience working in the program. The purpose of TRAILS is to provide a

therapeutic and supportive environment for students that exhibit challenging behavior in the regular education setting and among regular education peers. Assumptions regarding the identified structure of successful environments have potential generalization capabilities to other school departments and facilities. The researcher also assumes that interviewees are participating in this study without any expectation of compensation.

Limitations have been acknowledged and shared in order to ensure the audience's understanding of the research. Some of the limitations within this study include the study size and location. The sample size is limited to professional, or specialist staff members employed by BSD who have worked in an alternative DT setting.

Due to the COVID-19 pandemic, interviews took place using the Google Meet platform. In order to mitigate this limitation, each interview took place while the staff member was at a school building and, therefore, was able to utilize the district's internet server. Other complications due to COVID-19 involved the need for students to access the school setting within a hybrid or in-person half-time model. Therefore, only the staff and professionals involved in the TRAILS classroom during the first year (2018-2019) and the second year (2019-2020) were interviewed. New staff in the programs as of the 2020-2021 school year will not be interviewed.

Although the project's scope was small, opportunities for generalization existed. Through the interview process, common classroom antecedents (program structures) emerged. The scope of this research included the realization and designation of a list of common environmental antecedents that have been conducive to a positive working environment for students that engage in challenging behavior. The research only included those who are part of the TRAILS program and would share information about the environmental experience in their designated programs.

Rationale and Significance

Treating and providing education for children with special needs is a public and societal obligation supported by multiple state and federal laws, regulations, and guidelines (IDEA, 2004). In more recent years, and amendment to the Elementary and Secondary Education Act (ESSA), named the Every Student Achieves Act (2015), specifically included federal law that explicitly requires teachers to use, as much as possible, academic and behavioral practices and programs grounded in scientifically-based research (Iris Center, 2020). According to Vanderploeg, Franks, Plant, Cloud, and Kramer (2010), the more recent implementation of evidence-based treatments emphasizes adopting and disseminating singular service models rather than incorporating evidence-based treatments into tangible, comprehensive, multi-faceted, and multidisciplinary interventions.

Behavior is created, reinforced, and modified by a chain of events reinforced by consequences (Cooper, Heron, and Heward, 2020). A consequence can be defined as an event (punishment, reinforcement) following a specific behavior (Cooper, Heron, and Heward, 2020). When these consequences are not consistently implemented, the rate of behavioral change becomes capricious and unpredictable (Cooper, Heron, and Heward, 2020). This knowledge compounds the lack of generalization and carryover of skills in a singular service model described above. Therefore, when comprehensive treatment models such as the DT classroom are not reliably and objectively articulated, there is likely to be a variation in the availability and receipt of services (Iris Center, 2020). This lack of consistency further restricts future educators' access to evidence-based methods objectively identified to promote positive behavior within classroom settings. The need for formalized parameters for DT classrooms is present, and the lack of information is a concern as public schools continue to develop DT classrooms. In order

to support that process, this study will identify commonly perceived environmental components

that, based on the perceptions of the practitioners, are more conducive to an appropriate and

meaningful learning environment for some of our neediest students.

Although this research includes only a small number of participants, its implications are far-

reaching. As shared in an interview of BSD's Superintendent, Dr. Donivan DeMello (personal

interview, August 31, 2020), multiple public-school systems seek to create DT classrooms. Many

have reached out to BSD for guidance on how to create this specific learning environment.

Focused environmental and programming expectations detail clear delineations and uses of

evidence-based practices. If the staff use their professional expertise to support those practices,

the DT classroom can provide an objective model for other educators to follow. Creating DT

classrooms housed within and across multiple public-school settings using systematic, evidence-

based, and objective criteria has the potential to infinitely impact future students (Eisenberg,

2014).

Definition of Terms

Antecedent. The conditional, present, and environmental conditions that are present and occur

prior to the targeted behavior of interest (Cooper, Heron, and Heward, 2020).

Applied Behavior Analysis (ABA). A scientific technique concerned with applying empirical

approaches based upon the principles of respondent and operant conditioning to change behavior

of social significance (Cooper, Heron, and Heward, 2020).

Challenging behavior. The topography of the specific targeted behavior that impedes the child's

ability to access their TDPs and the general education classroom. Challenging behavior includes,

but is not limited to, aggression towards staff or students, environmental destruction of property,

bolting/eloping, self-injurious behavior, and non-compliance to demands (Cooper, Heron, and

Heward, 2020).

Individualized Education Plan. A plan or program developed to ensure that a child with an identified disability who is attending an elementary or secondary educational institution receives specialized instruction and related services (IDEA, 2004).

Emotional/behavioral disability. A disability that impacts a person's ability to recognize, interpret, control, and express fundamental emotions (Diagnostic and Statistical Manual, 5th edition, 2013).

Environment. The "full set of physical characteristics in which an organism exists" (Cooper, Heron, and Heward, 2020, p. 27).

*Neurotypically developing. I*ndividuals of typical developmental, intellectual, and cognitive abilities (Bruise, 2017).

Operant conditioning. Learning through the consequences of behavior (Cooper, Heron, and Heward, 2020).

Quality indicators (also known as program structures): The specific items in the environment that are present or absent in a DT classroom setting to which the presence of these items results in appropriate behavior. Items such as desk arrangement, lighting, spacing, proximity to other students, amount of material covering the walls, and ambient sound are all examples of environmental quality indicators (Smith and Davis, 2019).

Self-contained classroom. A classroom in which the special education teacher is responsible for most of the academic, behavioral and functional education. A self-contained classroom typically serves as a replacement for the general education classroom when the student is unable to access the curriculum at grade level (IDEA, 2004).

Stimuli. A specific thing or event that elicits a behavioral response (Cooper, Heron, and Heward,

2020).

Conclusion

A known but unexplored phenomenon exists within the relationship of mental health and educational attainment (Agnafors, 2020). Despite many attempts to understand the inverse relationship of the two entities, little research exists in the exploration the impact of one on another (Agnafors, 2020). Mental health problems in early childhood and adolescence increase the risk for poor academic performance, indicating the need for awareness and treatment to provide fair opportunities to education" (Agnafors, 2020, p. 858). Enabling students to access a free, appropriate public education (FAPE) is no easy task, especially for those students who engage in challenging behavior exhibiting the topography of aggression and environmental destruction. Due to federal and state laws, students must be provided a FAPE by accessing their education in the least restrictive environment (LRE), regardless of the presenting disability (IDEA, 2004). With a more recent initiative to ensure the inclusion of evidence-based practices in education (ESSA, 2015), it is necessary to fulfill these obligations for all students, including children with special needs. The study's purpose was to describe the tangible, objective, and consistent environmental components for a DT classroom in a public-school setting. Using the procedures and observational practices of ABA and interviews to engage school staff based on their professional experiences to support specific environmental and objective considerations of a DT classroom, the results of this study serve as a base to understand how to create a program of this magnitude.

The remaining chapters of this study include information on the research and procedures utilized so that the study can be replicated. Chapter two provides a review of the relevant literature that is central to understanding the current views and issues within education

concerning DT classrooms and special education students who engage in behavior that precludes them from accessing the general education classroom. Chapter three thoroughly describes the methodologies and design of the research and the procedures utilized for the entirety of the research process. Chapter four provides a detailed analysis of the available and relevant data and the results of the thematically organized interview questions that were asked of the specialists. Lastly, chapter five interprets and discusses the results and applies them to current research and practice. Additionally, chapter five suggests future uses for this research and potential areas of study for subsequent professionals.

Chapter 2: Literature Review

This literature review addresses current practices for treating mental health and behavior challenges in public schools and day treatment facilities. The research presented analyzed how mental health services are provided to students eligible for special education under the Individuals with Disabilities Education Act (IDEA, 2004). The literature review also focused on limits of students' access to necessary mental health services in public school facilities while concurrently accessing a free appropriate public education (FAPE) in the least restrictive environment (LRE). The review's primary focus was to identify current environments and models of behavioral day treatment (DT) programming when incorporating mental health and behavioral programming into the public-school setting. The findings of this literature review served to explore current structures and environmental components of special education classrooms that, according to the perceptions of the professionals that work in the classrooms, encouraged appropriate behavior from the students that received the specialized programming.

This review explored several topics which identified and accentuated the need for specific prescribed environments for students that exhibited challenging behavior. A brief history of special education services and laws was included to give the reader a full perspective on the changes in special education in the last few decades. The review looked at the increase in the population of special education students in relation to the impact and confounding of current educational structures, even those specifically designed for systematic implementation of positive behavioral supports. The training and supports necessary to learn about this population of students are scarce, and the absence of the literature related to this is noteworthy. Due to lack of information, the review indicated the need for specific environmental recommendations as a catalyst for behavior. These are not readily available or well-studied.

Mental health and behavioral supports are present in the student population, and public schools must meet all learners' needs (ESSA, 2015). School and district administrators have used programs, including Positive Behavioral Intervention Supports (PBIS), that offer prescribed and systematic intervention procedures and schedules. However, these programs offer whole-school incentives and do not address specific needs of the individual child or specific needs. Current trends include other positive behavioral implementation opportunities; however, those resources are often time-consuming and costly (U.S. Department of Education, 2021). A significant focus of this review is to teach the reader that the environment is a key factor in behavioral change and that one can change behavior by manipulating an environment. Using the framework of Social Cognitive Theory, an offshoot of Behavior Management Theory, one can view all interactions as a relation between the individual, the environment, and the behavior displayed (Cooper, Heron, and Heward, 2020).

Documentation of the decision-making processes of the specialists and professionals who work with students that exhibit challenging behavior is scarce. Within the experience and perceptions of these professionals, this study will attempt to identify consistent environmental antecedents that contribute to a student's success that exhibits challenging behavior. This lack of documentation, examples, or reporting on the decision-making process supports the argument for a deeper look into implementing a DT program in a public school system specifically designed to treat students with mental health and behavioral needs. Specifically, the focus of the work is to identify the environmental components of programming and determine how these components act as antecedents for behavior change.

Mental Health Needs in Public Schools

The number of mental health incidents has grown exponentially over the last decade, especially among young adults and teens (Blad, 2019). Based on a study conducted by the Center for Disease Control and Prevention (2021), one in six students displayed behavioral or emotional impairment symptoms, which led to an eventual diagnosis of a childhood mental disorder. Among the most common mental disorders in children are attention deficit hyperactivity disorder, anxiety, behavior disorders such as oppositional defiant disorder, conduct disorder, and emotional disability (Center for Disease Control and Prevention, 2021).

Mental health and behavior challenges of school-aged children continue to be an area of difficulty for many educators. Teachers and administrators now face teaching students who have various mental disorders with the expectation to educate these students in core academic subjects to the same degree as their neurotypically developing peers (Blad, 2019). The role of a public-school facility is to provide education to all students. However, when challenging behavior precludes the student from accessing their education, steps must be taken to provide appropriate environments and supports to assist them as they grow and learn. According to Eisenberg (2014), students with these emotional and mental challenges are often sent to an out-of-district placement, which removes the child from their home community and neurotypically developing peers.

Society is changing in relation to requiring educators and community-based agencies to provide more mental health and behavioral supports (Eisenberg, 2014). Early intervention supports are likely to be more effective through an academic lens when provided earlier in life, such as at the preschool age, rather than later (Centers for Disease Control and Prevention, 2021). However, mental health is a relatively new focus for the public school system, and many

school departments have inadequate supports and services available for these unique needs. Public schools must find a way to meet the needs of these learners, despite the significant challenges that students harbor every day when they arrive at school.

The problem explored in this dissertation is to realize and document environmental components that act as positive stimuli within program structures to support mental health and behavioral deficits. This work is done in combination with the charge of schools to continue to provide all children with a free appropriate public education (FAPE) in the least restrictive environment (LRE). How does a school system determine mental health and behavioral needs when professional personnel who make these determinations are not part of a typical school system? At the center of this work, the topic is how the environment, as its stimuli, can encourage or discourage a child's access to these needed supports.

Conceptual Framework

The characteristics of a classroom environment can impact student behavior and learning (Nelson, Ysseldyke and Christ, 2015). Various characteristics are emphasized as proactive strategies to ensure the success of the students attending. Some of these strategies include adapting the physical aspects of the room, reducing the latency of responding, affirmatively acknowledging positive behavior with subsequent reinforcement, and consistently implementing rules and structure (Nelson et al., 2015). Current research (Flower et al., 2011) has determined that there are nine recommendations for alternative education programming that are considered effective practices: low student to teacher ratio, highly structured classroom with behavioral management, positive methods to increase appropriate behavior, school-based adult mentor, functional behavioral assessment (FBA), social skills instruction, effective academic instruction,

parent involvement, and positive behavioral interventions and supports (PBIS) (Flower et al., 2011).

Behavior management theory has been studied in school settings to find ways to meet the needs of different student populations. In the 1960s, Skinner developed the notion of operant conditioning, which tangibly recognized that a change in behavior results from the individual interacting with the environment or stimuli (Cooper, Heron, and Heward, 2020). Additionally, when there is a pairing between an element of the environment and positive reinforcement, a stimulus-response (S-R) pattern is realized and reinforced so that the student will more likely engage with the same environmental element in the future (Hussung, 2019). For example, suppose a child is receiving dense praise for correct answers in the classroom environment. In that case, they are more likely to engage in the future as they anticipate the same type of dense reinforcement and associate the reinforcement with the particular environment in which they receive praise.

In this research, the theory of behavior management is used to determine specific aspects of the environment and the related impact on student performance in a DT setting. The characteristics of a classroom environment can impact student behavior and learning (Nelson et al., 2015). The purpose of this research is to identify the perceived beneficial environmental components across DT classrooms spanning grades K-8 in a public school system. Environmental variables that impact these programs can be significant. This research intends to identify and enact those environmental variables to promote the success of mental health programming for our neediest and most vulnerable learners in the public-school setting.

Although some research indicates that behavioral management is an effective teaching tool, there is little information on the actual environment or the "antecedent" of the setting that

impacts the students' learning. An antecedent is anything that sets the event for the subsequent

behavior and can be in the form of an environmental change, condition, or location (Cooper,

Heron and Heward, 2020). Using the practices of applied behavior analysis within the context of

behavior management, one can manipulate these antecedents in order to do the following:

1.   Increase the likelihood of desired behavior

2.   Present the cues for the desired behavior in the child's environment.

3.   Arrange the environment to set up a biological condition so that engaging in the

       desirable behavior is more valuable to the child.

4.   Decrease the physical effort necessary for the child to engage in the desired

       behavior (Prince, 2013).

If the child is seen as the "problem," this may thwart efforts to determine if other stimuli are

causing the behavior. A careful examination of the school and family community and

environments is warranted (Parsonson, 2012).

Currently, there are no formal or commercial tools to examine the environmental or

antecedent factors in creating and sustaining a DT facility to educate our most at-risk learners.

The researcher intends to utilize a document named the "Quality Indicators for Emotional

Behavioral Development Programming" (QIEBD), developed by Smith and Davis (2019), as a

tool to develop interview questions that analyze the learning environment. There remain

significant gaps in this area of research, and this tool does not sufficiently evaluate the intricate

details of the physical environment and its impact on student success. Additionally, the

researcher uses the environment-behavior factors model (EBFM) created by Barrett et al. (2015).

The researcher intends to utilize the tool to identify objective indicators, as appropriate, to

ascertain if the DT programs of interest are implementing programming with both the physical

environment and the environmental management of the classroom in mind. By using the QIEBD and EBFM, some environmental factors can be analyzed and explored. The focus of engaging this tool is how the antecedent manipulation of an environment caters to a unique population. Once that has been established, the future implications of the tool can be exponential to other DT facilities.

Special Education as legally entitled support has not always been available to students who attend traditional public schools. Before the enactment of state and federal law, public schools were not required to educate students that posed significant academic, social, functional, or behavioral challenges (Wright and Wright, 2020). The impact of educating students with disabilities has greatly increased in the past few decades, and the focus of mental health and behavioral deficits have been the most recent supports available as provided through Special Education (Eisenberg, 2014).

History of Special Education

There have been many attempts to establish standard regulations involving students needing specialized services (Maine Department of Education, 2010). The first special education programs revolved around delinquency among those that lived in urban communities (Wright and Wright, 2021). According to Wright and Wright (2021), special education programs were primarily private and residential, making the services unavailable to those in need. In 1965, a landmark decision addressed the inequality among students of different backgrounds and disadvantaged financial situations in accessing education. This decision became the Elementary and Secondary Education Act (ESEA) of 1965 and was updated in 1966 to include expanding services for handicapped children. In 1970, the Education of the Handicapped Act (Public Law (P.L.) 91-230) replaced ESEA and provided that all children have a right to education. In

addition, P.L. 91-230 enabled state and local governments to develop systems of checks and balances to ensure that they adequately served the special education population. In 1975, P.L. 94-142, also called the Education for All Handicapped Children Act, replaced P.L. 91-230. This update offered parents procedural safeguards and systems to ensure that parents and children received support and access to an appropriate education (Wright and Wright, 2021).

Since the inception and adoption of the Individuals with Disabilities Act of 1997/2004, public school systems have been required to provide every eligible student with a FAPE in the LRE (Department of Education, 2010). The 1997 update to the IDEA (2004) allowed an IEP team to address specific behavior issues where this focus had not existed in earlier versions of IDEA (IDEA, 2004). Although this law intends to allow access to education for each child regardless of abilities or disabilities, children's needs supersede the typical interventions and supports that regular education teachers can provide. The climate and culture of teaching have changed over the last few decades, and teachers are now responsible for accommodating and modifying expectations and curriculum for students with exceptional academic and behavioral deficits whether or not the student qualifies for special education (Scott, Park, Swain-Bradway, and Landers, 2007). In addition to fulfilling basic education needs, teachers face a population of students eligible for special education under the category of emotional and behavioral disorders (EBD)/emotional disturbance (ED) and entering and remaining in the general education classrooms. Because students have a right to a free appropriate public education in the least restrictive environment despite behavioral challenges, they are active participants in the classroom setting. They are required to perform academic tasks to the best of their ability. When the demonstration of challenging behavior precludes the student's ability to access their

education, the burden is placed on the teacher to ensure that the student is reaching appropriate benchmarks, despite the hurdle of disruptive or inappropriate behavior (Scott et al., 2007).

As early as 1909, separate entities existed to bring attention to the growing number of children with mental health deficits (Bullock and Gable, 2006) that current practices and resources did not meet. Although a more dated resource, according to Bullock and Gable (2006), some of the established professional groups in the earlier decades of supports for children included the National Committee on Mental Hygiene (1909), Council for Exceptional Children at Columbia University (1922), American Orthopsychiatry Association (1924), Council for Children with Behavioral Disorders (1964), National Mental Health and Special Education Coalition (1987), and the Federation of Families for Children's Mental Health (1989). Despite the recognition by these groups of the need for these specialized services, it was not until 1984 that the National Institute of Mental Health created the Child and Adolescent Service System Program (CASSP), which provided a legitimate policy to outline the goals in providing these services to children with significant needs. The goals were:

1. To encourage the creation of interagency systems of care to address the mental health needs of children and their families.

2. To enhance the role of mental health agencies within multi-agency systems.

3. To enhance the role of family members' involvement in designing and implementing supportive care.

4. To encourage cultural competence of service providers by recognizing the need for members of culturally diverse groups to have input into the creation of the system of care and ensure that interventions consider their unique cultural values (Bullock and Gable, 2006).

Special education 1980 to 2020. The focus on special education services and mandated state and federal regulations continued throughout subsequent decades. After the Education for All Handicapped Children Act of 1975, the term "Least Restrictive Environment" was established, giving students eligible to receive special services access to their neurotypically developing peers in both academic and social contexts (Laws and Guidance Division, United States Department of Education, 2021). A landmark case Board of Ed of HHCD vs. Rowley established a two-prong determination process to ensure that a student received a free appropriate public education and ensure that the individualized education plan development occurred as designated by specific regulations and procedures (Law and Guidance Division, United States Department of Education, 2021). On August 6, 1986, President Ronald Reagan signed the Handicapped Children's Protection Act, which offered parents more feedback and participation in their child's IEP development. In July 1990, the Americans with Disabilities Act (ADA) of 1990 was signed into law. This act promised that all people (including those with special needs) would have equal rights and access to education. Additionally, this act thwarted society's efforts to discriminate in the workplace or public (Law and Guidance Division, United States Department of Education, 2021). On October 30, 1990, President George W. Bush signed the Individuals with Disabilities Education Act into law. This law specified six required pillars that included "free appropriate public education, least restrictive environment, Individualized Education Plan, evaluation, parent/student participation, and access to procedural safeguards for all participants" (Law and Guidance Division, United States Department of Education, 2021).

In 2001, the No Child Left Behind law was established, which introduced the mandate of standardized testing and measured progress for all students and implemented a system of supports and structures to assist students in decreasing skill deficits in skill areas (Law and

Guidance Division, U.S Department of Education, 2021). In 2004, the IDEA was reauthorized, and the new requirements under this law stated that teachers must be highly qualified and certified. It also mandated new special education eligibility determination and intervention (Law and Guidance Division, U.S. Department of Education, 2021). In 2015, the Every Student Succeeds Act was signed into law by President Barack Obama (ESSA, 2015). This law replaced the No Child Left Behind law. Although the understanding of common assessment was still present, a more comprehensive look at state and federal oversight of special education was created (ESSA, 2015).

The need for mental health and behavioral services. The students who engage in the most challenging behavior only represent approximately one to five percent of the student population; however, this small percentage of students consistently accounts for almost half of school discipline referrals (Scott et al., 2007). This need requires the immediate expertise and resources of many teachers, school staff, and administrators while the child may still be engaging in challenging behavior. These challenges often occur in an environment that simultaneously supports neurotypically developing peers as the identified student attempts to access classroom-based instruction.

Throughout the world, the prevalence of children with disabilities is on the rise (Rasalingam, Brekke, Dahl and Helseth, 2021). Rasalingam et.al (2021) suggest that approximately 10-15% of children and adolescents live with a long-term mental or physical health issue. Several factors add to the difficulties in diagnosing a child with EBD/ED. Contributing factors limit the success of treatment in this population of students, including but not limited to significant rates of family psychopathology, subpar parent skills, and a limited allowance of resources and available professional supports (Rasalingam, et al., 2021). Also, students with

EBD/ED consistently perform well below the 25th percentile on academic achievement tests, account for the highest high school dropout rates, have increased legal issues, and generally have the least positive outcomes of all of the classified disability groups (Duchnowski and Kutash, 2011).

The rising need for mental health supports, coupled with the lack of community-based services and supports, places a burden on the professionals responsible for providing these services to students enrolled in a public-school facility. Teaching in public schools is increasingly difficult, especially given the state and federal requirements to support students with multidimensional needs, regular academic needs, classroom management, and dealing with episodes of disciplinary referral (Scott et al., 2007).

Public Schools and Mental Health Treatment

Public schools face a unique challenge to educate all enrolled children, regardless of abilities or disabilities. Classroom behavior management is critical to a teacher's ability to support their students effectively; however, new teachers surveyed feel inadequately prepared to manage challenging behavior in the classroom. (Flower, McKenna and Haring, 2017). Inclusion for all students is considered best practice, but often the students are not receiving services due to a lack of support and professional staff training. Critical components of the environmental impact of instruction have not been fully explored.

A continuum of needed services. Public schools offer a unique opportunity for professionals and students to interact in formal and informal settings and engage with each other across a plethora of interventions and supports (Gresham, 2004). Within this setting, professionals can access students and deliver mental health supports on a larger scale, despite obstacles from the student's home situation (Gresham, 2004). In estimation, students who

exhibit significant behavioral challenges while concurrently requiring mental health support

comprise approximately one to five percent of any student count. However, these students are

responsible for 40-50% of behavioral disruptions in schools. They subsequently drain a large

percentage (50-60%) of resources (Gresham, 2004). When student behavior exceeds the

professional expertise of the classroom teacher, there are options available based on a continuum

of needs. However, access to services is dependent on many factors, including the physical

manifestation of the disability or lack thereof.

When determining mental health and behavioral needs, one must look at the available

therapeutic environment and appropriate services for the particular individual. Students who

exhibit externalizing behaviors, like property destruction, aggression, or eloping, are more easily

recognized and receive reactionary attention because the behaviors displayed are not typical in a

general education classroom (Bullock and Gable, 2006). These students are often removed from

this environment due to these outwardly physical behaviors. Conversely, there is a population of

students who exhibit internalizing behaviors, like non-compliance, task refusal, and off-task

behavior, which pose a different challenge as it is difficult to actively engage these students in

classroom instruction (Bullock and Gable, 2006).

Both internalizing and externalizing behavior profiles require intervention, and one

option for a child to receive these interventions is to refer them to special education. Once a

child qualifies for special education, the IEP team must develop an individualized education plan

(IEP) and respect the need to provide specialized services in the LRE (IDEA, 2004). Also, there

is a need to provide mental health and behavioral support, often while students disengage from

their education.

Despite the increasing numbers of students eligible for an IEP under the category of EBD/ED, only a small population of them receive mental health or behavioral support services (Wagner et al., 2006). According to Wagner et al. (2006), regardless of the presence of an IEP mandate, only half of the students who require mental health and behavioral supports can access them as dictated. Compounding this lack of in-school, specialized education is that the statistics of the students' families who are also often in need of mental and behavioral supports receiving this support is low. Despite the growing need for family supports and the data showing that these supports often help achieve success in the academic realm of a public school, only a low percentage of families have access to these wrap-around services (Wagner et al., 2006). There is a clear need for students with EBD/ED to receive support in school and indicators that family support is also integral to the behavioral health of the student population.

The capacity to serve. There are many options that public schools have attempted to serve this need, and interventions and support are dependent on the knowledge base and experience of the administrators and educators working with the student population. Despite the development of an IEP and appropriate interventions, school providers often realize that they are unprepared, incompetent, and therefore reluctant to meet the needs of these learners (Wagner et al., 2006). General educators typically receive minimal professional development or educational opportunities to learn how to work with this population. Schools continue to face a critical shortage of special education teachers, with a substantial shortage of qualified and credentialed teachers to serve the EBD/ED population (Bullock and Gable, 2006). At the level of higher education, there is a consistent absence of college and university staff with the knowledge base and experience to adequately prepare new teachers for an EBD/ED student (Bullock and Gable, 2006).

Within the responsibilities as educators comes the concern of reaching all students, especially those who refuse to access their appropriate learning environment. An issue that continues to circulate is that school systems are unsure of the responsibility to educate students whose mental health issues preclude them from attending school and accessing their education. Schools have consistently prevailed in legal cases in which a child had a mental health need (disability) but was not attending school. Many parents in these cases were also encountering significant mental health and behavioral concerns at home and therefore placed their child in a residential facility outside of the school's IEP decision-making team. In the third circuit decision of *Mary Courtney T*. v. *School District of Philadelphia* (2009), the court ruled in favor of the school, therefore concluding that the needs and interventions being provided to the child were medical in nature and therefore not the financial responsibility of the school department (Sawka et al., 2002). In yet another case, in the fifth circuit decision in *Richardson Independent School District* v. *Michael A*. (2009), the student received services in her home due to the diagnoses of attention deficit disorder, bipolar disorder, oppositional defiant disorder, autism, separation anxiety disorder, and pervasive developmental disorder. In this case, the judge ruled that the school was not liable for the cost of residential and mental health services (Sawka et al., 2002). Another case from the fourth circuit, *Shaw v. Weast* (2010), determined that a child's profile of behaviors and the continued failure of the student to make behavioral progress at home did not warrant the school department to finance the residential placement (Sawka et al., 2002). Although a school department under IDEA (2004) is required to provide supportive services to enable students to access their education, it is often an area of concern as to how much support can be provided within the confines of the school walls and professional staff. The option of staying in a home school district is being explored for many students with challenging needs,

rather than being sent to an out-of-district placement (OOD) facility to meet their individualized goals in the areas of social-emotional learning and managing challenging behaviors. By remaining in the home school district, students can access typically developing peers and develop relationships with their school communities.

Educating students with ED/EBD needs in the general education classroom. Rasalingam et al. (2021) shared that there is a clear association between mental health needs and lacking services with poor educational and employment outcomes. Across multiple studies, many of the hurdles that EBD/ED students face when attempting to reintegrate into a general education classroom are consistent across teaching professionals and administrators. Studies conducted by Wehby and Symons (1997), Valore et al. (2006), Fuchs et al. (1991), and Stone (2003) all found that the attitudes held by teachers towards the reintegration of students that are EBD/ED into the public-school classroom setting, positively or negatively impact the success of the reintegration for the student (Gerdner and Kikke, 2011). Owens and Konkol (2004) described the positive correlation of students pairing with teachers that cared for and provided supports to build a comfortable environment where the student was again willing to engage in their education (Gerdner and Kikke, 2011). The conundrum, therefore, is that many general education teachers share that the EBD/ED students are the least desirable to have in the general education classrooms. Many of these teachers do not have the unique skill set or experience to work with this population, and they do not feel prepared to serve the needs of the EBD/ED population (Wagner et al., 2006). Regardless of preparation or ability, teachers are responsible for educating this challenging population, and often there are resources available to assist with this need.

Regardless of the many attempts by teachers to assume responsibility for the education of these students, many do not possess the skill set to manage mental health and behavioral challenges while simultaneously attempting to educate the remainder of the students in any particular classroom. Resources are often available but limited as the scope of a professional working with EBD/ED children can be subsuming. Bullock and Gable (2006) reported that, despite interventions and specialized staff, only 30-45.2% of students with IEP-eligible behavioral or mental health needs accessed behavioral supports such as a behavioral support plan, and 38.3-40.2% received any structured and long-term mental health supports. In a study conducted by Wagner et al. (2006), the special education population made up 21.9% of elementary school students, 20.6% in the middle school grades, and 14.2% in the high school grades. Eighty-six percent of the EBD/ED population at each school level accessed a psychologist, 89.2-97.9% of students accessed a guidance counselor, and all schools reported access to paraprofessional supports. Social workers were also available, but only 54.8-64.2% were accessing these services consistently (Wagner et al., 2006, p. 17). In the same study conducted by Wagner et al. (2006), the average amount of time an EBD/ED student spent in a general education classroom varied from 85.-92.3%. Pairing teachers with this level of classroom attendance by EBD/ED students with a lack of training and preparation is daunting. Many mental health and behavioral programs in public schools begin with the intention of supporting these teachers in their quest to instruct, but many of the programs are fast-tracked and "fail to produce teachers who possess the prerequisite skills to provide quality instruction to students with E/BD and to ensure positive academic and behavioral outcomes" (Bullock and Gable, 2006, p. 11).

The environment as a factor in behavior change. While often overlooked, the physical nature of an educational environment impacts the success of students. It is essential to cater to consistent aspects of programming as these are required to make long-term and sustainable changes, especially within the learning environment. In an ecological approach to understanding behavior, the physical aspects of a learning environment must be considered to ensure success in the programming (EUFIC, 2014). Although there are many approaches to meeting the needs of these students, it is critical to acknowledge the universal characteristics within DT school/classroom settings that include "small class size and small student body…a personalized school environment" (EUFIC, 2014, p. 4-5).

Although there has not been an exclusive study on the environment as a change agent in a DT program, Barrett et al. (2015) offered parameters to consider when evaluating and building an environment conducive to learning. These parameters are naturalness (light, sound, temperature, air quality), individualization (choice, flexibility, connection), and level of stimulation (complexity, color, texture) (Barrett et al., 2014). These antecedents, or environmental stimuli, are fundamental to understanding how to treat students with mental and behavioral challenges. However, the research is not forthcoming about how these aspects can be changed to improve students' overall experience.

The environment is a critical component of behavior change and DT programs, and a vast number of variables contribute to the success of an individual, including seating, lighting, color of the walls, decorations, the hygienic properties of the space, air quality as well as ambient temperature (Langford, 2017). Ross and Neuman (2010) (as cited in Langford, 2017) found that the environment informs and realizes the specific social interactions that occur, as well as support opportunities for learning and education (Langford, 2017).

The environment is a substantial structure as a student's safe space, or place where they feel supported and outside of the reach of outside entities such as parents, parole officers, and the impactful events that children witness daily. The classroom environment, at times, serves as a stable structure to provide support and consistent expectations. Teachers can keep students engaged, but the environment in which a child receives their education is important. According to Edgier (2009), when students feel needed and important, they are more likely to feel the need to achieve (as cited in Langford, 2017). Additionally, Edgier (2009) shared that the classroom environment must encourage building positive and healthy relationships, which support a student's level of comfort and perceived support while learning (Langford, 2017).

One theory of practice within the framework of Social Cognitive Theory is called reciprocal determination (RD), the notion that behavior is controlled or determined by the individual, through cognitive processes, and by the environment, as realized external social stimulus events (Cooper, Heron and Heward, 2020). The three components of RD are behavior, environment, and individualization, which all influence a child's success in the classroom. In the realm of the environment, Cooper, Heron and Heward (2020) shared that the physical environment that surrounds the student can contain potentially reinforcing stimuli, which includes people/staff that are professionals working with the students. The environment can also influence the intensity and duration of specific challenging behavior, just as the environment can modify the behavior. (Cooper, Heron and Heward, 2020). The individual component involves the history of reinforcement and punishment received in the past and their expectations of what will happen, based on this assumed trajectory of responses (Cooper, Heron and Heward, 2020). A student adjusts their behavior to manipulate the environment and enforce the desired outcome. Using RD in combination with the basic environment evaluation tools of both the QIEBD and

the EBFM helps develop an understanding of how impactful an environment is in the education of our most vulnerable students.

Current Trends for Treating Mental Health in Public Schools

There have been many professional undertakings in which public schools have attempted to provide a continuum of mental health and behavioral services to the students while housed in the public-school setting. These programs focus on different aspects of service delivery and how the function of each behavior is determined and treated. As school professionals learn more about how to target and support mental health and behavioral needs in the regular education environment, the capacity to serve these students becomes more feasible and systematic (ASCD, 2020). In some of these models, the environment is a consideration for success, while others do not target it specifically.

Behavioral intervention supports. When determining a strategy to assist the school setting with reaching all learners, there have been many approaches to educating teaching professionals and supporting the students while maintaining an appropriate learning environment. Ducharme and Shecter (2011) posit proactive prevention of the development of inappropriate academic and social deficits by providing effective instruction and predictable outcomes. Proactive prevention involves identifying and intervening on specific lagging or absent skills that a student exhibits. Research shows that early intervention is critical for the long-term benefits of the intervention to be realized and generalized (Ducharme and Schecter, 2011).

Positive behavioral interventions and supports (PBIS/PBS). Positive Behavioral Intervention Supports/Positive Behavior Supports (PBIS/PBS) realize that behaviors are predictable and therefore can be redirected, or a student can learn an alternative way to respond

(Ducharme and Shecter, 2011). PBIS/PBS embraces the notion that with the proper

environmental antecedents and social frameworks, behavior can be managed and brought to a

level at which any student can engage with their typically developing peers. The framework for

PBIS/PBS involves a four-step process:

1. Predict who will fail, what failure will look like, when and where failure will likely

    occur, and why failure occurs under these circumstances.

2. Build upon the prediction by developing specific rules, routines, and physical

    arrangements aimed at preventing predictable problems

3. Implement consistent strategies for adults in the classroom and students over time.

4. Collection of data to evaluate instruction (Ducharme and Shecter, 2011, p. 225).

    Within the construct of PBIS/PBS, there are school levels and classroom levels of

intervention. At the school level, the primary focus of prevention is to give a foundation of

positively stated behavioral expectations, incentives for acceptable and socially appropriate

behavior, and teacher-directed instruction and guidance (Sugai et al., 2000) as cited in

Ducharme and Shecter, 2011). This school-level intervention provides general supports and

expectations to create a cultural conduct code and reinforcement for appropriately following the

guidelines.

    Suppose a student continues to display challenging behavior, and the school wide

PBIS/PBS initiative is ineffective. In that case, a classroom-level PBIS/PBS can be developed to

focus on a particular student's needs to tailor interventions to their particular challenging profile.

Following the school-level PBIS/PBS parameters, the class-level continues to provide focused

prevention strategies for a smaller number of students who are not responsive to global or

school-wide initiatives. Within the class level, teachers who have students whose needs exceed

the traditional PBIS/PBS support can spend the time and effort needed to target specific

behaviors of concern and to entertain preventative interventions on an individual level

(Ducharme and Scheter, 2011). In this step, teachers are encouraged to predict specific

circumstances in which a student will not be successful and must plan to arrange the

environment and other stimuli to suit the learning profile for the student better. By analyzing data

resulting from implementing the interventions and ideally reducing the challenging behaviors,

one can determine if the individualized strategies are effective in intervening on the challenging

behaviors. In order for these interventions to be successful, they must be supported. According to

Yeung et al. (2016), sustaining a PBIS/PBS requires offering administrator support to comply

with foundational principles, flexibility for professional development time, and program

implementation's core values to produce sustainability.

First step to success (FSTS). FSTS was a program designed for students entering

kindergarten who displays early indicators of social maladjustment and antisocial behavior

(Walker et al., 1998 as quoted in Reddy and Richardson, 2006, p. 383). This program aimed to

work with preschool students to facilitate training to prevent anti-social and challenging

behavior, which would eventually preclude the child from accessing typical educational

environments and supports from strengthening. FSTS programs were based on a universal

screener given to all at-risk kindergarteners and are based on teacher feedback and experiences

with particular children. A teacher was asked to rank internalizing behavior concerns for five

children and externalizing behavior concerns for five different children (children cannot be on

both lists). The next stage involved the teachers using a standardized procedure, the Early

Screening Project, which allowed for teacher input, behavioral observations, and looking at a

child's adaptive and maladaptive scales compared to typically developing peers (Reddy and

Richardson, 2006). If a child qualified for the program, they enroll in a day program that relies on the principles of applied behavior analysis where appropriate behavior is reinforced and inappropriate behavior receives negative feedback. Typically, children took approximately two months to complete the program and are then they were ready for full inclusion (as permitted by IEP) with typically developing peers (Reddy and Richardson, 2006)

        Strengthening emotional support services model (SESS). SESS was a program designed to train special education teachers who work directly with students with EBD/ED needs. The purpose of this program was to develop the teaching staff's capacity to keep children in their community school departments and to limit the need to send these children to out-of-district placements (Sawka et al., 2002). This particular model was created specifically for those school departments with limited resources, such as urban development centers of school attendance. Instead of focusing on the student, as the other systems proposed, this one offered training directly for teachers focusing on behavioral management and practices that are empirically validated. In addition, the training topics included academic assessment and intervention and behavioral and ecological management within the classroom (Sawka et al., 2002). Teachers were trained to deliver specific and defined skills related to each module presented. After completing the modules, a consultant visited the teachers each week for twelve consecutive weeks to provide feedback and modeling. At the end of the SESS training period, most teachers felt that participation increased the level of active student engagement and concurrently decreased disruptive behaviors in the self-contained (separate) classroom (Sawka et al., 2002).

The Teacher as a Reflective Decision Maker

Few studies discuss the impact of the teacher/specialist as the decision maker in determining the appropriate next steps in any programming endeavor for a student with special needs. Burden and Byrd (2016) offer a glimpse of how the teacher/specialist must interact with their students and the environment to achieve a dynamic result, reducing challenging behavior and access to a less restrictive environment. Within teacher professional growth and evaluation systems rubrics, a domain is often the classroom environment, not excluding the classroom's physical space (Burden and Byrd, 2016). However, the criteria evaluated tend to measure intangible concepts (establishing respect and rapport, establishing a learning culture) that are not objective or generic enough to generalize to other settings or be directed towards a specific population of students.

An important component of learning and professional development is a reflection and reflective practice that assists individuals or groups in analyzing current issues and needs across environments. When enacting reflection and reflective practices, the teacher/specialist can utilize other professionals to promote discussion and problem-solving strategies in the student's best interest. When one learns, they have reflected on past practice, and consequently, those experiences become the cornerstone of a professional experience (Burden and Byrd, 2016). The future of strong programming and continuity of service is to have teachers who possess experience and knowledge towards improving students' lives in the future. The experience of the professional staff that works with DT classroom students allows for immediate, targeted support; however, this experience has not been researched or explored.

In order to make a learning environment more conducive for a student, teachers must rely on previous work experiences and past practices when creating programming. The data collected

in the classrooms through observation and intervention plays a pivotal role in the decision-making process of teachers (Burden and Byrd, 2016)). Professionals who work with students that exhibit challenging behavior use data to inform their decisions and discussions about programming, including how to change the environment to meet the needs of the students (Burden and Byrd, 2016). The use of data in teacher decision-making supports to inform teachers how to adjust their instructional strategies to create a learning environment that will fit the needs of the students (Prenger, 2018). Data-driven decision-making used by teachers requires objective, tangible evidence to make choices regarding the implementation of strategies that will better support students' learning (Cooper, Heron and Heward 2020). In the absence of specific decision-making guidelines and procedures for professional staff regarding manipulating the environment for individual students, teachers and professionals learn to use their judgment when analyzing student pairing success with specific environmental components. Due to this pairing of an environmental change (student decreases behavior and accesses more time with their peers), and the successful change in challenging behavior, these professionals are therefore more likely to utilize the successful strategies in the future (Cooper, Heron and Heward, 2020).

Conclusion

In order for students to achieve success in a public school system, teaching professionals must face many environmental hurdles in order to meet these needs. Appropriate mental health development is crucial in the growth of adolescents, especially those who have comorbid mental disorders (Peterson, 2018). Mental health needs begin their onset at an early age, with 50% of identifications occurring prior to the age of 14, and 75% identification by the age of 24 (Wade, Johnston, Campbell, and Littlefield, 2007). Those who are challenged by mental health and behavioral needs are often concurrently eligible for special education services and are able to

access services to meet these challenges. The typical school-based services, however, are not sufficient to meet the needs of all the students whose behaviors manifest to a significant and unsafe level.

The literature suggests that although many schools attempt to provide mental health and behavioral services to families, most public-school entities do not have established mental health programs; therefore, teachers are charged with handling these needs without being appropriately equipped or trained (Peterson, 2018). The literature identified thus far does not provide a successful model or best practice as to how to plan, develop, implement and analyze school-based mental health or behavioral support programs (Peterson, 2018). In order for schools to become entities that willingly provide professional services in the areas of mental health and behavioral challenges, the establishment of these norms and practices are necessary. This research will provide a pragmatic view of the environmental antecedents of the TRAILS classrooms. This work will serve to share how professionals can meet the needs of these special learners while maintaining their participation in the general education classroom and with typically developing peers.

Although many public-school entities have attempted to provide these significant needs, without necessary trained professionals, the outcome consistently results in adverse impact to educational and social performance across multiple settings. "Mental health problems may negatively affect educational attainment and then have adverse consequences during the entire life course" (Veldman, Bultmann, Stewart, Ormel, Verhulst, et al., (2014). There are staggering statistics that demonstrate how mental health and behavioral needs can become compounded and are connected to increased rates of school dropout. Longitudinal studies were conducted by Agnafors, Barmack and Sydsjo (2020) and the results consistently attributed behavioral issues at

the age of three to consistent with below grade level performance by the age of twelve. Studies

conducted also indicted that children with mental health problems at the age of twelve were

associated with a lack of completion of secondary school requirements, including those

necessary to earn a high diploma or equivalent (Angafors, et al., 2020). With the mandate of

IDEA (2004), under the regulations of FAPE and LRE, there is simply not enough being done to

support these learners so that they become successful, contributing members of society when

they reach adulthood. The focus of this work is to name environmental (antecedent)

programming supports utilized by the TRAILS program in hope that this process will help other

public schools in their endeavors on the environment in order to provide these unique learners

access to their education.

Chapter 3: Methodology

This study focused on special educators/professionals' perceptions of environmental supports that acted as antecedent stimuli within a public-school day treatment (DT) environment. Documenting the experiences of the teachers/specialists that work in TRAILS, this study explored the perceptions and experiences of professional staff regarding the implementation of systematic environmental antecedents that can modify student behavior. Ideally, these modifications served to increase access to the regular education classroom and naturally exposed students to more learning opportunities with their peers. This intrinsic qualitative study served to discover the environmental factors that support a successful DT classroom and the assumed potential impact that these factors have on student performance. This research can be applied specifically to the objective, tangible factors of the physical environment of a DT classroom. In addition, this study has the generalization potential to support successful access to the environment by future students once they are enabled to interact with that environment as a formalized part of the DT classroom (Cooper, Heron and Heward, 2020).

This research approach utilized an embedded analysis of the specific environmental factors such as lighting, open space, and the ambient noise of the DT classroom. It also features components that may be globally accepted as objective measures to control aberrant or challenging behaviors that preclude students from accessing their educational environment. Within the foundation of BMT is SCT, which assists with understanding how socially the individual interacts with their environment and how this environmental experience influences the future probability of behavior (Cooper, Heron and Heward, 2020). SCT is also used to describe the influence of how a particular experience or the experience of observing others engaging in a specific behavior impacts the future probability of the occurrence of that specific behavior

(LaMorte, 2019). Within both BMT and SCT, there is a need to stress the dynamic and reciprocal relationship between an individual, the environment, and a specific behavior (LaMorte, 2019). According to LaMorte (2019), when behavior expectations are observed, performed, and reinforced, a socially interactive aspect supports substantive and conditioned behavior change. SCT relies on the notion that there is a constant relationship between the stimuli, event, or antecedent (i.e., environmental factors) followed by the resulting behavior and that the social interactions that occur in the pairing process between behavior and environment strengthen the relationship between the behavior and the consequence (LaMorte, 2019).

According to Skinner (1969), operant conditioning, a strand of BMT, assumes that "the causes of behavior are always found in the environment" (Overskeid, 2018, p. 8). McLeod (2018) defines operant conditioning as a method of learning that pairs punishments and rewards by understanding the behavior and consequences. The main principle of BMT comprises changing environmental events that are related to a person's behavior. Cooper, Heron and Heward (2020) shares that although operant responses can potentially increase through the process of reinforcement, the stimuli (or environmental antecedent) that occur prior to the behavior will develop an effect of an evocative nature for any similar future events. Once this evocative effect on the behavior has been established, the pairing has "stimulus control," which increases the likely future event of the pairing to occur. Stimulus control assures that the target behavior changes in the presence of specific stimuli (environmental antecedent). These behavioral changes occur in measurable increments using rate, latency, duration, or amplitude to analyze if stimulus control has been established (Cooper Heron and Heward, 2020). Through this applied lens, the perceived antecedent environmental factors that impact the DT environment are explored and indicated.

Purpose of Proposed Study

This research reveals professionals' perceptions of successful environmental antecedents in DT classrooms across four schools in one district. This study aimed to document how professionals identify common stimuli present in day treatment classrooms, enabling students to access their supports and services consistently. This research provides a reference for those professionals who seek to include relevant environmental stimuli into their DT classroom.

Research Questions

The following research questions guided this study:

Research Question 1: What do professional staff (teachers/specialists) describe as perceived quality indicators (antecedent interventions) of a prescribed environment for day treatment programming in a public-school setting?

Research Question 2: How do experienced professional staff enact, implement or change the environment (antecedent) in order to establish the success of students in day treatment classrooms in a public school?

The research design used open-ended interview questions to determine professionals' perceptions of constant and repeating antecedent and environmental stimuli factors, which provided an impression of how to create a DT environment in a public-school.

The Organization

The Bloom School Department (BSD) is a public school on the coast of Maine that houses approximately 2,000 students from kindergarten through eighth grade. Approximately 1,400 students attend a semi-private high school for grades nine to twelve, High School Academy (Maine Department of Education, 2020). Within this population, 425 students receive special education services, which amounts to 21% of the student population requiring specially

designed instruction to access their education (Maine Department of Education, 2020).

Historically, when a special education student's needs exceed the level of professional expertise

available in the public school, an out-of-district placement is warranted and offered by the IEP

team. These placements are costly and do not necessarily focus on the particular needs of the

individual student. Instead, the focus is on the global philosophy of the organization and

diagnosis, such as autism (DeMello, 2020).

Site Information and Population

The school department for this study, referred to as the "Bloom School Department," is a

public-school entity located in Maine that housed approximately 2,000 students from

kindergarten through eighth grade. There are approximately 1,400 students who attend a semi-

private high school for grades nine through twelve (Maine Department of Education, 2020).

Within this population, 425 students receive special education services, which amounts to 15%

of the student population who require specially designed instruction to access their education

(Maine Department of Education, 2020).

According to the Maine Department of Education (2020), four schools within the school

department each house one DT classroom. At the K-2 level, there were two schools that each

had one DT classroom. The other two classrooms are housed at a third to fifth-grade level

school and a middle school supporting grades six through eight. Within each of the four schools,

one DT classroom supports the relevant programming for the students who qualify for the

services provided. Within each classroom, there are up to ten students and one teacher, as well

as support from other related service professionals, including a clinical psychologist, clinical

social worker, board-certified behavior analyst (BCBA), speech and language pathologist (SLP),

occupational therapist (OT), physical therapist (PT) and behavioral health professionals (BHP) in

order to meet the unique and specialized needs of these students. This student population's needs are typically expressed as dysfunctional behaviors, social and emotional needs, trauma-induced behaviors, lack of self-preservation skills, and the lack of understanding of social pragmatics in communication.

The specific DT in this study is known as TRAILS. Some criteria enable a student to be eligible for this type of educational programming. In order to be considered for the TRAILS program, a student must be identified as requiring special education services distributed through a formal individualized education plan (IEP). According to federal law, a team of professionals from multi-disciplines should determine whether or not a child has a disability and if regular education interventions can remedy this disability, or if the child requires specially designed instruction to support the understood deficits of the student (Baumel, 2014). Baumel (2014) states that under the federal law of the Individuals with Disabilities Education Act (IDEA) of 2004, there are certain required elements of an individualized plan. However, this federal mandate does not specify what should or should not be included in the independent programming plan.

A team made of certified educational experts, including a clinical psychologist, social worker, BCBA, a special education administrator, and a regular education teacher, works with the parent/guardian to create a document that supports the student in accessing education through supportive means (Baumel, 2014). This collaboration ensures that the student receives a free, appropriate public education (FAPE) in the least restrictive environment (LRE). An individualized education plan (IEP) must be designed to outline and formalize the support necessary for a student to access education, regardless of how the student presents in the classroom academically, socially, functionally, or whether they exhibit behaviors that pose a

challenge for access to the curriculum. When the outlined supports are not enough to maintain a student's safety and education with challenging/behavioral needs, they could be referred to the TRAILS program through an informal process determined by the school. From there, the clinical team, made of members of the IEP team, utilized a comprehensive assessment, typically the Vineland Adaptive Behavior Scale, in order to fully understand the student's social, mental, and behavioral needs. The Vineland is an interview assessment tool standardized for a specific population. The Vineland specifically targets the measurement of relative adaptive behavior, and it supports and provides validation for other areas of disability, such as autism or intellectual and developmental disabilities (Pearson Assessments, 2020).

Using this comprehensive assessment, a student can qualify for TRAILS if their relative score on the Vineland is below that of their typically developing peers, in addition to objective observational data collected by the practitioners involved in the TRAILS program. Through this process, a student identified as a child with a qualifying disability such as autism, emotional disability, anxiety, oppositional defiant disorder, post-traumatic brain injury, or other classification according to the Diagnostic and Statistical Manual, fifth edition (DSM-V), they would receive substantial support within the school department. The student must have a qualifying disability to be eligible for the TRAILS program, as this is a requirement of the intake and program referral process. As part of the TRAILS program, the support provided allows students to receive up to six hours of academic, behavioral, social/emotional supervision and support as they attempt to access their regular education classroom. These supports are delivered by an educational technician (Ed Tech) certified as a behavioral health professional (BHP). Once in TRAILS, the student, and their family (if needed), are then eligible to receive specific therapies such as dialectical behavior therapy (DBT), which is an approach that psychologists

use to analyze the dialectical (synthesis or integration of opposites) and behavior to determine a

behavioral approach to the interventions. In the TRAILS program, the student's goals require a

clinical perspective and should include expected achievements and determine who will provide

support. The individualized treatment plan (ITP) is the formalized treatment plan from a clinical

team, including a clinical psychologist, a social worker, a board-certified behavior analyst

(BCBA), and a special education teacher experienced in serving the needs of this specific

population of students. Individualized treatment plans allow the client to grow in a process that

is the best fit for them emotionally, socially, and cognitively.

Sampling Method

The method of sampling selected for this study was the snowball strategy, which

"identifies cases of interest from people who know people who know cases are information-rich"

(Creswell, 2013, p. 158). Additionally, the sampling methods were flexibly determined since the

staff members interviewed have worked in similar programs and have the experience necessary

to make specific comments on the antecedent environmental aspects of programming.

Approximately 70 professional staff work directly with and for the TRAILS program at each of

the four schools that house the program internally. These individuals, including the clinical team,

worked in the newly established TRAILS classroom (created in 2018) throughout the 2019-2020

and 2020-2021 school years. The study's participants consisted of (a) the clinical psychologist

who oversees the formalized treatment aspects of all TRAILS programming (b) a district-wide

administrator of special education whose job title is "coordinator of specialized treatment

services," (c) two board-certified behavior analysts, (d) two clinical social workers, (e) four

master's level special education teachers, (f) regular education teachers who have students who

participate in TRAILS, (g) building administrators such as the principal and assistant principal,

(h) related service personnel, such as Occupational Therapist, Physical Therapist, Speech and

Language Pathologist, and Social Worker, and (i) the educational technicians/behavioral health

professionals who provide one-on-one support for students. Given that each participant was an

employee of BSD, interviews and observation were possible during the typical workday. Staff

were interviewed during their lunch break or before or after school hours.

Instrumentation and Data Collection Procedures

The researcher used a qualitative research approach, which "begins with assumptions and

the use of interpretive/theoretical frameworks that inform the study of research problems

addressing the meaning individuals or groups ascribe to a social or human problem" (Creswell,

2013, p. 44). A qualitative researcher uses an emerging approach to inquiry, collecting data

specific to the people and context of the study, and analyzes data that can be inductive and

deductive and will result in patterns or themes (Creswell, 2013). The researcher used an

interview to gain access to the specific knowledge of the practitioners and conducted these

interviews in person. The researcher created the interview questions, and a field test was

conducted prior to engaging participants in the interview process. Due to the presumed

complications of accessing in-person interviews because of COVID-19, the researcher used a

Google Meet platform to remotely access the participants when in-person viewing is unavailable.

The type of data that answered the research questions depended on the experience of individuals

being interviewed and their direct exposure to previous DT classrooms. The majority of the

information was collected during interviews where specific questions focused on environmental

aspects of a DT classroom in a public-school setting with TRAILS students. The research design

allowed analyzing the particular presence or absence of specific environmental factors by asking

questions related to students and their ability to sustain presence and success in a classroom. On

the other hand, the interviews possibly exposed the role of environmental factors (noise, lighting, space, proximity, and general activity) in an unsuccessful learning environment and how particular stimuli provide consistent antecedent interventions to challenging behavior. The benefits of this research design support the researcher's decision to conduct all interviews without being in a physical building.

Pilot Study/Field Test

The researcher field-tested the interview questions prior to presenting them to the designated TRAILS practitioners. The researcher utilized the Kvale and Brinkman (2009) seven stages of an interview, including a) decide on the research questions, b) determine the type of interviewees who can best answer the questions, c) determine what type of interview is practical, d) use adequate recording procedures, e) use an interview protocol, f) refine the interview questions through pilot testing, and g) determine a place for conducting the interviews (Creswell, 2013). The interview questions were read out loud, verbatim, by the researcher. Concurrently, the researcher presented questions on the computer screen using the Google meets format.   The researcher attempted to create an environment in which that all of the candidates were exposed to the same words, voice and intonation for each question.

Data Analysis

The researcher had fifteen data points to analyze, and each data point encompassed multiple interview questions. The participants for the research were selected based on their current or previous interactions with the TRAILS classrooms, and all previous TRAILS clinicians and staff were invited to participate. Due to the nature of the researcher's role, which was the director of instructional support for BSD, access to staff was embedded into this administrative position. Therefore, initial contact with participants was not difficult. The

individuals that participated in the interview did not directly report to the researcher. The

researcher requested that voluntary participants answer the interview questions and that these

volunteers have worked the TRAILS classroom in one of the four district schools. The

researcher began the interview and data collection process by contacting the individual (example:

clinical psychologist) through email and requesting their participation in the interview through an

email confirmation. The interviewee acknowledged that they are part of a study attempting to

establish environmental stimuli controls for the TRAILS classroom that could be generalized to

other DT classrooms in public schools. The work resumed once participants granted written

permission. The researcher utilized the interview questions that had been field-tested and had

received approval through the Institutional Review Board. Next, the researcher interviewed the

professional through Google Meet, an online and interactive meeting platform. The interviews

were conducted using Google Meet as COVID protocols dictated the use of video conferencing

for safe social distancing conditions (Center for Disease Control and Prevention, 2021). Using

the Google Meet platform, these conversations were recorded using a transcription application,

Rev.com, for each TRAILS personnel who accepted the request to be interviewed.

Each interviewee received a read-only view of the interview questions while the

researcher was conducting the interview session. The document was shared on the interview

screen with participants before the interview session had begun. Once the interview was

complete, the interview questions were removed from the interview screen. The researcher

utilized the live caption option that was available for transcription through the Google Meet

platform. Once the interviews were complete, the researcher utilized the written transcription on

the researcher's personal computer to capture, transcribe, and analyze each word or phrase.

Interview. The interview was the primary method for data collection in this process due

to the expectation of comprehensive, rich data from professionally based answers. Creswell

(2013), Denzin and Lincoln (2013a, 2013b); and Marshall and Rossman (2015) point out the

benefits of collecting data from in-person interviews, including the ability to realize an

individual's perspective. (Bloomberg and Volpe, 2016). The researcher developed the interview

questions with a focus on relevant factors available in the DT environment. The researcher

reviewed tools relative to environmental factors considered in the Quality Indicators for

Emotional and Behavioral Day Programming (EBD), the OECD School User Survey (2018), and

the Quality Indicators for Emotional and Behavioral Disabilities Programming (2019).

The interviewer created the questions, and the questions focused specifically on the

antecedent environmental components that supported a DT classroom in a public school. Once

the interviews were conducted and the responses transcribed, the researcher employed coding to

analyze the qualitative information. Within qualitative inquiry, a code or specific identifier was

used to symbolically assign specific attributes and meaning to an arbitrary word in order to be

able to express the qualities of that entity (Cooper, Heron and Heward, 2020). A grounded

coding system (Merriam and Tisdell, 2016) was used to analyze the data resulting from

transcribed interview questions and ensure that objective measures were employed when

processing the results. Coding within the grounded theory methodology enabled the individual

to organize independent and conceptually abstract themes in generic categories, which better

align the parallels in the data. (Vollstedt and Rezat, 2019). Through the grounded coded method,

Merriam and Tisdell (2016) share that one can organize and analyze information based on

conceptual links between and among the categories and properties. Therefore, the researcher can

view themes and patterns that emerge from the data. Grounded theory provides a particular set of

systematic methods that support abstraction from the data to develop a theory grounded in the

empirical data. A systematic method is used to siphon data to develop a theory or theories

"grounded" in the representative data in this mechanism. Additionally, the results of coding are

based on the method of constant comparison (Vollstedt and Rezat, 2019).

Grounded coding allowed for a constant comparison across participants that emerged out

of the responses. The comparisons then led to "tentative" or "thematic" categories viewed across

and within other responses. Eventually, comparisons were "constantly made within and between

levels of conceptualization until a theory can be formulated" (Merriam and Tisdell, 2016, p.

228). The identified thematic categories assisted with the development of an understanding of the

environmental factors that support a DT classroom in a public-school setting. After the

categories have been expressed and created, the transcripts and proposed themes will be returned

to the research participants for a member check to support the validity of the results (Creswell,

2013).

Limitations of the Research Design

Bloomberg and Volpe (2016) shared that every study has limitations despite the format

that scholarship assumes. In this particular study, one limitation of the research design was that

there were no personal or direct student accounts of their experiences in the DT classroom and

how the antecedent manipulation of the environment was or was not able to meet their individual

needs. Due to the students' ages (under 18) and sensitive information related to their specific

disability, traumatic past, or behavioral challenges, this was not an appropriate option for the

researcher. Data on the first-hand experience with the environmental impact on a student's

behavior was not collected as part of the study. The inability to have a first-hand account of the

students limited the research as all information and data were dependent on the adults who work

in the classroom, which occurred through observation and direct interaction with the students.

BCBAs and other professionals, who were able to determine the antecedent factors in the environment and the resulting behaviors due to the presence or absence of a stimulus that triggers the challenging behavior from the learner, provided insight into their observations and interactions.

The researcher's inherent bias is also a limitation. The researcher was a district administrator in the Bloom School Department and led the team in creating the TRAILS program during the 2018-2019 and 2019-2020 school years. The researcher was also a BCBA, and therefore, adds another layer of bias to the study as the program was designed based on the researcher's understanding of antecedent manipulation of an environment to change a specific behavior trajectory. In order to meet this bias, during the third year of TRAILS classrooms (2020-2021 school year), the researcher assigned another individual to serve as the primary administrator who supervised programming, therefore enabling the researcher to preserve objective observation and reporting. Professionals who work in the TRAILS classrooms share the researcher's bias. These individuals had previous experience in a day treatment facility prior to working in the TRAILS classroom. Additionally, some TRAILS team members also participated in creating the program; therefore, bias exists among practitioners. To challenge this bias, the interviews expanded to those professionals who were not part of the initial planning process for TRAILS. The interviews were conducted to ensure that multiple perspectives and observations were collected with those in direct contact with students and consultants.

The TRAILS classroom was created using similar features present in other day treatment facilities, primarily OOD placements. The structure through which the staff and students were supervised follows a similar type of DT programming within the Bloom School Department. At the time of the research study, there were no other public-school departments with a DT

classroom within the county of the Bloom School Department. A bias presents itself because the researcher could not compare features of the environment across different classrooms in other area schools. Due to the lack of formalized criteria for DT classrooms for public schools, it was difficult to isolate relative comparisons to other school departments, limiting the study's potential generalization to other DT classrooms. Additional components of the data analysis process included credibility, member-checking, procedures, transferability, dependability, and conformability.

The researcher had been in special education for over twenty years, and all of the professional experience had directly involved students who exhibit challenging behavior, which precluded them from accessing the general education classroom. The researcher was a support staff person, special education teacher, team leader, administrative trainer, consultant, and district administrator in public and private school systems. This experience benefitted the researcher in understanding the specific terms and educational language used when the participants answered the interview questions.

Member Checking Procedures. The researcher sent transcribed interviews and summaries to the participants and district administrators in the BSD school community to "ensure that the researchers own biases do not influence how the participants are portrayed" (Bloomberg and Volpe, 2016, p. 163). The researcher sought feedback from administrators in private OOD placements to access multiple and different perspectives relative to a system that currently supports a DT classroom.

Transferability. The DT classroom and the environmental factors that presumably support or trigger challenging behavior offered a starting point in developing future programs in other school departments. The relative availability of materials and personnel for this type of

programming in a public-school setting was typically present. This research offered specific

variables to consider when creating an environment to support DT-level programming. The

study findings were then transferable because of the nature of the typical structure and

environmental components present in any public school. Since the study looked at only the

inanimate, environmental components, the generalization of this research was easily transferred

across other public-school settings.

Dependability. The researcher collected, coded, and analyzed the data following

interviews with designated DT classroom staff. The researcher utilized methods to establish

inter-rater reliability by requesting that a BCBA who is not connected to the TRAILS program

code at least three of the interviews. Each step of the process was articulated clearly so that the

interview and analysis process could be viewed and replicated. The results and subsequent

research are available to other building and district administrators. They can be shared with

administrators from other districts upon request, with identifying information removed from the

documents.

Confirmability. In order to establish a level of confidence in the researcher's ability to

diffuse bias, the procedures and processes used were specifically indicated and outlined. An

audit trail meant to "provide detailed and thorough explanations of how the data were collected

and analyzed" (Bloomberg and Volpe, 2016, p. 163) was used to ensure that research procedures

and results were based on data and not the implicit bias of the researcher. Field notes, research

notebooks, and the interview data collected were available for the audience during the research

and data analysis periods.

Ethical Considerations. Once the interviews were conducted and the responses were

transcribed, the researcher employed coding to analyze the qualitative information. Within

qualitative inquiry, a code or specific identifier was used to symbolically assign specific

attributes and meaning to an arbitrary word in order to be able to express the qualities of that

entity (Cooper, Heron and Heward, 2020). There were no identifiable attributes for any

participants other than that they were employees of BSD and have previously worked in the

TRAILS (day treatment) classroom. All names of participants were removed from any research

beyond the initial interview process. Due to the specific nature of the educational programming

and the student population that accesses the services, there was a potential risk of a breach of

confidentiality specific to realizing the name of the school department. No student names or

educationally identifiable information was present or available, so the student population's risk is

minimal. Each participant received a request for consent, and research resumed once permission

had been granted and received. At any time during the research process, a participant could

withdraw consent with no resulting implications for employment.

Conclusion

Many factors go into the planning and preparing any educational or social-emotional

program that serves children, especially those who exhibit challenging behavior. Physical,

mental and educational success are partially determined by the impact of sustained problem

behavior in children and their caregivers (Fahmie, Garcia, Poetry, Tiernman, Hamawe, and Jim

(2020). According to Fahmie, et.al (2020), the presence of severe problem behavior in children

has a clear and sustained negative impact of both child and caregiver wellbeing. The goal for all

students is to access their regular education classrooms consistently in the absence of specific

aberrant behavioral challenges that preclude such access (IDEA, 2004, Sec.612). In order to

support this need, this qualitative study analyzed current perspectives of employees who have

worked in or supported a DT classroom in a public-school setting, based on their professional

and experienced interpretation of the relevant environmental factors that support this type of programming.

The scope of the study carefully explored the environment of a small student population that qualifies for an in-district DT classroom. These students would typically have been sent OOD due to the nature of their challenging behavior and the destructive tendencies they express among their typically developing peers. The research consisted of interviews with key staff members involved in the TRAILS classroom, including professional and paraprofessional staff members. All interviewed participants were part of the Bloom School Department, and all students were located in the city of Bloom and are in kindergarten through the eighth grade.

There is implicit bias in this research. Many of those have been identified, and a remedy for each bias has been revealed. When working with a sensitive population, there are many factors to consider. It was determined that the students would not be subjects of the interviews to relieve any ethical concerns related to researching children under 18. The previous experience of the practitioners interviewed for the study is vast and specifically related to the intervention needed at a DT level.

The purpose of this study was to offer documentation of some of the natural and embedded antecedent environmental components that would assist other public-school departments in creating classrooms that are conducive to students who exhibit challenging behavior. The common contributing antecedents, along with a well-trained staff, offer solutions and supports so that more students can stay in their home communities to receive a public-school education. There have been historical discrepancies in the terminology and type of populations in a DT classroom: "aggressive, conduct disordered, emotionally disturbed, and socially maladjusted are used in a variety of ways, making it impossible to determine whether the

participants represent the same population" (Schneider and Leroux, 1994, p. 193). Focusing on

the environment and the available antecedent manipulations of the environment to manage and

control challenging behavior is paramount to this research. By interviewing professionals with

specific and relevant experience, the researcher ascertained common themes and factors and

translated that information to a more succinct and objective understanding of a learning

environment.

Chapter 4: Results

This chapter contains the results of the grounded theory methodology study conducted to answer the research questions:

Research Question 1: What do professional staff (teachers/specialists) describe as perceived quality indicators (antecedent interventions) of a prescribed environment for day treatment programming in a public-school setting?

Research Question 2: How do experienced professional staff enact, implement or and change the environment (antecedent) in order to establish the success of students for day treatment classrooms in a public school?

Research Question 3: How does an experienced professional staff (teachers/specialists) evaluate the success of specific stimuli in the DT environment?

This chapter includes the discussion of the analysis conducted and how the grounded theory methodology was employed, and that the resulting themes discovered were related to the research questions. There were 15 individual interviews conducted, and some of the demographic information related to the participant's responses has been captured and offered as tables in Appendix A to complement the summary. The process used to analyze the transcripts from the 15 participants and discover common themes within the responses is described in detail in this chapter. The discovery of the data occurred through two levels of analysis: open coding and selective coding. Within these two levels of analysis, concurrent review of comparative responses distilled the data until recurring themes had emerged from the particular data set. This chapter includes tables used to present information and vignettes from the individual interviews to emphasize key points and the resulting emergent theories.

Sample

Fifteen participants were interviewed for this study. Appendix D indicates the relative experience of the participants and provides an overview of demographic information. In terms of special education and, in particular, experience with day treatment level programming, this information presented an established knowledge base to formulate themes and represent the minimum requirements of participants as described in Chapter III. All levels of professional staff are represented in the sample, with three (5%) administration, four (26%) special education teachers, and eight (53%) specialists. Some participants were eligible for more than one demographic category and placed according to the 2020-2021 school year job title and responsibilities.

The total years of experience in the field of special education varied across the sampled participants. The participants with more than 20 years of experience represented 13% of the sample size. Those participants with 16-20 years, 10-15 years, and 6-10 years represented 25% of the sample size each, with the group having 0-5 years representing seven percent of the sample size.

Of the 15 participants, 40% had not worked in a previous public-school setting. In contrast, 60% of the participants had been employed by a public school system prior to their time at the Brookside School Department. Those participants with experience working in special-purpose private schools were 60%, while 40% of the participants had not worked in a special-purpose private school. Thirty-three percent of participants had prior experience working in a day treatment program within a public-school setting, while 67% of participants had no prior experience in that particular setting. Further details relating to the experience of the 33% of participants that had worked in a day treatment public school setting include experience with

elementary (40%) and secondary education (60%) settings. Graphic displays of information are provided in Appendix D.

Data Collection

The 15 research interviews with educational professionals employed by the Brookside School Department during the 2020-2021 school year served as the primary source of research data. The initial demographic inquiries served as a supporting mechanism to provide a baseline of required and relevant experience necessary to answer the remaining interview questions. After every three interviews, the batch was submitted to a transcribing service, rev.com, and an automated transcription was provided through electronic mail. Following the completion of each batch of three, the researcher manually coded and reviewed for emergent themes. Once all 15 interviews had been conducted, transcribed through rev.com, and returned via electronic mail, the researcher ensured grounded theory methodology was embedded throughout the data collection portion of the research project. The final interview questions are in Appendix A.

Data and Analysis

All interviews were coded manually during the open coding process, in batches of three, and the researcher indicated emergent themes. Thematic categories were established once three participants had indicated a similar response across a particular interview question. Once all of the 15 interviews had been conducted and transcribed, the resulting information was manually coded again, and further analysis of similarities of common themes emerged. By coding the transcribed interviews, a second time, the researcher provided consistent analysis in developing categories of responses. This process supported the researcher to remain consistent in discovering thematic assumptions through answers provided by each participant. There were no

clarifying questions added to any of the interviews, and each participant was read the interview

questions verbatim (Appendix A).

In the next analysis phase, selective coding, the researcher used the established themes

emerging from the initial open coding process as a scaffold for thematic understanding and

development. The researcher utilized Microsoft Word software and searched for themes through

keyword inquiries which were then further analyzed into more specific thematic categories.

Individual responses were reviewed for relevant terms and assigned to an appropriate theme, as

established during the open coding procedures.   For each interview question, if the emergent

theme was present in three or more of the responses, the theme was indicated and assigned as a

general category.

Knowledge Base of the Practitioners

Eligibility process. The established roles of each participant as it relates to the eligibility

process for a student to qualify for day treatment programming is considered a necessary part of

the knowledge base for practitioners that work in this setting. Each individual on the student

team has responsibilities to the student and the team. Understanding how these roles support the

larger education team is part of the identification process for day treatment services. All 15

participants indicated that they understood the role they were assigned and how that role

supported the larger student team. Among the 15 interviewed, only 38% correctly discussed the

role that others played on the team, and 62% of participants did not indicate how other members

of the team function to provide an eligibility determination of day treatment programming for a

student. Of the 15 participants, 77% were able to articulate the eligibility process as a whole,

from referral to eligibility determination.

One participant outlined the overarching process, including aspects of note for each practitioner;

"I work collaboratively with the other members of the team. The teacher works to get the academic information. The social worker gets to collect the clinical information. The BCBAs will collect some background information and behavioral information if they're developing their behavior piece, and the administrators just keep it all organized and pull it together" (Participant 15).

Some participants shared how little they had to do with the process of referral and eligibility for a student with a high level of needs but were still able to articulate their role and the role and knowledge base of others from an observational perspective. "By the time the student has made it to the ITP, the knowledge that is sitting around the table far surpasses my knowledge of behavioral interventions" (Participant 5). When asked what the specific role played on the team, one participant answered: "Listen and give input in the areas that I would specialize in, such as scheduling or staffing" (Participant 5).

Student success. Each participant was asked to consider what "success" meant for any student in a public-school day treatment setting. The responses varied, and emergent themes were discovered. All responses to this question can be found in Appendix D. **"**A lot of times success just looks like the student being in the least restrictive environment (Participant 10). "…having those opportunities available for kiddos to be more integrated with their peers, have those role models, and relationships with age and grade level peers in the regular ed setting as well" (Participant 7). "It really means that they're able to maintain, in the school setting, functioning in the school setting to the best of their ability. The goal is always to have the student

in the classroom setting, getting along with their peers, being able to do the work, getting the support they need" (Participant 14).

Learning environment. The interviewees were asked what the necessary components of any learning environment were, specific to a public-school setting. Thematic categories were established once three participants had indicated a similar response across the interview question. Within the learning environment, the components indicated were:

1. Having basic needs (food, shelter, sleep, clothing) met (20% of participants)

2. Understanding/catering to different learning styles and encompassing flexibility in teaching (63% of participants)

3. Relevant materials available in the classroom such as curriculum, visuals, and instructional materials (47% of participants)

4. General classroom management capacity (20% of participants)

5. Having engaging, flexible, and highly trained staff (47% of participants)

6. Having appropriate ratios and support to maintain student and staff safety (33%)

A display of the results of this question can be found in Appendix D.

Common Antecedents for Developing any Special Education Classroom

The researcher provided a specific definition of the word "antecedent" prior to reading question seven to establish a common understanding of the word as it applied to this research and detailed inquiry. For every participant, the researcher read: "I will give you a definition of the word "antecedent" as it applies to these questions. An antecedent is a thing or event that existed before or logically precedes another (Cooper, Heron and Heward, 2020). Given this definition, the thematic categories emerged from responses and can be viewed as Appendix D. The practitioners interviewed stated the following antecedents that should be considered: (a)

individualized workspaces for each student (53%), (b) keeping materials away/organized (67%), (c) limiting transitions to/from other students in the environment (60%), (d) providing relevant and minimal visuals for instruction or behavior management (47%), (e) having administrative support (20%), (f) limiting excess furniture/large materials (60%), (g) proximity to school/within the school community (27%), (h) reduced noise pollution (40%), and (i) appropriate student to staffing ratios (60%).

Some practitioners were explicit in the detail of what should be considered when developing this specific learning environment. "They might need a visual representation of a number line, let's say, or the letters of the alphabet. So you can sort of put that on the wall, in their cubby space" (Participant 9). Some students work best, you know, with minimal materials or minimal environmental stimuli" Participant 4). "What's around and what's in the classroom can be an antecedent…and how many people are in the classroom (Participant 12). "It should be located within the main school because the last thing you want to do is have everybody walking outside to a building that nobody else is going to or going to a floor of the building that nobody else is going to…having it have its own specific location and having the necessary space, four, the kids who are in that program" (Participant 5).

Physical space and the impact on the management of challenging behavior. The physical space as it relates to challenging behavior was explored, and 100% of participants acknowledged that the layout of a classroom impacts the management of challenging behavior. "Oh, it makes or breaks it, you know, the wrong physical space" (Participant 15). "You want clear lines to the exit and just an ability to get there…not tripping over other kids' desks and chairs and things like that" (Participant 9). "The layout is just, is just key in the success of a classroom" (Participant 2)." So I think it does, um, definitely have an impact. Even before, we

had a type of actual partition space, like just being able to make individual workspaces for

students with bookshelves or whatever it may be, um, just helps to give kiddos that sense of

security" (Participant 7). "Depending on what the challenging behavior is… what's not the

impact? And then also for the student who is struggling, you know, it's best to not have to, I

guess, to maintain their dignity and not have peers watching and then making comments"

(Participant 8).

       Practitioner perception: What is a successful learning environment in the public-school day treatment setting? The participants were asked what success looked like for a

student that participates in day treatment programming while also within the regular public-

school community. Of the participants, 50% shared that access to the regular education

classroom with same-age peers was successful. Access to specific therapeutic/programmatic staff

and supports (63%) and maintaining appropriate staff to student ratios (40%) were recurring

themes across the interviews. Many participants mentioned the word "safe," and although each

definition of "safe" varied, 63% of responses shared that a successful learning environment

should be safe and supportive of basic needs. Some other areas of note within a successful

learning environment are the ability for the staff and students to easily navigate the classroom

(63%), communication to/from a team and support for families (47%) and allowing the student

to access an individualized workspace (40%) either in the regular education classroom or in a

separate location. These responses can be found in Appendix D. Within the responses, many

participants discussed a balance of the regular education classroom and support necessary for the

child to maintain safety and access their education. "If an accessible learning environment does

its best to accommodate, but also attenuate the behaviors that are being targeted for intervention

(Participant 11). "I think in public school, it's really hard when you have so many kids in a

classroom. I think it's hard for this to be a successful learning environment at all times for all students" (Participant 1). "…that would mean an environment that closely matches with the students' needs to make them successful" (Participant 8). "I think having that fluid blend of access into a highly structured classroom, that's very predictable and that has the individualized space to meet the kiddo's needs and also has a common group space" (Participant 7).

Impact of Auditory, Olfactory and/or Visual Stimuli

When asked about the impact of olfactory, auditory or visual stimuli on a public-school day treatment classroom, all participants (100%) responded that the presence of auditory stimuli could evoke a response by students. The auditory stimuli were described as bells, fire trucks, announcements, and in some cases, heat pipes "clanking all winter long" (Participant 6). In the category of visual stimuli and the impact on a public-school day treatment classroom, many participants shared that having too many materials on the walls (47%) or having too many items to scan on a desk would be an antecedent for challenging behavior. When asked about the impact of olfactory stimuli, two participants mentioned that the smell of the food from the cafeteria often acted as a "trigger" for some kids to engage in challenging behavior.

All participants (100%) shared that auditory stimuli impact a child's school experience, and common examples of an auditory impact were offered. "You have some kids that are wearing headphones because all the little noises, they can't habituate them. And so they're constantly thinking about what that noise is and distracted by it" (Participant 13). "The announcements can be very distracting…chatter over the walkie-talkies can be either a trigger or distracting for kiddos" (Participant 15). "The example that I mentioned is what comes to mind the most, that one of the rooms that we have with the pipes that squeal and hiss all day, which then in order to be heard, you have to talk louder. And so then we have all of the staff working

one-on-one with their kids who have to speak with a raised voice, and the teacher then has to

speak with a raised voice over all of that. I think it tends to amp kids up and, you know, it's

distracting and people can have short fuses and which is more likely to happen when there's a lot

of noise than if it's kind of quiet" (Participant 8).

Most of the participants (80%) shared that visual stimuli impact a public-school day

treatment classroom. "We were right across at my room, looks at the fire station, which can be

very distracting for the students in my program. If they see the lights or if they hear this and

they're hearing is really, really good, we might not even hear it, and they can hear it and let us

know that those fire trucks are yelling" (Participant 11). When asked about the impact of

olfactory stimuli in a public-school day treatment classroom, 48% of participants indicated that

they had experienced a student's behavior related to changes in the smell of the environment.

"…different smells or stale air" (Participant 4) and "the cafeteria is across from the classroom,

and the smell of cafeteria food remains long after the meals have been served" (Participant 2).

Practitioner perspective: specific environmental antecedents that consistently

contribute to student success. The practitioners were asked to answer the question based on

their own experience and knowledge of the increase or decrease in past student behavior. Void of

any formal data to view, the participants responded solely based on their professional capacity

and experiences to analyze potential successes within a classroom setting. The majority (80%) of

participants stated that proactive behavior planning (and relevant edits, revisions, embedded

choice) was a factor in a student's success in this context. The theme of the student maintaining

relevant conversations in the classroom setting and limiting a student's unnecessary

conversations (off-topic) was present in 60% of responses. Positive feedback (verbal, physical)

from staff directed towards students in the classroom was evident in 60% of responses. Access to

an individualized learning space was deemed appropriate (40%), as was access to a formalized

behavior plan (40%). Participants noted that visual reminders and posted schedules were a

contributing factor to success (40%).

The question was explored through the participant's lens of perceived student success and

achievement and based on the environmental factors the interviewee had referenced throughout

each interview. A noted indicator that changes had taken place in a child's progress was when

the student accessed the least restrictive environment (67%) and could be with and access their

same-aged peers (50%). Based on the interviews, one could realize that change had taken place

when students became emotionally/behaviorally stable (67%) and maintained being in a

classroom with an appropriate ratio of staff to students (60%). Additional responses that

indicated change included having existing and engaging/trained staff (40%), relevant and

appropriate materials available for every learning style (40%), meeting formalized goals (33%),

and increasing communication to/from the student (20%). The perception of change as viewed

by the interviewed professional was based on their own experiences of pairing an environmental

(antecedent) factor and the subsequent increase of expected skills or appropriate behavior from

the student. These responses can be found in Appendix D. "By and large, if we're just speaking

general, access to those spaces has been the biggest antecedent modification that we can put into

place" (Participant 9). "…Supportive staff, a behavior plan that is giving the child positive

feedback regularly and, you know, offering them opportunities to earn" (Participant 2)

Practitioner perspective: recommendations for allocation of district-wide

environmental antecedents. Participants were asked to look at the school department as a whole

entity and share which resources could be distributed consistently at the district level to

contribute to student success in the public-school day treatment setting. Maintaining consistent

programming across all schools, grade levels, and environments (60%) and promoting

collaboration across specialized disciplines (60%) were areas identified as perceived needs. The

participants (73%) acknowledged that having trained staff that consistently implemented

evidence-based interventions was a need within the allocation of specific district resources.

Lastly, physical space for programming and continued access to this physical space was

recommended in 73% of the participants' answers. It was also indicated that the student should

be in proximity of neurotypically developing peers as part of the access to physical space. "I

know it can be hard to have our room next to a regular education classroom, but I also don't feel

great about classrooms being down in the basement, you know. So, um, having that be a mindful

part of the process, so that kids have that access, easy access in and out of regular education to

broaden their success over time" (Participant 7). "I think the district and the school need to build

its schedule and its rooms around the needs of those classrooms. So I think that should be the

primary focus. You know, a lot of times those rooms are kind of tucked away in a hallway,

somewhere away from the mainstream kids, but I think it needs to be more inclusive, and it

needs to be more centered in the school" (Participant 10). "It comes down to staffing. I think that

is just really important, and it really can make the difference between a very chaotic classroom or

not even necessarily chaotic, but just kind of staff burnout, I think, and, and staff engagement

and making sure that they don't become complacent because they are being spread too thin

across the classroom" (Participant 11).

Conclusion

This chapter contains the results of the analysis, connects the analysis back to the

research questions, and demonstrates the consistency of the analysis with grounded theory

methodology. Fifteen participants were interviewed for this grounded theory methodology study.

According to the perceptions of experienced professionals, interview questions were structured to understand what factors contribute to the success of a student who participates in a public-school day treatment setting. All participants were employed by the Brookside School Department and worked in one of the four day treatment classrooms within the district during the 2020-2021 school year. Ten of the fifteen participants (67%) had prior experience in special purpose private schools. In contrast, nine out of fifteen (60%) participants had prior experience working in a public-school day treatment setting.

Using grounded theory methodology, the researcher accessed two levels of analysis: open coding and selective coding. Within the open coding procedures, there were consistent emerging themes discovered across the three research questions. Professional staff consistently described quality indicators such as access to therapeutic supports, access to trained staff, and access to an individualized space as a catalyst for a successful, beneficial environment for this specific population of learners. Respondents also shared that implementing an appropriate environment for students with challenging needs is related directly to the formal day treatment intake process in which deficits are identified, evaluated, and assessed, with subsequent supports being provided on an individualized basis through the ITP or IEP. Appropriate training and administrative support also indicated perceived success for students in the public-school day treatment setting. Finally, experienced professional staff expressed that they could evaluate the success of these particular students by many factors, including the generalization of learned skills across multiple environments and in the accessibility of regular curriculum and neurotypically developing peers. By viewing a reduction in challenging behavior while observing an increase in appropriate behavior, practitioners can assess the interventions' rigor and value, which guide a student to continue to receive services in the least restrictive environment.

Chapter 5: Conclusions

The findings of this study served to describe consistent program structures that support an identified population of students in accessing their right to public education. The value of this research is to realize effective, general components of a positive learning environment and to share those with educators searching for quality indicators that support a positive learning environment in a public-school day treatment classroom.   The perceived influence of these quality indicators to decrease the frequency and duration of challenging behavior while increasing access to typically developing peers is promising. The knowledge realized from this research regarding identified environmental components will be shared to support the generalization of the findings and support other school districts in their pursuit for the establishment of appropriate programming for students who struggle with emotional and behavioral challenges during their school day.

The charge of a public school carries the optimal goal and realization of success for all students at their level of ability. This success is often dependent on a student's access to a free, appropriate public education in the least restrictive setting. In order to assist school departments in this charge, this research sought to identify common environmental (antecedent) factors that, based on the perception of professionals with related experience, consistently contributed to a positive learning environment for students that engaged in challenging behavior.

Discussion of Findings

Students who engage in an elevated destructive or aggressive type of behavior while in a public-school setting are often sent to substantially separate facilities to receive their education and practice other daily life elements (Eisenberg, 2014) as this is the safer option for the student and school community. Students that have emotional and behavioral disorders, inclusive of

significant trust issues with the school department, may display challenging behavior in an attempt to thwart efforts to have a student maintain their educational setting in a public-school classroom environment (Wood, Kisinger, Brosh, Fisher and Muharib, 2018). In more recent decades, a significant system of care has become adopted by public education. The needs of these children have been met in the least restrictive environment or the public-school setting (Maine Department of Education, 2021). This separate educational environment, or self-contained classroom, is available to students who need formalized structured schedules and require learning skills related to regulating and managing behavior and emotions. This change in environment does not come without difficulty, however. The removal of a challenging child from a structured and academic learning environment can serve to exacerbate the situation as these children often require extra adult support and professional attention needed to overcome such preclusions to a regular education classroom setting (Epstein, Atkins, Cullinan, Kutash, &Weaver, 2008). According to Wood et al., (2018), these students may continue to engage in challenging and inappropriate behaviors that warrant an expected removal out of the regular education school environment. The findings of this study help to support the consistent environmental (antecedent) components that support students in remaining in the public-school classroom, despite the challenging behavior that precludes their attendance and participation in these settings. Through the mode of interviews, this study discovered and documented some of the perceived environmental supports within a day treatment (DT) classroom that, in the opinion of specialists interviewed, contribute to an increase or decrease in a student's targeted behavior of concern. This collection of perceived supports resulted in a conducive list of environmental recommendations that benefit public school staff in creating positive learning environments for students that engage in challenging behavior.

Interpretations

The qualitative analysis of this research yielded information that focused on identifying common environmental (antecedent) factors that contributed to a student's success in a day treatment setting. The quality indicators of the common environmental (antecedent) factors that the interviewees identified relate to the interviewed professional's own experiences and the perception of the success of the specifically identified environmental factors on a student's ability to access their education. The many professionals interviewed all had experience or training in working with day treatment settings, whether in one or both of a public or private school. The professionals also had experience with day treatment settings in different locations and with different populations (and sometimes, across multiple decades). These experiences helped gather a wide range of exposure to approaches to environmental programming for students who exhibit challenging behavior. The professionals were asked to answer all questions as read, and there were no follow-up questions offered to participants once the initial question had been asked and answered. Once the participant shared their specific response, therefore supporting the inquiry into one or more of the three research questions, the responses were organized into themes, with resulting overarching standards of practice across environments came to fruition.

Perceived Quality Indicators According to Professionals

The first research question, "What do professional staff (teachers/specialists) describe as perceived quality indicators (antecedent interventions) of a prescribed environment for day treatment programming in a public-school setting?" attempted to discover commonly identified quality indicators of programming observed across multiple settings, people and time. One of the perceived quality indicators, appropriate space, was a consistent answer for many

interviewees (80%). The comments regarding space described the need to have enough room to serve all of the program needs and have the space that a student may use in isolated programming or to slowly reintroduce back into the general education setting following a period of escalation.

Another commonly identified environmental factor (quality indicator) described was the direct care staff charged with working directly with the students. Some participants commented on ensuring that the appropriate ratios of staff to students for learning (60%) and safety (33%) were available. Other responses focused on the caliber of training provided to the staff and the ability of the staff to navigate specific student needs based on identified interventions. A few participants described the intermittent presence of positive feedback to students (60%) as an antecedent and when staff was able to maintain consistent, positive attitudes in the classroom. These antecedent measures were a catalyst for appropriate behavior in the classroom. The presence of staff and how they communicate can also be an antecedent to appropriate or inappropriate behavior. One-half of the participants mentioned that keeping classroom conversations on topic and limiting irrelevant conversations provided an environmental factor that supported and fostered learning.

Enacting Change to Establish Success

The second research question, "How do experienced professional staff enact, implement and change the environment (antecedent) in order to establish the success of students for day treatment classrooms in a public school?" looked at a systemic approach to serving students on a larger scale. More specifically, this question exposed a district-wide view that focused on the allocation of resources and in developing multi-faceted quality indicators of programming.

Professionals Determining When Change is Made

The final research question asked, "How does an experienced professional staff (teacher/specialist) know that a change in behavior has occurred due to the presence of specific stimuli in the day treatment environment?". **Common environmental (antecedent) factors across settings, people and time.** The common themes related to a positive environment for students who engage in challenging behavior were consistent and available spacing for the specific programming and staffing. Additionally, the employment of proactive classroom management strategies, a functionally designed classroom layout, and a consideration of olfactory, auditory, and visual stimuli in the environment contribute quality indicators for a positive learning environment. Based on the responses and feedback from the participants, the access and use of space and access to/having trained staff were the consistent antecedents identified to be conducive to a learning environment.

When a school district considers creating a public-school day treatment classroom, the appropriate allotment of program space should be a priority. Space that is void of tangible items and people should be available within the academic area and alternate locations to work, de-escalate, or provide access to therapeutic supports while maintaining the student's dignity during periods of challenging behavior. Many interviewees recognized that having a physical space to engage in regular education classroom activities and having a space dedicated to student use for de-escalation, skills instruction, or a smaller setting for instruction was a consistent contributing environmental factor in the success of a student. A student must know their "space" ahead of an escalation to proactively redirect the challenging behavior and provide an alternative for a student exhibiting challenging behavior. Proactive behavior planning, which can utilize antecedent interventions as a strategy, looks to the environment as natural support and helps

identify items in the environment that can be setting events for challenging behavior. These can be natural redirections towards appropriate behavior. An example of this in practice is when a student is in the regular education classroom and cannot manage their anxiety about something in the environment. Having been taught how to proactively redirect anxiety, the student requests a break and finds their "safe space" to de-escalate. Doing it in a safe location prevents embarrassment and preserves the child's dignity.

Space is an important factor in a day treatment public school classroom, and the staff that fills the space is also a focus. Creating a safe, instructional program for students that exhibit challenging behavior, as substantiated by an identified and data-driven need, should guarantee a child's consistent access to education while concurrently meeting the unique behavioral or emotional profile that they present. Additionally, having a professional staff trained in antecedent interventions, proactive in behavior planning and implementation, and amenable to feedback is closely aligned with the philosophy of the behavior plan in place. Also, continued access to professional development is essential to creating a public-school day treatment classroom. One of the factors of success discussed was the ratio of staff to students and the fading of staff support once a student had gained independence. The presence or absence of relevant, trained staff was determined to be an environmental (antecedent) factor for various reasons. When a student engages in challenging behavior in the classroom, there is typically one or a few teachers responsible for the education and supervision of the entire class. If a student is causing attention to be directed at them, the teacher cannot continue instructing the rest of the class. Having trained staff in the student's proximity and realizing and enacting the appropriate staff to student ratios supports students accessing their least restrictive environment. A trained professional manages the student's behavior, and the classroom teacher can continue to deliver

the lesson. The antecedent is the presence of the trained staff that knows how to interact and redirect the student's challenging behavior. At times, the presence of another adult can be an antecedent intervention as the child knows that if they are feeling escalated or need support, they have someone available to help them. The students can access their education in the least restrictive environment while utilizing appropriate supports to increase their gainful independence on academic and functional tasks.

Recommendations for School-Based Day Treatment

Students thrive on routine and consistency, which are critical aspects of creating an environment conducive to learning (DeMatos and Morgado, 2016). Across the interview responses, frequently mentioned aspects of day treatment programming were discussed throughout this research. Many responses included the word "consistent." The expectations of school staff, volunteers, and any other school employees were to be consistent in their approach and delivery of services to the students. The noted aspects within responses repeatedly advocated maintaining consistency across programs, buildings, training of staff, and delivery of services. The professionals interviewed noted that having the ability to anticipate what a school day will look like; knowing what space, staff, structures, and routines supported them while in school; and feeling that they could manage the day were environmental (antecedent) factors in a successful day treatment classroom.

Professionals shared that they catered to a population impacted by overstimulation to the visual, auditory, and olfactory senses. Creating and preparing space that is void of those elements is a recommendation for public-school day treatment programming. A few of the participants referenced the loud noise that the heat pipes created in the basement of the building, which made it difficult to hear others speak, therefore making people in the room speak louder and cause a

significant amount of noise pollution (Participant1, Participant 3, Participant 6). The abundance

of visual information presented on classroom walls should be considered an environmental

(antecedent) factor. It is important to ensure that a student can attend to their task and avoid

being distracted by visual stimuli (Participant 8).

These recommendations are all related to the things or setting events involved in

education: people, social interactions, learning routines, and being part of a community. Many of

these antecedents are not related to instruction and align with the structure of the elements

surrounding the educational experience. Children in a school setting expect routine, and as many

of the participants noted, children need to feel safe and have their basic needs met (Participant

15, Participant 11, Participant 9). One participant helped frame a recommendation that "there

needs to be a spirit of positivity toward the students and interest in their profile and positive

regard for them" (Participant 15).

Future Research Implications

The information gathered through this interview process helped to realize perceptions of

experienced staff and how they interpreted the impact of a particular antecedent to benefit a

specific population of students. The professionals interviewed had experience working with

students who have engaged in physically and emotionally challenging behavior, which has often

precluded them from accessing their general education classroom and peers. Due to the nature of

the population studied, a few areas of future research came to fruition.

Because of the nature of the population of the study, school-aged children, there were no

direct observations or interviews of the students conducted throughout the entire process. The

information was gathered through questions that harnessed the participants' experiences and

perceptions prior to being interviewed. It is necessary to monitor student behavior and academic

data to witness the true impact of a specific environmental (antecedent) factor and how often the

presence or absence of the factor changed the trajectory of challenging behavior. Doing so will

help determine the long-term impact of day treatment programming in a public school. The

researcher should observe the student contacting the antecedents in the environment and then

manifest the results into tangible and evidence-based information to help to make programming

decisions in the future for other students.

It is important that programming in schools is supported by the wider school and town

community. Portraying the students in a positive light, despite their aggressive or destructive

behavior, is important to the program's sustainability. Enabling the community to understand

and observe the impact of a specific program is necessary and becomes part of integrating

students back into the classroom. The school community, namely regular education teachers,

reading and math interventionists, secretaries, and any other person employed by the school,

does not have much contact or interaction with students who exhibit challenging behavior. At

times, other individuals' emotional or loud reactions in the environment can be an antecedent and

can trigger the start of a challenging behavior cycle for some students. An area of research is to

interview lay people (those not associated with TRAILS) to determine if the non-TRAILS staff

observe or perceive a change in the students' behavior upon introducing specific environmental

(antecedent) factors.

The professionals interviewed came from a wide range of backgrounds and had worked

in a variety of settings. Some individuals had an abundance of experience working with students

in day/residential treatment centers. Some had experience with special-purpose private schools,

and some only had experience working in the TRAILS classroom. An interesting area of

research would be to separate the interview groups based on the level of experience or years in

the field. A teacher in her first teaching job is not necessarily able to determine the impact of a specific environmental (antecedent) factor unless they are focusing specifically on the item. An individual with many years of experience may have an easier time identifying observable antecedents and may be comfortable with addressing and manipulating the situation at the moment in order to better suit the needs of the presenting student. It is also important to note the different levels of education and degrees held by the interviewees and the different support or administrative roles they had in their experiences working with children who exhibit challenging behavior.

Another recommendation is to conduct a district-wide program review for the TRAILS program as an appropriate next step to look at the milieu of services being offered and ensure that the interventions provided are satisfactory for both long and short-term student goals. Since the TRAILS program has only been available to students for a few years, it would be important to wait to conduct the program review until a few years of data with both entry and exit criteria to TRAILS are clearly defined. It would be interesting to note the true academic and behavioral gains of individuals and groups as they move through the school system.

Lastly, future research should focus on the parents' perception of students in the TRAILS program and how the services have impacted families. A part of the TRAILS program involves parent consultation and support, which is an area for future exploration. Students must learn to generalize the skills they learn in schools to other environments and across different settings. By involving families in transferring learned skills from the school to the home and community environments, a student can continue to achieve success and reduce the challenging behavior that they exhibited.

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Appendix A

Interview Questions

Q1: What is your professional role in the Brookside School Department, and how long have you been in the field of Special Education?

Q2: Have you worked in a special purpose private school?

Q3: What is your experience with day treatment programming in the public-school setting?

Q4: In the eligibility process for programming and the development of the Individualized Treatment Plan, what is your role, and what is the role of others on the student's educational team?

Q5: What do you consider 'student success' to mean?

Q6: In your opinion, what are the necessary components of any learning environment in a public-school setting?

Q7: What are common environmental stimuli (antecedents) that should be considered when developing any special education classroom?

Q8 How does a physical space or layout of a classroom impact the management of challenging behavior?

Q9: What do you consider a successful learning environment for a student that participates in day treatment programming in a public school?

Q10: Please describe, if any, the impact of auditory, olfactory, or visual stimuli in a public-school day treatment classroom.

Q11: Based on your own experience, and as measured by an increase or decrease in a targeted behavior, what specific environmental stimuli (antecedents) consistently contribute to student success?

Q12: Based on your experience, and as measured by historical student behavior, what recommendations do you have for the allocation of environmental resources across K-2, 3-5, and the 6-8 school grade levels in order for the students to achieve success?

Appendix B

Letter of Permission for Site Use

Saco School Department
Dr. Dominic A DePatsy, Superintendent

90 Beach Street, Saco, Maine 04072
Phone: 207.284.4505
Fax: 207.284.5951

December 1, 2020

To Whom It May Concern:

Jessica Clark is a student that is enrolled in the doctoral program at the University of New England and has requested formal permission to conduct her research study at the Saco School Department, which is where she is currently employed. Mrs. Clark will be conducting the data collection through interviews of staff that work closely with our day treatment student population. It is expected that Mrs. Clark will interview between fifteen and twenty staff members that are currently employed in the Saco School Department and work in the day treatment setting. No interviews of students will be permitted.

I, as acting Superintendent, give permission for Jessica Clark to conduct her research at the Saco School Department during the 2020-2021 school year. I give her permission to interview staff members that work in the day treatment program and for her to use our technology for these purposes.

Please let me know if you have any questions.

Best,

Dominic A. DePatsy, EdD

Appendix C

Participants Consent Form

UNIVERSITY OF NEW ENGLAND

CONSENT FOR PARTICIPATION IN RESEARCH

Project Title: Perceived Positive Environmental Supports as Antecedent Stimuli in a Public-

School Day Treatment Classroom

Principal Investigator(s): Jessica Clark

Introduction

- Please read this form. You may also request that the form is read to you. The purpose of
  this form is to give you information about this research study, and if you choose to
  participate, document that choice.

- You are encouraged to ask any questions that you may have about this study, now,
  during, or after the project is complete. You can take as much time as you need to decide
  whether or not you want to participate. Your participation is voluntary.

<u>Why is this research study being done?</u>

To determine specific areas within a student's environment that support a therapeutic

environment.

<u>Who will be in this study?</u>

Staff members that work in the Saco School Department and, more specifically, in the day

treatment PATHS program.

<u>What will I be asked to do?</u>

You will be asked to interview with Jessica Clark and answer questions related to your

experience working in a day treatment setting.

<u>What are the possible risks of taking part in this study?</u>

Due to the size and make-up of the school department, an audience may be able to identify the

specific school location.

<u>What are the possible benefits of taking part in this study?</u>

To determine some aspects of the public-school classroom environment that can be consistently

present for students who exhibit challenging behavior to access their education.

<u>What will it cost me?</u>

Nothing but your time.

How will my privacy be protected?

There will be no identifying features of the study that would allow private access to personal

information.

How will my data be kept confidential?

Interviewees will not be identified by name or specific position within the day treatment

program.

What are my rights as a research participant?

- Your participation is voluntary. Your decision to participate will have no impact on your

  current or future relations with the University.

- Your decision to participate will not affect your relationship with Jessica Clark.

- You may skip or refuse to answer any question for any reason.

- If you choose not to participate, there is no penalty to you, and you will not lose any

  benefits that you are otherwise entitled to receive.

- You are free to withdraw from this research study at any time, for any reason.

- If you choose to withdraw from the research, there will be no penalty to you, and you will

  not lose any benefits that you are otherwise entitled to receive.

- You will be informed of any significant findings developed during the course of the

  research that may affect your willingness to participate in the research.

- If you sustain an injury while participating in this study, your participation may be

  ended.

What other options do I have?

You may choose not to participate.

Whom may I contact with questions?

- The researcher conducting this study is Jessica Clark.

- For more information regarding this study, please contact Jessica Clark.

- If you choose to participate in this research study and believe you may have suffered a research-related injury, please contact Jessica Clark.

- If you have any questions or concerns about your rights as a research subject, you may call Mary Bachman DeSilva, Sc.D., Chair of the UNE Institutional Review Board at (207) 221-4567 or irb@une.edu.

Will I receive a copy of this consent form?

You will be given a copy of this consent form.

Participant's Statement

I understand the above description of this research and the risks and benefits associated with my

participation as a research subject. I agree to take part in the research and do so voluntarily.

_____

Participant's signature or legally authorized representative

_____

Date

_____

Printed name

Researcher's Statement

The participant named above had sufficient time to consider the information, had an opportunity

to ask questions, and voluntarily agreed to be in this study.
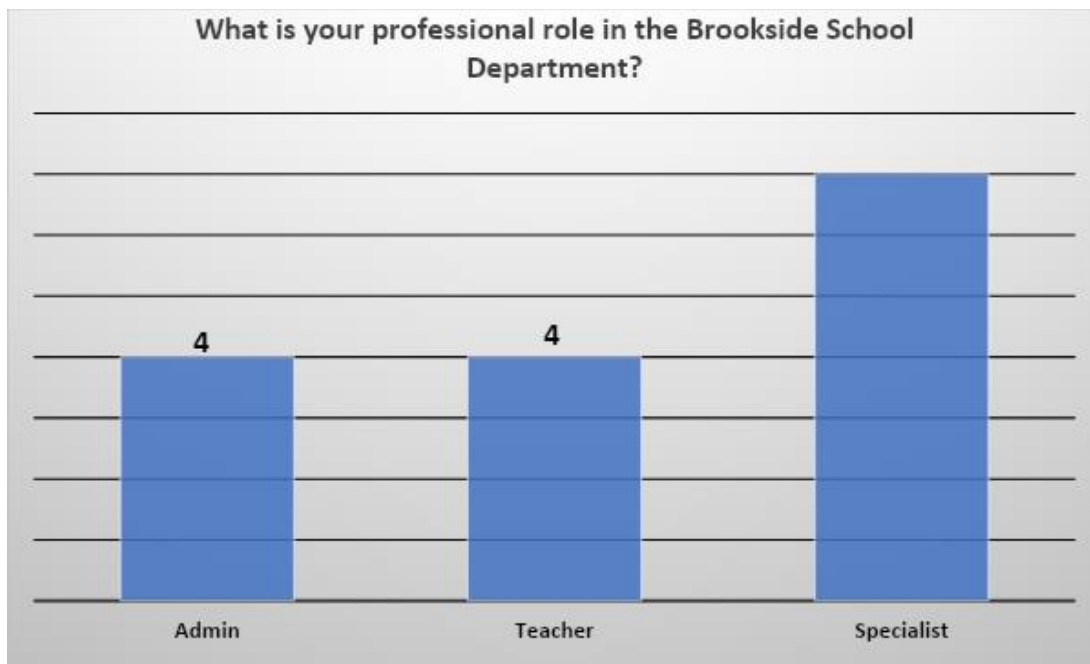

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Researcher's signature
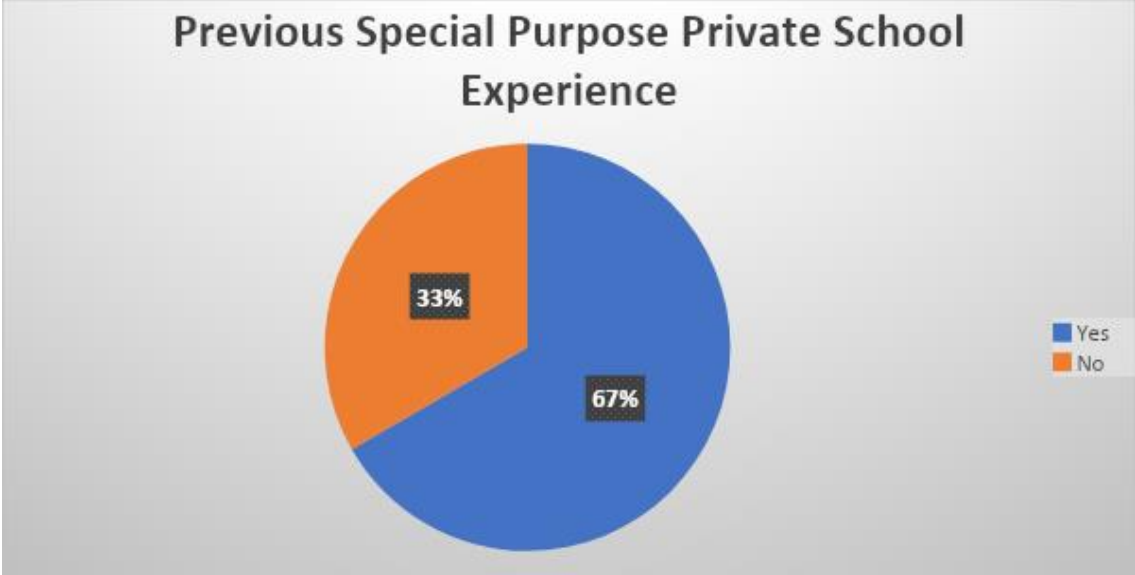
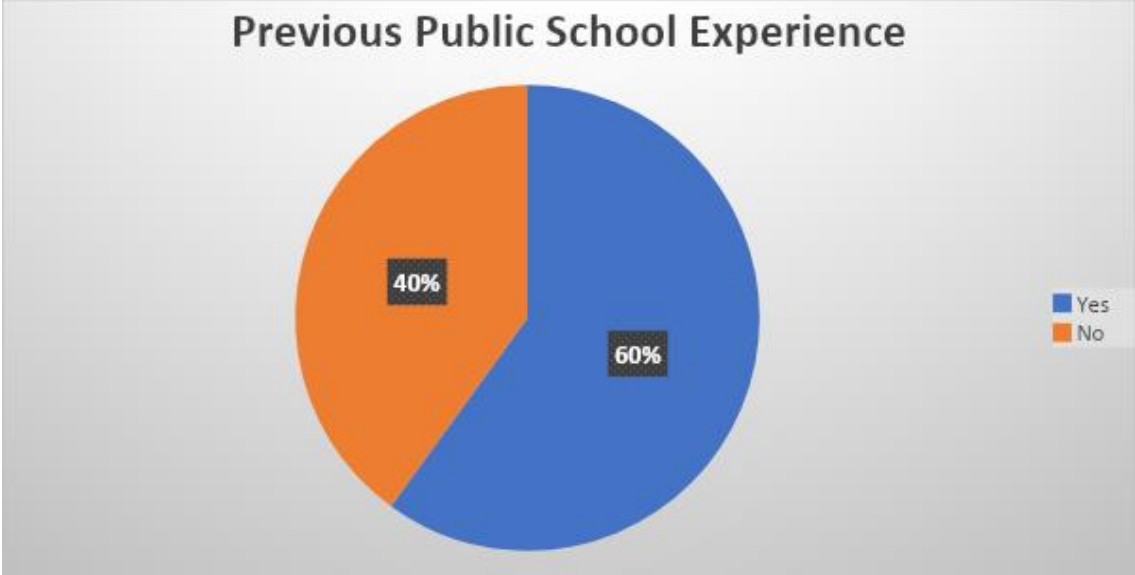_____

Date

_____

Printed name

Appendix D

Data Summary of Interviews

**Question 1: What is your professional role in the Saco School Department, and how long have you been in the field of special education?**

Question 2: (A) What public school systems have you worked in previous to your time in the Saco School Department? (B) Have you worked in a special purpose private school?

Question 3: What is your experience with day treatment programming in the public-school setting?
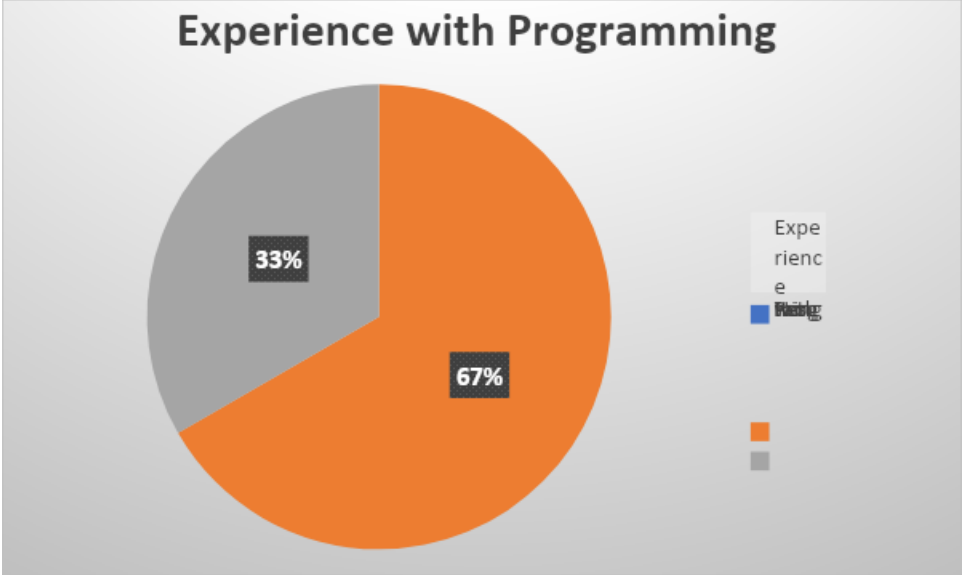
Question 4: In the eligibility process for programming and the development of the

Individualized Treatment Plans, what is your role, and what is the role of others on the

student's educational team?
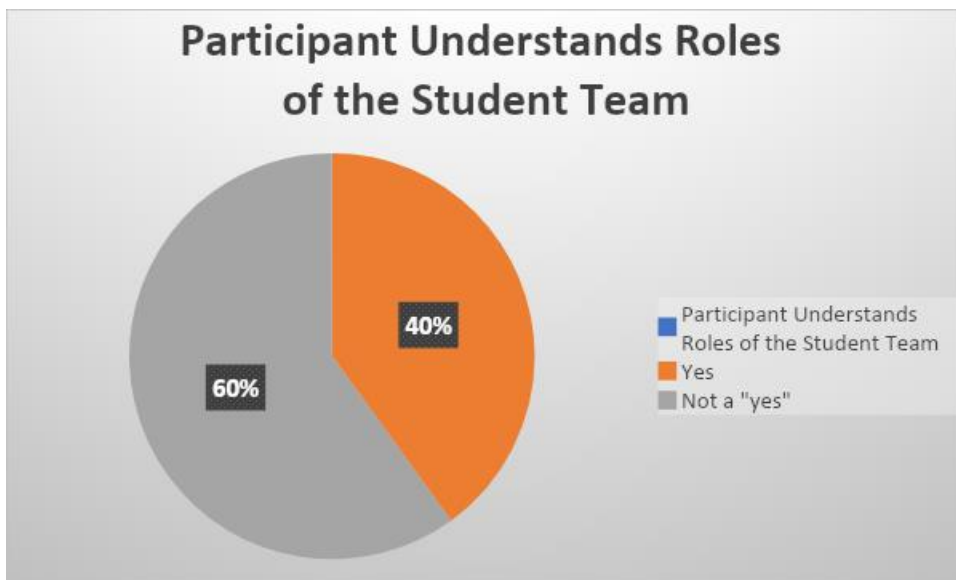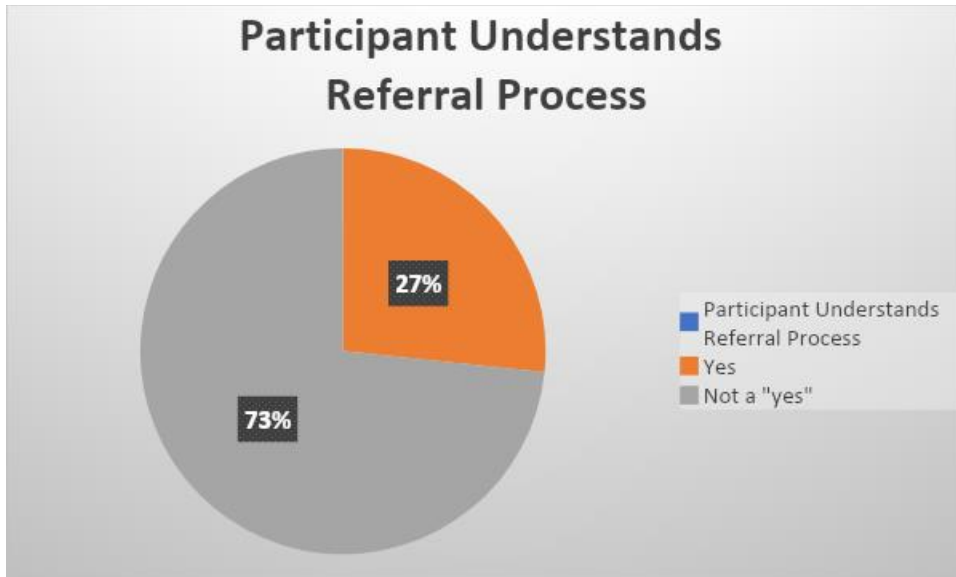
Question 5: In the context of public-school day treatment, what do you consider "student success" to mean?

Theme to support student success	Percentage of respondents that indicated theme towards "student success"
Access to least restrictive environment	67%
Becoming emotionally/behaviorally stable	67%
Meeting formalized ITP/IEP goals	33%
Increasing communication	20%
Relevant materials available to students	40%
Engaging/trained staff	40%
Ratios of students to staff	60%

Question 6: In your opinion, what are the necessary components of any learning environment in a public-school setting?

Necessary components of any learning environment	Percentage of respondents that indicated necessary component
Having basic needs met (food, clothing, shelter)	20%
Understanding/catering to specific learning profiles/flexibility in teaching	63%
Relevant materials available to students in classroom	47%
General classroom management capacity of the classroom teacher	20%
Having engaging, flexible, and hardworking staff	47%
Appropriate ratios and support to maintain student safety	33%

Researcher read: I will give you a definition of the word "antecedent" as it applies to these questions. An antecedent is a thing or event that existed before or logically precedes another (Merriam-Webster, 2021).

Question 7: What are common environmental stimuli (antecedents) that should be considered when developing any special education classroom?

Named antecedents for consideration	Percentage of respondents that indicated theme for consideration
Individualized workspace for each student	53%
Keeping materials away/organized	67%
Limiting transitions to/from others within the environment	60%
Providing relevant and minimal visuals for instruction or behavior management	47%
Having administrative support	20%
Limiting excess furniture/large materials	60%
Close proximity to the school/within the school community	27%
Reduction of noise pollution	40%
Appropriate staff to student ratios	60%

Question 8: How does a physical space or layout of a classroom impact the management of challenging behavior?

Impact of area/physical layout	Percentage of respondents that indicated this as an impact area
100% of respondents indicated that a physical space or layout impacts the management of challenging behavior.	
Need for individualized space (alternative location)	80%
Minimizing objects/potential weapons	69%
Providing supportive academic/behavioral interventions as part of the learning process	80%
Maintaining private spaces to reserve a child's dignity	53%

Question 9: What do you consider a successful learning environment for a student that participates in day treatment programming in a public school?

Successful Learning Environment	Percentage of Respondents that indicated this as a successful learning environment.
Access to the regular education classroom with same-age peers	50%
Access to therapeutic staff and supports	63%
Maintaining appropriate staff-to-student ratios	40%
Safe and supportive of basic needs	63%
Ability for staff and students to easily navigate the classroom	63%
Communication to/from the team and families	47%
Access to an individualized workspace	40%

Question 10: Please describe, if any, the impact of auditory, olfactory, and visual stimuli in a public-school day treatment classroom.

	Impact indicated	No impact indicated
Auditory	100%	0%
Olfactory	45%	55%
Visual	80%	20%

Question 11: Based on your own experience, and as measured by an increase or decrease in a targeted behavior, what specific environmental stimuli (antecedents) consistently contribute to student success?

Antecedent	Percentage of respondents that indicated the antecedent
Proactive planning (behavior)	80%
Student maintaining relevant conversations in the classroom (avoid off-topic conversations)	60%
Positive feedback delivered from staff	60%
Access to individualized learning space	40%
Access to a behavior plan	40%
Visual reminders and posted schedules	40%

Question 12: Based on your experience, and as measured by known historical student behavior, what recommendations do you have for the allocation of district-wide environmental resources in order for the students to achieve success in public-school day treatment classrooms?

District-wide allocation recommendations	Percentage of respondents that indicated recommendation
Maintain consistent programming across buildings	60%
Promote collaboration across schools/grade levels/environments	60%
Promote collaboration across specialized disciplines	60%
Trained staff to consistently implement interventions	73%
Physical space dedicated to program and continued access to dedicated space	73%

Appendix E

Curriculum Vitae

EXPERIENCE

Saco School Department, Saco, Maine   *2018-present*

Director of Instructional Support   *2019-present*

> Develop, coordinate and evaluate the special education and Response to Intervention (RtI) instructional programs and supportive services, as required to meet the needs of all learners. Establish and maintain screening procedures to locate students within the school department that may require RtI or special education services. Oversee Maine care billing and reimbursement. Directly monitor the IEP, 504 and gifted and talented population. Coordinate and ensure compliance with all Federal and State statutes pertaining to the education of all children (with and without disabilities). In conjunction with building and central office administration, prepare, administer and monitor an annual operating budget. Interpret and present the education department's (regular and special education) programming and purpose to the community. Coordinate the selection of curriculum for the special education students and the students in the Response to Intervention process that is aligned with the district's core curriculum. Provide leadership in establishing new programs and developing an improved understanding of existing programs. Participate in the recruitment, selection, and recommendation for the hiring of special services and Response to Intervention. Assist with the design and development of the district's staff development program. Supervise and evaluate special services personnel, as assigned, in coordination with the building principals.

> **Assistant Director of Special Services and District Behavior Analyst**   *2018-2019*

> - Promoted to Director of Instructional Support

Cape Elizabeth School Department, Cape Elizabeth, Maine   *2016-2018*

Director of Special Services

> Organizational and administrative leader in the management and supervision of all special education and related special service planning, design, creation, implementation and evaluative practices. Practice participatory management; possess good organizational skills and the knowledge of effective administration of school operations. Responsible for a comprehensive budget including both local and federal grant monies in excess of $5 million annually. Effectively and efficiently utilize and manage special education services through responsible stewardship of school district resources. Able to relate positively and communicate to staff and the public in order to build transparency and appropriate, effective information sharing. Supervise all curriculum and assessments to ensure the utilization of appropriate implementation of evidence-based practices. Train special education, regular education and administrative staff in the areas of special education law, effective teaching and management practices and others as relevant to the needs of the staff and students. Work effectively with large teams of stakeholders to accomplish department initiatives. Responsible for the planning, development and expertise contributions towards professional education for teachers, specialists and administrators in order to build department capacity and expertise. Evaluate and supervise staff through commitment to the improvement of instruction and in conjunction with best practices for educator growth models. Restructured special services department in order to streamline the processes for federal and state mandates.

The New England Center for Children (NECC), Southborough, MA   *2005-2016*

Consulting Specialist (NH) and Coordinator for Teacher Training and Professional Development for ME, NH and VT

Provided behavioral and educational consultation for twelve districts across the state of New Hampshire. Responsible for the development, training, implementation and progress monitoring for academic and behavioral goals in IEPs and Behavior Support Plans for a case load of more than sixty students. Provide district-wide training for staff and administrators in the areas of IEP development and implementation, curriculum programming and monitoring for students of all abilities. In addition, train staff members in the principles of Applied Behavior Analysis and assist in meeting the Positive Behavior Intervention Supports and Responsive Classroom initiatives as dictated by district policies. Served as a member of each student team and facilitated the use of evidence-based practices to ensure success.   Developed appropriate tiered curriculum to support interventions using Response to Intervention protocol. Some additional responsibilities included reorganizing public school, district-wide IEP systems to ensure timeliness in development and implementation, observation and consultation to staff members and support systems to warrant appropriate implementation of school-wide initiatives, and short and long-term budget planning to maximize resources and build internal capacity of faculty and staff. Assisted in creating and implementing rubrics for designating paraprofessional support and in determining specialized curriculum areas.

Responsible for the IEP and Alternative Assessment training for all teachers in New Hampshire, Maine and Vermont that are employed by the NECC. Assisted these NECC teachers in monitoring and achieving initial licensure as well as to maintain licensure during renewal cycles. Served as a support for these teachers for all IEP writing and program development. Served as a mentor for NECC teachers who had recently obtained a teacher license. Responsible for training new teachers as they transitioned from out-of-state into their classroom role in NH, VT and/or ME. Trained staff in IEP and data entry systems including, but not limited to SWIS, Case-E and EZ IEP.

Northwood Elementary School, Northwood, NH/The New England Center for Children   *2011-2014*

Lead Teacher/Coordinator and Behavioral Consultant

Sylvan Learning Center, Portsmouth, NH   *2009-2011*

Lead Teacher/Instructor

The New England Center for Children (NECC), Southborough, MA

Education Department Specialist   *2008-2009*

Aligned NECC curriculum with MA state General Curriculum requirements ensuring compatibility with access skills, entry points and appropriate learning standards for all students (120+) across four general subject areas (ELA, Math, Science and Engineering/Technology and History and Social Sciences). Conducted administrative and content review of all IEP drafts and final proposals ensuring consistency with state and federal regulations and standards. Coordinated, supervised and monitored implementation of alternate assessments for NECC students from Massachusetts, New York, Vermont, Connecticut, California, New Hampshire and Virginia. Developed and provided trainings for NECC staff in all Education Related trainings, including IEP, Progress Report, General Curriculum and Alternate Assessments. Responsible for the supervision of staff to ensure proper implementation of Education-related federal and state laws including evaluation processes and IEP implementation. Coordinated all NECC IEP meetings and acted as primary liaison with student specific districts across six states. Created and maintained school-wide database to monitor timeliness of IEP related materials and alternate assessment products. Attended educator and administrator trainings for New York and Massachusetts alternate assessments.

Educational Coordinator/Special Education Teacher   *2007- 2008*

- Promoted to Education Department Specialist

Special Education Teacher   *2005- 2007*

- Promoted to Education Coordinator

CERTIFICATION

- Superintendent, Special Education Administrator (Maine)
- Board Certified Behavior Analyst (National)

`EDUCATION

- **University of New England,** Doctorate in Education,   *expected August 30, 2021*
- **Florida Institute of Technology**, Board Certified Behavior Analyst
  December 2014
- **University of New Hampshire**, Durham, NH, Education Specialist.   *December 2012*
  Education Administration and Supervision
- **Simmons College**, Boston, MA, Master of Science in Education   *May 2008*
- **University of Connecticut**, Storrs, CT, Bachelor of Arts in English   *December 2001*

ACTIVITIES

- Volunteer at the Salvation Army Soup Kitchen in Portsmouth, NH
- Participate in Special Olympics and Special Surfers