

PREDICTING STUDENT PRAGMATIC SOCIAL SKILLS DEVELOPMENT BY STUDENT
AGE AND BEHAVIOR CLASSIFICATION

by

Christopher J. Pope

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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APPROVED BY:

Kevin D. Struble, Ed.D., Committee Chair

Nathan Street, Ed.D., Committee Member

ABSTRACT

Over the course of a decade, schools have experienced an increase in inappropriate student behaviors and suspensions with a decrease in teacher retention. Students are demonstrating intensive externalizing and internalizing behaviors that are producing a negative effect on their success in the classroom, with low teacher efficacy in knowing how to properly address those behaviors and concerns. Students receiving special education services in behavior tend to experience challenges with more than just behavior but tend to only experience addressing of behavior. Studies have shown that an increased number of students with a behavioral disorder are more likely to have an undiagnosed language impairment. The sample size was drawn from a Washington school district. There were 56 participants who had special education classifications of either specific learning disability (SLD), other health impairment (OHI), or emotional behavior disturbance (EBD). This study administers the Pragmatic Language Observation Scale (PLOS) to measure not only the likelihood of a student presenting with a deficit in their pragmatic language, but to measure the effectiveness of direct instruction, addressing pragmatic communication on the student's behavior. A predictive correlational research design was implemented to allow the researcher to evaluate the intervention administered to measure its effectiveness. The results from the multiple linear regression demonstrated no significant predictive relationship between student social interaction and the students age and behavior classification, resulting in a failure to reject the null hypothesis. A recommendation for future research could include an increase in participants as well as the collection of pre and post data.

Keywords: emotional behavior disorder, language impairment, learning disability, pragmatic communication, social skills

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Dedication

I would like to dedicate this manuscript to my beautiful and supportive wife, Nicole, and my amazing children, Noah, Alina, Asher, Titus, and Lucy. Without my wife, this journey would not have been possible. It was your love and prayers that allowed this to be accomplished. I could not have a better partner in life. To my amazing children, I hope and pray that this is an example of what you could accomplish. I pray that this serves as an inspiration and a reminder of what the Lord can do in and through you.

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List of Abbreviations

Emotional Behavior Disturbance (EBD)

Individual Education Plan (IEP)

Other Health Impaired (OHI)

Language Impairment (LI)

Pragmatic Language Observation Scale (PLOS)

Specially Designed Instruction (SDI)

Specific Learning Disability (SLD)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this quantitative, predictive correlational research study is to determine the predictive correlational relationship between pragmatic language skill instruction and student behavior, based on their special education behavior classification. Chapter One provides a background on special education, student behavior, and pragmatic language. Included in the background is an overview of the historical context. The problem statement examines the scope of the recent literature on this topic. The purpose of this study is followed by the significance of the current study. Finally, the research question is introduced, and definitions important to this study are provided.

Background

History has demonstrated that the educational system is in a constant state of adjustment in order to remain current with the continually changing needs of students with mild, moderate, and severe disabilities. In the 1970s, 1.75 million children with disabilities were not receiving any type of services, while over 2.5 million children were not receiving supports that met the needs of their diagnosed disability producing a negative effect on the quality of their education (Yell, 2019). Since that time, laws and policies have been enacted to address the needs of many of the nation's most vulnerable students.

Students who exhibit behaviors that negatively affect their ability to participate in the general education setting are classified as presenting an emotional behavior disorder (EBD) or are found to qualify in behavior under another disability category. It is widely understood that behavior is a form of communication (Hollo & Chow, 2015). Language addressing the functional needs of students (i.e., behavior) were added to the language of Individuals with Disabilities

Education Act (IDEA) in 2004 (Yell & Bateman, 2017). It was determined that students with a disability requiring special education are entitled to a more than just the minimal, *de minimus*, standard of services and supports (Yell & Bateman, 2017). As a result of the law, students identified as EBD are legally entitled to have their academic and functional needs meaningfully addressed.

A study conducted in 2016 reviewed students' behavioral difficulties and their pragmatic language skills (Hughes et al., 2016). Like many students with a category of Specific Learning Disability (SLD) with a qualification in behavior or EBD, there are outlying factors that contribute to a child's behavior. Despite this, 71% of children with behavioral difficulties and categorizations later presented clinically significant language deficits in the area of pragmatic language (Hughes et al., 2016). The lack of under-identification also extends conversely with 57% of students presenting a language impairment also determined to display behavioral difficulties and with pertinent diagnoses (Hughes et al., 2016). The difficulty in assessment derives from the social nature of the disability. Many times, during an assessment, children can articulate what is an appropriate response. However, when placed in an actual social situation, the student is unable to recall an appropriate response (Ketelaars et al., 2015). As a result, assessors have had to rely more on qualitative assessments to determine the needs of a child.

Emotional behavior disturbance identifies students who present with behavioral difficulties that cannot be explained by development or sensory disabilities (Hollo et al., 2019). These students may display externalizing (e.g., aggression, oppositional behavior, and conduct problems) or internalizing behaviors (e.g., anxiety or depression) (Garwood et al., 2017; Palmu et al., 2017). Students with a specific learning disability (SLD) present with a disorder found in one or more of the basic psychological processes that are involved in the understanding and/or

application of spoken or written language that may manifest in an imperfect ability to listen, think, read, spell, or complete mathematical calculations (Hunt & Marshall, 2012). The category of other health impairment (OHI) emphasized the physical condition of an individual student. It is defined as someone who has limited strength, vitality, or alertness, that is due to chronic or acute health problems (Hunt & Marshall, 2012).

Historical Context

The national average of students with EBD served rests between 11% and 13% (Lloyd et al., 2018). This establishes the number of students served in this category at around 1% of the total number of students receiving special education services (Lloyd et al., 2018). Due to the comorbid nature of EBD, the number of students with EBD could be significantly higher but they are served under different categories.

Educators experience many challenges when working with students with behavioral disabilities. Providing appropriate and effective intervention rests within the challenge of behavior itself. Many educators lack the required emotional fortitude and resolve to address significant student behavior (French, 2019).

Unfortunately, studies note an archaic view of punishment paired with a lack of buy-in regarding the types of interventions and training required for teaching students with significant behaviors (French, 2019). The success of the intervention rests on the overall interpersonal skills, such as communication, understanding of varying student cultures, and genuine expression of care of the faculty member administering the intervention (French, 2019). Historically, the disciplines administered have been punitive in nature serving as a deterrent to keep behaviors from occurring again. However, this tends to fuel additional disruptive behaviors and reduce the number of individuals that could serve as a reliable support for the troubled student (French,

2019). The number of students with an undiagnosed language impairment affects the number of referrals for disruptive classroom behaviors. When students are not considered for language evaluation and are only provided services for behavior, the appropriate management, coping, and communication skills remain unaddressed, thus, resulting in a higher rate of referrals, suspensions, and expulsions (Boneshefski & Runge, 2013). This ultimately results in disproportionalities in school discipline regarding students with disabilities (Chow et al., 2020).

It is necessary to consider the significant cognitive functioning that is required to not only regulate one's behavior but also to exercise one's language (James et al., 2020). Where there are questions regarding the direct connection between behavior and communication (Im-Bolter & Cohen, 2007), there is a hypothesis that language and behavior problems may originate from the same environmental factors (Im-Bolter & Cohen, 2007). Furthermore, an increase in such delays in language can produce adverse influence on behavior and vice versa (Im-Bolter & Cohen, 2007). Studies indicate that gaps in early language development are key in the development of problematic behaviors (Chow, 2018). Students with a language impairment are nearly twice as likely to develop internalizing behaviors (i.e., withdrawal, excessive loneliness, sadness, fearfulness, and lack of peer interaction) with a higher likelihood of developing externalizing behaviors (i.e. physical aggression, defiance, theft, vandalism, and verbal bullying) (Chow, 2018).

Students with EBD, regardless of internalizing or externalizing behaviors, often demonstrate a weakness in their pragmatic language skills (Hollo et al., 2019). As such, their ability to effectively communicate, in any form, is limited and can often result in undesirable behavior (Hollo, et al., 2019). Some of the individual symptoms demonstrated with internalizing behaviors are withdrawing from social situations, demonstration of anxiety, or depression (Hollo

et al., 2019). When examining the behaviors of students who externalize their behavior, one may notice disruptive, defiant, antisocial, and aggressive behavior (Hollo et al., 2019).

Students with EBD often find themselves excluded from mainstream education to decrease the disruptive classroom behaviors. This exclusion occurs despite studies highlighting the importance that students with behavioral challenges be provided a curriculum that addresses the deficits in social skills as well as pragmatics or a person's ability to navigate in a communicative situation (McDonough, 1989). McDonough (1989) noted that remediation for identified problematic areas should include multiple opportunities for interpersonal communication to occur and the establishment of an atmosphere where students are accepted and encouraged to verbally contribute.

Students receiving special education services during the 2016-2017 school year was 335,301 for those between the ages of 6 and 21 (McKenna et al., 2019). Approximately 5.5% (16,765) of these students comprise the number of EBD students receiving specially designed instruction (SDI) in behavior. Of the 5.5%, 47.2% (7,913) are receiving at least 80% of their instruction in a mainstream classroom with typically developing peers while 17.5% (2,933) are spending less than 80% of their day with non-disabled, typically developing peers (McKenna et al., 2019). When students with disabilities and those without disabilities spend time associating and engaging, there tends to be motivation for the students with disabilities to imitate expected and acceptable modeled behavior (Lin et al., 2019).

Very little is known as to whether there is a connection between this overt behavior (academic/environmental exclusion) and a language impairment (James et al., 2020). A study conducted in 2002 revealed that 71% of students with EBD presented with clinically significant co-occurring language deficits and of that 71% specifically demonstrated a deficit in pragmatic

language (Benner et al., 2002). In addition, 64% of the students demonstrated expressive language deficits and 56% experienced receptive language deficits (Benner et al., 2002). This study is similar to a more recent one conducted in 2014 that found that expressive language difficulties were more prevalent at 86% (James et al., 2020). Additional studies noted that over half of the participants that were categorized as EBD were significantly deficient in pragmatic language skills (James et al., 2020).

It is through expressive language that a student can communicate his or her wants, needs, and feelings (Chow, 2020). This is a skill that is essential in a student successfully navigating the various academic and social situations in which he or she will find him- or herself. Receptive communication focuses on comprehension and requires students to demonstrate skills in listening, comprehending, remembering, and demonstrating attentiveness to spoken language (Chow, 2020). Studies have indicated that a student's oral language comprehension skills were a reliable predictor of future behavior problems (Chow, 2018).

Considering that students with EBD tend to present with a comorbid disability, sometimes undiagnosed, it must be recognized that there may be a cognitive impairment that contributes to that disability. For a student to not simply be considered a "slow learner," there must be a cognitive deficit that matches and, therefore, explains an academic deficit. As previously mentioned, many students with EBD present an undiagnosed language disorder in either expressive or receptive language that pairs with either suffering from EBD or with externalizing or internalizing behavior concerns (Hollo et al., 2019). Studies have demonstrated that up to 52% of students with writing disabilities experience comorbid social and behavioral difficulties (Jordan et al., 2020).

Despite the commonality of the comorbidity of EBD and Language Impairment (LI), it is often overlooked; therefore, students are not receiving the appropriate interventions needed to not only address the academic, but the cognitive, social, and communication deficit. EBD students with externalizing behaviors have been commonly correlated to demonstrating receptive language deficits, whereas internalizing behaviors have been connected to expressive language deficits (Hollo et al., 2019). The difficult nature in diagnosing EBD leads to students possessing limited access to the appropriate early interventions (Lloyd et al., 2018). This has resulted in a higher number of suspensions, expulsions, grade repetition, dropouts, and encounters with law enforcement (Lloyd et al., 2018; Goran & Gage, 2011). Blanton and Dagenais (2007) conducted a study on the language effects of adjudicated and non-adjudicated adolescents. The findings demonstrated that adjudicated adolescents scored lower, $F(1,63) = 10.5$, on the language scales indicating their behavioral difficulties could be directly correlated to language and they would have benefited from language instruction and supports as children in the elementary setting when first displaying difficulties. These children could have benefited from targeted instruction in pragmatic language to potentially avoid future behavioral difficulties in both the academic and community setting (Blanton & Dagenais, 2007). Embedding supports for pragmatic language can address a student's challenges by allowing them to have authentic opportunities to practice skills they are lacking. Teaching the skills in isolation tends to be counterproductive, thus producing a negative impact on the student's ability to truly demonstrate understanding and provide genuine application (Keefe & Hodge, 1996).

Problem Statement

The following study will examine the potential predictive relationship between student behavior classification (Emotional Behavior Disorder (EBD), Other Health Impairment (OHI) ,

and Specific Learning Disability (SLD)) demonstrating an undiagnosed language impairment and student age, measured in years, and pragmatic social skill development (measured by the PLOS). Hollo et al. (2019) revealed the gap in the literature pertaining to the comorbidity of EBD with other learning disabilities and the under-classification of students with language impairment in either receptive or expressive language thus highlighting the need for this study. Behaviors (i.e., externalizing or internalizing) are not being addressed appropriately (Hollo et al., 2019). Students are taught to not do something, provided alternate ways to demonstrate viewpoints, thoughts, or feelings without ever addressing the pragmatic communication and filling in the deficit (Hollo et al., 2019).

Appropriate social communication and interaction are beneficial in teaching students the appropriate skills to find success in interacting with their environment. With appropriate pragmatic skills, students are more likely to self-advocate, make connections between new material and previously learned material, connect strands of conversation to understand the more complete picture, as well as being able to negotiate, describe, and provide greetings (Hyter et al., 2001). Additional research is needed to gain further knowledge on this topic.

The current study is designed to ascertain the potential of student age (6 to 14) and student behavior classification (EBD, SLD, OHI) to predict a change in the criterion variable, student pragmatic social skill development as measured by the PLOS. Hollo et al. (2019) has advocated for further research into the effects of pragmatic language instruction for students with behavioral disabilities. Lin et al. (2019) expounds on this by stressing the importance of early exposure to these skill in the preschool setting. The problem is that literature has not addressed the predictive effects of student age (6 to 14) and disability category (EBD, SLD, OHI) on pragmatic social skill development.

Purpose Statement

The purpose of this quantitative predictive correlational research design is to determine the potential existence of a predictive relationship between the predictor variables, participating students' ages (6 to 14) and their behavior classification (EBD, SLD, OHI) and the criterion variable, the student's pragmatic social skill development as measured by the Pragmatic Language Observation Scale. The predictor variables of student age (6 to 14) and behavior classification (EBD, SLD, OHI) is best contextualized when understanding the definition pragmatics. Pragmatics is best understood as functional or social use of language (Hollo et al., 2019). Pragmatic communication is best demonstrated by how students respond to conflict and engage in basic communication in both negative and positive social situations.

The second predictor variable, student behavior classification, references categories by which students may qualify for specially designed instruction (SDI) in the area of behavior. For the purpose of this study, the three areas that will be considered are emotional behavior disturbance (EBD), specific learning disability (SLD), and other health impaired (OHI).

The criterion variable, pragmatic social skill development, will be measured by the Pragmatic Language Observation Scale (PLOS) following an eight-week pragmatic language skills instruction period with the students. The intervention directly targets features of pragmatic communication that is designed to be embedded within a classroom's social emotional instructional time.

The population for this study includes students (ages 6 to 14) that require specially designed instruction in behavior with a classification category of EBD, SLC, or OHI. The sample will comprise 54 males and 12 females identifying as students with a specific learning disability

(SLD), receiving SDI in behavior, other health impaired (OHI), and students presenting with an emotional behavior disturbance (EBD).

Significance of the Study

The goal of this study is to understand the effect of direct pragmatic skills instruction embedded within existing social skills curricula for students categorized as EBD, OHI, or SLD classification with a need for SDI in behavior (Hollo et al., 2019). Students acquiring the ability to demonstrate these skills within a social situation is imperative to their overall success and could lead to an eventual transition to a less restrictive environment. Researchers have noted that very few social skills curricula emphasize language skills (Hollo et al., 2019; Kaiser & Roberts, 2011). When pragmatic skills receive the necessary attention, students are more likely to experience success in the school setting. Utilizing specific strategies will help students demonstrate their understanding and allow them to recognize when clarification is needed (Keefe & Hodge, 1996).

This research can inform teacher practices and other practitioners by providing the skills necessary to incorporate pragmatic communication within existing curriculum, especially in social-emotional learning, due to a significant overlap between the two skills (Hollo et al., 2019). This study could reveal additional information regarding the disproportionality of students represented in self-contained behavior programs. At the current rate, students with emotional behavior disorders, or who present with SLD with supports in behavior, are less likely to experience opportunities to interact and engage in providing social scenarios where the student can demonstrate appropriate communication (Hyter et al., 2001). This can result in a student producing less language input and a continued delay in communication (Hyter et al., 2001).

With the percentage of students with EBD who are undiagnosed with a language impairment, speech-language pathologists (SLP) could assume an increased role in the identification and treatment of these struggling students. Where many SLPs are not trained to work with significant behaviors, this study could demonstrate a need for additional training in order to provide necessary supports (Hyter et al., 2001).

The difficulties students with EBD present in the classroom vary in intensity. Behaviors manifest as either external or internal; therefore, disruptions can range from refusals (i.e., task avoidance behavior) to initiating a room clearing for the safety of the remaining students due to violent or aggressive behaviors. Students, regardless of disability, are legally required to receive as much of their education in the general education setting as possible. The increase in the number of students presenting with EBD has highlighted the lack of preparation general educators receive in how to address these behaviors and support these students in the general education classroom (Lewis, 2016). The traditional response is to increase the restrictive environment of these students, thereby reducing the exposure they receive to core content and appropriate behavior models in a large group setting, resulting in an increase of academic failure (Lewis, 2016).

The study could reveal a reduction of inappropriate behavior due to intensive intervention in pragmatic language. If so, it would be recommended that a review be initiated to examine current social emotional curricula utilized in special education courses to address the lack of language support for students with EBD. The overall focus would be those students who demonstrate challenges with expressive and receptive language. Students should not be silenced but provided with the tools to succeed and overcome obstacles.

Research Question

RQ1: How accurately can pragmatic social skill development, as measured by the Pragmatic Language Observation Scale, be predicted from a linear combination of student age, measured in years, and behavior classification (specific learning disability, other health impaired, and emotional behavior disturbance) for special education students (ages 6 to 14)?

Definitions

1. *Emotional Disturbance* – the federal special education label for students that qualify for services due to emotional and behavioral difficulties that are resulting in the absence of developmental and sensory disabilities (Hollo et al., 2019).
2. *Expressive Skills*- indicates the ability to produce language (Hollo et al., 2019).
3. *Language Impairment* – this indicates poor performance when assessed on a language scale (Hollo et al., 2019).
4. *Other Health Impairment*- A disability that is manifested by one having limited strength, vitality, or alertness, due to chronic or acute health problems.
5. *Receptive Skills*- this is the comprehension of language (Chow et al., 2020; Hollo et al., 2019).
6. *Specific Learning Disability*- A disorder in one or more of the basic psychological processes that are involved in one's ability to understand or use language in either spoken or written form, impacting a student's ability to listen, think, read, spell, or to do mathematical calculations (Hunt & Marshall, 2012).

CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter will focus on the theoretical framework that will guide this research study. The theoretical framework is grounded in the literature of Bandura's social cognitive theory and Vygotsky's sociocultural theory (Graham & Arshad-Ayaz, 2016; Vygotsky et al., 1978). The theoretical framework will provide the means by which the researcher will view, evaluate, and understand the problem. In addition to the theoretical framework, this chapter will also review literature that is relevant to pragmatic communication, behavioral disturbances, and targeted instruction.

Theoretical Framework

The theoretical basis for this study is Bandura's social cognitive theory as well as Vygotsky's sociocultural theory (Graham & Arshad-Ayaz, 2016; Vygotsky et al., 1978). Both theories underscore a person's environment, social, cultural-historical, and individual factors that are essential to one's development (Schunk & DiBenedetto, 2020). Both Bandura's and Vygotsky's theories stress the importance that individual learning and development cannot be separated from context because the way by which one interacts with his or her environment influences his or her thought processes (Schunk & DiBenedetto, 2020). These theories will explore the importance of communication in building relationships as well as the development of those relationships with a person's culture and family history serving as a catalyst for which these events occur. They will address the problems that influence a person's challenges with developing pragmatic language skills as well as the difficulties one experiences when attempting to regulate his or her own behavior when struggling to communicate.

Social Cognitive Theory

Social cognitive theory involves the premise that one's learning occurs through social interactions. This is in stark contrast to behaviorism, emphasizing reinforcement, by stressing the importance of observation as the catalyst for how skills are taught (Schunk & DiBenedetto, 2020). Social cognitive theory emphasizes the importance of modeling. As an essential component of social cognitive theory, modeling is defined as the behavior, cognitive process, and the changes that result from the observation of one or more models (Schunk & DiBenedetto, 2020). However, modeling has progressed from simple imitation to include three primary functions of modeling: response facilitation, inhibition and disinhibition, and observational learning (Schunk 2020).

Response facilitation addresses the lack of behaviors one exhibits due to a lack of motivation to engage in a particular behavior. With response facilitation, actions are modeled in order to serve as prompts for observers to engage appropriately (Schunk & DiBenedetto, 2020). When examining inhibition and disinhibition, one must examine the outcome. Inhibition is defined when a participant experiences some form of punishment for engaging in a behavior, which could result in observers not engaging in the same behaviors (Schunk & DiBenedetto, 2020). Disinhibition refers to a situation when the participant does not experience punishment despite participating in prohibited activities. As a result, observers may feel the freedom to engage in inappropriate or prohibitive behaviors (Schunk & DiBenedetto, 2020). Observational learning addresses the modeling of behaviors that observers would typically not participate in unless seeing it modeled for them (Schunk & DiBenedetto, 2020).

One of the many risk factors of using exclusionary practices in the discipline of students with EBD is the lack of appropriate responses to a stressful situation (Lewis et al., 2017).

Students whose behaviors often result in being sequestered from non-disabled, typically-developing peers are provided with less opportunities to practice learned (modeled) desired behavior. This highlights the importance of addressing not only the behavior, but the communication struggle as well to allow students the ability to intentionally practice the learned skills to successfully navigate stressful and uncomfortable social and academic challenges (Anderson, 2018). This is consistent with Bandura's belief that comprehension occurs either by learning from the consequences of one's action (enactive learning) or by watching and having it modeled (vicariously) which lends to the success of social stories (Schunk & DiBenedetto, 2020; Zimmerman et al., 2019).

To support his theory, Bandura (1976) conducted the Bobo Doll experiment in 1961 to demonstrate the effects of modeling. Two groups of children would be placed in two different rooms where they would observe play with a blow-up doll. One group of children would observe an adult playing aggressively with the doll, while the other group observed appropriate and gentle behavior. When the adults left, the children would be allowed in to play with the doll. Children who witnessed the aggressive play were more aggressive towards the Bobo Doll (Graham & Arshad-Ayaz, 2016).

Sociocultural Theory

Vygotsky believed that humans are more superior to animals who merely react to their environment. Humans possess the ability to adapt to and alter the environment to achieve a goal or fulfill a purpose (Schunk & DiBenedetto, 2020). He believed that one's learning could not be separated from one's development and context (Schunk & DiBenedetto, 2020). Researchers must consider the individual's environment that is influencing his or her thinking. Vygotsky (1978) also believed that higher-level thinking originates in one's social environment.

Vygotsky also displayed a high interest in students with mental and physical disabilities, highlighting the importance of considering the individual, or inherited, factors that influence one's development (Schunk & DiBenedetto, 2020). It is believed that the environment of the learner is critical in his or her development and that social interactions greatly influence his or her learning experience (Schunk & DiBenedetto, 2020).

The key concept inherent to the sociocultural theory is the *zone of proximal development*, which is believed to be the difference between one's actual developmental level and the potential development that could occur with either adult guidance or by collaborating with more capable peers (Schunk & DiBenedetto, 2020). This zone represents the amount of learning possible for a student under ideal instructional conditions (Schunk & DiBenedetto, 2020). This encapsulates the Marxist principle that if one possesses knowledge of a particular skill, then he or she is to share that information and skill with those who know less, which is referred to as collective activity (Schunk & DiBenedetto, 2020).

The study of communication and its effect on behavior is important in developing the appropriate interventions to meet the need of each child. This can be difficult when there is a lack of understanding of pragmatic language and how it is interconnected with a child's interpretation of his or her environment and interaction with peers. Understanding behaviors, from the at-risk stage to language impairment and comorbid factors can provide more of an understanding on how best to support these students.

Related Literature

Students with emotional behavior disturbance (EBD) are more likely to drop out of school, face suspensions and/or expulsions, as well as experience a higher incarceration rate than typically developing peers (Lloyd et al., 2018). Behavior is directly connected to communication,

as demonstrated by Bandura's 1961 doll experiment, and studies have demonstrated that over 70% of students with an EBD classification exhibit an undiagnosed language impairment (Lloyd et al., 2018). When students receive supports for behavior that do not include a careful examination of communication needs, it is a significant disservice to these struggling students. Students not receiving appropriate interventions can result in a generational influence of repetition, further resulting in a continuation of the behavior in future generations.

Emotional Behavioral Disturbance and At-Risk Students

Children communicate in various ways. Oftentimes, behavior is the default form of communication until speech is developed. However, there are groups of children who develop speech but continue to be challenged in the areas of communication which can then influence their behavior. Pragmatics is one's ability to interact in social situations demonstrating appropriate behavior (Lin et al., 2019). Children are sometimes challenged in this area, for a variety of reasons, and can either interpret (receptive language) incorrectly, and/or respond (expressive language) inappropriately to a given situation. Depending on a child's language deficit, it can result in internalizing (i.e., anxiety or withdrawn behavior) or externalizing (i.e., aggressive behavior) behaviors.

When examining the characteristics of emotional behavior disturbances, one should note that these are behaviors that are prolonged. These are not temporary behaviors or responses to stressful situations. This is a standard behavior that exists across multiple settings and tends to persist without continued intervention (Landrum, 2017). These behaviors can coexist with other disabilities and behaviors that negatively affects the ability to learn as demonstrated by Vygotsky's sociocultural theory noting how children adapt their environment to achieve their own goals.

This is potentially problematic in an educational setting (Anderson, 2018). Many of the complexities pertaining to the level of support provided to students with EBD target the level of support needed for their families as well as their school (Anderson, 2018). Ultimately, students with problematic behaviors experience an increased risk of poor outcomes academically and socially preventing them from forming appropriate relationships with peers (Zimmerman et al., 2019; Sheaffer et al., 2020). Zimmerman (2019) also noted that students with behavioral challenges tend to experience less access to early intervention services compared to students with developmental or physical disabilities. Where school environments do not necessarily cause EBD, the structure and response of staff can perpetuate behavior. For example, students with EBD do not function well with negative attention directed towards them. However, EBD students tend to attract more attention due to negative behaviors. This emphasis on negative behavior and the perceived overlooked positive behavior trends toward manifestation of problematic behavior (Landrum, 2017).

Additionally, due to a lack of eligibility criteria and an unclear definition of the disability, students who would benefit from the support associated with the disability are under-identified (Perihan & Bicer, 2021). Where the United States Department of Education's data reveal about 1% of the student population as experiencing EBD, the prevalence of the behaviors that are characteristic of the disability rests between 5% and 26% (Perihan & Bicer, 2021). As a result, there are many classrooms and students who are negatively affected by the atypical behaviors of these students resulting in adverse changes in the learning process of all involved as outlined in the sociocultural theory by Vygotsky. Studies have shown that the result of students with or at risk of EBD, not receiving appropriate supports, tend to result in a 60% dropout rate with 33% attending postsecondary schools (Perihan & Bicer, 2021). A meta-analysis study revealed that an

estimated 97% of students with EBD demonstrate communication deficits at the clinical levels that are believed to be the contributing factors to students exhibiting externalizing and internalizing problems (Perihan & Bicer, 2021).

When reviewing students with emotional behavior disturbances, studies have indicated a higher rate of applicable students, second only to student anxiety (Kulkarni & Sullivan, 2019). Unfortunately, students are often resistant to intervention and treatment by the time they are identified as requiring special education services. Emotional disturbance is a term that denotes individuals with abnormal, atypical, or deviant behaviors (Webber & Plotts, 2008). However, there are numerous terms applied interchangeably that result in personnel demonstrating hesitancy in categorizing students as such (Webber & Plotts, 2008). The definition of EBD pertains to a person who presents with a disability manifesting in such a way that it produces an adverse effect on the student's educational performance that include academic, social, vocational, or personal skills (Webber & Plotts, 2008). These students tend to be unresponsive to general interventions that would typically be considered sufficient. Typically, these behaviors, as a direct manifestation of the EBD, result in a student needing more intensive supports compared to a typically developing student.

Children at risk of EBD vary and do not conform to a particular stereotype. Diversity is extreme with many different interests originating from varied family backgrounds. Behaviors tend to overshadow the many strengths they possess as well as their various emotional and social challenges (Green et al., 2016). Mitigating circumstances, such as poverty, mental health, community, family, social influences, and pre-existing conditions make diagnosing and intervening quite difficult for education professionals (Reinke et al., 2008). Many of these students are diagnosed with mental health challenges like depression, anxiety, or mood disorders

(Anderson, 2018) without consideration for potential communication deficits. The contribution of family, cultural, and school factors in students considered as demonstrating behavior difficulties is critical as language is core to each component.

When considering the contributions of family, it is important to be made aware of any family history that could contribute to the struggles the student is facing. When examining the family history, it is beneficial to consider the consistency of correction, the level of violence or incarceration of significant family members, and the interactions that students experience with siblings and parents, especially in stressful situations as indicated by Bandura's social cognitive theory (Hunt & Marshall, 2012). When examining contributing factors of a student's behavior, it is necessary to consider how the student's culture contributes to the manner by which he or she responds to his or her environment. There is a disproportionate number of Black students in behavior classrooms due to mistakenly identifying a culturally acceptable behavior as unacceptable (Hunt & Marshall, 2012). This leads to a perpetual cycle of control by teachers and resistance by students (Hunt & Marshall, 2012).

Student mental health challenges have increased over the last 20 years resulting in 20% of students being diagnosed with a form of mental disorder (Whitley & Cuenca-Carlino, 2019a). As a result, there has been an increase in suicidal behavior and an increase in violence after a study revealed that only 25% of children receive services related to mental health, where 43% do not (Anderson et al., 2017b). Additionally, Anderson et al. (2017b) reported that, of the 25% of children with emotional disorders and the 43% with conduct disorders, they project the same condition after 3 years. It is largely believed this increase in behaviors is due to trauma exposure (Whitley & Cuenca-Carlino, 2019a).

Examples of the experienced trauma include neglect, abuse, assault, and the witnessing of domestic violence, all of which has been connected to the development of childhood mental illness and insufficient behavior adjustments (Whitley & Cuenca-Carlino, 2019a). For example, Albus et al., (2004b) notes that at-risk youth reported high levels of exposure to violence; 33% witnessed assaults with a weapon and maintained associations with victims at a rate of 47%; 32% of youth witnessed a shooting while 65% knew a shooting victim. The lack of community-based supports (i.e., local mental health clinic, mental health supports in school and counseling) and unstable home environments (i.e., abuse, neglect, addiction) contribute to a lack of improvement in one's resiliency or ability to overcome as supported by social cognitive theory (Anderson et al., 2017b; Abry et al., 2017).

Additionally, a student's adverse childhood experiences (ACE) can serve as an indicator of demonstrating externalizing or internalizing behaviors, as evidenced by Vygotsky's theory on an individual's environmental influence. In one study, the mother's higher ACE count significantly affected internalizing or externalizing behaviors of the child (Schickedanz et al., 2018). ACEs experienced by affected individuals pertain to direct or indirect exposure to traumatic events. Traumatic events in students' lives can consist of witnessing or experiencing divorce, emotional, physical, and/or sexual abuse, neglect, exposure to mental illness, drug exposure, domestic violence, and death or abandonment of caregivers (Schickedanz et al., 2018). The overall benefit of parental ACE exposure can serve as an early identifier of children in need of intervention support.

Multi-tiered Systems of Support

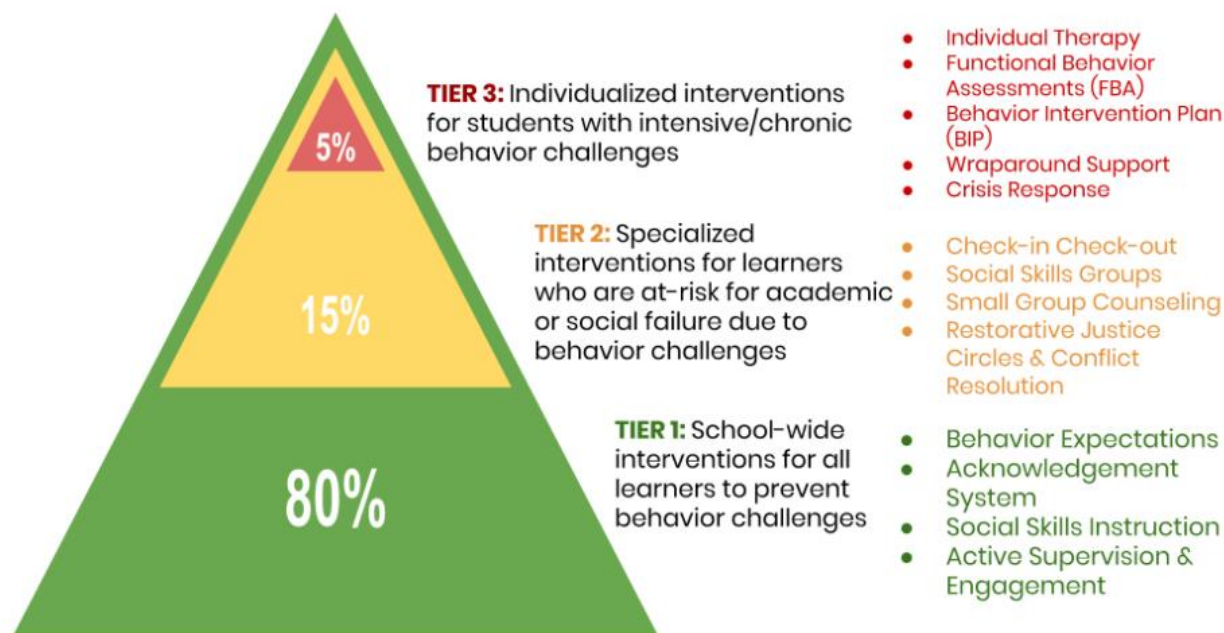
Prior to classification as a student with an emotional behavior disorder, students with behavioral challenges are "at-risk." Due to the adverse effects of one's external circumstances on

a student's academics; many schools have sought to address these struggles within their multi-tiered system of support (MTSS). Attempts have been made to address these behavior concerns by providing tier 2 (intensive) supports with the hope that coping skills and strategies can be established to demonstrate growth in concerned areas so that tier 3 (special education) supports would not be warranted (Briesch et al., 2019).

The focus of MTSS regards whole child. It guides the focus on the students' academic, behavior, and social emotional status (Sailor et al., 2020) and incorporates the support system for each child. The support system can consist of the student's family and local community, the leadership within the school and district, the integrated educational framework, and the district's inclusive practice and policy (Sailor et al., 2020). The aim of this support system is the connection between the person and all individuals that can provide meaningful support.

Figure 1

MTSS Support Distribution



Note. This figure demonstrates the breakdown of each of the three tiers in a multi-tiered system of support and the types of interventions applied at each level (Schantz, 2020).

Additionally, universal screeners can be administered to assess the social-emotional and behavior skills of students and indicate where additional support may be needed. One screening tool is the Student Risk Screening Scale (SRSS) (Lane et al., 2015). The SRSS is a free-access, brief screening tool that will help to detect antisocial behaviors of elementary students, typically requiring approximately 15 minutes to complete (Lane et al., 2015). Another universal screener is the Social, Academic, and Emotional Behavior Risk Screener (SAEBRS). This is a 19-item rating scale that requires teachers expend 10-20 minutes to complete for each student (Whitley & Cuenca-Carlino, 2019a). The instrument includes a social subscale consisting of six items, measuring behaviors related to interpersonal functioning and externalizing behaviors (Whitley & Cuenca-Carlino, 2019a).

Special education staff are often not allowed to work directly with students until they are found to qualify for special education services through the special education referral process. Within the MTSS framework, general education teachers and staff are responsible for screening students for potential struggles and then provide the tiered supports as appropriate. In this model of support, general education teachers are the primary implementors of tier 1 and tier 2 interventions. Many teachers lack knowledge and understanding regarding appropriate research-based interventions to support behavior (Stormont et al., 2011). An example of a beneficial intervention is behavior-specific praise. Since many at-risk behavior students are challenged by receptive or expressive behaviors, behavior-specific praise results in clear communication from the teacher. For example, instead of telling a student “good job!” the teacher is instructed to be specific with statements like “Johnny, thank you for raising your hand to ask to get water.” This

allows the students to know what is expected behavior, see it modeled, and provide constructive feedback to students (Allday et al., 2012). The typical level of engagement in a general education classroom ranges from 75% to 85% (Allday et al., 2012). Classrooms implementing behavior-specific praise experienced an increase in engagement among students with or at-risk of EBD to be similar to their non-disabled peers (Allday et al., 2012).

Visual supports include drawings, images, or materials to help a student to know the expectations and comply with non-preferred activities (Hume et al., 2014). Some examples of visual supports can include timers, visual schedules, or other visual reminder tools of expectation. The purpose of these visual tools is to serve as reminders and to ultimately increase student participation and engagement. These supports are effective when paired with early identification and interventions are instituted (Lloyd et al., 2018). A study conducted by Zimmerman et al. (2019) noted that visual supports for the observed students observed increased engagement after the first five sessions with some demonstrating a 70% engagement rate. However, more studies should be conducted to evaluate more long-term results.

Gender

There is a concern that gender influences how at-risk or EBD students are identified (Sheaffer et al., 2020). There were significant differences based on gender when teachers were rating problematic behavior, but little difference when behavior was evaluated through observation (Sheaffer et al., 2020). For example, in a study conducted of 202 kindergarten teachers, they provided more attention for unsociable behaviors among the boys as opposed to the girls (Sheaffer et al., 2020). The observations then concluded that there was no difference in the unsociable behaviors (Sheaffer et al., 2020). However, the boys reported that teachers were more lenient towards the girls than the boys (Sheaffer et al., 2020). When the data were

analyzed, teachers rated the girls as producing higher average ratings in problem behavior compared to the boys ($d = .55$) (Sheaffer et al., 2020). Most studies on EBD tend to focus on males resulting in insufficient study of gender particularly for females (Patterson & Yoerger, 1993).

Researchers have more recently started to explore the tendencies of EBD behavior in females noting that there is a different pattern of problematic behavior (Sheaffer et al., 2020). For example, males tend to demonstrate problematic behavior during childhood compared to females demonstrating problematic behavior during adolescence (Sheaffer et al., 2020). Studies have indicated that girls are provided more leniency from teachers where boys tend to be referred for disciplinary purposes for their behavior more often (Younger et al., 1999). Without appropriate screening tools such as the Social, Academic, and Emotional Behavior Risk Screener (SAEBRS), students will continue to receive insufficient early intervention to address their inadequate skills.

Types of Behaviors: Externalizing and Internalizing

Student outcomes are directly connected to teacher response to student behavior. When students experience an increase in office discipline referrals or in-school and out-of-school suspensions, it can result in negative student outcomes (Eddy et al., 2020). Exclusionary practices can produce a devastating effect on students. Exclusionary practices inhibit students from observing appropriate peer modeling, as in Bandura's theory on modeling, due to students being removed from their learning environment as a form of discipline (Eddy et al., 2020). Students are more likely to continue the cycle of behavior and exclusion, thereby creating a gap in their learning and in social skill development. As a result, the frustration the students experience can result in a higher drop-out rate (Lewis et al., 2017; Palmu et al., 2017). The result

is the proverbial “school-to-prison pipeline” (Christle et al., 2005). Few interventions are implemented to address the root cause of problematic behaviors.

Exclusionary practices lead to the potential for disproportionality, or the unwarranted focus of an individual based on race, gender, disability. This is a concern in the field of special education as students tend to be assigned to programs at a higher rate than what would be expected (Lambert et al., 2020). An example of this is that Black or African American students are more likely (two times) to be identified as EBD and 2.8 times more likely to experience exclusionary discipline compared to other students with disabilities in response to problematic behaviors (Green et al., 2018; Lambert et al., 2020). Such practices can lead to accusations of racial inequality due to student demographics including race, socioeconomic status, special education status, and gender (Eddy et al., 2020). Additionally, it is a complex matter that produces moral and ethical concerns in the field of education due to the inequitable nature of discipline (Green et al., 2018).

Contributing factors leading to an increase in exclusion involve teacher factors (i.e., teacher emotional exhaustion). Teacher emotional exhaustion tends to occur in high stress situations and produces a moderate correlation ($r = -0.27$) with the disruptive behavior of students when compared with teachers’ classroom management efficacy when working with disruptive students (Aloe et al., 2013). Emotional exhaustion tends to result from negative outcomes for teachers. This can lead to burnout, which results in teachers leaving the profession at a higher rate (Eddy et al., 2020). To mitigate this trend, researchers have determined that addressing teacher efficacy tends to counteract the increase in burnout by providing teachers with appropriate strategies to meet the behavioral challenges in their classrooms (Eddy et al., 2020; Klassen & Tze, 2014).

Students evaluated for behavior through the completion of a functional behavior assessment (FBA) and behavior or social emotional rating scales, produce markers that either note internalizing behaviors or externalizing behaviors by categorizing them in a range from average to clinically significant. Areas identified as clinically significant are those where targeted intervention and instruction would be beneficial. When rating scales produce clinically-significant ratings in internalizing areas, students are typically displaying more anxiety, withdrawal, and depression (Abry et al., 2017).

An FBA is an evaluative measure that is an effective means to identify appropriate interventions for children participating in a general education setting. FBAs are a systematic approach to determine the function of the student's behavior. The results are based on a contribution of information, including the student's environmental and individual factors (Perihan & Bicer, 2021). The compilation of the FBA includes several direct and indirect assessments that help determine the cause of problem behaviors within their environment (Perihan & Bicer, 2021). This process is an analysis of the conditions in which the behavior occurs as well as a careful review of the antecedents and consequences that contribute to the continuation of the behavior or the cessation of the behavior (Landrum, 2017).

Once the data are collected, interventions can be devised to address the target behavior and the establishment of replacement behaviors. The interventions are designed to alter the setting events, antecedents and consequences (Landrum, 2017). The replacement behaviors should then meet the same function and the target behaviors.

Internalizing Behaviors

When examining internalizing behaviors, it is important to recognize that these types of behaviors are not seen as readily due to the nature of the disability. Students with externalizing

behaviors are more susceptible to garnering attention. Students who have internalizing challenges tend to remain unnoticed. Internalizing behaviors are more likely to peak when a student reaches 10 to 12 years of age (Wasserman et al., 2020). Without the proper intervention, an affected individual is more susceptible to maladjustment behavior.

A study was conducted in 2018 involving pre-school children and the effect of peer rejection and isolation on the adjustment of the child (Aslan, 2018). In Aslan's (2018) article, students who experienced peer rejection at the preschool level were more likely to become victims of isolation, producing a negative effect leading to psychological challenges. The results tend to manifest as behavioral risk factors (i.e., internalizing behaviors) such as anxiety and shyness (Aslan, 2018). Where internalizing behaviors such as depression and anxiety are not typically displayed by preschool-aged children, fearful or anxious affect (e.g., a worried or fearful child), depressed affect (e.g., a child who tends to avoid or withdraw from peers) could manifest in this age group (Aslan, 2018).

Depression is the most common of these disorders. Depression is addressed in the Individuals with Disabilities and Education Act (IDEA) by noting that an emotional disturbance is a "pervasive mood of unhappiness or depression." (Webber & Plotts, 2008). For many years, the topic of depression was controversial as researchers did not believe that children were able to suffer from depression due to not fully developing a sense of self. However, as time progressed, researchers are recognizing that children can suffer from a unique form of depression that can mirror that of the depression that many adults experience (Landrum, 2017). While this can be comorbid with EBD, depression has to be evident across multiple settings for a period of time that is not connected to a transitory life event (Landrum, 2017). Where it is estimated that 15% of children and youth display symptoms of depression, it is believed that a more credible

estimate is 3 to 5% with the majority occurring among females in adolescence at twice the rate of males (Landrum, 2017).

Depression manifests itself differently as the child progresses through different stages (Webber & Plotts, 2008). Ultimately, the behaviors can transition from internalizing to externalizing if the student begins to start acting out, running away, truancy, and general disobedience (Webber & Plotts, 2008). In the school setting, 77% of students reported these behaviors can initially manifest as inattention or an inability to concentrate (Webber & Plotts, 2008). Primarily, the cognitive effect is in the nature of student self-identification. Some students will begin to display a negative self-image, self-pity, pessimism, hopelessness, helplessness, and discouragement (Webber & Plotts, 2008). Negative self-evaluation and hopelessness are more prevalent with 97% of students reporting. While school districts cannot diagnose a student with depression, these cognitive and emotional symptoms can be harnessed to identify a student as suffering from an emotional behavior disorder, thus eligible to receive services if the challenges are eliciting an adverse educational influence.

Another contributing factor to the development of internalizing behaviors is the early stress levels of affected students. It is believed that early-life stress can lead to children displaying impulsive behaviors due to an underdevelopment of the prefrontal cortex region of the brain (Wasserman et al., 2020). The effect is an altered brain structure and function that can lead to increased internalizing behaviors as a result of impulsive reactions (Wasserman et al., 2020). Where impulsivity has historically been connected to externalizing behaviors, a person's internal reactions can be the result of an impulsive response in much the same way as external actions. These reactions tend to result from the lack of development of a student's perseverance skills and demonstrating poor regulation.

Externalizing Behaviors

Externalizing behaviors are closely associated with conduct disorders which place students in constant conflict with authority figures either in the school system or in the community (Webber & Plotts, 2008). Students that demonstrate underdeveloped language skills tend to develop more externalizing problem behaviors (i.e., aggression and conduct problems) (Petersen & LaBeau, 2021). There is a lack of understanding as to why poor language leads to externalizing behaviors. However, the connection may lie with underdeveloped language skills in addition to insufficient social skills (Petersen & LaBeau, 2021).

Where the mental health system may refer to conduct disorder, many schools will implement the phrase *social maladjustment* (Webber & Plotts, 2008). The behavior manifested by these students can best be summarized as behavior that results in the rights of others being violated (Webber & Plotts, 2008). The behaviors tend to span across several settings and can present as aggression, destruction, deceitfulness, and blatant rule violation. In childhood onset, the male-to-female ratio is 3 to 1 where adolescent onset tends to be equal (Webber & Plotts, 2008).

Researchers have hypothesized that language is the fundamental skill that can affect behavior in children. Language is believed to be how one, including children, can communicate his or her needs to ensure that they are met (Petersen & LaBeau, 2021). When children express an inability to communicate their needs leading to unmet needs, frustration can manifest into behaviors that would not be typical of the student. Some of these behaviors can be externalizing behaviors, including aggression, expressed in order to ensure needs are addressed (Petersen, et al., 2021). Language has also been hypothesized to influence self-regulation by allowing students to implement self-directed private speech to work through difficult situations.

In addition to behavior implications, lack of language is believed to lead to peer rejection, which is also a catalyst for externalizing behaviors (Petersen & LaBeau, 2021). It is believed this could occur due to students not possessing the skills necessary to appropriately communicate their needs and emotions leading to a lack of emotional regulation (Petersen & LaBeau, 2021). They can also experience difficulty interpreting social interactions due to challenges originating from recognizing and understanding peer emotions (Petersen & LaBeau, 2021).

Externalizing behavior can be problematic due to the possibility that antisocial behavior becomes established and then resistant to change (Wasserman et al., 2020). It is also believed that externalizing behavior may be the result of an individual's inability to regulate his or her propensity to aggressive or delinquent behavior (Wasserman et al., 2020). As a result, there are undesired outcomes, such as an increase in mood disorders and substance use disorders (Wasserman et al., 2020). When examining externalizing behaviors, relationships have been shown to improve behavioral outcomes for students based on 79% of the classrooms that were observed during one study (Williford et al., 2016). Positive adult and peer interactions result in relationships with common communication and interests, creating a shared emotional engagement with one another (Williford et al., 2016). This helps students persevere in settings where academics are challenging. Of the 79% of classrooms that persisted through the study, teachers reported a significant decrease ($p = .009$) in negative externalizing behavior over the course of the school year. These types of relationships help meet student needs resulting in diminished display of inappropriate behavior (Baker et al., 2008).

Conversely, in a study conducted in 2017, teachers reported increased difficulty building such relationships and often develop relationships with a foundation of conflict (Zee et al., 2017). The covariates of the study were students' ages and genders along with the teacher's years

of experience. The results included those teachers were more likely to develop greater levels of closeness with younger students and girls and increased levels of conflict and externalizing behaviors with boys (Zee et al., 2017). The scores seemed to respond to teacher's self-efficacy in how to manage student behaviors. Williford's (2016) study highlights the importance of communication and connection, however; students still need to learn and apply the appropriate communications skills (pragmatic skills) when in difficult classroom setting.

Some of the necessary pragmatic skills students need to learn depend on the student developing the ability to interpret various social situations, social roles, and emotions (Murphy et al., 2019). Some students will participate in social situations and experience trouble understanding the components of nonverbal communication (e.g., facial expressions) (Murphy et al., 2019). Sometimes, students demonstrate difficulty with the ability to begin and end conversation, taking turns, and providing relevant and sufficient information (Murphy et al., 2019).

Prior to identification, students with EBD have displayed problematic behaviors resistant to intervention. These behaviors can be detrimental for students needing to learn academic skills (Landrum, 2017). The development of these academic skills, specifically language and literacy, are essential for students to experience success and appropriately transition to school at the secondary level (Landrum, 2017). The flexibility of the elementary school setting is a great environment for students to receive the academic support necessary while continuing to address social-emotional, language, and behavior needs of each child. It is in this environment that targeted interventions are best administered to address behavior, prior to students becoming resistant to interventions which tends to approximately occur at the age of 12 (Landrum, 2017; Wasserman et al., 2020).

Students significantly affected by EBD at the secondary level should experience a different focus on the type and intensity of interventions compared to elementary school students. Whereas the focus at the elementary level was to address the behavior and academic needs to increase success, at the secondary level, in both academic and behavioral considerations, the shift should now address preparing them for post-school (Landrum, 2017). Where student focus would typically be centered on future schooling, job training, etc., students with EBD will experience more difficulty obtaining and maintaining these skills. Students with EBD are more likely to experience challenges with substance abuse, early sexual activity, school dropout, and delinquency (Landrum, 2017). Students demonstrating these challenges need to develop a specific plan to assist with their transition. For some, this is going to include post-secondary schooling. For others, this type of plan should focus on successful post-high school options to decrease negative behaviors (Landrum, 2017). The only effective method requires a team approach to review the student's goals for later life and systemically plan to help them accomplish their goals.

Comorbid Disabilities

Rarely does a student display only a single behavior that results in an adverse educational consequence. Comorbidity is the coexistence of two or more disorders in the same individual (Webber & Plotts, 2008). Studies have reported that at least 30% of students with a learning disability will receive an additional diagnosis with around 7% diagnosed with three or more disorders with EBD as one of them (Billingsley et al., 2018). EBD is commonly found among students also diagnosed with oppositional defiant-conduct disorder, attention-deficit hyperactivity disorder (ADHD), autism spectrum disorder (ASD), intellectual disability (ID), and varied anxiety and depression-type disorders (Webber et al., 2008). However, children with

various disabilities can display more aggressive or disruptive behaviors without experiencing an EBD.

A student with EBD for internalizing behaviors are commonly challenged by disorders such as depression and anxiety that assume multiple forms. The manifestation of these disorders tends to be intrapersonal in nature and, therefore, occur in students that do not always present outward behaviors (i.e., discipline) that would commonly be associated with a student with a behavioral disturbance (Webber & Plotts, 2008). However, the educational effects can be just as inhibiting as externalizing behaviors.

Depression is becoming more common in adolescents and children and has begun to negatively affect and interfere with the students' daily functioning. As a child ages, the effects of depression could result in more outward and disruptive behaviors such as acting out, truancy, running away, and disobedience (Webber & Plotts, 2008). While depression is becoming more prevalent in children, it is also very difficult to diagnose. Another depression-categorized disorder, similarly difficult to diagnose, is bipolar disorder. Increasing numbers of children are diagnosed with a disorder that physicians and researchers thought to be rare (Webber & Plotts, 2008). Children facing this disorder tend to experience more rapid mood swings and display symptoms that are not as common adult onset. Due to mood unpredictability and the overlap of symptoms with other disorders, doctors are finding it difficult to diagnose with precision (Webber & Plotts, 2008). Webber (2008) noted that bipolar disorder is often confused with other disorders such as ADHD, conduct disorder (CD), anxiety disorders, and schizophrenia. ADHD, anxiety, and CD. Schizophrenic characteristics significantly overlap with bipolar diagnostic criteria thus increasing the challenge in properly diagnosing and addressing fundamental concerns (Webber & Plotts, 2008).

When considering the influence of student depression, some of the symptoms displayed can be beneficial for a caregiver to share with the child's primary physician or specialist. There are emotional, cognitive, motivational, and physical symptoms. When considering the characteristics of depression, the most common is extreme sadness. However, in addition to this, emotional symptoms can include a loss of interest in activities, boredom, increased irritability, and frustration (Webber & Plotts, 2008). Children can manifest a multitude of these symptoms that can increase feelings of guilt and worthlessness (Webber & Plotts, 2008).

Depression can cognitively affect students with 77% of males reporting an inability to concentrate on environmental occurrences (Webber & Plotts, 2008). Many of the cognitive symptoms remain unnoticed. Students' cognitive manifestations tend to be connected to student self-perception. They tend to negatively self-evaluate leading to perceptions of a bleak future. Expressing guilt is prevalent in children who tend to blame themselves and feel responsible for situations that do not conclude appropriately (Webber & Plotts, 2008).

Withdrawal due to depression should be examined separately from a socially-isolated student withdrawn for a significant amount of time as opposed to a result of depressive behavior. These motivational symptoms can lead to physical symptoms which are most noticeable. These types of symptoms can manifest themselves as chronic fatigue and a depressed energy level (Webber & Plotts, 2008). Children complain of physical symptoms such as extreme headaches, stomach aches, and other pain. Sleep disorder is prevalent in 92% of adolescent males with depression, manifested as either insomnia or hypersomnia (Webber & Plotts, 2008).

In addition to depression, anxiety is also an increased area of concern for children. There is a common misunderstanding in what constitutes fear and anxiety, often due to overlapping characteristics. Unfortunately, it can result in a delay in appropriate treatment. Anxiety is defined

as an aversive state of being involving significant apprehension and physiological arousal of a diffuse nature (Webber & Plotts, 2008). Where children could only previously be considered for separation anxiety, increasing numbers of children are displaying behaviors that can be associated with generalized anxiety disorder (Webber & Plotts, 2008). This category of anxiety can include separation anxiety, fears and specific phobias, posttraumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD), and panic disorder (Webber & Plotts, 2008).

In the school setting, considering genetic factors of anxiety or depression is often ignored. Where there is no definitive evidence as to the cause of anxiety, research has suggested various environmental and genetic contributors (Webber & Plotts, 2008). As it hereditary, children of parents with anxiety are more likely to display symptoms in stressful or uncomfortable situations. In addition to the potential for genetic factors, environmental factors may significantly influence the wellbeing and behaviors of a child. Children presenting with significant anxiety experience more negative life events than those children with low anxiety (Webber & Plotts, 2008). Where internalizing behaviors tend to be primarily ignored within the scope of identifying students experiencing EBD, it is just as influential as externalizing behaviors.

Externalizing behaviors are those behaviors with a primarily outward manifestation. Students with internalizing behaviors do not always demonstrate pain. However, the students served from externalizing behaviors demonstrate thoughts and feeling openly. Their actions can be constituted as a demand for attention. The two primary types of comorbid externalizing behaviors are ADHD or CD. When examining ADHD, students can be classified as presenting with inattention-type, hyperactivity-type, or combined-type. Students that experience challenges with attention may be those who seem to commit careless mistakes as a result of inattentiveness,

attending to a task for a period of time, idles in a conversation, experiences difficulty with organization skills, exhibits task avoidance when requiring a significant amount of mental effort, is easily distracted by their environment, and seems to be forgetful (Webber & Plotts, 2008).

Hyperactive students experience difficulty remaining in an assigned area, will constantly move, and will oftentimes run or climb to release energy. In addition, they can experience difficulty playing quietly, knowing when it is appropriate or inappropriate to talk, or can be described as “on the go” (Webber & Plotts, 2008). This can be similar to impulsivity where students will often blurt, demonstrate difficulty in waiting their turn, and will often interrupt or intrude on others (Webber & Plotts, 2008).

Researchers have reviewed academic under-achievement connecting it with ADHD or the manifestation of ADHD symptoms. Students’ academic challenges are typically the result of the core behaviors of ADHD (Webber & Plotts, 2008). It has also been discovered that children presenting with ADHD are more susceptible to physical aggression than their peers. This results in a manifestation of the core identifying descriptors of presenting with a conduct disorder (Webber & Plotts, 2008).

Conduct disorder is comprised of several behaviors but is best known as a pattern of antisocial behaviors that infringe upon the rights of others (Webber & Plotts, 2008). This can include fighting, the destruction of property, stealing, and/or lying. The settings for these events vary across all settings such as the home, community, school, and with peers (Webber & Plotts, 2008). Requirements for the diagnosing of CD requires that three or more behaviors (e.g., aggression, destruction of property, deceitfulness or theft, and serious rules violations) occur within 12 months with at least one occurring in the last six months (Webber & Plotts, 2008). These behaviors tend to lead to inadequate interpersonal relationships and academic deficiencies.

Conduct disorder is the most common disorder in the classroom setting. This is a behavior that is not strictly displayed at school, but manifests in the home and community setting as well (Landrum, 2017). The typical behaviors displayed tend to be more overt involving physically-aggressive behavior toward others. Unfortunately, this behavior can contribute to peer rejection that perpetuates the cycle of behavior. Teachers, staff, and parents tend to perceive these students as unmanageable.

Another demonstration of conduct disorder are more covert behaviors including vandalism or arson (Landrum, 2017). However, students with conduct disorder tend to exhibit both types of antisocial behaviors. It is more difficult to address with early onset. Conduct disorder has been estimated to affect 9.5% children and youth with a more significant rate among boys at 12% than among girls at 7% (Landrum, 2017).

EBD is rarely a disorder without presentation of an additional area of concern (e.g., medical diagnosis or academic deficits). The challenges for school support teams include determining the cause of the behavior and the behavior in need of the most attention. It can be difficult to ascertain which behaviors need to be addressed when multiple behaviors manifest. One solution is the completion of a functional behavior assessment (FBA). The FBA will help the adults supporting the student learn if the behavior is the student trying to seek a sensory input (self-stimulatory), attention (from peers or adults), escape (part of a task or environment), or tangibles (accessing an item).

Students identified as EBD, either with or without communication supports, are being provided services categorically such as specific learning disability (SLD), other health impaired (OHI), multiple disabilities (MD), or social emotional (SE) because many disabilities are comorbid (Lloyd et al., 2018). This results from several diagnoses from medical professionals

and the IEP team determining how to best address students' needs in the school setting. Without adequate intervention and support, the post-high school outcomes for students with emotional disabilities result in less students pursuing additional educational opportunities, further resulting in incarceration - 70% among those who dropped out of school (Lewis et al., 2017).

Students with autism spectrum disorder (ASD) are 70% to 90% more likely to display internalizing or externalizing behaviors requiring support (Li et al., 2019). The behaviors can manifest as ADHD, depression, aggression, and anxiety (Li et al., 2019; Salazar et al., 2015). Many of the questionnaires employed as screeners for ASD consist of domains that address pragmatic communication (Miranda et al., 2019). It is not uncommon for students with ASD to project externalizing and internalizing behavior deficits as well as a communication disorder leading to the child challenged in forming friendships (Miranda et al., 2019). Li et al. (2019) noted that students with ASD experienced several comorbid disorders ranging from generalized anxiety disorder (67%), major depressive disorder (15%), and oppositional defiant disorder (29%). When examining internalizing and externalizing behaviors, students with ASD were found to demonstrate those behaviors at a rate of 77% and 87%, respectively (Li et al., 2019).

There is also a perceived connection between pragmatic language, or the acquisition of socially appropriate skills, implemented in communication and social situations (Lockton et al., 2016), and self-regulation, or the ability to exercise control of one's emotions, behaviors, and responses to the environmental stimuli (Lin et al, 2019; Schunk & DiBenedetto, 2020). Language is believed, according to a theory developed by Vygotsky et al. (1978), to be how a child regulates his or her behavior and emotions either through verbal or nonverbal communication (Lin et al., 2019). This is a component of Vygotsky's principle of peer collaboration which is inherent to the idea of collective activity and verbalization.

Peer collaboration, or peer assisted learning, is the concept where a child's peers serve as an active agent in the learning process. This is also a component of the collective activity that describes the importance of knowledgeable peers teaching others. Students would not be able to progress until they demonstrated mastery (Schunk & DiBenedetto, 2020). Additionally, language has been found to be helpful in child self-regulation. According to Vygotsky, this is a useful tool for students with learning disabilities as it assists them in systematically working on tasks (Schunk & DiBenedetto, 2020).

ADHD and learning disabilities (LD) are comorbid with 31% to 45% of students believed to suffer from both disorders (Al-Yagon, 2016). However, students with ADHD tend to present a higher rate of behavioral difficulties with 50% to 60% experiencing an overlap with ADHD and a conduct disorder (Al-Yagon, 2016; Webber & Plotts, 2008). Where relationships tend to assist students with ADHD with their socioemotional development (e.g., Bandura's theory of modeling), they are also challenged in developing relationships because they require appropriate verbal and nonverbal communication (e.g., noticing and appropriately responding to social cues).

Language: Functional and Pragmatic

Students' ability to expressively respond and receptively receive communication is important for academic success to occur. It is via a student's language comprehension that he or she can participate in his or her academic setting, fully understanding teacher instructions and feedback that is essential in developing his or her ability to realize academic gains. Students also rely on language comprehension in order to interact with their environment and engage in reciprocal conversation. There have been extensive studies conducted on a students' language skills and its association with behavior since the 1980s (Webber & Plotts, 2008). Webber (2008) also discussed a study that included preschool students with a diagnosed language impairment, or

a behavior disturbance, and the results suggested that language development seems to decrease over time for students with EBD. In 2002, the American Institute of Research noted that over 50% of students with EBD presented with a language impairment that was not identified in the evaluative process for special education (Webber & Plotts, 2008). Despite the expressed concerns, language performance measures are not integrated in the comprehensive assessment when evaluating and exploring EBD (Webber & Plotts, 2008).

When a student is deficient in language development, specifically pragmatic language, it can cause a disruption in learning and produce an adverse effect both academically and socially due to the student being unable to interpret occurrences in his or her environment and how to read social cues. Antisocial behavior, such as showing a lack of sympathy and empathy, inability to understand jokes, or inability to interpret sarcasm, is more likely to occur among students with a language impairment (e.g., pragmatic language deficit, expressive language deficit, or receptive language deficit) than among their typically-developing peers by a multiple of 10 (Chow et al., 2020; Donahue et al., 1994). This can lead to students being twice as likely to display internalizing or externalizing behaviors as well as symptoms of attention-deficit hyperactivity disorder (ADHD) (Chow et al., 2020; Yew et al., 2012). When a student demonstrates deficits in receptive language, he or she tends to be more influenced to comply with directions and requests that may lead to negative interactions with adults (Webber & Plotts, 2008).

Children who present a language disorder, specifically in social communication, will be challenged in pragmatic language or their ability to interact in social situations (Lockton et al., 2016). Social communication skills are necessary for a student to be able to develop healthy relationships and to successfully integrate into his or her educational setting (Murry, 2018). When students present this communication need, intensive intervention is provided in the area of

metapragmatic awareness, or one's ability to identify and reflect on pragmatic rules (e.g., appropriate social responses to situations) (Lockton et al., 2016). This intervention can consist of role playing, reviewing and analyzing scenarios, and games and activities where emotions are described, and appropriate responses are discussed. Research has demonstrated that students experiencing pragmatic language deficits are able to identify the rules of conversation and social interaction but lack the ability to apply them to a given situation by a rate of 69.7% (Lockton et al., 2016). This implies that some students possess the ability to communicate appropriately to a given situation but lack the skills to demonstrate understanding in their own social situations. Pragmatic language can be more pronounced among students with several disabilities comorbid with EBD such as attention-deficit hyperactivity disorder and even autism (Staikova et al., 2013; Volden et al., 2008). These children tend to experience difficulty responding to and initiating conversational exchanges.

When examining research on language development, between 7% and 9% of children demonstrate a significant impairment in their ability to understand and produce spoken language (Hendricks et al., 2019). Parents were surveyed to ascertain their concerns regarding their child's language development. Very few noted concerns until they were asked to rate several communication domains. The results demonstrated that parents were more aware of attributes of ADHD (inattention or impulsivity) than communication disorders (Hendricks et al., 2019). Parents were simply unaware of the importance of communication for one's learning.

When assessed, 97% of students presenting with EBD were estimated to be at least one standard deviation below the mean on the *Test of Language Development (TOLD-1)*, which measures oral language proficiency and students' strengths and weaknesses in oral language skills, while 68% identified as clinically significant in presenting a language deficit (Chow et al.,

2020). Of the percentage of students with EBD, ranging from 71% to 81%, around 47% suffered from a previously unidentified moderate-to-severe language impairment showing that students with these co-occurring disabilities are not receiving the full intervention and support needed for their success (Chow et al, 2019; Hughes et al., 2016).

Studies on adjudicated youth demonstrated that the majority presented a deficiency in communication skills yet were identified as suffering from a behavioral disability (Blanton Dagenais, 2007). One in five students identified as presenting with EBD are arrested prior to leaving high school with 50% arrested after high school (Lewis et al., 2017).

Sociocultural theory supports the teaching of pragmatic language skills, along with behavioral skills, due to the emphasis on reciprocal teaching (Schunk & DiBenedetto, 2020). Reciprocal teaching is an interactive form of instruction where the teacher models content for the students and then provides them with the opportunity to switch roles in order to illustrate and demonstrate understanding.

This is essential for students with deficits in pragmatic language and/or designated as presenting with EBD to highlight the importance of doing more than just teaching a skill. Teachers can outline how a student should respond in each situation and therapists can provide the vocabulary. The students need the opportunities to combine the two in an authentic situation and ascertain the connection requiring the skill. Students are influenced by their environment, and they can change the outcome when provided the appropriate, intensive interventions.

Summary

Internalizing and externalizing behaviors can negatively influence a student's success, not just in school, but in their postsecondary life. Pragmatic language is just as influential. Where there are comorbidities to both, not all students with EBD present a language deficit and not all

students with a language impairment will develop behaviors with adverse effects. However, schools inadequately assess the likelihood of each factor contributing to the other. Not doing so results in partial treatment jeopardizing a free and appropriate public education (FAPE).

The purpose of this dissertation is to review and evaluate the literature targeting EBD and pragmatic language. The goal is to improve the identification and development of targeted and appropriate interventions by implementing direct pragmatic instruction and ascertaining the effects on students with behavioral disabilities. If appropriate screening is conducted, then the number of students identified as EBD could be reduced in upper elementary grades resulting in a greater number of students with EBD finding success in public settings.

CHAPTER THREE: METHODS

Overview

Language impairments (LI) and emotional behavior disturbance (EBD) have been known to be comorbid in the educational setting, causing disruption in the classroom that results in a loss of instruction for students without disabilities as well as the student identified as presenting with EBD (Hollo et al., 2019). Despite the evidence demonstrating the connection between language and behavior (Hollo et al., 2019; Kaiser & Roberts, 2011), very few programs incorporate the direct instruction of pragmatic language to assist in the effort to decrease the number of students placed in a more restrictive environment without the appropriate language-based intervention (Hollo et al., 2019). This chapter provides an overview of the methods that were applied to evaluate the effectiveness of pragmatic language instruction on students' behaviors as they interact with their peers. This chapter begins by identifying the research design, approach, and rationale for the study. This is followed by an examination of the research question and an explanation of the population, participants, and setting. Finally, the sample and groups are discussed with a review of the instrumentation and procedures, the role of the researcher, as well as the data analysis procedures.

Design

This study implemented a quantitative, predictive correlational research design. Correlational research designs are helpful when studying problems in education and other social sciences (Gall et al., 20017). In the field of education, there are frequent situations where several variables influence a pattern of behavior (Gall et al., 20017). Correlational designs allow for researchers to analyze relevant variables and their effect on the pattern of behavior (Gall et al., 20017). Researchers utilizing this research design lack the ability of random assignment due to

several factors (Gall et al., 2007). Internal validity is strengthened when researchers exercise the ability to randomly distribute participants to both a control and test group; however, this is not always possible (Gall et al., 2007). As a result, the predictive correlational research design was developed to address a researcher's inability to randomly select and group study participants. This type of design was deemed appropriate due to various district policies directing student placement. Students placed in all-day programs are placed based on the proximity of the program and their home address. Therefore, the researcher does not possess the ability to separate classes of students (Abbott, 2011). The PLOS scores will be evaluated and analyzed to test the hypothesis of this study.

The predictor variables in this study are student age (6 to 14) and behavior classification (EBD, SLD, and OHI). The criterion variable is the effect of the student pragmatic social skill development as measured by the PLOS. The rationale for this design is to predict the potential influence of student behavior when provided with opportunities to interact with typically developing peers. This study will be conducted with a predetermined group of students who qualify for supports as a student with an emotional behavior disturbance (EBD), other health impairment (OHI), or a student identified with specific learning disability (SLD) who qualified for supports in behavior. Students are grouped based on age and location to their home for parental or guardian ease of access in the event a situation occurred that required their support.

Research Question

The following question will guide the current study.

RQ1: How accurately can pragmatic social skill development, as measured by the Pragmatic Language Observation Scale, be predicted from a linear combination of student age,

measured in years, and behavior classification (specific learning disability, other health impaired, and emotional behavior disturbance) for special education students ages 6 to 14?

Hypothesis

The null hypothesis for this study is:

H₀1: There is no significant predictive relationship between the criterion variable student social interaction, as measured by the Pragmatic Language Observation Scale, and the linear combination of predictor variables of student age, measured in years, and behavior classification (specific learning disability, other health impaired, and emotional behavior disturbance) for special education students ages 6 to 14?

Participants and Setting

This section identifies the research population, participants, and setting. It provides a description of the requirements, source, and number of participants participating in this study. The procedures implemented to specify the sampling and the rationale for participant selection and the required number of participants are discussed.

Population

The participants for this study will be extracted from the population of elementary school students (e.g., kindergarten through fifth grade) and middle school students (sixth through seventh grade) receiving special education services, located in southeastern Washington during the 2021-2022 school year. Within the school district, there are a total of 2,387 students who currently qualify for special education services. Of those students, 194, or 1.03%, qualify for specially designed instruction (SDI) in behavior.

The school district serves a diverse community consisting of a more significant Hispanic and African American (73% and .09% respectfully) population in one generalized area while the

other predominantly consists of White (21.8%) communities. When examining discipline rates for this population, males were more likely than females to experience suspension at 3.1% compared to 1.4% respectively. The district's Black/African American population of students encounter suspensions at a rate of 7.7% compared to students with two or more races at 4.3%, and White at 1.5%. This discipline rate for these students consisted of short-term suspensions, long-term suspensions, emergency expulsions, and expulsions.

The district's state report card notes that students designated as presenting with a disability, therefore, served by an IEP, are 17% more likely to be suspended for one day, 37.9% for two to three days, 17% for four to five days, 16.7% for six to ten days, and 7.4% for ten or more days. However, when examining the yearly discipline rate by special education program, students with disabilities comprise 7% of those suspended for behavior as opposed to 2.7% of students without disabilities. The school district separates the discipline rate by suspensions, or the out-of-school exclusionary discipline actions, and exclusion rate which refers to the amount of time the student is excluded from school.

This research focuses on the students identified as presenting behavioral difficulties (e.g., SLD with SDI in behavior, or EBD) that have officially been identified as such via a psychoeducational evaluation process and receiving services as directed by a current individual education plan (IEP).

Participants

According to Gall et al. (2007), 66 students are required to meet the minimum requirement for a medium effect size of 0.7 with $\alpha = 0.05$. The effect size provides the researcher with the ability to quantify the differences between the sets of data collected. The alpha will

signify the probability of the pattern of findings from the study that will not be generalized to the broader population.

Students participating in the study were not the result of random selection; rather, participants were limited to students who met the criteria for the study. The sample for this study will be drawn from a population of students that are easily accessible within the participating school district. The participating students are enrolled in 23 classrooms in 14 elementary schools and 9 classrooms in 2 middle schools in the district. The sample population is drawn from three groups of students. One group are students who are classified as experiencing a specific learning disability (SLD) and require specially designed instruction in behavior. The second group of students are classified as presenting with an emotional behavior disorder also needing SDI in behavior. The third group of students are classified as having another health impairment (OHI) requiring specially designed instruction in behavior. Students qualifying as EBD comprise of 14 students at the elementary level (Kindergarten through seventh grade). There are 15 students who are qualifying as SLD with the need for SDI in behavior. Out of the total number of students 81% are male with 18% comprising the female student population. When examining race, 36% are White, 9% are Black/ African American, 1.5% are Native Hawaiian/ Other Pacific Islander. The sample consisted of 54 males and 12 females identifying as students with a specific learning disability (SLD), receiving SDI in behavior, other health impaired (OHI), as well as students presenting with an emotional behavior disturbance (EBD).

When examining students with other health impairments, there was a total of 37 students meeting that eligibility criteria. Of the 37 students, 10% were Black/African American; 51% Hispanic; 35% White; and 2.7% Native Hawaiian/Other Pacific Islander. The 37 students could also be disaggregated by gender with 78% male and 21% female.

All groups of students will experience a functional behavior analysis as required by the nature of their behavior to allow for the construction a behavior intervention plan for the development of intensive social emotional learning support. These students demonstrate behaviors (e.g., internalizing or externalizing) that disrupt their own learning and/or other students' learning. The FBA data are compiled to develop a Behavior Intervention Plan (BIP) that will provide staff with guidance addressing the student's behaviors. Replacement behaviors are taught and reinforced through the implementation of SDI in small group instruction to allow for opportunities for students to practice newly acquired skills. The intensive social-emotional learning support can consist of small group instruction on self-regulation and teaching replacement behaviors.

Setting

This school district consists of 18,728 students. English language learners comprise 32% of the population while native English-speaking students comprise 67%. However, 68.1% of the student population is considered to originate from under-resourced communities. 13.1% of the district's student population are considered as presenting with disabilities, excluding students being served by a Section 504 plan due to their needs being met with accommodations as opposed to needing specially designed instruction. Students with a 504 plan may suffer from a disability, but that disability does not produce an adverse effect on their learning. They typically require accommodations and some modifications to access instruction. An example of this would be a student with a seizure disorder that needs to be able to wear sunglasses in the classroom to mitigate seizures. This does not require the support of special education, but this 504 will ensure this accommodation is established for this student.

Instrumentation

This section will discuss the instructional supports students will receive based on their IEP goals in the setting outlined in the location of services section of their IEP. The specifics of the instruction will be discussed as well as an explanation provided on the Pragmatic Observation Rating Scale that supporting teachers will be required to complete on their students.

Pragmatic Observation Rating Scale

The specific instrument employed for the research question is the Pragmatic Language Observation Scale (PLOS). The overall purpose of this scale is to screen students for potential pragmatic communication deficits in the classroom via teachers' direct observation of student interaction with peers (Westby, 2016). These deficits can consist of a student's inability to appropriately engage in conversation and understand social cues (e.g., body language, tone, facial expression). The Pragmatic Language Observation Scale was developed out of concern that students were able to provide the appropriate response when given a social scenario during a testing situation, but unable to apply these skills in social settings. As a result, students were not found to qualify for SDI in pragmatic communication. However, the Pragmatic Language Observation Scale can be administered to determine if students understand how to apply taught or observed skills with their peers in a variety of settings.

The developers validated the instrument expressly to evaluate student communication and interaction both inside and outside the classroom (Westby, 2016). The test was normed based on a sampling of students spread over 15 states (Westby, 2016). To establish validity, which could not be provided in the study but was determined by the author, the representative sample included students representing a variety of ethnicities (e.g., White, Black/African American, American Indian/Eskimo, Asian/Pacific Islander, Two or more, and Other) from across the

nation (Westby, 2016). The initial set of reviews found the scale highly reliable across all age groups with $\alpha = .98$. (Westby, 2016). The Pragmatic Language Observation Scale has been administered in numerous studies (e.g., Malai et al., 2019; Westby & Washington, 2017; Carmichael et al., 2014).

For diagnostic instruments, such as the PLOS, it is important for reliability to be affirmed. The reliability coefficients must be around or exceed a minimally reliability score of .80; however, a score of .90 or higher is preferred. Cronbach's coefficient alpha is considered a very rigorous standard to determine reliability ((PLOS: Pragmatic Language Observation Scale [Paperback] by Phyllis Newcomer, n.d.)). In the evaluation of this instrument, the coefficient alphas are very high among all age groups with a score of 0.98 ((PLOS: Pragmatic Language Observation Scale [Paperback] by Phyllis Newcomer, n.d.)).

When scored, the researcher is provided with raw scores, percentile rank, standard score, and descriptive categories that designate a student as exhibiting pragmatic communication skills in the very poor, poor, below average, average, and above average range (Westby, 2016). The data will provide a percentile rank to address how the student is performing compared to the skills of his or her peers. The descriptive category will provide the researcher with the likelihood of the student exhibiting a deficit in his or her pragmatic communication.

The scale comprises 30 questions designed to evaluate communication skills students need to be successful in daily interactions with peers and adults. Some of the skills assessed consist of the ability to share information, remain on topic within a conversation, and the ability to adjust language to match the social situation in which students participate (Westby, 2016). The rating scale evaluates students' abilities in phonological skills, semantic, and syntactic skills (Westby, 2016).

The items will be scored noting the descriptive term for each observed participant. Scores can range from 0 to 150. A score range from 0 to 69 means the student possesses very poor pragmatic language skills. A score of 70 to 89 means the student demonstrates poor skills, 90 to 110 is descriptive of average skills, and a score above 110 is considered above average. A qualified district administrator will interpret the results and document the data.

The PLOS was tested and designed for students ages 8 through 17 years, 11 months (Westby, 2016). It will be completed by a teacher with direct knowledge of the student and his or her behaviors. Each of the 30 questions on the observation scale require a response on a five-point Likert-type scale with 1 and 2 indicating *below average*, 3 indicating *average*, and 4 and 5 indicating *above average* in the student's ability to apply appropriate pragmatic skills in social opportunities. The overall time necessary to complete the rating scale ranges from five to ten minutes. Once completed, the interpreter will score the assessment and the score is converted into a standard score which is the Pragmatic Language Observation Index (Westby, 2016).

Procedures

The research proposal will be submitted to Liberty University's Institutional Review Board (IRB) for approval. Once approval is granted by the IRB (Appendix, A), permission will also be sought from the school district's director of special services. Following the approval of both IRB and the school district, the researcher will contact the Special Services Department designee, by letter, to obtain the data collected on the Pragmatic Language Observation scale with appropriate qualification data (e.g., disability category and student age) from each student (Appendix, B). The participant data will note if the student qualified as OHI, SLD in behavior or EBD.

Staff Qualifications

All administrators and interpreters of the PLOS are required to possess a level C qualification, which requires a Bachelor of Arts or a Master of Arts in either psychology, school counseling, occupational therapy, speech-language pathology, social work, or special education (Westby, 2016). Qualification levels A and B consist of individuals whose schooling and training does not include a background in education, special education, communication, or psychology. All staff completing the rating scale is level C qualified.

Training

Staff will receive training consisting of 1.5 hours, provided by the district, pertaining to procedures for completing the rating scale and the conditions, or location of the activities, that will be best for collecting data. This training will include a review of the questions to be answered and provide any clarification on the observation process (Appendix, C). The teachers will also receive an overview of pragmatic communication and how it is demonstrated in the various interactions of students with peers in their daily movements.

This involves how to provide the instruction to students through interactive means (e.g., games and role play). The training will occur in a single day with options for follow-up as needed and requested by the implementing teacher. All materials for training and implementation (see Appendix C) will be provided to them with discussion points for small group discussion to gauge the students learning and retention.

Social Pragmatic Instruction

For students to qualify for special education services, students must first be subjected to an intervention process. The students participated in an MTSS process that determined tier 3 supports were required, resulting in the development of an IEP noting the skills needing to be

addressed. The students that participate in this process are either students who have been identified as needing interventions due to data collected through a universal screener (e.g., an observation rating scale or academic data) or a parent expressing concern over behaviors or academics.

Universal screeners appear in numerous forms. Some districts employ digital platforms, such as the Standardized Test for the Assessment of Reading (STAR) through Renaissance Accelerated Learning for All. Where this assessment previously limited its scope to reading, it now includes math. This assessment provides a trajectory for student proficiency. The test is designed to be administered as frequently as is deemed necessary for progress monitoring. The results of the initial assessment assist faculty with the categorization of students into tiers (one, two, or three) designating the level of support the student needs to address gaps in his or her learning. This is determined based on the qualifiers of using support systems such as RTI or MTSS. When examining the tiered approach to learning, the focus is the whole child (Sailor et al., 2020). The first tier comprises the general assessment that is supplied to all students (Sailor et al., 2020). The second tier is designated for students who demonstrated the need for supplemental supports (Sailor et al., 2020). The final tier is apportioned for students who need an even more intensive round of intervention to be successful in their general education learning environment (Sailor et al., 2020).

The results of the universal assessment illustrate the areas, within grade level, where the student is not proficient and needs remedial assistance. If the students are performing at grade level, the student is in tier one (Sailor et al., 2020). Students not meeting grade level proficiency are placed in tier two designating they need interventions for a period of time (Sailor et al., 2020). After the period of intervention, students are assessed to evaluate progress. If

improvement has been made, students can either remain in tier two for continued support or move back into tier one. If students are not making adequate growth, students are upgraded into tier three for a potential referral for special education supports to address a potential learning disability (Sailor et al., 2020).

After the school's student support team determines the amount of time for an intervention to be administered, the team will reconvene to review the results of the data collected and work samples provided. If the student adequately progressed, interventions can either continue or discontinue. If the student progressed minimally or exhibited no growth, a referral to special education follows.

When a student is referred to special education, the school psychologist will seek permission from the parent to conduct a psycho-educational evaluation. This evaluation assesses all suspected areas of disability potentially adversely affecting the student's ability to access the general education curriculum. When staff express concerns regarding student behaviors, research-based rating scales are necessary, classroom observations are conducted, and a functional behavioral analysis (FBA) is completed.

The FBA is an evaluative process consisting of classroom observations of the student's behavior including an interpretation of the results to determine the origin of the behavior. This can be ascertained through various forms of data collection. A common collection method is with antecedent-behavior-consequence (ABC). This allows the members of the IEP team to determine patterns of behavior. Once the pattern is determined, data collection can be initiated to note the duration of a specific behavior and the frequency by which it occurs. These data can also be applied to track the effectiveness of an attempted intervention. The results of the FBA will inform of the behavior function (e.g., why the student is doing what he or she is doing). This

will, then, allow the student's IEP team to build an appropriate behavior intervention plan to outline the supports and services the student will need in the classroom. This plan also outlines the response of the staff to targeted behaviors and the method by which to teach replacement behaviors. All students participating in the study had an FBA completed prior to entry into the behavior program. Thus, all participating students have already been identified as SLD or EBD needing supports for behavior. Therefore, validity and reliability were not established for the FBA as this is a prerequisite for the level of behavior supports the students receive from the school district.

Following the psychoeducational evaluation, and if the student qualifies, an individual education plan (IEP) is developed. It is during the IEP development that the IEP team, consisting of the parent, student, general education and special education teacher, any related service providers, and any individual who is invited, discusses the location of services for a student who qualifies as needing SDI in behavior. Depending upon the severity of the behavior, the student could receive pull-out services, conducted in a different classroom, or the student could receive his or her behavior supports in a self-contained behavior classroom. The participants of this study are comprised of students who qualify for SDI in behavior and receive pull-out services as well as students who are classified as having EBD and need the support of a self-contained behavior classroom to meet their social emotional and academic needs.

Instruction and Assessment

Teachers will implement pragmatic language skills instruction through their daily social skills instruction curriculum and supplement with more hands-on activities to ensure understanding and demonstrate the transfer of knowledge to a social situation. The teaching of pragmatic language skills can appear differently for each student. However, all skills will be

reviewed during the eight-week intervention period. Some of those skills include conversational skills; asking for, giving, and responding to information; taking turns; establishing and maintaining eye contact; introducing and maintaining conversational topics; asking questions; avoiding repetition or the giving of irrelevant information; learning how to ask for clarification; understanding facial expression, body language, and intonation of voice (Leigh, 2018). The caseload for each teacher ranges from eight to ten students, allowing them to focus on a single student per day. As unexpected behaviors regularly occur in this classroom setting, it is important for teachers to have additional time to address behaviors.

Following the pragmatic language skills intervention, the PLOS rating scale will be sent to teachers via the district mail system (Appendix B). Teachers will be granted a two-week period to complete the PLOS for each student to allow multiple opportunities to observe the student and document the skills a student demonstrates. The PLOS rating scales will be submitted to the designated person at the district office for review. Following the data review, the scores collected from PLOS will then be placed in a password-protected Microsoft Excel document, emailed to the researcher, and then the data will be transposed to the Statistical Package for the Social Sciences (SPSS) version 28.

Data Analysis

For the research question and null hypothesis, a multiple linear regression is most appropriate to examine the correlation between two predictor variables (student age, measured continuously, and student behavior classification, measured categorically) and the criterion variable (student scores on the PLOS, measured continuously) (Gall et al., 2007). The rationale for the selection of this data analysis includes its versatility in providing information about potential relationships between predictor and criterion variables, as well as estimates on the

magnitude and statistical significance of those relationships (Gall et al., 2007). Multiple linear regression allows for a model to be created, predicting values of an outcome variable from the linear combination of the predictor variables (Abbott, 2011). During this process it will explain the variances in an outcome variable.

When conducting a multiple linear regression analysis, the correlation between the linear combination of the predictor variables and the criterion variable will be computed. In so doing, the analysis will yield a multiple correlation coefficient (R^2) (Abbott, 2011; Gall et al., 2007). The R^2 is an indicator of variance in the outcome variable as determined by the introduction of predictors (Abbott, 2011).

Multiple linear regression analysis requires examination of several assumptions. To assess the assumption of bivariate outliers, a scatter plot depicting the interaction between predictor variables (Pragmatic Language Observation Scale scores and behavior classification), a scatter plot depicting the interaction between predictor variables (Pragmatic Language Observation Scale scores and student age) as well as a scatter plot depicting the interaction between all independent variables (student age and behavior classification) will be constructed. The researcher will examine output for extreme bivariate outliers.

To assess the assumption of multivariate normal distribution, a scatter plot depicting interactions for each pair of predictors between predictors and between criterion will be constructed. Outputs will be examined for a linear relationship that may exist between each pair of variables. Absence of linearity results in reduction of power. Plots should resemble the classic “cigar shape.” To assess the assumption of non-multicollinearity, each predictor variable will be compared to the other predictor to ascertain potential correlation between predictors. If the

variance inflation factor (VIF) is greater than 10, there is multicollinearity, thus a violation of the assumption.

In keeping with Warner (2013) and Gall et al. (2007), the sample size of 66 meets the 66 minimum when assuming a medium effect size with .7 statistical power, $\alpha = .05$. Cohen's f^2 will be calculated to determine the effect size for this study (Warner, 2013). An $f^2 \geq 0.02$ is considered a small effect size, while $f^2 \geq 0.15$ is considered medium, and an $f^2 \geq 0.35$ is considered large (Warner, 2013). After conducting statistical tests and analyzing data, the researcher will reject the null hypothesis at the 95% confidence level.

CHAPTER FOUR: FINDINGS

Overview

This chapter provides a results summary of the stated research question and a description of the outcomes on the hypothesis of this study. The purpose of this study was to determine the potential existence of a relationship between the predictor variables, participating students' ages (6 to 14) and their behavior classification (EBD, SLD, OHI) and the criterion variable, the student's pragmatic social skill development as measured by the Pragmatic Language Observation Scale. In this chapter, the results of a multiple linear regression are discussed, as it is most appropriate in identifying the potential relationships between the predictor and criterion variables. It also allowed for the identification of a potential statistical significance in those relationships. The following findings are presented and organized into sections containing research question, null hypothesis, descriptive statistics, and results.

Research Question

RQ1: How accurately can pragmatic social skill development, as measured by the Pragmatic Language Observation Scale, be predicted from a linear combination of student age, measured in years, and behavior classification (specific learning disability, other health impaired, and emotional behavior disturbance) for special education students (ages 6 to 14)?

Null Hypothesis

H₀1: There is no significant predictive relationship between the criterion variable student social interaction, as measured by the Pragmatic Language Observation Scale, and the linear combination of predictor variables of student age, measured in years, and behavior classification (specific learning disability, other health impaired, and emotional behavior disturbance) for special education students ages 6 to 14?

Descriptive Statistics

Descriptive statistics were obtained on each of the variables. The sample consisted of 56 participants, as multiple outliers were removed from the total participant count. Participants of the study were not randomly selected but were students who had previously been identified as needing specially designed instruction (SDI) in behavior. These students were in the disability categories of specific learning disability (SLD), other health impaired (OHI), and emotional behavior disorder (EBD). The behavior classifications are identified as 1, 2, or 3 respectively. The teachers supporting these students completed the rating scale to determine the areas of pragmatic weakness each student demonstrated. For the instrument, Pragmatic Language Observation Scale, the ratings ranged from a score of 0 to a score of 150. A score range from 0 to 69 meant the student possessed very poor pragmatic language skills. A score of 70 to 89 meant the student demonstrated poor skills, 90 to 110 was descriptive of average skills, and a score above 110 was considered above average.

For the students who participated in this study, the median PLOS score was 83.3 which exhibited poor skill demonstration. The median age for student participants was 10.3, while the median behavior classification was 1.8. This meant most students were classified as having a specific learning disability. These data are represented in Tables 1 and 2.

Table 1

Descriptive Statistics

Variables	<i>M</i>	<i>SD</i>	<i>N</i>
PLOS Score	83.3750	5.04007	56
Student Age	10.3750	1.90275	56
Behavior Classification	1.8214	.60624	56

Table 2*Student Demographics*

Variables	<i>n</i>
Emotional Behavior Disorder	14
Specific Learning Disability	15
Other Health Impaired	37
Male	54
Female	12
White	24
Black/African American	6
Native Hawaiian/Other Pacific Islander	1
Hispanic	35
1 st Grade	4
2 nd Grade	1
3 rd Grade	14
4 th Grade	15
5 th Grade	11
6 th Grade	8
7 th Grade	13

Results**Assumption Testing**

Multiple regression requires the assumption of multivariate normal distribution be met. The assumption of multivariate normal distribution was examined via a scatterplot. When examining for the assumption of multivariate normal distribution, it is important to look for the classic “cigar shape” to know if the assumption was tenable. When examining the following three scatter plots, a linear relationship was not tenable. Figure 2 shows a scatter plot for all independent variables, (e.g., behavior classification and student age). Figure 3 depicts a scatter plot based on student age and student PLOS scores. Figure 4 depicts a scatter plot based on student behavior classification and student PLOS score. The three scatterplots did not identify any outliers therefore the assumption is tenable.

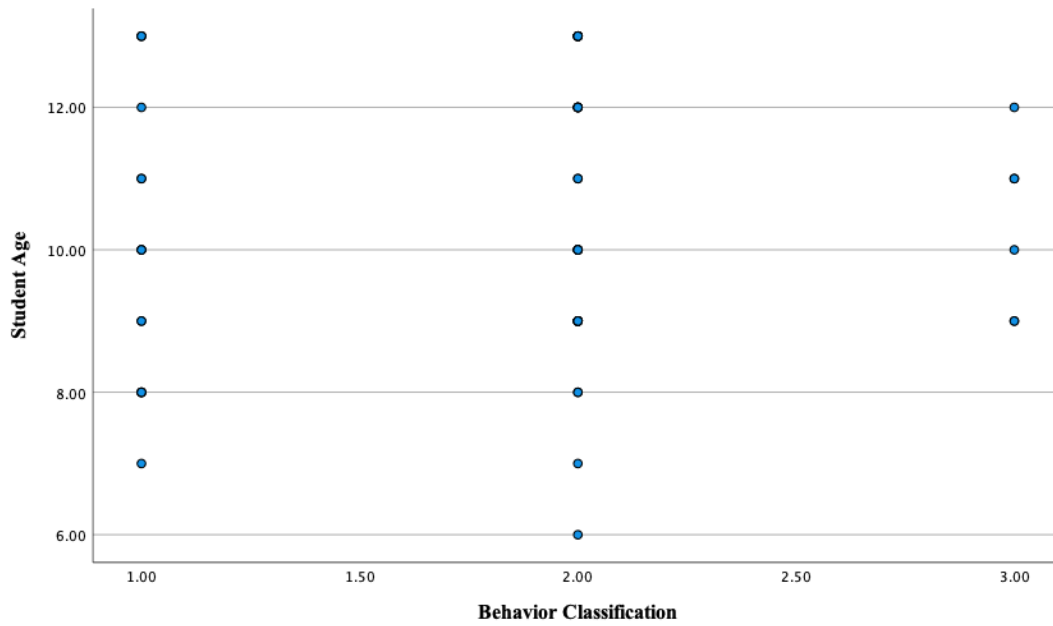
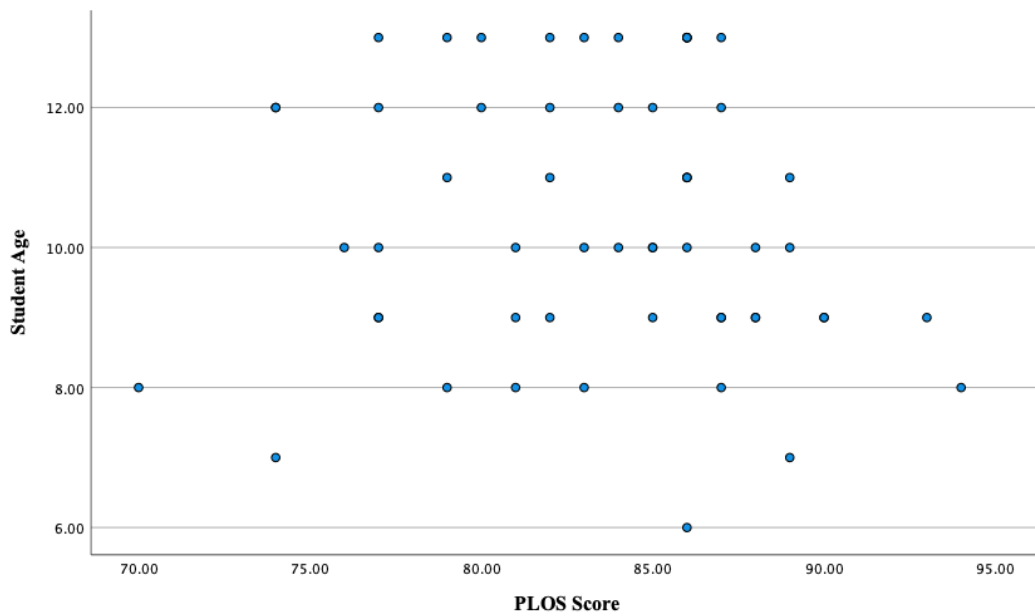
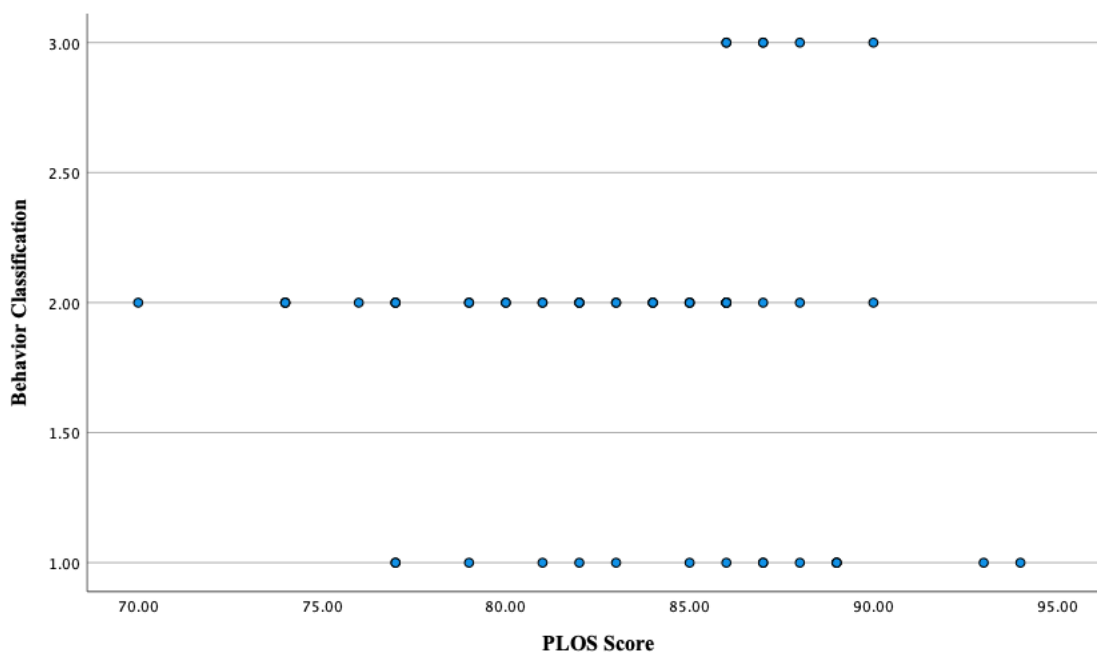
Figure 2*Scatter Plot- Independent Variables***Figure 3***Scatter Plot- Student Age and PLOS Score*

Figure 4

Scatter Plot- Behavior Classification and Student PLOS Score



Assumption testing of non-multicollinearity was conducted to ensure the absence of multicollinearity. This test was necessary because if a predictor variable is highly correlated with another predictor variable, they effectively provide the same information about the criterion variable. During this process, the Variance Inflation Factor (VIF) was assessed. If the VIF is too high (greater than 10), then multicollinearity is present (Abbott, 2011; Login - Laerd Statistics, n.d.). Acceptable values are between 1 and 5. The absence of multicollinearity was tenable (Table 3).

Table 3*Collinearity Statistics*

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Student Age	.992	1.008
Behavior Classification	.992	1.008

Note. Dependent Variable: PLOS Score

Data Analysis

A multiple linear regression was conducted to examine if there was a predictive correlational relationship between a student's pragmatic social skill development and a student's age and behavior classification. The criterion variable was the effect of the student pragmatic social skill development as measured by the Pragmatic Language Observation Scale (PLOS). The predictor variables were the students age, measured in years, and behavior classification (specific learning disability, other health impaired, and emotional behavior disturbance) for special education students ages 6-14. The null hypothesis failed to be rejected at the 95% confidence level where $F(2, 58) = .333, p = .718$. The model's effect size was small as $R = .111$. Furthermore, $R^2 = .012$ indicating that approximately 1% of the variance of criterion variable can be explained by the linear combination of predictor variables. See Table 4 for model summary.

Table 4*Model Summary*

Model	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	Std. Error of the Estimate	Durbin-Watson
1	.111 ^a	.012	-.025	5.10232	.033

Note. ^a Predictors: (Constant), Behavior Classification, Student Age

Dependent Variable: PLOS Score

See Table 5 for regression model results.

Table 5*Regression Model Results**ANOVA^a*

Model		SS	<i>df</i>	Mean Square	<i>F</i>	<i>Sig.</i>
1	Regression	17.339	2	8.669	.333	.718 ^b
	Residual	1379.786	53	26.034		
	Total	1397.125	55			

Note. Dependent Variable: PLOS Score

Predictors: (Constant), Behavior Classification, Student Age

In determining the effect size via Cohen's f^2 , the effect size was 0.369, which is considered a medium effect size (Warner, 2013). See Table 6 for Model Summary- Cohen's Effect Size.

Table 6*Model Summary*

Model	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	Std. Error of the Estimate
1	.111 ^a	.012	-.025	5.10232

Note. ^a Predictors: (Constant), Behavior Classification, Student Age

CHAPTER FIVE: CONCLUSIONS

Overview

The study was conducted to address a gap in the literature that exists in terms of the effect of a students' age and behavior classification and the students' pragmatic social skill development as measured by the Pragmatic Language Observation Scale. Few studies have addressed the impact of these classifications on a students developed social skills. The following chapter addresses a discussion of results from the current study, implications of the student, and recommendations for future research.

Discussion

The purpose of this quantitative, predictive correlational study was to examine the relationship between the predictor variables, participating students' ages (6-14) and their behavior classification (EBD, SLD, OHI) and the criterion variable, the students' pragmatic social skill development as measured by the Pragmatic Language Observation Scale (PLOS). The research hypothesis stated there would be no significant predictive relationship between the criterion variable student social interaction as measured by the Pragmatic Language Observation Scale, and the linear combination of predictor variables of student age, measured in years, and behavior classification for special education students ages 6-14. The PLOS was provided following a 4-to-6-week period of intervention. The study had 66 participants, but after outliers were removed, the number of participants decreased to 56.

Results from the multiple linear regression showed there was no significant predictive relationship between student social interaction and the students age and behavior classification. A multiple linear progression was conducted to evaluate if there was a predictive correlational relationship between a student's pragmatic social skill development and a student's age and

behavior classification. No predictive relationship was found as, $F(2, 58) = .333, p = .718$. The model's effect size was small with $R = .111$. Furthermore, $R^2 = .012$ indicated that approximately 1% of the variance of criterion variable could be explained by the linear combination of predictor variables.

The results of this study do not support current research on social pragmatics and students in special education with a behavior disability (Lockton et al., 2016; McDonough, 1989b; Webber & Plotts, 2008). Language, according to the sociocultural theory developed by Vygotsky et al. (1978), is how a child regulates his or her behavior and emotions through verbal or nonverbal modes of communication. For students to find success in the academic setting, it is important for the development of expressive and receptive communication. This is the mode in which a student interacts within his or her academic setting. Studies on this topic have been conducted since the 1980's (Webber & Plotts, 2008). In one such study, that included pre-school students with a diagnosed language impairment or a behavior disturbance, were found to have a decrease in atypical behavior as the language was addressed (Webber & Plotts, 2008). The American Institute of Research discovered that over 50% of students with EBD presented with a language impairment that was not identified in the evaluative process for special education (Webber & Plotts, 2008).

Deficits in pragmatic language have a profound disruption on a students' learning and in the development of their social skills. These students demonstrate an inability to interpret the environment around them as well as discern the social cues surrounding them. These are students who have a difficult time understanding jokes and interpreting sarcasm and typically have a language impairment (e.g., pragmatic language deficit, expressive language deficit, or receptive language deficit) (Chow et al., 2020; Donahue et al., 1994).

Students demonstrating these difficulties, specifically in social pragmatics, will find themselves challenged in their ability to interact in social situations (Lockton et al., 2016). This impacts the student's ability to develop healthy relationships and to integrate into their educational setting (Murry, 2018). These students require intensive intervention around metapragmatic awareness, or the one's ability to identify and reflect on pragmatic rules (e.g., appropriate social responses to situations) (Lockton et al., 2016). These types of interventions resemble role playing, reviewing, and analyzing scenarios, as well as games and activities that describe emotions and what the appropriate response would be. Students that are so categorized are typically able to identify the rules of conversation and social interaction but lack the skills to apply them in any given situation at a rate of 69.7% (Lockton et al., 2016).

A group of students with EBD were assessed with 97% of students shown to be at least one standard deviation below the mean on the *Test of Language Development (TOLD)* (Chow et al., 2020). The TOLD evaluates oral language proficiency and students' strengths and weaknesses in oral language skills. Of the student's assessed, 68% identified as clinically significant in presenting a language deficit (Chow et al., 2020).

When reviewing students with EBD, 47% suffered from a previously unidentified moderate-to-severe language impairment showing that students with these disabilities are not receiving the full evaluation, intervention, and support needed for their success (Chow et al., 2020; Hughes et al., 2016).

Sociocultural theory supports students having direct instruction in the development of pragmatic language skills, along with behavioral skills, due to the emphasis on reciprocal teaching (Schunk & DiBenedetto, 2020). Vygotsky believed that humans had the ability to adapt to their environment, unlike animals who simply react to their environment (Schunk &

DiBenedetto, 2020). It was believed that one's learning could not be separated from their environment. Environmental factors influence an individual's thinking. This concept is connected to the *zone of proximal development*, which is the difference between one's actual development and the potential development that could occur with the right guidance and collaboration with peers. The potential learning is based on the ideal instructional conditions that the student would need (Schunk & DiBenedetto, 2020).

Sociocultural theory supports the instruction on social pragmatic communication skills due to the emphasis on reciprocal teaching. This type of teaching is an interactive form of instruction where the teacher models content for the students and then provides them with opportunities to role play to illustrate and demonstrate understanding. Students need to be able to have opportunities to combine discussed and role-played skills within an authentic situation and ascertain the connection requiring the skill (Schunk & DiBenedetto, 2020).

While this study did not demonstrate a significant predictive relationship, it is important to note the number of studies that support the direct instruction of this skill. When districts inadequately evaluate and intervene for students with behavioral difficulties it results in partial treatment, jeopardizing students from having a free and appropriate public education. Where it is the role of the teacher to explain and demonstrate how a student should respond to a given situation, the student also requires opportunities to combine the appropriate action, in addition to appropriate vocabulary, in authentic scenarios to provide understanding. This shows growth between one's actual development and their potential development (Schunk & DiBenedetto, 2020). The results of this study did not demonstrate this as a need, despite previous studies resulting in the importance of social pragmatic skill development (Lockton et al., 2016; Murry, 2018).

The Pragmatic Language Observation Scale (PLOS) was used as a data collection tool to ascertain a student's ability to independently practice such skills. The ratings collected, however, showed no correlation between the direct instruction and the students demonstrated behaviors. This is in part due to the design of behavior programs and where the instruction and support is provided. Where sociocultural theory calls for typically developing student's (i.e., students without disabilities) to model and teach skills to those who lack such skills, students in behavior programs find themselves in isolation. As a result, students do not have appropriate peer models to imitate and interact with on a consistent basis. If students were provided more support in the general education setting with universal direct instruction, a significant change could be demonstrated (Schunk & DiBenedetto, 2020). The PLOS could then be utilized to measure true activity in genuine situation as opposed to behaviors seen in the special education classroom.

Implications

Data from this study imply there was not a significant correlation between students' interaction measured by the Pragmatic Language Observation Scale, and students age and behavior classification for special education students who range in age of 6 to 14. This is interesting given that 70% of students with an EBD behavior classification exhibit characteristics of an undiagnosed language impairment (Lloyd et al., 2018). The results point to the possibility of an over identification of students as having EBD and calls into question the location they are receiving their services. Several of the students who participated in this study did not qualify for communication services. As studies have demonstrated the connection between behavior and communication, there is the possibility that students are not being appropriately served in special education. The IEP teams may simply be addressing a portion of the issue, and not the problem in its entirety. Considering sociocultural theory, students who are in behavior programs are not

receiving specially designed instruction (SDI) in the environment with typically developing peers. For student with EBD, the only peer modeling they receive are with students in their class that exhibit many of the same behaviors. Therefore, there continues to be a significant gap between a student's actual development level and their potential development level, as outlined in the *zones of proximal development*. Studies have indicated a connection between student's behavior disabilities and communication deficits. Few of these students, however, receive communication evaluations or are even receiving communication supports that are directly linked to their behaviors (Webber & Plotts, 2008).

It has also been outlined in several studies that many adjudicated youths demonstrate deficiencies in communication while suffering from a behavior disorder (Blanton Dagenais, 2007). An additional study noted the language deficits of adjudicated and non-adjudicated youth. The findings noted that adjudicated adolescents scored lower on the language scales indicating that their behaviors were directly correlated with their language development (Blanton & Dagenais, 2007). Considering the results of various studies, there is significant importance regarding the evaluation of a student's social engagement skills to better identify and specially design instruction to address the social pragmatic needs of students with behavioral difficulties.

The results of this study indicate there was not a predictive relationship between a student's social interaction and their behavior classification and age. This presents is a gap in their instruction and learning. Students are not being exposed to appropriate behaviors in a general education setting nor are they given authentic opportunities to practice skills in a way that would result in consistent demonstration of newly learned skills.

Limitations

Addressing study limitations is essential to ensuring the credibility and reliability of the research. One limitation of this study was the instrument. The Pragmatic Language Observation Scale is a rating tool that is administered when comparing the target student to a group of students who are either in the same class or age-range (PLOS: Pragmatic Language Observation Scale [Paperback] by Phyllis Newcomer, n.d.). As a result, there is a comparison as opposed to a genuine observation of the student behavior. The scale is designed to be administered between 5 to 10 minutes. Rating scales, such as the CELF 5, comprises a Pragmatics Profile as well as a Pragmatics Activities Checklist (Pearson, 2013). This method of observation will allow a discussion pertaining to the similarities and differences between the scores on the rating scale and how it measures when compared to the observation scale.

An additional limitation regards the training of staff. Due to pandemic restrictions imposed by the state and local health district, the training occurred virtually. Although norms were discussed and expectations reiterated, it was difficult to determine the level of engagement from staff. Most cameras were off with teachers muted. Questions oftentimes went unanswered or there was a lack of response when discussed was opened for questions. Although teachers were required to participate, the training was recorded and shared for teachers to review later.

Due to COVID-19 restrictions, students were limited in their activities with other students and in their ability to interact with students outside of their classroom. That resulted in students having a reduced ability to practice learned skills with typically developing peers. This has a major impact when they are inhibited from interacting with and observing appropriate behaviors from peers demonstrating typically developing behaviors.

Monitoring fidelity was hindered due to how spread out the classrooms were. Most teachers would email that the intervention was going well but would not respond to a request to observe and support. There were breaks and school cancellations that arose that also impacted the fidelity of implementation.

Many of the students who were able to integrate with general education classes did not have general education teachers who were made aware of the pragmatic language instruction and did not benefit from continued reinforcement. In addition, student participants had multiple disabilities that contributed to their response to the intervention. Comorbid disabilities (i.e., ADD, ADHD, and ODD) could result in student's needing additional supports in order to implement provided strategies.

Additionally, due to several outliers, the number of participants was reduced from 66 to 56. More participants could have produced a different result. The lack of participants impacted the researcher's ability to have a variety of disabilities represented. Due to the outliers, some classes had a disproportionate number of disabilities present in their classrooms which could have potentially had a negative impact on the overall effectiveness of the intervention in their classroom. This limitation was also impacted by co-morbid disabilities that could have impacted participants acquiring the necessary skills required for the effectiveness of the intervention.

When analyzing data, it may be beneficial to conduct a log transformation of the assumption test that was not tenable. This could have transformed skewed data to approximately conform to normality. In other words, this could have assisted in making patterns in the data easier to interpret.

The study was also conducted in the researchers' school district. The role of the researcher, as a district employee, was not in a supervisory role, but one that is often interpreted

as one. This could be a cause for bias in the implementation and data collection process. This could have also weighed in how the PLOS rating scale was completed.

Recommendations for Future Research

Future research is essential to increase knowledge and sharpen practice. The following are recommendations for future research:

1. Conduct a similar study with a similar population where the student participants are provided more opportunity to interact with non-disabled, typically developing peers.
2. Conduct a similar study that implements both pretest and posttest data to evaluate the effectiveness of the provided intervention in comparison to the rating instrument.
3. Conduct a similar study and incorporate an additional instrument that includes an observation that is quantifiable.
4. Conduct a similar study where participating teachers complete the required training with an in-person format with scheduled drop-in support and observations.
5. Conduct a similar study that includes support from a speech language pathologist for teachers and during the initial training.
6. Conduct a qualitative analysis with observational notes, incorporating parent and teacher interviews.
7. Conduct a similar study that has a larger sample size.
8. Conduct a structural equation model to measure and analyze the relationships of observed and latent variables.

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APPENDIX A

IRB #: IRB-FY21-22-507

Title: Social Pragmatics and its Impact on Students with Behavioral Disabilities

Creation Date: 12-4-2021

End Date:

Status: Approved

Principal Investigator: Christopher Pope

Review Board: Research Ethics Office

Sponsor:

Study History

Submission Type Initial	Review Type Exempt	Decision No Human Subjects Research
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Key Study Contacts

Member Kevin Struble	Role Co-Principal Investigator	Contact kdstruble@liberty.edu
Member Christopher Pope	Role Principal Investigator	Contact cjpope@liberty.edu
Member Christopher Pope	Role Primary Contact	Contact cjpope@liberty.edu

APPENDIX B

To whom it may concern,

In accordance with our previous conversation, I have received approval from the institutional review board of Liberty University to proceed with the research phase of my dissertation. With your permission, I would like to access and utilize archival scores from the PLOS that will be completed on each student.

The data will be used to analyze predictive correlational results on the implications of pragmatic intervention and its impact on student behavior.

Please let me know if you have any questions or concerns.

Sincerely,

Christopher J. Pope

APPENDIX C



1

Purpose

- To evaluate the effectiveness of our program's social skills curriculum
- Discuss how to supplement for our students who qualify in behavior.

2

Pragmatic Language- Definition

- **Pragmatic Communication:** The use of a set of sociolinguistic rules related to language within a communicative context; that is, pragmatics is the way language is used to communicate *rather than the way language is structured*.
- Pragmatics can be thought of as the organizational framework for other aspects of language, which include semantics (vocabulary) and syntax (sentence structure, grammar) (Lahey, 1988)

3

Social Pragmatics

- A student with a deficit in social pragmatics display:
 - Antisocial behavior, such as
 - Showing a lack of sympathy and empathy,
 - Inability to understand jokes,
 - Inability to interpret sarcasm (Chow et al., 2019; Donahue et al., 1994).
- This can lead to students being twice as likely to display internalizing or externalizing behaviors (Chow et al., 2019; Yew et al., 2013).

4

- When researching language development, between 7% and 9% of children demonstrate a significant impairment in their ability to understand and produce spoken language (Hendricks et al., 2019).
- Parents were surveyed to ascertain their concerns regarding their child's language development.
 - Few noted concerns until they were asked to rate several communication domains.
 - Parents attributed their child's behaviors to ADHD (impulsivity or inattention) than to communication (Hendricks et al., 2019).
- 97% of the students with EBD were estimated to be at least one standard deviation below the mean on the *Test of Language Development*.
- 68% identified as clinically significant in presenting a language deficit (Chow et al., 2019).

5

- Reciprocal teaching is an interactive form of instruction where the teacher models content for the students and then provides them with the opportunity to switch roles in order to illustrate and demonstrate understanding.
- Of the percentage of students with EBD, ranging from 71% to 81%, around 47% suffered from a previously unidentified moderate-to-severe language impairment showing that students with these co-occurring disabilities are not receiving the full intervention and support needed for their success (Chow et al, 2019; Hughes et al., 2016).

6

- When students present this communication need, intensive intervention is provided in the area of metapragmatic awareness, or one's ability to identify and reflect on pragmatic rules (e.g., appropriate social responses to situations) (Lockton et al., 2016).
- This is essential for students with deficits in pragmatic language and/or designated as presenting with EBD to highlight the importance of doing more than just teaching a skill. Teachers can outline how a student should respond in each situation and therapists can provide the vocabulary. The students need the opportunities to combine the two in an authentic situation and ascertain the connection requiring the skill. Students are influenced by their environment, and they can change the outcome when provided the appropriate, intensive interventions.
- The goal is to improve the identification and development of targeted and appropriate interventions by implementing direct pragmatic instruction and ascertaining the effects on students with behavioral disabilities.

7

- We can accomplish this need by providing opportunities to
 - Role play
 - Review and analyze scenarios
 - Play games and do activities where emotions are described, and appropriate responses discussed
 - Reciprocal teaching (Schunk, 2020).
- Why is this important?
 - 69.7%
 - Percentage of students who can identify rules of conversation and social interaction, but lack the ability to apply them (Lockton et al., 2016).

Social Pragmatic Application



8

Interventions

- **Prompting**

What You Want Your Student To Do	Suggested Question or Comment
Comment	"What did you do?" "Tell me about..."
Request	"Tell your friend you want to..." "What do you want?"
Question	"Ask me..."

- **Use everyday situations.** Give your student chances to practice good social communication during the day. For example, practice staying on topic by talking about what he/she did at school that day before leaving. Have your child ask others what they did at school that day, or what they enjoyed most/least, by asking these questions.

9

- **Role-play conversations.** Pretend to talk to different people in different situations. For example, have your student explain the rules of a game to different people. Show him/her how he/she should talk to a child or an adult. Or, how he/she would talk to a family member or a stranger.
- **Practice messages.** Ask your student what he/she would say if he/she wanted something. Talk about different ways to present a message, such as being:
 - Polite or impolite. He could say, "Please may I go to the party?" or, "You better let me go."
 - Indirect or direct. He could say, "That music is loud," or, "Turn off the music."
 - Discuss why people might be more willing to do something if they are asked in a different way.

10

- **To Say It or Not To Say It?**

Create different social scenarios for students to pick from and place them in a container. Have students draw a paper and read the scenario out loud. Next have the group decide if the sentiment in the scenario is something they should say out loud or something they should just think to themselves. Have the students explain their answers. This activity is great because you can create specific scenarios based on your students' exact issues. Example scenarios include:

- Your friend Johnny is wearing a Batman shirt. You hate Batman and think Johnny's shirt is ugly.
- Your teammate scored a goal in soccer. You think he did a good job.
- Your teacher told the whole class to line up for lunch. You are not hungry.

- **Accommodations:** You can read the scenarios out loud, and students can answer with a thumbs up or thumbs down sign.

11

Charades

Charades is a great game for teaching body language. Place in a container slips of paper with different emotions written on them. You can start with easy emotions like happy, mad and sad. You can later add emotions such as anxious, scared and confused. Divide students into teams. Have one student from each team act out the emotion. The team members must guess what the person is communicating using only their body; no words allowed!

You could also record the students acting out the emotions. After the game, play the video for them and have them describe their body language to you. This helps the students visually acknowledge how their bodies are positioned to demonstrate different feelings. For example, if Johnny acted out 'angry' have him explain what he's doing to show this emotion. He might say something like 'my fists are clinched.' This helps students recognize these emotions in other people.

12

Who Are You Talking To?

To help your students understand how to adjust their language when speaking with different people, role-play conversations with them and have them role-play conversations with each other. Pretend to talk to different people in different situations. For example, set up a situation students would encounter during a typical day. In the situation you create, have the student explain the same thing to different people. You may need to model this activity for your students.

For example, Johnny loves to play dodgeball in P.E. Create a situation in which Johnny has to teach another student and a teacher how to play the game. After Johnny has explained the game to both people, discuss how the conversations were similar and different. You could model this by showing how you would give directions to the cafeteria to a new student and how you would give the same directions to a new teacher. Make sure the students are allowed to practice this skill many times!

13

Hello, Goodbye!

This activity helps students use basic greetings appropriately. This is important because it can be perceived as 'rude' or 'weird' to ignore or reply incorrectly to greetings from others. Imagine that a peer said, 'Hey johnny,' and he responded with 'I'm fine.' This could make Johnny seem socially awkward. Begin by telling students to silently brainstorm different greetings, have students think of all the ways we greet people every day and the ways people respond to those greetings. Tell them to think about what they see at home, at school, on television, etc.

On the board, or in an area that the students can see, draw two columns. Label one column 'greetings,' and the other column 'responses.' Have the students call out the phrases they think of and write them on the board. For example they may come up with:

- 'What's up,' and 'not much.'
- 'Good morning, how are you?', and 'I am fine, thanks.'

If students do not have many examples, you can provide different examples for them. The object is to get them to recognize a greeting and appropriate response. Now, go around the room greeting each student in a different way and have them respond accordingly. Lastly, have the students practice with each other.

14

- Increase in social pragmatics skills and a decrease in undesired behavior.
- If appropriate screening is conducted, then the number of students identified as EBD could be reduced in upper elementary grades resulting in a greater number of students with EBD finding success in public settings.