

The Efficacy of Problem-Solving Consultation and Evidence-Based Interventions for
Homeschooled Students with Learning-Related Behavior Concerns

By

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Table of Contents

Acknowledgements.....	i
Table of Contents.....	ii
Abstract.....	vi
Literature Review.....	1
Introduction.....	1
Homeschooling.....	2
Legal issues involving homeschooling.....	9
Challenges for homeschooling parents.....	10
Consultation.....	10
Family-centered services.....	10
Effectiveness of parent training in public schools.....	12
Critiques of family-centered services.....	13
Problem-solving consultation.....	13
Conjoint behavioral consultation.....	14
CBC protocol.....	14
Conjoint behavioral consultation research outcomes.....	16
Externalizing Behaviors.....	17
Externalizing behaviors and parenting.....	17
Externalizing behaviors and academics.....	18
Evidence-Based Interventions Appropriate for Parent Behavioral Consultation.....	19
Attention.....	20
Escape.....	21
Obtain objects or activities.....	21
Lack of motivation.....	22
Lack of understanding.....	22
Conclusion.....	22
Research Questions and Predictions.....	25
Method.....	27
Participants.....	27
Parents.....	27
Recruitment Flow Chart.....	28

Students	33
Consultant.....	35
Observers	36
Setting.....	38
Procedures	38
Problem identification	39
Problem analysis.....	40
Plan implementation	47
Treatment evaluation	48
Consultation and intervention fidelity.....	48
Treatment integrity.....	49
Weekly implementation checklist	50
Consultant fidelity checklists	51
Measurement	52
Direct observation.....	52
Goal attainment scale.....	53
Behavior Assessment Scale for Child-3 (BASC-3; Reynolds & Kamphaus, 2015)	54
Parent Sense of Competence (PSOC; Johnston & Mash, 1989)	56
Teacher Self-Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy, 2001).....	56
Behavior Intervention Rating Scale (BIRS; Von Brock & Elliot, 1987)	57
Consultant Evaluation Form.....	58
Research Design.....	59
Multiple baseline design.....	59
Randomization	60
Follow up.....	62
Visual analysis.....	63
Statistical analysis.....	65
Results.....	67
Research Question 1	67
Research Question 2.....	123
Research Question 3.....	124
Research Question 4.....	125

Research Question 5.....	128
Research Question 6.....	129
Discussion.....	135
Main Findings	136
Limitations and Future Research Directions.....	146
Implications.....	154
References.....	158
Appendices.....	168
Appendix A: Inclusion/Exclusion Criteria Form	169
Appendix B: Demographics form	171
Appendix C: Recruitment Flyer	176
Appendix D: Weekly Implementation Checklist	177
Appendix E: Parent Consent Form.....	179
Appendix F: Student Verbal Assent Script	182
Appendix G: PII	183
Appendix H: FAI.....	188
Appendix I: TICT.....	195
Appendix J: PAI.....	197
Appendix K: PI.....	200
Appendix L: TEI	202
Appendix M: TEI Checklist	205
Appendix Q: Partial Interval Recording Template	206
Appendix L: PII Checklist	207
Appendix M: PAI Checklist.....	208
Appendix N: PI Support Session Checklist.....	209
Appendix O: GAS Template.....	210
Appendix P: BIRS.....	212
Appendix Q: Consultant Evaluation Form Pre	215
Appendix R: Consultant Evaluation Form-Post.....	217
Appendix S: Acceptability of Working with Mental Health Professionals	219
Appendix T: BASC-3 results	223
Appendix U: Parent Sense of Competence Scale.....	237

Appendix V: Teacher Sense of Self-Efficacy Scale.....	239
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Abstract

Families choose to homeschool their children for a variety of reasons such as their dissatisfaction with the public school system, having a child with disabilities, or due to personal ideologies. A primary challenge for homeschooling families is the lack of behavioral and educational support that is available to them outside the home. The current research investigated the efficacy and acceptability of problem-solving consultation within the home for homeschooling families with children who exhibited externalizing behavior problems. Three families participated in the research, with multiple siblings participating from each family. Children were both male and female, and their ages ranged from five to nine years old. Single-case design methodology was used to measure the participants' externalizing behaviors. Results indicated decreases in externalizing behaviors after the consultation and intervention process for two of the three families. The parents of the homeschooling children reported that the behavioral interventions and consultation process was acceptable, indicating that this procedure could be utilized for other families in the homeschooling population. Implications for future research are presented.

Keywords: behavioral consultation, externalizing behaviors, homeschooling, problem-solving consultation

Literature Review

Introduction

More than two million students in the United States are receiving a homeschool education, accounting for over 3% of the population in primary education (Redford, Battle, & Bielick, 2017). The bases for homeschooling range from ideological issues, such as a family's religious or moral beliefs, to pedagogical stances, such as dissatisfaction with curriculum and educational climate of the school, or dissatisfaction with the services being provided to their child with special needs (Van Galen, 1991). Families from racially and ethnically diverse backgrounds reported pulling their children out of public school for pedagogical reasons including: a wariness of academic stereotypes involving their children, feeling as though their children are being unnecessarily placed in special education, and being dissatisfied with the amount of curriculum and classroom environment that is culturally relevant to their children (Fields-Smith & Williams, 2009). In most states, when families opt to homeschool their children, public schools are no longer required to provide resources such as individual education plans, academic interventions, and the consultation of school psychologists to that family (Smith & Farris, 2007). The disparity therein lies between parents who have chosen to homeschool their children due to their child having unique academic and behavioral needs and a lack of resources available to equip the parents with skills and competencies to meet their child's needs.

Collaborative relationships between families and consultants are very effective means of optimizing a child's academic and behavioral abilities, and providing parents with the tools and skills to assist their child in learning (Hook & DuPaul, 1999). Consultation models, such as behavioral consultation and its variants such as conjoint behavioral consultation are specifically

effective in intervening with children who exhibit externalizing behaviors (Sheridan & Kratochwill, 2008). The purpose of this literature review is to explore the demographics of families that have chosen to homeschool, examine the effectiveness of problem-solving consultation in addressing externalizing behavior problems, and consider how problem-solving consultation could be utilized with the homeschooled student population.

Homeschooling

Homeschooling trends and statistics. Homeschooling is currently the fastest growing form of education in the United States (U.S.; Grady, Bielick, & Aud, 2010). The number of students being homeschooled has grown by 74% in a little less than a decade (Grady et al., 2010). As of 2012, these students accounted for approximately 3% of students in the U.S. (Redford et al., 2017).

Demographics of homeschooling families. As of the 2011-2012 school year, approximately 68% of homeschooled students were Caucasian, 15% were Hispanic, 8% African American, and 4% were Asian or Pacific Islander (Redford et al., 2017). A comprehensive survey completed by the National Center for Educational Statistics (NCES) in 2012 identified that there were approximately 1.8 million homeschooled students in the U.S. (Redford et al., 2017).

The degree of parental education and household income vary greatly among families that have chosen to homeschool. According to a 2012 survey completed by the NCES, 12% of homeschooling parents had less than a high school degree, 20% had a high school degree or equivalent to a high school degree, 30% of homeschooling parents earned a vocational/technical degree or had completed some college, 24% of homeschooling parents held a bachelor's degree, and finally 14% of homeschooling parents held graduate or professional degrees (Redford et al.,

2017). Approximately 25% of homeschooling parents completed a course to prepare for homeschooling their children (Redford et al., 2017). The majority (75%) of homeschooling parents do not have experience or education regarding teaching elementary or secondary education (Meighan, 1984).

Typically, parents that decide to homeschool their children have high engagement in their child's education prior to beginning to homeschool (Van Galen, 1988). Similarly, parents who opt to pull their children out of public school often have high self-efficacy in terms of their ability to provide an adequate education to their children, independent of the public school (Van Galen, 1988). Comprehensively, this research indicates that parents who choose to homeschool their children come from a range of backgrounds, but tend to have limited experience or training in providing education (Meighan, 1984; Redford et al., 2017)

Bases of homeschooling. In 1991, Val Galen created two categories for the causes of a family's decision to homeschool. The first class of homeschooling families are the "ideologues." Ideologues have chosen to homeschool their children because of their moral, religious, or familial values. The predominant number of families that homeschool tend to do so due to ideology. The second reason that families choose to homeschool is due to their beliefs regarding pedagogy. Pedagogy-oriented families are those that selected homeschooling due to their goals for their children's academic achievement. Pedagogy-oriented families frequently pull their children out of school due to deeming the school an unsatisfactory learning environment. Many families that have chosen to homeschool their children for pedagogical reasons have children that are recognized as gifted or having special needs (Knowles, 1988). Although Van Galen's (1999) two categories of bases for homeschooling remain relevant, the specific ideological and pedagogical bases for homeschooling are ever increasing, and recent research indicates that

families also decide to homeschool their children due to safety and social concerns based on previous public school experiences (Redford et al., 2017).

According to a 2017 report from the NCES, in which homeschooling parents could identify multiple reasons for homeschooling, 91% of parents who chose to homeschool were concerned about the environment of the school that the child was attending, and school environment was a factor in their decision to homeschool. Seventy-seven percent of parents noted a desire to provide moral instruction to their children. Seventy-four percent of the parents surveyed also reported that they were dissatisfied with the quality of academic instruction that the child was receiving from their previous school. Sixty-four percent of homeschooling parents noted a desire to provide religious instruction. Similarly, physical or mental health issues with the child (15% mentioned) and having a child with special needs (16%) were also commonly chosen reasons for deciding to homeschool. When parents were asked to note the most important factor in their decision to homeschool, the highest percentage was 25%, with a quarter of the parents noting their concerns about the environment of schools, noting the risks such as safety, drugs, and peer pressure. The most important factor concern was followed by a dissatisfaction with academic instruction at schools (19%), and a desire to provide religious instruction (17%; Redford et al., 2017)

Of particular interest are the reports of individuals of different ethnicities regarding their bases for homeschooling (Fields-Smith & Williams, 2009). Fields-Smith and Williams (2009) interviewed 24 African-American homeschooling mothers about the factors influencing their decisions to homeschool as well as their experiences homeschooling. Findings indicated there was wide range of point of entry for beginning homeschooling, between birth and middle school. In terms of the influence of ethnicity in deciding to homeschool, 19 of the 24 mothers

interviewed noted that their perceptions of, or experiences with racism, inequalities, discrimination, or prejudices within the child's school were an integral factor in choosing to homeschool their child. Many of the mothers expressed concern for norms and treatments of their children in school, and they were specifically aware of the academic stereotypes relating to African American males. The parents noted that they didn't want their children to relive their personal academic experiences as an African American, as well as not wanting their children to continue to receive the treatment that they had been experiencing while in school. Secondly, the parents reported choosing to homeschool as they felt as though the curriculum was monocultural and Eurocentric (Fields-Smith & Williams, 2009). Mazama and Lundy (2013) also interviewed African American parents who chose to homeschool and found that many of the parents in their study were also frustrated with the narrowness of the school curriculum.

In Mazama and Lundy's (2013) interviews with African American homeschooling parents, 22% of the parents discussed racism in schools as a reason for opting to homeschool. Over 12% of parents also mentioned that they were homeschooling as a means to support their family experience of African American culture. Parents described that they wanted their children to strongly identify with being African (or African American), and recognize their ability to contribute to the African American community, and they didn't feel as though the public school system facilitated this experience. Similarly, parents of African American males who chose to homeschool reported doing so in order to allow their sons to have an experience where their African American masculinity was *not* incompatible with their academic success, a sentiment that they felt was the norm in the public schools (Mazama & Lundy, 2013).

The sentiments that African American homeschooling parents have expressed regarding feeling unsupported and misunderstood in public schools has been similarly reported by

researchers across the United States (Fields-Smith & Williams, 2009; Mazama & Lundy, 2013; U.S. Commission on Civil Rights, 2009). African American, Hispanic, Native American, and Native-Alaskan students are consistently overrepresented in special education services in public schools (U.S. Commission on Civil Rights, 2009). Skiba and colleagues (2008) asserted that “the disproportionate representation of minority students in special education, African American students in particular, is a symptom of a broader disconnect between mainstream educational culture and the cultural orientations of communities of color” (p. 277). Skiba et al.’s (2008) statement provides continued confirmation that minority students are not fully academically or behaviorally supported in the academic setting. African American students specifically are disproportionately represented in special education diagnoses of intellectual disabilities and externalizing behavior (Kaufmann et al., 2009). Similarly, English Language Learners (ELLs) are also more likely than their non-ELL peers to be diagnosed with a learning disability or intellectual disability (Duran, 2008).

Of the 24 African American homeschooling families that were interviewed by Fields-Smith and Williams (2009), eight of the families had at least one of their children in special-education services, with two more of the families having been recommended for special-education for at least one of their children at some point during their enrollment in public school. The parents’ mention of their children being placed in special education was related to a frustration with inflexibility with their child’s learning styles and behavior needs. To date, the literature is absent on research on homeschooling decisions based on a broad spectrum of cultures, and how decisions may vary for individuals from difference racial and ethnic backgrounds.

On many levels, the learning environment created in schools is maladaptive to diverse students, specifically African American students. The NCES has recently reported that 85% of all teachers are Caucasian, whereas over 40% of their students are minority (Aud et al., 2011). The achievement gap between Caucasian and African American students is in part a byproduct of teacher expectations, and African American males are consistently rated the lowest in academic ability and academic success by their teachers (Ferguson, 2003; Wood, Kaplan & McLoyd, 2007). In a survey study on homeschooled African American males, parents discussed low teacher expectations for their son as a main reason for deciding to homeschool (Lundy & Mazama, 2013).

In conclusion, as noted above, many parents who decide to pull their children from public schools to receive a home education have high engagement in their child's education both before and after choosing to homeschool (Van Galen, 1988). Many of these parents reported perceiving unsatisfactory support for their children in the public school setting, whether it was due to special academic, physical, or behavioral needs, racial inequalities, or dissatisfaction with the school environment (Lundy & Mazama, 2013; Redford et al., 2017).

Outcomes of homeschooling. A growing body of research shows that students who are homeschooled tend to have higher scores on achievement tests than their public schooled peers (Martin-Chang, Gould, & Meuse, 2011). This research is highly susceptible to selection bias, though, as homeschooling parents with high scoring children may be more likely to offer their children's test scores as data for research. The academic success of homeschooled students may largely be due to the family's prior environment, such as socioeconomic status (SES), education level, parent involvement, etc. For example, homeschooling parents who are educated at the

university level, have a high-income, and invest approximately \$600 annually per child on curriculum tend to have children with the highest achievement scores (Ray, 2010).

Research by Martin-Chang et al., (2011), compared the academic outcomes of students who received traditional, public schooling to those who received unstructured and structured homeschooling educations. The family demographics, such as parental education, marital status, and SES of the homeschooling and public schooling families were matched in order to reduce extraneous factors. Participating students were in elementary school, and their achievement was measured using the *Woodcock Johnson Test of Achievement A revised* (Woodcock & Johnson, 1989). The *Woodcock Johnson Test of Achievement A revised* is comprised of seven subtests including social science, humanities, science, passage comprehension, word attack, word identification, and calculation.

The homeschooled students who were receiving a structured academic schedule, or preplanned curriculum, earned higher scores than their public schooled peers on both the composite *Woodcock Johnson Test of Achievement A revised* (Woodcock & Johnson, 1989) as well as in all seven subtests. In contrast, homeschooled students who were receiving an unstructured education, with a lack of curriculum or lesson plans in their daily education, consistently scored lower than both their structured homeschooling peers and those in public school. Martin-Chang et al. (2011) concluded that, when homeschooled students are the recipients of structured education by their parents, their educational experience and knowledge surpasses that of both their unstructured homeschooling and public schooling peers. This research indicates that the quality of the homeschooling experience is very predictive of a homeschooled child's academic outcomes.

Legal issues involving homeschooling. Currently only 17 of 50 states provide access to classes and services to homeschooling families (Smith & Farris, 2013). Wisconsin, for example, has very limited resources available to homeschooling families. In Wisconsin state legislation, the only access to resources that are allowed to homeschooling families are two public education classes per semester for students that meet the criteria for the classes (Wisconsin Department of Public Instruction, 2017). According to Wisconsin's Department of Public Instruction 2017-2018 Homeschool Report, school districts are not required to provide services to homeschooling families with students with special needs (Wisconsin Department of Public Instruction, 2017). Although schools are not required to provide support to homeschooling families, neither are they prohibited from offering services, so schools may provide special education or other services at their own discretion. If a homeschooling family does receive support from a public school system, the costs of the services are not covered by the Wisconsin Department of Public Instruction.

The only requirement of the Wisconsin public school system for homeschooling families is to assess a child for a disability using a publicly-funded evaluation (Wisconsin Department of Public Instruction, 2017). If a disability has been identified, the school may then offer a placement in the school to meet the child's educational needs. The limited resources available for homeschooling families through the public school may explain why only approximately 1% of home-educating parents have accessed psychological services (Mayberry, 1993). The lack of academic and behavioral resources and expertise available for parents who homeschool their children is particularly disparate considering that many parents decide to homeschool due the mental, physical, or special needs of their child (Redford et al., 2017).

Challenges for homeschooling parents. As discussed in the legal issues regarding homeschooling, one of the main challenges that parents reported with homeschooling is the lack of resources available (Fields-Smith & Williams, 2009). A repeated problem discussed by homeschooling parents was the disconnect they felt from supports available to public school students (Fields-Smith & Williams, 2009). Families reported needing services such as special education testing, speech therapy, and access to extra-curricular activities (Fields-Smith & Williams, 2009). Since Wisconsin does not have any minimal education requirements for homeschooling parents, nor does it provide any training or resources for parents who have decided to homeschool, homeschooling parents are responsible for finding and paying for their own support within the private sector (Wisconsin Department of Public Instruction, 2017).

Consultation

Family-centered services. Consultation often focuses on the professional consultant as the administrator of expertise and intervention. In the typical consultation model, client progress is dependent on the explicit guidance of the consultant, and fails to equip the client (or family) with skills and competencies to progress independently (McWilliam, Tocci, & Harbin, 1998). McWilliam et al. (1998) developed Family-Centered Services (FCS) for school-family partnerships. The family-centered model focuses on accepting each family as a unique, individual unit, and utilizing the family's current situation and assets to progress through consultation. In embracing the individuality of each family, rather than employing a generic consultation model, the family-centered model promotes a use of the family's current strengths (Sheridan & Kratochwill, 2008).

FCS focus on empowering families and enhancing family functioning. Family empowerment involves promoting a family's sense of control over their current situation, and

helping the family optimally use the resources and strengths that they already possess. A second unique aspect of family-centered services is the family identification of problems. Rather than the consultant asserting her opinion of areas that the family could problem-solve around, the consultant's role is to assist in addressing the needs that the family has identified as the most pertinent.

The utilization of the family-centered model is valuable for homeschooling families, as homeschooling parents have chosen to be primarily responsible for the education of their child. Empowering families to identify and address problems in their academic functioning would likely create stronger homeschooling units, equipping parents (and children) with the skills and competencies to excel academically.

Effectiveness of family-centeredness services. In support of FCS, research shows that when parents are taught skills and competencies for supporting positive behaviors in their children, their children are much more likely to retain the prosocial behaviors (Dunst, Trivette, & Hamby, 2007). For example, research on parent training for parents of children with autism has shown that parents can effectively learn skills to increase communication and decrease inappropriate behavior in their child with autism (Shire et al., 2015).

Not only are parents capable agents of their child's interventions, but interventions that they are involved in tend to have better outcomes than interventions in which parents are not involved (Hook & DuPaul, 1999; Kaiser, Hancock, Hester, 1998). In the Kaiser et al., (1998) a comparison of teacher interventions and parent interventions with children with communication disorders revealed large increases in language skills in both intervention groups. However, the intervention outcomes also revealed a disparity at the follow-up phase, 6 months after the communication intervention ended. Children whose parents were a part of the parent

intervention, showed significantly greater communications development compared to children who were receiving therapy directly from a therapist. These findings support those of Koegel et al. (1996), that when parent training is a facet of the intervention the behavioral or academic skills that the child learned during intervention tend to generalize to more settings and be more evident at follow-up (Kaiser et al., 1998).

Effectiveness of parent training in public schools. O'Sullivan, Chen, and Fish (2014) explored the relationship between parent involvement in child's math homework and the child's math outcomes. According to the researchers, when parents create structure for their children's homework period, the children tend to have more success in their mathematics homework. The researchers also found that parents who have higher self-efficacy in parenting tend to be more involved in their child's homework, compared to parents with low parenting self-efficacy (O'Sullivan et al., 2014).

Research indicates that parents of children with developmental disorders, as well as attention-deficit/hyperactivity disorder (ADHD) can effectively be trained in intervention implementation using role-playing, coaching, modeling, and feedback (Lequia, Machalicek, & Lyons, 2013). These parents used their intervention skills to address their children's off-task behaviors while their children were completing academic tasks at home. As a result of the intervention training the parents received, the children exhibited decreased challenging behavior, and increased time being academically engaged. This research indicates that parents can be powerful agents for benefitting their children's academic experience and that parents can be trained to effectively administer interventions to their children through the support of consultants (Lequia et al., 2013).

At this point, no research has been completed on the effectiveness of academic or psychological support to parents who are homeschooling their children on the outcomes of homeschooling success. Although there is no literature on the benefits of academic support on homeschooling children, the effect of parent training in teaching skills for children in public schools is promising.

Critiques of family-centered services. Ingersoll and Dvortcsak (2006) noted that parent-training tends to be very time intensive, compared to therapy that would be directly from a school psychologist to the child. Although parent training may be more time intensive than typical interventions or therapies, involving parents in the therapy, and equipping parents with skills to personally intervene with their child leads to greater generalization of child appropriate behavior, as well as increased maintenance of skills over time (Sheridan & Kratochwill, 2008). Parents who are educated in intervention skills also tend to have decreased parenting stress, likely because, as noted by Sheridan and Kratochwill (2008), they have increased empowerment and efficacy of their parenting skills.

Problem-solving consultation. The problem-solving consultation model can involve the teacher, parent, and consultant in identifying and addressing behavioral and academic difficulties that occur in the school and home (Kratochwill, Altschaefl, & Bice-Urbach, 2014; Kratochwill & Bergan, 1990). The problem-solving consultation process includes: building rapport among teachers, parents, and consultant, identifying and analyzing the problem, and individualized programming for specific behaviors. The consultation process can also be applied in a conjoint manner, with both teachers and parents (Sheridan & Kratochwill, 2008) and the protocol for this approach can be used with only the parents. This model is discussed as it relates to the focus of the current research proposal and its application to parents who homeschool their children.

Conjoint behavioral consultation. Conjoint behavioral consultation (CBC) was informed by FCS as well as other approaches (e.g., family-school partnerships) and focuses on families and schools collaborating together to attain student goals by collectively using evidence-based treatment and data-based problem solving (Sheridan, Ryoo, Garbacz, Kunz, & Chumney, 2013). Similar to FCS, parents using CBC are equipped with skills and opportunities to problem solve and participate in their child's behavioral intervention. In the beginning of CBC, parents collaborate with the consultant on the child's target issues, identify what behaviors need to be altered, and select intervention outcome goals. Parents then assist in selecting the appropriate evidence-based intervention for the child based on the family's dynamics and resources, as well as the function of the child's behavior. After choosing an appropriate intervention, the consultation process then equips the parents with skills to address the child's behavioral problems while at home. Finally, parents play a role in assessing the outcomes of the intervention and their satisfaction with the child's resulting behavior (Sheridan & Kratochwill, 2008).

CBC protocol. The CBC protocol developed by Sheridan and Kratochwill (2008) utilizes the problem-solving consultation model developed by Kratochwill and Bergan (1990) as it outlines four specific phases of CBC: problem identification, problem analysis, treatment implementation, treatment evaluation (Sheridan, Eagle, Cowan, & Mickelson, 2001). Initially, the consultant meets with the parent and teacher for a problem-solving interview focusing on both identifying and analyzing the needs of the student. During the first consultation session, the team works together to identify the child's most prevalent problem behaviors. The team also discusses the potential antecedents and consequences of the child's behavior in order to understand the function of the child's behavior. The goals of the intervention are then discussed,

and a means of collecting baseline data are established. The first meeting is an appropriate time for the time for the consultant to assess the strengths, competencies, and resources of the parent, allowing the consultant to consider how the parents will be able to implement the intervention.

The second CBC session focuses on developing an intervention for the student, as well planning the implementation of the intervention. Again, the consultant, parent, and teacher would be in attendance and working collaboratively during the second CBC meeting. During the second meeting, the parents and teacher would receive training on intervention skills, equipping the parents and teachers to implement the intervention independently. Fidelity measures of the intervention plan would be set up to help the teacher and parent adhere to the intervention. Following the second meeting, the implementation of the behavioral intervention plan would begin.

During the third stage of CBC, the intervention is implemented. The consultant is available to assist and provide information throughout the intervention process, at the request of the teacher or parents. The consultant also has one scheduled consultation session with the teacher and parents in order to assess the intervention progress and adapt the intervention if necessary.

The fourth stage of conjoint behavioral consultation is the evaluation phase. During the fourth stage of CBC, the parents, consultant, and teacher again meet to determine if the goals for the targeted behavior had been met. The most effective aspects of the intervention are discussed, and the team decides if the student has made enough progress in his/her behavior problem to terminate the intervention, or if the intervention should continue in order to better meet the team's outcome goal. If the team decides not to terminate the intervention, future meetings to adapt and monitor the intervention would be scheduled.

Conjoint behavioral consultation research outcomes. There is a growing body of research on CBC and consultation in general. In this section only major reviews of this literature will be cited. CBC outcomes have been studied largely using single-case design methodology, including within-subject design and multiple baseline design, similar to the research design in the current proposed study (Sheridan et al., 2012; Sheridan et al., 2001; Sheridan, Kratochwill, & Elliott, 1990; Sheridan et al., 2013).

Sheridan et al. (2001) measured CBC outcomes for students with a wide variety of behavioral and academic concerns. Thirty-two percent of the children were diagnosed as having learning disabilities, 32% were diagnosed as having behavior disorders, 14% were categorized as having intellectual disabilities, 11% were classified as having ADHD, and the final 11% were labeled as having non-specified or other disorders. The researchers found that across all behavioral, socio-emotional and academic disorders, that the parents rated CBC as having high levels of acceptability and effectiveness as well as being personally satisfied with the outcomes of the CBC intervention (Sheridan et al., 2001).

Sheridan, Eagle, and Doll (2006) analyzed the outcomes of CBC for families with diverse characteristics. The researchers found that CBC typically generated high positive effect size outcomes regardless of the families' ethnicity, race, SES, level of maternal education, language spoken in the home, and family composition (Sheridan et al., 2006). These findings indicate that CBC is effective across diverse populations.

In terms of treatment acceptability, parents with children with behavioral, socio-emotional, and academic problems who have completed CBC have rated CBC as having high treatment acceptability (Sheridan & Steck, 1995). The parents who rated CBC as having high

treatment acceptability rated CBC as more acceptable than parent-only or teacher-only consultation in dealing with their child's problems (Sheridan & Steck, 1995).

Externalizing Behaviors

Because the proposed study will focus on children with externalizing behavior problems, a brief review of research in this area will be presented. Externalizing behaviors refers to a wide range of negative behaviors directed to an individual's environment. According to the Diagnostic and Statisticians Manual-5 (DSM-5), externalizing behavior disorders include: antisocial behaviors, conduct disturbances, addictions, and impulse-control disorders (American Psychiatric Association, 2013). Common diagnoses within externalizing behavior disorders are: Oppositional Defiant Disorder, Attention-Deficit Hyperactive Disorder (ADHD), and Conduct Disorder (Hinshaw, 2002).

Approximately one in five children exhibit externalizing behavior disorders (Carter et al., 2010). Externalizing behavior problems are more common in males than females, especially in early and middle childhood (Bongers et al., 2003). Low SES has been correlated with increased risk for developing an externalizing behavior disorder (Bradley & Corwyn, 2002). Externalizing behaviors problems, which typically begin in the 2nd year of a child's life, are exacerbated by factors such as dysfunctional parent-child relationships, and familial stress (Baillargeon et al., 2007; Campbell, Shaw, & Gilliom, 2000). Researchers assert that the relation between low SES and externalizing behavior disorders exist because the family may have limited access to, or ability to provide resources for healthy childhood development (Bradley & Corwyn, 2002).

Externalizing behaviors and parenting. Parental characteristics, temperaments, and resources factor into the development of disruptive child externalizing behaviors. For example, mothers that experience high levels of distress tend to have children that later develop self-

regulatory difficulties and externalizing behavior problems (Berg-Nielsen, Vikan, & Dahl, 2002). One reason for the link between maternal distress and the child's development of externalizing behavior disorders is that mothers who experience stress typically are more disengaged parents, and display more negative and fewer positive parenting skills (Lovejoy et al., 2000).

Researchers have also found that the level of quality parenting and the development of externalizing behavior have a transactional effect on each other. As children display increasingly severe externalizing behavior disorders, parenting quality decreases (Pearl, French, Dumas, Moreland, & Prinz, 2014). Similarly, as parenting quality decreased, child externalizing behavior symptoms increased over time (Pearl et al., 2014). The social comparison theory also posits that negative parent-child interactions influence sibling relationships and may increase negative sibling interactions (Brody, Stoneman, & McCoy, 1992).

These findings display the large impact that parenting skills and engagement have on child development of externalizing behavior disorders. As Pearl et al. (2014) found, poor parenting can lead to the increased development of externalizing behavior problems, but externalizing behavior problems can also lead to a withdrawal of positive parent-child interactions. The relation between parent behavior and externalizing behavior problems shows the utmost importance of equipping parents with appropriate parenting skills both to prevent and address their child's externalizing behavior disorders.

Externalizing behaviors and academics. Students with externalizing behavior problems typically experience difficulties in learning environments. For example, individuals with ADHD tend to exhibit more academic difficulty in reading, math, and writing than their peers who do not experience ADHD (Metsapelto et al., 2014). In general, there is a strong association between academic difficulties and behavioral difficulties in school, beginning as early as kindergarten

(Miles & Stipek, 2006). Both academic and behavioral difficulties reinforce each other, indicating that when students learn positive behaviors, such as increasing on-task time, they will likely do better academically (Walker, Ramsey, & Gresham, 2004).

The academic outcomes of students displaying externalizing behavior problems are partially related to the relationship that the students develop with their classroom teachers (Silver, Measelle, Armstrong, & Essex, 2005). Teacher-student relationships can facilitate a positive learning environment for the student, or continue the student's trend of maladaptive interpersonal relationships, causing more externalizing behavior in the classroom (Silver et al., 2005). According to Ladd and Burgess (2001), both teacher conflict and closeness are predictors of student behaviors in the classroom. Teacher-student closeness can be defined by the level of warmth and open communication that the teacher and student share. Closeness is asserted to increase a child's desire and willingness to engage in academic activities. In contrast, teacher-student conflict is characterized by angry and noncompliant student-teacher interactions. Conflict with the teacher was shown to lead to student anger, anxiety, and overall maladjustment (Ladd & Burgess, 2001). This research displays how much teacher-student relationships can influence both academic engagement in the classroom, and long-term trajectories for externalizing behavior disorders. These findings support the proposition that healthy educator-student relationships (whether in public school or homeschool settings) are critical for the academic success of students with externalizing behavior disorders.

Evidence-Based Interventions Appropriate for Parent Behavioral Consultation

Behavioral consultation intervention plans are individually developed for each client, in order to best meet the functions of the student's behaviors, and maximize the family's ability to be engaged in the intervention. While each intervention is individualized, all consultation

interventions are developed using evidence-based intervention (EBI) strategies (Sheridan & Kratochwill, 2008). Commonly used, EBI plans include positive reinforcement, environment structuring and antecedent control, skills training, and behavior reductive techniques (Sheridan & Kratochwill, 2008). EBIs used specifically for individuals with externalizing behavior problems will be discussed as they are the focus of the proposed research.

Susan Sheridan, who co-developed Conjoint Behavioral Consultation, also developed a manual, *“Helping Kids Succeed: Behavioral Strategies for Teachers,”* that contains EBIs for children with externalizing behavior disorders or concerns. The interventions were created to fit within the CBC and Behavioral Consultation (BC) model, and target the specific functions of the child’s behavior. The EBI manual was developed using principles derived from the theoretical models of behavior therapy. The behavioral models posit that individuals’ specific behaviors occur because of the result that they elicit from their environment (Sheridan & Kratochwill, 2008). A child may complete a behavior in order to avoid work or gain attention, among many other desired outcomes. Functional Behavior Assessments (FBAs) are often used to determine the cause of a child’s behavior, which can then lead to more effective interventions than interventions that are not function-based (Carter & Horner, 2007; Odom, Collet-Klingenberg, Rogers, & Hatton, 2010). The manual is therefore organized by behavior function, and is divided into: attention-seeking, escape, obtain objects or activities, lack of motivation, and lack of understanding. The manual was created for interventions taking place in the school, but many of the interventions can be adapted to be applicable to homeschooling environments.

Attention. *“Helping Kids Succeed: Behavioral Strategies for Teacher’s Manual”* describes the attention-seeking function of behavior as any behavior of a child in which they are attempting to gain attention from either peers or adults, regardless of whether the attention is

positive (i.e. praise) or negative (Sheridan & Witte, 2010). Fundamental strategies for addressing attention-seeking behavior include praising specific positive behaviors, and ignoring negative behaviors. Ignoring negative behaviors may cause a student to realize that he will not receive desired attention for misbehaving. The manual also notes that the praising of positive behavior and punishing negative behavior is another way to develop prosocial behavior. According to the manual, when students are seeking adult attention, effective verbal praise, wandering social praise, and catching them being good, are all effective intervention strategies. Comparatively, if student's misbehavior is due to seeking peer attention, effective interventions are: peer tutoring, cooperative learning, and group projects.

Escape. Sheridan and Witte (2010), indicate that escape-based behaviors are completed as a means to prevent or delay the student from engaging in an activity that the student perceives as undesirable. The EBI manual provides nine interventions that could be implemented to address escape behavior. Escape-based interventions are typically based on making the student's learning environment more rewarding. Alterations to curriculum include: altering task difficulty, modifying the mode of task completion, and altering the length of the task. Adaptations to curriculum also include ensuring that the material is valuable to the student by: offering choices in learning, increasing interest in activities, and ensuring that the activities are meaningful. Finally, creating behavioral momentum, increasing predictability, and modifying instructional delivery are also discussed as effective interventions for students with escape-seeking behaviors.

Obtain objects or activities. Many students exhibit externalizing behavior problems as a means of gaining preferable objects or activities. An example of this situation is a student who tantrums until he is allowed to stop writing and begin playing with a train set. The two intervention methods addressed in the manual are: scheduling transitions and increasing

accessibility. Scheduling transitions involves teaching students how long each activity will last, as well as mixing preferable activities in with other, less desired activities. An intervention that focuses on increasing accessibility allows the child to obtain the desired object (e.g., toy) for a specific amount of time.

Lack of motivation. When students misbehave due to a lack of motivation to engage in academic work, Sheridan and Witte (2010) recommend two interventions: providing rewards for good behavior and losing privileges for inappropriate behavior. The manual provides many strategies for providing rewards, such as mystery motivators, effective praise, and point systems. Loss of privileges interventions include: what-if charts, time-owed, and time-out interventions.

Lack of understanding. A final function of externalizing behavior discussed by Sheridan and Witte (2010) is a failure to understand expected behavior, either socially or academically. Appropriate interventions for students that do not understand current expectations include providing: opportunities to practice, skill training, awareness training, as well as graduated exposure to activities.

Conclusion

Parents that choose to homeschool their children tend to be very engaged in their child's academic experience, both before and after beginning to homeschool (Van Galen, 1988). The bases for homeschooling are as diverse as the people deciding to homeschool, but the reasons can typically be divided into ideological and pedagogical (Van Galen, 1991). Common reasons for homeschooling include: having a child with special needs, whether academic, physical, or behavioral, and dissatisfaction with the education and support provided to the child in the public school (Redford et al., 2017).

Unfortunately, once families decide to educate their children within their own homes, they are often virtually cut off from all resources and support that were once available from within the public school (Fields-Smith & Williams, 2009). Homeschooling families are often solely responsible for finding or developing curriculum, creating and implementing interventions, and seeking out support for their child's academic and behavioral needs. Therein lies the disconnect: parents who have decided to homeschool their children as they see it as better able to meet their child's needs are isolated from individuals such as special education teachers, speech and language therapists, and school psychologists, who could provide them with much needed support.

For the current study, the researcher posited that problem-solving consultation could be an excellent match for homeschooling parents needing support in teaching their children. In addition, core features of CBC, such as family-centeredness and a partnership orientation is also well suited for intervention work with homeschooling parents, as it highly involves parents as partners in the development, implementation, and assessment of interventions. Since homeschooling parents are the primary educators of their children, and spend much of their time with their children, it is logical to partner with them to build skills and competencies that they can use to intervene with their child's academic or behavioral difficulties. The purpose of the current study is to assess the efficacy of parent problem-solving consultation for homeschooled children who exhibit externalizing behavior problems.

The current research is an efficacy trial of problem-solving consultation within the homeschooling setting. Efficacy trials measure the change that an intervention can produce under ideal circumstances (Flay, 1986). In contrast, effectiveness trials assess the utility of interventions when they are implemented in real-world settings. Due to the highly structured

nature of the inclusion/exclusion criteria, recruitment, implementation and assessment, the current research is an efficacy trial.

Similarly, since this research is pioneering the examination of the role of school psychologists, problem-solving consultation, and behavioral interventions with homeschooling families, it is essential that the overall feasibility and acceptability of this type of intervention is also measured. Past research on using problem-solving consultation to implement behavioral interventions has been shown to be acceptable to classroom teachers and parents of students in the public schools (Sheridan & Steck, 1995). Researchers have also found that the acceptability of classroom programming, as rated by teachers is indicative of their fidelity and integrity of program implementation (Lakin & Shannon, 2015). Therefore, as a study that is beginning initial exploration of the utility of behavioral interventions in homeschool settings, provided by homeschooling parents, the information provided by parents on the feasibility and acceptability of the interventions will guide future research.

Research Questions and Predictions

The following research questions and predictions were addressed in the research:

1. Is in-home consultation provided to parents who are homeschooling their children efficacious in reducing child externalizing behavior problems?

Prediction 1. Child externalizing behavior problems will be significantly lower after completing the parent-consultation process. Frequency of child externalizing behavior problems will be measured using direct observational assessment of child behavior (Bice-Urbach & Kratochwill, 2016; Sheridan et al., 2013).

2. Can in-home consultation provided to parents homeschooling their children with externalizing behavior problems experience increases in self-efficacy in their parenting skills?

Prediction 2. Parents who receive parent consultation will experience increased self-efficacy in their parenting skills after receiving parent-consultation (Heath, Curtis, Fan, & McPherson, 2015). Parenting self-efficacy will be measured by the *Parenting Scale of Competence* (Johnston & Mash, 1989).

3. Can in-home consultation provided to parents homeschooling their children with externalizing behavior problems experience increases in their teaching self-efficacy?

Prediction 3. Previous research has shown a correlation between parenting self-efficacy involvement in student academics (O'Sullivan et al., 2014). Since the current research addresses parent teaching ability and behavior management, the *Teacher Self-Efficacy Scale* (Tschannen-Moran & Hoy, 2001) will be used to assess parents' sense of self-efficacy regarding their teaching. It is predicted that after receiving problem-solving consultation, parents will have significantly higher self-efficacy in teaching compared to before consultation.

4. Will parents find the consultation process as well as the Behavior Support Plan (BSP) effective and acceptable to implement?

Prediction 4. Similar consultation based BSPs have been implemented in schools with high levels of acceptability from the teachers implementing the interventions (Bice-Urbach & Kratochwill, 2016). Parents who have completed CBC as a part of an intervention for their child have also reported high levels of treatment acceptability (Sheridan & Steck, 1995). Therefore, it is predicted that the homeschooling parents who implement the intervention will report that the consultation process and the BSP are effective and acceptable. Acceptability and effectiveness of the BSP will be measured by the *Behavior Intervention Rating Scale* (Von Brock & Elliott, 1987).

5. Will parents find their collaboration and relationship with the consultant acceptable?

Prediction 5. Previous research on behavior consultation of a similar format with teachers has been found to be acceptable to parents (Bice-Urbach & Kratochwill, 2016). It is therefore predicted that parents will find their interactions with the consultant to be acceptable. The consultant's behaviors will be measured using the *Consultant Evaluation Form* (Erchul, 1987).

6. Exploratory question: Will homeschooling parents find it acceptable to complete consultation with public school mental health professionals, such as school psychologists?

Parents will rate their perceptions of the acceptability of working with mental health professions, such as school psychologists.

Method

Participants

Parents. Parents who homeschool their children and reported externalizing behavior problems in one or more of their children ages 5 through 16 years were eligible for the study. Parents were required to complete an inclusion/exclusion form (see Appendix A) containing inclusion and exclusion criteria for both the parent and child prior to being accepted into the study. Once the parent-child dyad was accepted into the study, they completed a demographics form (see Appendix B).

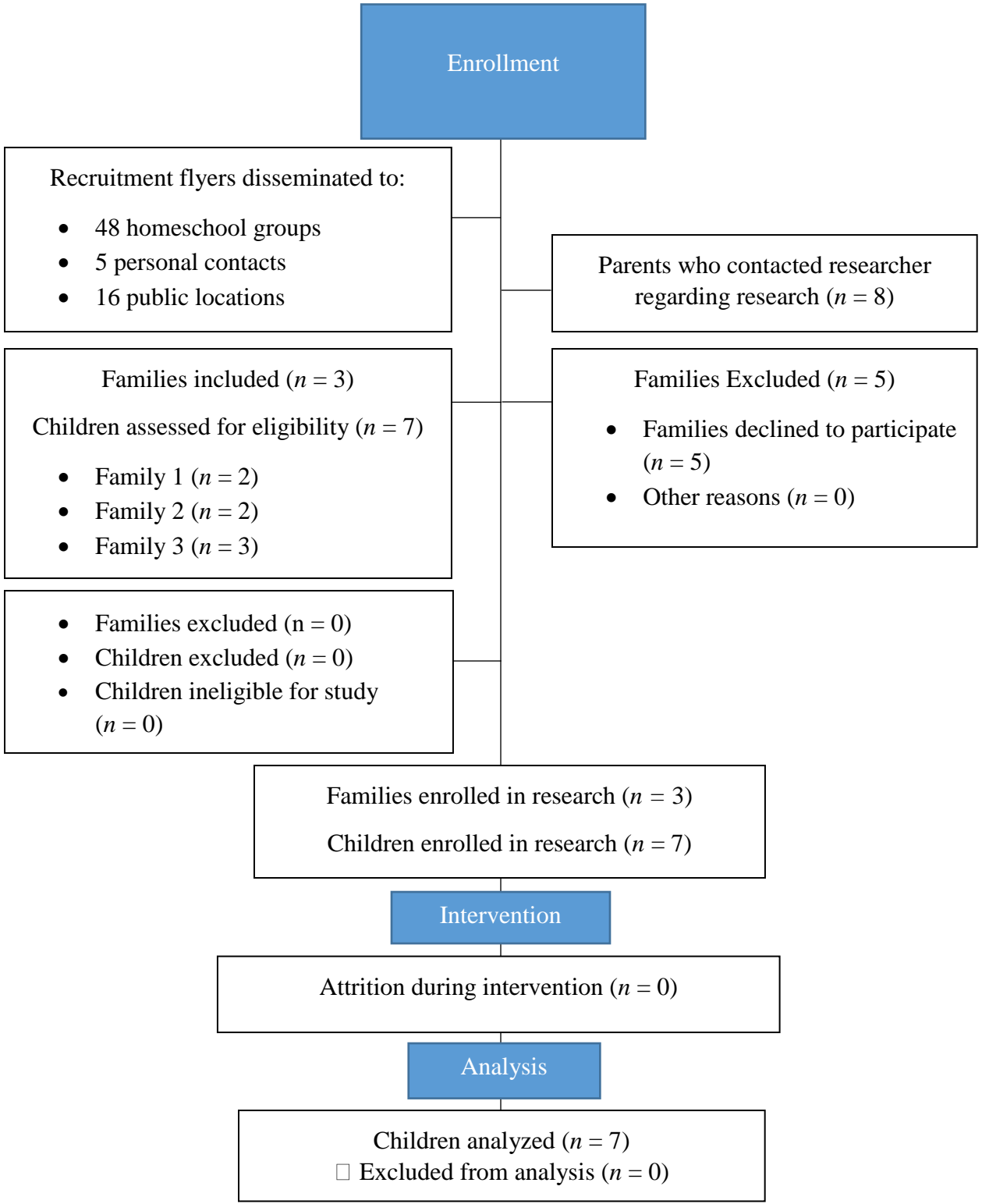
Parent recruitment. Homeschooling parent-child dyads were identified through multiple means. The researcher contacted 48 homeschooling organizations within a 2 hour driving radius of Madison, Wisconsin. The researcher contacted the homeschooling organizations via e-mail three times. Four homeschooling organizations followed up with the researcher providing the information that they would pass the recruitment flyer (see Appendix C) on to the members of their homeschooling organizations. Once the recruitment fliers were disseminated via the homeschooling organizations, the homeschooling families who received the information were responsible for reaching out to the researcher.

Due to an initial low response rate of the homeschooling organizations, the researcher also disseminated the recruitment flyers to five individuals who were connected to the homeschooling community in the Madison area. Finally, the researcher also posted flyers in 16 public locations within the Madison area, including locations such as libraries and community centers. Of the three families who enrolled in the study, one family reported responding to the recruitment flyer from their homeschooling organization and two of the families who enrolled in the study were recruited through direct contact. Enrollment information is displayed in Figure 1.

Figure 1

Recruitment Flow Chart

Recruitment Flow Chart



Family demographic information. Three families enrolled in the research and completed the research study. Each family had multiple children that they enrolled in the study, and all children met the eligibility criteria. Family 1 enrolled 2 third grade twin sons. Family 2 enrolled two sons, a first and third grader. Family 3 enrolled three children, a third grade son, first grade daughter, and son in kindergarten. The demographic information for each family is shown in Table 1.

Table 1

Family Demographic Information

Participant	Gender	Ethn/ Race	Age	Level of ed.	Fam incm	Number of parns/gu in home	Number of children in home	Number of children hmschld	Number of years hmschlng
Parent of 1A, 1B	Female	Cau/ White	45-50	Clg Degree	75,000- 99,999	2	4	3	13+
Parent of 2A, 2B	Female	Cau/ White	35-40	Mstrs Degree	40,000- 74,999	2	4	2	5
Parent of 3A, 3B, 3C	Female	Cau/ White	35-40	Vo-T Degree	75,000- 99,999	2	4	3	3

Note. Cau = Caucasian; Clg = College; Ethn = Ethnicity; Fam = Family; gu = guardians; hmschld = homeschooled; incm = income; Mstrs = Masters; Vo-T = Vocational/Technical

Prior to completing the problem-solving consultation process, the parents enrolled in the research also provided information regarding their rationale for homeschooling, as well as information regarding their homeschooling experience. The answers to the open-ended questions that the parents completed on the demographics form are displayed in Table 2.

Table 2

Family Homeschooling Rationale and Background

Reasons for homeschooling (per a checklist and open-ended answer form)

Parent of 1A and 1B:

- *Religious/moral/family values*
- *Educational values*
- *Cultural values*

Additional information: Our primary reason for homeschooling has always been academic excellence- first for our good students to be challenged, and now for our struggling students to get the individual help they need. We also highly value our family relationships over the influence of the childrens' peers.

Parent of 2A and 2B:

- *Religious/moral/family value*
- *Educational values*
- *Dissatisfaction with child's public school experience related to other concerns in school setting (how we started with child 1)*

Parent of 3A, 3B, and 3C:

- *Religious/moral/family values*
 - *Educational values*
 - *Dissatisfaction with child's public school experience related to behavioral concerns,*
 - *Dissatisfaction with child's public school experience related to academic concerns,*
 - *Dissatisfaction with child's public school experience related to other concerns in school setting*
 - *Specific mental health needs of child*
-

Previous academic experience of child[ren] being homeschooled:

Parent of 1A and 1B: Public school education (Head Start), private church-based preschool

Parent of 2A and 2B: Only homeschool education

Parent of 3A, 3B, and 3C: [Oldest child received] public education (4K and K)

Table 2 (continued)

Family Homeschooling Rationale and Background

If child has previously experienced other educational environments, please describe reasoning for transitioning into homeschooling:

Parent of 1A and 1B: Adoption made it legal [to homeschool]

Parent of 2A and 2B: [No response]

Parent of 3A, 3B, and 3C: [No response]

Please briefly describe the curriculum that you use with your child:

Parent of 1A and 1B: Math-U-See: Mastery-based math, Phonics pathways + first language lesson: grammar, spelling, writing, children's literature for reading (lots of magic tree house, jean fritz readers, biographies, Story of the world for history/geography- reading and oral answers, Apologia for science

Parent of 2A and 2B: C.C. [Classical Conversations] Community Foundation Memory Work; thematic Units for reading/science I put together; Singapore math; homeschool in the Woods & Unit History; lots & lots of authentic literature

Parent of 3A, 3B, and 3C: Base is Heart of Dakota, but a lot of other added side curriculum

Please briefly describe the desired outcomes that you have for your child's homeschooling experience:

Parent of 1A and 1B: 1. Best learning environment for the kids-reach their potential academically, 2. Meaningful and fun interaction within the family, 3. Safe place to grow and learn, 4. Honor God with their lives and learning

Parent of 2A and 2B: I want my child to love learning, to become lifelong learners, to have ability to learn on their own, to become critical thinkers, articulate in communicating & writing, and be strong in their beliefs

Parent of 3A, 3B, and 3C: self-motivated, excited to learn

Table 2 (continued)

Family Homeschooling Rationale and Background

Please describe the behavior management strategies that you have previously attempted with your child:

Parent of 1A and 1B: Time-outs for not accomplishing things -in a 3 minute interval, time outs are minutes off screen time, which can be as much as 60 minutes a day. If they are reading ahead when we read together, sometimes they lose their turn to read aloud. We do short bursts of exercise between subjects to help them re-energize and focus.

Parent of 2A and 2B: consequences, rewards, timeouts, reprimanding, attempt routine (hard for me to be consistent)

Parent of 3A, 3B, and 3C: reinforcement/consequences

Please describe behavior management strategies that you would find acceptable for intervening with your child:

Parent of 1A and 1B: Encouragement, stickers, time, money, high five, choices (you pick the book or movie during free time). (NOT candy or small toys)

Parent of 2A and 2B: cool down ideas, time outs/away, routine ideas (or things like that), checklist ideas for Child 2B self-awareness checklist for Child 2A or activity to work through in his room like a journal?

Parent of 3A, 3B, and 3C: [No Answer]

Parent responsibilities. Participating parents worked with the consultant to identify the behavioral needs of their child. The parent was responsible for completing the four interviews (Problem Identification Interview, Problem Analysis Interview, Plan Implementation Support Session, and Treatment Evaluation Interview), as well the Functional Analysis Interview. Once the parent and consultant developed the Behavior Support Plan (BSP), the parent was responsible for implementing the intervention each school day. The parent was also responsible for collecting multiple data measures. First, the parent was responsible for progress monitoring the

child's behavior using a Goal Attainment Scale (GAS) developed by the consultant. The GAS was developed by the consultant and completed by the parent during each school day at baseline and intervention as they were able. The GAS is a supplemental measure to direct observation as it is an indirect form of measuring child behavior. The GAS provides relevant information regarding the parent's perceptions of child behavior. Finally, the parent was responsible for completing the Weekly Implementation Checklist (Appendix D) to assess their fidelity to the intervention implementation plan. Using the Weekly Implementation Checklist, the parent rated themselves on a 0-3 scale regarding their daily adherence to the implementation. The scale ratings ranged were: 0 = *no implementation*, 1 = *partial implementation of intervention*, 2 = *implementation of most intervention*, 3 = *complete implementation of intervention*.

Students. Students currently receiving a homeschool education who were between the ages of 5 and 16 years old and were currently exhibiting externalizing behavior problems were selected for the study. The age range of the children who enrolled in the research was 5 to 9 years old. After the parent provided consent (see Appendix E), child assent was sought (see Appendix F). For each child, the parent identified between three and five operationally defined disruptive behaviors (see Appendix G). The children enrolled in the study were also required to meet the inclusion/exclusion criteria delineated in Appendix A. The students enrolled in the research were comprised of three sets of siblings. 1A and 1B were twin brothers, 2A and 2B were brothers in first and third grade, and 3A, 3B, and 3C were also siblings.

At the beginning of the research, Participant 1A's mother rated his overall externalizing behaviors on the BASC-3 (Reynolds & Kamphaus, 2015) within the Clinically Significant range. Participant 1A's mother rated his Aggression subscale within the Clinically Significant range and Hyperactivity and Conduct Problems subscale within the At-Risk range. Participant 1B had

previously received a diagnosis of Attention Deficit Hyperactive Disorder (ADHD) and was taking medication to manage his ADHD symptoms. Throughout the research, Participant 1B's mother was in communication with Participant 1B's doctor in order to modify his medication to best meet his needs. Participant 1B's mother rated his overall externalizing behaviors within the Clinically Significant range, with all Externalizing Behavior Problems subscales, Hyperactivity, Aggression, and Conduct Problems, also falling within the Clinically Significant range.

Participant 2A's mother rated his overall externalizing behavior problems within the Average range, with the Aggression subscale falling within the At-Risk range and Conduct Problems and Hyperactivity falling within the Average range. Participant 2B's mother rated his overall externalizing behaviors within the At-Risk range with the Hyperactivity subscale falling within the Clinically Significant range and Aggression and Conduct Problems within the Average range.

Participant 3A's mother rated his overall externalizing behavior problems within the Average range, with Hyperactivity and Aggression falling within the Average range. Participant 3A's mother rated other areas of his behavior on the BASC-3 within the At Risk range, causing him to meet inclusion criteria for the BASC-3. Participant 3B's mother also rated his overall externalizing behaviors within the Average range, with Hyperactivity, Aggression, and Conduct Problems within the Average range. Participant 3B's mother rated other BASC-3 subscales within the At-Risk range, causing him to meet the BASC-3 inclusion criteria for the research. Participant 3C's mother rated her overall externalizing behaviors within the Average range, with the Hyperactivity subscale falling within the At-Risk range and the Conduct Problems and Aggression subscales falling within the Average range.

Table 3 provides demographic information on the students enrolled in the research. Table 3

Student Demographic Characteristics

Participant	Gender	Ethnicity	Age	Number of years homeschooled
1A	Male	Caucasian/White, African American/Black, American Indian	9	4
1B	Male	Caucasian/White, African American/Black, American Indian	9	4
2A	Male	Caucasian/White	7	3
2B	Male	Caucasian/White	9	5
3A	Male	Caucasian/White	5	1
3B	Male	Caucasian/White	9	3
3C	Female	Caucasian/White	7	2

Consultant. The consultant was an advanced school psychology graduate student who was competent in problem-solving consultation, intervention implementation, and homeschooling.

Consultant responsibilities. The consultant completed the consultation procedures developed by Kratochwill and Bergan (1990), utilizing the Problem Identification Interview (PII), Problem Analysis Interview (PAI), Plan Implementation (PI), and Treatment Evaluation Interview (TEI) protocols. In order to assess the function of the child's behavior, the consultant completed an FBA, which took the form of a Functional Assessment Interview (FAI; see Appendix H). The consultant utilized the information of the FAI to collaborate with the parent during the PAI in order to develop a Behavior Support Plan (BSP) for the student. The consultant was also available to each parent throughout the consultation and intervention process to provide support and feedback to each family. The consultant coded all partial interval recordings of the

child's behavior, completed the treatment integrity checklist (TICT) to assess the parent's adherence to the intervention protocol, and completed the consultation fidelity checklists after completing the consultation sessions in order to measure her adherence to the consultation protocol.

Observers. Observers were four school psychology doctoral students. The observers completed observational data training, in which they were trained to an interobserver agreement (IOA) of 80% agreement prior to collecting data. Observers were responsible for completing IOA for 30% of all observational data. Observers completed a minimum of 30% data coding for every phase of the single-case design, with IOA coding ranging from 30% to 42% per phase. Across all participants an average of 36% of each phase was coded. Agreement was measured using the point-by-point agreement ratio, which is a method used to assess the amount of agreement on each instance of observed behavior (Kazdin, 2011). The point-by-point agreement ratio was measured as the number of intervals in which the two observers agree, divided by the total number of intervals, multiplied by 100.

The observational data were collected using Partial Interval Recording (PIR; Pustejovsky & Swan, 2015). The PIR method involves dividing an observation session into K intervals of equal amounts of time. For this study, the observation session lasted 15 minutes, and each interval was 15 seconds long, summing to 60 intervals. The observer counted the behavior as present if the behavior occurred at all during the 15 second interval (Pustejovsky & Swan, 2015). Partial Interval Recording is effective in measuring the prevalence of a specific behavior, and is a widely-accepted measurement of behavior in single-case design research (Pustejovsky & Swan, 2015). If the IOA coder's agreement caused a phase to drop below 80% agreement with the master coder, the coder was required to complete two practice IOA coding sessions that were

consecutively above 80% agreement, and they were then allowed to recode the session that caused the phase to drop below 80% agreement. The average agreement from the coders was 85%, with a range between 75% and 98%.

Observers were responsible for collecting data regarding the consultant's fidelity to each consultation protocol. The consultant's adherence to the consultation protocol was measured using an interview checklist for each consultation session. Adherence was measured by dividing consultant adherence by the opportunities for the consultant to adhere to the protocol. Observers also coded and measured all of the consultant's sessions for integrity. Coder rating of consultant fidelity to the consultation interview across all participants was 95%.

Observers also completed treatment integrity ratings to measure the parent's fidelity to the BSP. Coders completed treatment integrity for 30%-42% of all phases, with an average of 35% of the data coded. Independent coders agreed with the primary coder for 89.6% of the primary rater's adherence ratings. Coders agreed with the primary coder for 92.9% of quality ratings.

Observer responsibilities. Observers were responsible for collecting IOA on the baseline data for the identified problem, as well as collecting the direct observation data during the intervention. The observers were also responsible for observing the parent-consultant consultation sessions to assess the fidelity of the consultation session to Kratochwill and Bergan's (1990) consultation procedure. The observers also completed the TICT (see Appendix I) for 30% of the behavior observation sessions to measure the degree to which the parent adheres to the intervention protocol. Observers completed their ratings by viewing the videotaped sessions, enabling flexibility of observer availability and thorough IOA ratings.

Setting

The research took place in a Midwestern State. Both the consultation and the intervention implementation occurred within each family's home. Children were not present during consultation interviews.

Procedures

For all homeschooling students, the trained graduate student consultant and parent completed the consultation process across four structured interviews: PII, PAI, PI, and TEI. Each interview occurred within the family's home, and lasted approximately on 30 minutes and 44 seconds, with the range being between 4 minutes and 7 seconds, and 1 hour, 26 minutes and 24 seconds. The consultant also completed a FAI after the PII and prior to the PAI, with the parent in order to further understand the functional properties of the child's behavior. The consultant was available to train the parent in implementing the intervention throughout the intervention implementation process.

The behavior support plans were developed through the parent and consultant's collaboration. The behavior support plans were designed to meet the needs of the students and were developed using *Helping Kids Succeed: Behavioral Strategies for Teacher's Manual* as a foundation for BSP designs (Sheridan & Witte, 2010). The *Helping Kids Succeed: Behavioral Strategies for Teacher's Manual* consists of EBIs that are based upon the function of the child's behavior. The functions addressed in *Helping Kids Succeed: Behavioral Strategies for Teacher's Manual* are: attention, escape, obtain objects or activities, lack of motivation, and lack of understanding (as discussed in the literature review). Parents were then responsible for implementing the intervention while providing instruction during homeschool. According to the

problem-solving consultation process, the parents met with the consultant to assess and possibly modify the intervention during the intervention phase.

Problem identification. The first component of the consultation process is the Problem Identification (PI) phase. The purpose of the PI phase is to establish rapport between the consultant and consultee (parent), set goals for the child's outcomes, and operationally define the disruptive behaviors of the child. The parent and the consultant completed the PII (see Appendix G) during this phase. Based on the information gathered by the PII, the consultant and parent developed specific operational definitions of the child's disruptive behaviors as well as desired behaviors. Once the off-task and on-task behaviors were defined: (a) the consultant began collecting baseline Partial Interval Recording of the identified behaviors between approximately once and four times per week, (b) the parent was taught to use the GAS and (c) the parent began collecting daily GAS data. As discussed in the measurement section of the document, the GAS can be considered both an assessment and element of the intervention. The collection of the GAS data provided the parent an opportunity to identify their perceptions of the child's behavior at baseline and intervention and communicate their perceptions to the consultant, thus adding a layer of reflection and communication to the consultation process. The baseline phase was randomized to last between 5 and 6 data points.

Brief functional behavior assessment. After the PII, a functional behavior assessment was conducted using the FAI. The FAI provided an opportunity for the consultant to more thoroughly interview the parent regarding the contextual factors of the child's behavior, including the antecedents and responses to the child's behavior. The consultant also discussed alternate acceptable behaviors to the child's disruptive behavior with the parent. During the

baseline phase the consultant continued to observe and analyze the child's behavior to ensure that the assessment of the function of the child's behavior is accurate.

Problem analysis. After completing the PI phase and the FAI, the consultant and parent completed the PAI (see Appendix J). Using the information gathered during the FAI the parent and consultant discussed desired behavioral outcomes of the child, and identified factors in the setting that can be utilized to support the child's prosocial behaviors. During this phase the consultant and parent decided upon the specific procedural and operative details of the intervention and developed a first draft of the Behavior Support Plan.

Behavior support plan. Based on the results of the FAI, the consultant developed a Behavior Support Plan with the parent during the PAI (see Appendix J). During the PAI the parent and consultant reviewed the findings of the FAI, including the antecedents, sequential conditions, and consequences of the behavior. The consultant and parent then discussed what interventions and supports would result in the desired behaviors. The consultant provided a copy of Sheridan's *Helping Kids Succeed: Behavioral Strategies for Teacher's Manual* for the parent and consultant to review during the PAI session (Sheridan & Witte, 2010). The *Helping Kids Succeed: Behavioral Strategies for Teacher's Manual* is divided into interventions for specific behavior functions. The consultant and parent reviewed the interventions that were pertinent to the function of the child's behavior. During the PAI, the consultant and parent developed a rough draft of an acceptable BSP for the child. Prior to implementation of the BSP, the consultant provided a more completed version of the BSP and BSP materials for the parent to review and provide feedback on. The BSP included a step-by-step implementation plan for the parent to follow. The BSP included setting events, antecedent, and consequence strategies for the parent to implement throughout the entirety of the intervention period. The BSP also included step-by-step

consequence processes for the parent to follow should the child engage in disruptive behavior.

Table 4 includes information on the behavior definitions selected for each child as well as a brief explanation of each child's BSP.

Table 4

Behavior Definitions and Brief Explanations of Behavior Support Plans.

Behavior Definitions	Strategies in Behavior Support Plan
Student 1A	
<p><i>Off-task verbal (OFT-V):</i> defined as any audible verbalizations not permitted and/or are not related to an assigned academic task. These verbalizations may include communication of refusal, rejection, or displeasure. A negative verbal noise could be a groan, sigh, or words that are either negative or verbalized in a negative tone.</p>	<p>Participant 1A's BSP included training of appropriate social skills (i.e. how to ask appropriately and therefore receive his mother's help), pre-teaching of behavior expectations, self-monitoring, differential reinforcement (i.e. ignoring inappropriate bids for attention) and rewards for on-task behaviors of appropriate.</p>
<p><i>Off-task motor (OFT-M):</i> any instance of motor activity that is: a) not directly associated with an assigned academic task and the child's eyes are off of the assigned task or b) a forceful movement directed at another person or object, either directly or by utilizing a material object as an extension of the hand.</p>	
<p><i>Independent engaged time:</i> defined as times when the student is engaged in assigned independent work. The student could be engaged in either passive or active independent work. If the child is reading a math assignment, reading must be under 30 seconds and followed by active engagement (writing, counting, asking for help) in order to be considered engaged.</p>	
<p><i>Off-task passive (OFT-P):</i> times when a student is passively not attending to an assigned academic activity of at least 3 consecutive seconds. Included are those times when a student is quietly waiting after the completion of an assigned task but is not engaged in an activity authorized by the teacher.</p>	

Table 4 (continued)

Behavior Definitions and Brief Explanations of Behavior Support Plans.

Behavior Definitions	Strategies in Behavior Support Plan
Student 1B	
<p><i>Off-task motor (OFT-M)</i>: any instance of motor activity that is: a) not directly associated with an assigned academic task and the child's eyes are off of the assigned task OR b) a forceful movement directed at another person or object, either directly or by utilizing a material object as an extension of the hand.</p> <p><i>Independent engaged time</i>: defined as times when the student is engaged in assigned independent work. The student could be engaged in either passive or active independent work. If the child is reading a math assignment, reading must be under 30 seconds and followed by active engagement (writing, counting, asking for help) in order to be considered engaged.</p> <p><i>Off-task passive (OFT-P)</i>: times when a student is passively not attending to an assigned academic activity of at least 3 consecutive seconds. Included are those times when a student is quietly waiting after the completion of an assigned task but is not engaged in an activity authorized by the teacher.</p>	<p>Participant 1B's BSP included coaching of calming strategies and reinforcement for maintaining a "calm body," frequent and regular praise from mom for his on-task behaviors, pre-teaching of behavior expectations, and rewards for on-task behaviors.</p>
Student 2A	
<p><i>Off-task verbal (OFT-V)</i>: defined as any audible verbalizations not permitted and/or are not related to an assigned academic task. These verbalizations may include communication of refusal, rejection, or displeasure. A negative verbal noise could be a groan, sigh, or words that are either negative or verbalized in a negative tone.</p> <p><i>Independent engaged time</i>: defined as times when the student is engaged in assigned independent work. The student could be engaged in either passive or active independent work. If the child is reading a math assignment, reading must be under 30 seconds and followed by active engagement (writing, counting, asking for help) in order to be considered engaged.</p>	<p>The BSP included clear behavior expectations for the child, with regular check-ins to assess the child's adherence to the expectations. The BSP also included positive attention for on-task behaviors, as well as the chance to earn rewards (small prizes) for on-task behavior. The BSP also included self-monitoring of behavior.</p>

Table 4 (continued)

Behavior Definitions and Brief Explanations of Behavior Support Plans.

Behavior Definitions	Strategies in Behavior Support Plan
Student 2A	
<p><i>Off-task motor (OFT-M)</i>: any instance of motor activity that is: a) not directly associated with an assigned academic task and the child's eyes are off of the assigned task, or b) a forceful movement directed at another person or object, either directly or by utilizing a material object as an extension of the hand.</p>	
Student 2B	
<p><i>Off-task motor (OFT-M)</i>: any instance of motor activity that is: a) not directly associated with an assigned academic task and the child's eyes are off of the assigned task, or b) a forceful movement directed at another person or object, either directly or by utilizing a material object as an extension of the hand.</p>	
<p><i>Independent engaged time</i>: defined as times when the student is engaged in assigned independent work. The student could be engaged in either passive or active independent work. If the child is reading a math assignment, reading must be under 30 seconds and followed by active engagement (writing, counting, asking for help) in order to be considered engaged.</p>	<p>Student 2B's BSP included very clear behavioral expectations for each subject intervened upon (math, writing, reading). The BSP also included mom giving frequent praise for on-task behavior and hard work. Finally, the BSP included rewards for the child to earn based on his on-task behavior.</p>
<p><i>Off-task verbal (OFT-V)</i>: defined as any audible verbalizations not permitted and/or are not related to an assigned academic task. These verbalizations may include communication of refusal, rejection, or displeasure. A negative verbal noise could be a groan, sigh, or words that are either negative or verbalized in a negative tone.</p>	

Table 4 (continued)

Behavior Definitions and Brief Explanations of Behavior Support Plans.

Behavior Definitions	Strategies in Behavior Support Plan
Student 3A	
<p><i>Off-task motor (OFT-M)</i>: any instance of motor activity that is: a) not directly associated with an assigned academic task and the child's eyes are off of the assigned task, or b) a forceful movement directed at another person or object, either directly or by utilizing a material object as an extension of the hand.</p>	<p>Student 3A's BSP included immediate praise for beginning school work in a prompt manner, clear expectations for behavior when completing schoolwork, as well as clear expectations for behavior when he was stuck on a problem. The BSP included the ability to earn small rewards for on-task behavior.</p>
<p><i>Off-task verbal (OFT-V)</i>: defined as any audible verbalizations not permitted and/or are not related to an assigned academic task. These verbalizations may include communication of refusal, rejection, or displeasure. A negative verbal noise could be a groan, sigh, or words that are either negative or verbalized in a negative tone.</p>	
<p><i>Independent engaged time</i>: defined as times when the student is engaged in assigned independent work. The student could be engaged in either passive or active independent work. If the child is reading a math assignment, reading must be under 30 seconds and followed by active engagement (writing, counting, asking for help) in order to be considered engaged.</p>	
<p><i>Off-task passive (OFT-P)</i>: times when a student is passively not attending to an assigned academic activity of at least 3 consecutive seconds. Included are those times when a student is quietly waiting after the completion of an assigned task but is not engaged in an activity authorized by the teacher.</p>	

Table 4 (continued)

Behavior Definitions and Brief Explanations of Behavior Support Plans.

Behavior Definitions	Strategies in Behavior Support Plan
Student 3B	
<p><i>Off-task motor (OFT-M)</i>: any instance of motor activity that is: a) not directly associated with an assigned academic task and the child's eyes are off of the assigned task, or b) a forceful movement directed at another person or object, either directly or by utilizing a material object as an extension of the hand.</p> <p><i>Off-task passive (OFT-P)</i>: times when a student is passively not attending to an assigned academic activity of at least 3 consecutive seconds. Included are those times when a student is quietly waiting after the completion of an assigned task but is not engaged in an activity authorized by the teacher.</p> <p><i>Independent engaged time</i>: defined as times when the student is engaged in assigned independent work. The student could be engaged in either passive or active independent work. If the child is reading a math assignment, reading must be under 30 seconds and followed by active engagement (writing, counting, asking for help) in order to be considered engaged</p>	<p>Student 3B's BSP included coaching mom on providing differential attention (i.e. ignoring off-task verbalizations and praising engaged time). The BSP also included clear behavior expectations for his independent work, where he was expected to work by himself for seven minute segments, and could check in with mom regarding questions at the end of each seven minutes. The BSP also included a means for the student earn small rewards for working independently for those seven minute segments.</p>
Student 3C	
<p><i>Off-task motor (OFT-M)</i>: any instance of motor activity that is: a) not directly associated with an assigned academic task and the child's eyes are off of the assigned task, or b) a forceful movement directed at another person or object, either directly or by utilizing a material object as an extension of the hand.</p> <p><i>Off-task verbal (OFT-V)</i>: defined as any audible verbalizations not permitted and/or are not related to an assigned academic task. These verbalizations may include communication of refusal, rejection, or displeasure. A negative verbal noise could be a groan, sigh, or words that are either negative or verbalized in a negative tone.</p>	<p>Student 3C's BSP included frequent and scheduled praise for on-task behavior, as well as immediate and specific praise for asking appropriately for help. Student 3C's BSP also included behavior expectations for completing work, as well as expectations for when she was stuck on work. Finally the BSP included the opportunity to earn small rewards for being on-task.</p>

Table 4 (continued)

Behavior Definitions and Brief Explanations of Behavior Support Plans.

Behavior Definitions	Strategies in Behavior Support Plan
Student 3C	
<i>Independent engaged time</i> : defined as times when the student is engaged in assigned independent work. The student could be engaged in either passive or active independent work. If the child is reading a math assignment, reading must be under 30 seconds and followed by active engagement (writing, counting, asking for help) in order to be considered engaged.	<i>Independent engaged time</i> : defined as times when the student is engaged in assigned independent work. The student could be engaged in either passive or active independent work. If the child is reading a math assignment, reading must be under 30 seconds and followed by active engagement (writing, counting, asking for help) in order to be considered engaged.

One area of concern that was reported by all three homeschooling parents was the amount of continuous supervision and reminders that the parents were giving to their children in order for their children to stay on task. Parents noted that when they would stop providing direct attention and guidance to their children, the children would often stop working and begin engaging in off-task behaviors. Therefore, for all participants, independent engaged time was measured. Independent engaged time consisted of intervals in which the participant engaged in some passive or active school work without the direct supervision or support of the parent.

Plan implementation. Once the BSP was completed and agreed upon by the consultant and parent, the intervention was implemented. Since the child was receiving a homeschool education, the intervention only took place in the home setting with the parent who was primarily providing the education. Throughout the PI phase, the consultant was available to provide continued support to the parent. The consultant was available after PIR observations to answer questions and provide feedback to the parent regarding their implementation of the BSP. The consultant followed up with the parents when significant deviation from the BSP was noted. Similarly, the consultant provided in-vivo support to the parent during the intervention,

particularly when the parent had questions about the implementation during the intervention session. Similarly, the consultant provided coaching and problem-solving support when the parent experienced scenarios that had not been anticipated. The consultant also completed the Plan Implementation Support Session (see Appendix K) with the parent after three data points of intervention data had been completed. During the Plan Implementation Support Session, the consultant and parent reviewed the data from the first three intervention data points, discussed how BSP implementation was going, whether adaptations were necessary, and what the child's behavior was in comparison to the parent's behavior goals for the child.

Treatment evaluation. The purpose of the final phase of consultation was to assess to what degree the intervention goal was achieved, and how acceptable the consultation and intervention process was to the parent (Sheridan & Kratochwill, 1992). The TEI (see Appendix L and M) assessed the efficacy and acceptability of the intervention process.

Consultation and intervention fidelity.

Multiple measures were implemented during the consultation and intervention implementation process to ensure that all procedures implemented during the research were completed as designed. BSP implementation integrity was measured by both the consultant and the parent. The consultant completed a TICT (see Appendix I) for the sessions that she was present at the family's homes to collect PIR. The parents responsible for implementing the intervention also completed a Weekly Implementation Checklist to monitor their adherence to the BSP on days where they implemented the BSP. The utilization of the Weekly Implementation Checklist allowed the researcher to assess: (a) the parents' perceived levels of BSP implementation adherence, as well as (b) ratings of adherence on days of BSP implementation on days of implementation when the consultant was not present.

Treatment integrity. The consultant completed a TICT during all PIR observation sessions to ensure that the parent was implementing the intervention in the manner that was intended. The TICT measure included: (a) a description of each step of the consultative process, (b) identification of the level of adherence that the consultant maintained during each step of the consultative procedure, (c) measurement of the quality of the consultation implementation, and (d) anecdotal notes on the implementation of each step (Sanetti, Collier-Meek, Long, Byron, & Kratochwill, 2015). The adherence rating measured the degree to which the parent adhered to the steps of the BSP, whereas the quality rating measured how well the parent executed each step of the BSP (e.g., if the BSP included a step to praise the child and the parent gave the child praise with a harsh or sarcastic tone, the parent would receive a lower quality rating for that step). Table 5 displays the consultant's rating of the parents' implementation of the BSP. The TICT ratings ranged from 0-3 for both Adherence and Quality of implementation. For adherence of implementation, the ratings were as follows: 0 = *none*, 1 = *limited*, 2 = *substantial*, 3 = *complete*. For quality of implementation, the ratings were as follows: 0 = *poor*, 1 = *fair*, 2 = *good*, 3 = *excellent*. The independent coders were responsible for coding treatment integrity for a minimum of 30% of the intervention sessions recorded by the consultant in order to ensure the consultant was completing the TICT measurement in a reliable manner. The independent coders' agreement of TICT across all sessions needed to be at least 80% to ensure that the consultant was completing TICT in a reliable and accurate manner.

Table 5

Treatment Integrity Adherence and Quality

Participant	TICT Adherence <i>M</i>	TICT Quality <i>M</i>
1A	2.46 (independent engaged time) 2.89 (motor) 2.80 (passive) 2.87 (verbal)	3.0 (independent engaged time) 3.0 (motor) 3.0 (passive) 2.97 (verbal)
1B	2.81 (independent engaged time) 2.76 (motor) 2.71 (passive)	2.92 (independent engaged time) 3.0 (motor) 3.0 (passive)
2A	2.93 (math) 2.96 (reading) 2.75 (writing)	3.0 (math) 3.0 (reading) 2.89 (writing)
2B	2.93 (math) 2.96 (reading) 2.81 (writing)	3.0 (math) 3.0 (reading) 2.89 (writing)
3A	2.9	3.0
3B	2.9	2.9
3C	3.0	3.0

Weekly implementation checklist. A weekly implementation checklist was provided to each parent throughout the course of the BSP implementation period. The weekly implementation checklist divided each child's intervention into steps and the parent was responsible for reporting their adherence to the implementation plan for each day that they implemented the BSP. The fidelity rating was as follows: 0 = *no implementation*, 1 = *partial implementation of intervention*, 2 = *implementation of most intervention*, 3 = *complete implementation of intervention*. The weekly implementation checklist also provided the parents an opportunity to write notes regarding implementation of the intervention, so as to follow up and provide feedback to the consultant. Table 6 displays the averages of parents' ratings of their implementation of the BSP for each intervention implemented. The parent of 1A and 1B

implemented interventions across behaviors, therefore all behavior specific interventions are listed below. The parent of children 2A and 2B implemented three different interventions across the three school subjects where interventions were implemented. Finally parent three was only responsible for reporting weekly implementation for one intervention per child, as each received one BSP for one setting.

Table 6

Weekly Implementation Ratings

Participants	Mean Implementation
1A	2.7 (verbal) 2.7 (motor) 2.7 (passive) 2.1 (independent work)
1B	2.7 (motor) 2.7 (passive) 2.6 (independent work)
2A	3 (reading) 3 (writing) 3 (math)
2B	3 (reading) 2.9 (writing) 3 (math)
3A	3
3B	3
3C	3

Consultant fidelity checklists. Throughout the consultation process, the consultant and an independent rater completed consultation fidelity checklists to determine the extent to which the consultant adhered to the consultation process. Agreement between the independent rater and consultant was measured as the number of intervals in which the two observers agree, divided by the total number of intervals, multiplied by 100. Table 7 depicts the consultant and independent coders' ratings of the consultant's fidelity to the consultation process. The fidelity percentage for each participant is the consultants' mean fidelity across the PII, PAI, Plan Implementation Support Sessions, as rated by the independent coder and consultant. The average consultant

fidelity to the consultation interview across all participants was 99%. The independent coder rating of consultant fidelity to the consultation interview across all participants was 95%.

Table 7

Consultation Fidelity Ratings

Participant	Consultant rating of fidelity	Independent coder rating of fidelity
1A	98%	89%
1B	94%	90%
2A	98%	97%
2B	98%	90%
3A	100%	99%
3B	99%	100%
3C	100%	100%

Measurement

Direct observation. Through the PII phase, the parent and consultant identified operationally defined disruptive behaviors as well as a specific time of homeschooling day or academic subjects during which the child is most likely to engage in the disruptive behavior. The consultant and parent decided upon 3-5 behaviors, both on-task and off-task behaviors. These behaviors can be found in Table 4. The on-task behaviors were behaviors that the parent and consultant developed interventions in order to increase, whereas the parent and consultant developed definitions of the child's off-task behaviors that the parent desired to decrease. Many of operational definitions developed for the students were adaptations of behavioral definitions utilized in *Academic Skills Problems* (Shapiro, 2011). Each of the behaviors was uniquely coded using PIR (see Appendix N). During baseline, intervention, and follow-up, the consultant observed the child's behavior for 15 minutes between approximately once and four times each week. Each 15-minute observation period was divided into 60 15-second segments. The

behaviors were recorded based on partial intervals, meaning that the consultant recorded the behavior if it occurred at all in each 15-second interval. After each observation period the consultant calculated the percentage of intervals that the child engaged in each off-task and on-task behavior. The consultant measured the children's behaviors between approximately once and four times per week during baseline and intervention. The independent raters provided IOA for 30% of each child's direct observation data. Agreement was measured as the number of intervals in which the two observers agree, divided by the total number of intervals, multiplied by 100. Observers were trained to mastery (<80% reliability) prior to completing IOA's. The IOA's gathered met the guidelines for single-case research from What Works Clearinghouse (WWC) *Pilot Single-Case Design Standards* (Kratochwill et al., 2010). If the IOA's were not reliable at 80%, then they were retrained until they completed two practice IOA sessions with agreement of at least 80%. Once they were retrained to 80% agreement, they were permitted to recode the sessions.

Goal attainment scale. Initially developed to assess mental health service outcomes, Goal Attainment Scales (GAS; see Appendix O) measures how an individual is progressing on a target behavior (Kiresuk & Sherman, 1968). The basic procedures of goal attainment scaling include (a) identifying the disruptive behavior to measure (b) the operational outcomes of the intervention and (c) the development of measurable, successive behaviors that increasingly approximate the desired behavior. The approximations of the appropriate behavior are then operationalized on a scale (e.g., 1-10). The GAS is well-suited for the consultation process as the development of the GAS involves collaboration between the consultant and parent (Kratochwill & Bergan, 1990). Goal Attainment Scales have previously been used to monitor perceptions of goal attainment (Bice-Urbach & Kratochwill, 2016).

GAS are particularly helpful in assisting behavior change because when intervention-outcome goals are progress monitored frequently and either made public to the client, or completed by the client, the client tends to meet the intervention goal much more quickly (Harkin et al., 2016). GAS ratings are recommended during the consultative process as they provide the consultee an opportunity to communicate their perceptions of the child's behavior prior to and during intervention (Sladeczek, Elliott, Kratochwill, Robertson-Mjaanes, & Stoiber, 2001). For the current research, the parent completed the GAS on the child's on-task and off-task behaviors, beginning at baseline and continuing through intervention. The GAS gave the parent an opportunity to assess the child's progress, and become aware of how their interactions with their child influence the child's behaviors. Similarly, the GAS allowed the consultant to determine the parents' perceptions of the children's behaviors during both the baseline and intervention phases. The findings of Harkin et al., (2016) as well as of Sladeczek et al., (2001) indicate that in the current research the GAS should not only be considered as a measurement tool, but also as a component of the intervention, as the GAS creates an opportunity for the parent to reflect on their child's behavior and facilitates increased communication regarding the parent perception of child behavior between the parent and consultant.

Behavior Assessment Scale for Child-3 (BASC-3; Reynolds & Kamphaus, 2015). The BASC-3 is an assessment that measures the maladaptive and adaptive behaviors in the home and community settings. The BASC Parent Rating Scale (BASC-PRS) has three forms based on child's age. For the current study the BASC-3 Parent Rating Scale-Child (PRS-C), which was designed for assessing children between the ages of 6 and 11, as well as the BASC-3 Parent Rating Scale-Preschool (PRS-P), which assess behaviors in children 2 through 5, were used. The BASC-3 was administered both before the intervention at the beginning of the research prior to

the consultation and after the intervention at the conclusion of the research. The pre and post intervention BASC-3 scores were compared to assess the difference in the parents' reports of child behavior before and after the intervention.

The BASC-3 PRS-P and BASC-3 PRS-C include the assessment of four composite areas: Externalizing Problems Composite, Internalizing Problems Composite, Behavior Symptoms Index Composite, and Adaptive Skills Composite. Externalizing Problems Composite includes the subscales: Hyperactivity and Aggression. Internalizing problems includes assessment of Anxiety, Depression, and Somatization. Behavioral Symptoms Index Composite includes sub-categories of: Atypicality, Withdrawal, and Attention Problems. Finally, Adaptive Skills Composite contains subtests: Adaptability, Social Skills, Activities of Daily Living, and Functional Communication. The BASC-3 PRS-C has two additional subscales: Conduct Problems, within the Externalizing Problems Composite, and Leadership within the Adaptive Skills Composite. The BASC-3 PRS has a high test-retest reliability, with a corrected stability coefficient for composite scores on the BASC-3 PRS P ranging from .90 to .93 and a corrected stability coefficient for the BASC-3 PRS C ranging from .88-.92 (Reynolds & Kamphaus, 2015). Similarly, internal consistency is high for all versions of the BASC-3 PRS, with Cronbach's alpha of BASC-3 PRS composite scores ranging between .87 and .96 (Reynolds & Kamphaus, 2015). The BASC-3 PRS also has many validity indexes. The *F* index on the BASC-3 PRS measures the parent's tendency to be overly negative in the rating of the child. The BASC-3 PRS also contains a consistency index, which measures the consistency with which the parent answers similar questions, as well as response pattern index, which detects response patterns that are cyclical or repeated (Reynolds & Kamphaus, 2015).

Each parent completed a BASC-3 for every child enrolled in the study as a part of the inclusion criteria for enrollment in the study. In order for the child to meet inclusion criteria for the research, each child must have received at least one subscale rating within the At-Risk range. Each parent also completed a BASC-3 at the closing of the problem-solving consultation process. The researcher provided reports of the pre and post intervention BASC-3 scores for review during the TEI.

Parent Sense of Competence (PSOC; Johnston & Mash, 1989). The PSOC is a measure of parenting competence for parents of elementary school students. The questionnaire is comprised of 17 items, with two subscales: satisfaction and efficacy. The scale has adequate internal consistency, with an alpha coefficient of .75 for the satisfaction factor and .76 for the efficacy factor (Johnston & Mash, 1989). The PSOC answers range from 1 (*strongly disagree*) to 6 (*strongly agree*). The parents completed the PSOC for each child enrolled in the research both before they began the baseline phase and at the end of the intervention at the conclusion of the research.

Teacher Self-Efficacy Scale (TSES; Tschannen-Moran & Woolfolk Hoy, 2001). The TSES was used to assess the parents' levels of self-efficacy regarding their teaching abilities. Parents enrolled in the research completed the TSES for each of their children both at the beginning of the research and at the conclusion of the research. The TSES is comprised of 24 Likert-style questions asking "How much can you do?" with answers ranging from 1 (*nothing*) to 9 (*a great deal*). The TSES is divided into three categories: Efficacy in Student Engagement, Efficacy in Instructional Strategies, and Efficacy in Classroom Management. All three categories of the TSES have high reliability, with Efficacy in Student Engagement having an alpha of .87, Efficacy in Instructional Strategies having an alpha of .91, and Efficacy in Classroom

Management having an alpha of .90 (Tschannen-Moran & Woolfolk Hoy, 2001). The overall alpha for the TSES is .94 (Tschannen-Moran & Woolfolk Hoy, 2001).

Behavior Intervention Rating Scale (BIRS; Von Brock & Elliot, 1987). An adapted version of the BIRS (see Appendix P) was used to examine the parents' perceptions of the acceptability and feasibility of the consultation and intervention process both before and after the intervention implementation. The Pre-BIRS was completed after the consultant and parent had developed the intervention, but prior to the implementation of the intervention. The Pre-BIRS was completed at this point in the research because the Pre-BIRS includes questions regarding the acceptability and feasibility of the intervention, and this timing allowed the parent to have comprehensive understanding of the intervention that they would be implementing prior to rating its feasibility and acceptability. The Post-BIRS was completed after the completion of the research, during the TEI session. Adapted versions of the BIRS have been used to measure the conjoint behavioral consultation process, and have shown that the CBC process is typically highly acceptable to teachers (Bice-Urbach & Kratochwill, 2016; Cowan & Sheridan, 2003). The acceptability and effectiveness scales of the BIRS have been found to be highly correlated, with a Pearson correlation of .79 (Von Brock & Elliot, 1987). The BIRS contains 24 items which are scaled on a 6-point Likert scale with ratings as: 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, 5 = *agree*, 6 = *strongly agree*. The BIRS Acceptability factor contains 15 questions on a 6-point Likert scale, whereas the BIRS Effectiveness factor has 9 questions, also on a 6-point Likert scale. Both the Acceptability factor and Effectiveness factor have been shown to have high reliability, with the Acceptability factor having a Cronbach's alpha of .98 and the Effectiveness factor having a Cronbach's alpha of .92 (Von Brock & Elliot, 1987).

Consultant Evaluation Form. The *Consultant Evaluation Form* (CEF; Erchul, 1987) was used to assess the parents' perceptions of the work of the consultant. The CEF is comprised of 12 Likert-Scale questions ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The parents completed a CEF-Pre (see Appendix Q) prior to beginning the consultation, which measured their expectations regarding the work of the consultant, as well as their collaboration and relationship with the consultant. After completing the consultation and intervention, the parents completed a CEF-Post (See Appendix R). The CEF has been found to have high internal consistency, with mean alpha coefficients ranging from .94 to .95 (Erchul, 1987). The CEF has been used to assess teachers' satisfaction with the consultant during the CBC process and has indicated high satisfaction with the work and relationship provided by the consultant (Sheridan, Clark, Knoche, & Edwards, 2006).

Acceptability of Working with Mental Health Professionals. The Acceptability of Working with Mental Health Professionals form (Appendix S) was developed for the current study. The purpose of the form was to assess the interest level of homeschooling families in working with school psychologists in the public schools and school psychologists in private practice. The questionnaire contained questions regarding potential benefits and barriers in working with school psychologists for various purposes (consultation, expertise, assessment). An example of an item on the form is the Likert scale question: "I would find it acceptable to complete a similar consultation process with a school psychologist from a public school." The form included both Likert scale and open-ended questions. The Likert scale questions ranged from 1 (*strongly disagree*) to 7 (*strongly agree*).

Research Design

Multiple baseline design. The current research utilized single-case design methodology to analyze the quantity of the child's off-task and on-task behaviors before, during, and after the intervention implementation (Kazdin, 2011). The experimental design that was utilized was a multiple baseline design (MBD; Kratochwill et al., 2010). The researcher used three types of MBD with three different homeschooling families. The researcher chose different MBD designs due to the staggered enrollment of participants, as well as each family's behavioral needs. For Family 1, the researcher completed the consultation process with the parent for each of her 3rd grade sons. With Family 1, the researcher implemented a MBD *across behaviors* design. Based on initial observations of the students, as well as the interviews with the mother, it was clear that the main setting in which the children were exhibiting off-task behaviors was math. During prebaseline observations, the researcher did not observe significant off-task behavior from either child 1A or 1B. Based on the researcher's observations, the minimal amount of off-task behavior was due to the mother standing over the children as they worked, redirecting the students when they would begin to be off-task, and consistent reminders to the students to work on the next question. The researcher discussed these observations with the mother and the mother shared that she felt as though she was providing significantly more redirecting than she wanted to provide, but that it was the only method that she had found helpful in keeping her children on-task. The mother shared that she would like her children to exhibit more self-regulation skills, and be able to complete their math more independently, without her frequent reminders to stay on-task. Therefore, for baseline for child 1A and 1B, the researcher implemented an analog situation where the mother reduced her interactions with her children to the degree that she believed was an appropriate amount of support to provide them. For example, the mother was in the room, and

was available to help the students if they requested her help in math, but she did not redirect them if they were off-task.

The second family (Family 2) enrolled two elementary aged students. Based on the reports of the mother from the PII, the students were exhibiting off-task behaviors across multiple school subjects, with the mother's priority for intervention being math, writing, and reading. Because of these three settings, a multiple baseline design *across settings* design was used. Based on the mother's curriculum and school implementation, participant 2A, who was in 1st grade, and participant 2B, who was in 3rd grade completed their school subjects simultaneously. For writing and reading, they often completed their assignments collaboratively (i.e. taking turns reading aloud). Based on these factors, the researcher chose to begin the implementation of the interventions for participants 2A and 2B simultaneous, so as to reduce issues of internal validity. The primary homeschooling parent for Family 2 also described significant concern regarding her children's ability to work independently without frequent redirects from her. Therefore for baseline observation in math, writing, and reading, the students were pre-taught the material and then the mother had them work independently and she was available if they needed help with an academic question.

Finally, for Family 3, the mother enrolled three children in the study. Based on the researcher's interview with the mother, overall classroom management while teaching all 3 students was an area of concern for her. Since Family 3 enrolled three children in the research, and there were not multiple distinct settings for intervention for each child, the researcher decided that the best MBD fit for family three was MBD *across participants*.

Randomization. This study was designed to meet the What Works Clearinghouse (WWC) *Single-Case Design Pilot Standards* for research design. In order to meet WWC *Design*

Standards, the study must: (a) systematically manipulate the independent variable, (b) assess each outcome variable over time by one assessor, with IOA of 80% in each phase and IOA coded during at least 20% of the observations, (c) have three replications of phases and, (d) have five data points per phase (Kratochwill et al., 2010). All MBD used in the current research met the above criteria and therefore met *WWC Single Case Design Standards*.

For Families 2 and 3 a dual randomization method was also implemented (Kratochwill & Levin, 2010). Dual randomization refers to randomization of both intervention starting point (within certain bounds), as well as randomization of MBD feature (i.e., participant, setting, behavior). In order to adhere to *WWC Single-Case Design Standards*, baselines lasted between 5 and 6 data points. The intervention start point was randomized to begin after either datum five or six. After the first intervention was implemented, randomization was utilized to select a starting point of either three or four data points of the previous intervention prior to implementing the following intervention. In terms of randomization of intervention type, for Family 2, the settings were randomized in order to select the school subjects that were intervened upon. Based on randomization, writing was intervened upon first, followed by reading, and then math. For Family 3, randomization was utilized to assess the order in which the students would receive intervention. Based on randomization, 3C began intervention first, followed by 3B, and then 3A.

For Family 1 the researcher randomized the intervention starting points for students 1A and 1B, with the first intervention beginning after either baseline datum point 5 or 6, and subsequent interventions being implemented either 4 or 5 data points after the implementation of each previous intervention. The implementation of intervention for participants 1A and 1B used a response class hierarchy (Richman, Wacker, Asmus, Casey, & Andelman, 1999). Response

class hierarchies can be implemented when an individual exhibits behaviors of varying levels of severity that all serve the same functional purpose (Richman et al., 1999). The purpose of using a response class hierarchy is to continually reinforce decreasingly severe behavior concerns, until the individual is able to display appropriate behaviors that serve their desired function (Richman et al., 1999). The behaviors measured for participant 1A were off-task verbal, off-task motor, off-task passive, and independent engaged time. Based on the FAI the researcher found that the presence of these behaviors (or absence of independent engaged time) related to receiving attention from mom and avoiding school work. Therefore, the researcher implemented the intervention in order to reinforce approximations of appropriate behavior (which was independent engaged time). The order that the researcher implemented the interventions was as follows: off-task verbal, off-task motor, off-task passive, and independent engaged time. The behaviors that were measured for participant 1B were as follows: off-task motor, off-task passive, and independent engaged time. Based on the researcher's observations and the findings of the FAI, these off-task behaviors were maintained by his avoidance. The response class hierarchy was as follows: off-task motor, off-task passive, and independent work, with the desired outcome that the participant would complete his school work efficiently in order to earn time completing other activities.

Follow up. A six week follow up was completed with Family 1 and Family 3. During the six week follow up, the researcher completed an observation and assessed the participants' behavior using PIR. The researcher also measured the parents' adherence to the intervention plan using the TICT for each plan. The parent also completed a GAS for the day that the observation was completed in order for the researcher to measure the parents' perception of the child's behavior during the time observed. The follow up sessions occurred during the summer of 2017.

Both Family 1 and Family 3 completed school work throughout the summer, whereas Family 2 did not, which accounts for the inability of the researcher to complete follow up with Family 2. The follow-up data were not included in any statistical or visual analyses, as the one observation was not sufficient data for a complete phase per *WWC Design Standards*. For Families 1 and 3, the follow up phase is denoted with “FU.”

Analysis Plan

Visual analysis. The visual analysis of the observational data met the *WWC Single-Case Design Pilot Standards for evidence criteria* for participants in family two and family three. The *WWC Single-Case Design Pilot Standards for evidence criteria* involve measuring four steps (Kratochwill et al., 2010). The visual analysis was completed using the “Evidence Standards and Data Protocol Dictionary.” This protocol was used to complete visual analysis of outcome graphs using the *WWC Single-Case Design Pilot Standards* (Maggin, Briesch, & Chafouleas, 2013).

In order to meet *WWC Design Standards*, the data needed to meet WWC’s four design standards. First, of all, the study needed to have an independent variable that is systematically manipulated by the researcher. Secondly, each outcomes variable needed to be measured over time by more than one assessor, with interassessor agreement for at least 20% of the data points in each phase, with at least 80% agreement between the interassessor and master coder. The third design standard requires at least three attempts to demonstrate intervention effect. Finally, each phase must have a minimum of three data points. If each phase has between three and four data points, then the study may meet standards with reservations. If the study has at least five data points per phase, then it is capable of meeting design standards. All visual analyses completed with partial interval recording met design standards. The visual analyses completed for the GAS

ratings did not meet design standards, as no interassessor agreement data were gathered and many of the visual analyses for GAS lacked baseline data.

The first step of visual analysis was to ensure that the data had a predictable baseline pattern of data before beginning the intervention phase. Assessing baseline phase included determining if the baseline documented a pattern in need of change, a predictable baseline pattern, a sufficient level of variability, and a trend that is either stable or moving away from the therapeutic direction. Each of these assessments were rated with either “0” does not meet criteria or “1” meets criteria. The second step of visual analysis was to measure the within-phase pattern after the intervention has begun. The data were evaluated based on whether there are less than three data points per phase (rated as zero), between three and four datum per phase (rated as one), or five or more data for all phases (rated as two). The within-phase pattern should provide enough consistency to create a reliable pattern, exhibit sufficiently consistent variability, and have a trend that is either stable or moving in the predicted direction. Each of these assessments were rated with either “0”, does not meet criteria, or “1”, meets criteria. The third step of the visual analysis process involved examining the data between phases in order to determine if there was a difference in the data between phases. The data indicated an effect of the independent variable if there were significant differences in the data when comparing behavior before the intervention was implemented to behavior that occurred after the intervention was implemented, as measured by the documentation of a basic effect, as well as changes in trend and level that are both immediate and overall. The between phase effects also measured the overall variability changes and the overlap of data points between the phases. Each of these assessments was rated with either “0”, does not meet criteria, or “1”, meets criteria. The fourth step was to measure the between phase experimental effect, with the amount of the opportunities to demonstrate

treatment effects measured, as well as the amount of treatment effects that were observed. Each of these assessments was rated with either “0”, does not meet criteria, or “1”, meets criteria. The fifth step of visual analysis was to comprehensively examine the three previous steps to decide if the data suggested that there are at least three different effects of the independent variable during the study. In the comprehensive assessment of the data, the demonstration of treatment effects and non-effects is measured, and the ratio of effects to non-effects was compared.

Two doctoral students who completed graduate level courses on single-case design and were competent regarding the *WWC Design and Evidence Pilot Standards*, as evidenced by their completion of visual analysis for MBD training on singlecase.org (on a University of Oregon web site) were utilized as raters for visual analysis. The agreement between the two raters was 89.1%.

Statistical analysis. The Koehler and Levin (1998) *regulated randomization* procedure was utilized with the statistical software program, *ExPRT (Excel® Package of Randomization Tests*; Levin, Ferron, & Gafurov, 2017) to determine if there were significant differences between the baseline and intervention means, as well as the slopes, variance, effect size (ES) and non-overlap of all pairs (NAP) effect size. A one-tailed test was used to analyze the data since it was predicted that the students externalizing behavior would decrease as a result of the intervention.

The ES was measured in ExPRT utilizing the Busk and Serlin (1992) “no assumptions” approach, in which the treatment mean was subtracted by the baseline mean and divided by baseline standard deviation. The ES measures the magnitude of the change in the frequency of child disruptive behaviors between baseline and intervention. The NAP ES is a nonparametric index of non-overlap that measures the change from the baseline to intervention phase (Parker &

Vannest, 2008). NAP is measured by pairwise comparisons from baseline to intervention to determine the amount of growth or improvement that occurred between the two phases. NAP values range from 0.0, which would indicate that all data overlapped, to 1.0, which indicates that there is no data overlap between phases (Parker & Vannest, 2008). NAP ratings indicate increasingly low levels of overlap as they reach 1.0. The NAP process was utilized for each single-case design in the research, utilizing the partial interval recording graphs for baseline to intervention comparisons.

Descriptive analysis and difference tests. Pre- and post-test ratings of parent self-efficacy of their parenting and teaching were examined descriptively. Acceptability of the consultation process, BSPs, and consultant were examined descriptively. Similarly, parent-reported acceptability of working with a mental health professional was examined descriptively. Finally, narrative responses parents provided about their perceptions of acceptability of working with mental health professionals was examined descriptively.

Results

Research Question 1

1. Can in-home consultation provided to parents who are homeschooling their children reduce child externalizing behavior problems?

Prediction 1. Child externalizing behavior problems will be significantly lower after completing the parent-consultation process. Frequency of child externalizing behavior problems will be measured using direct observational assessment of child behavior (Bice-Urbach & Kratochwill, 2016; Sheridan et al., 2013).

Direct observation of 1A across behaviors. The multiple baseline across behaviors design used for Participant 1A met WWC *Design Standards* (see Table 8) and the WWC evidence criteria were used to examine 1A's outcomes. Figure 2 displays data for Participant 1A. The four baseline phases for 1A indicated that all behaviors at baseline required change, but only approximately half of the data showed sufficient predictability, consistency, and appropriate trend. Most of the within phase analysis ratings for intervention indicated that the intervention data were predictable, consistent, and had appropriate trend (either stable or moving away from therapeutic direction). The between phase effects indicated that 50% of the intervention data demonstrated basic effects. Similarly, less than half of the data indicated that there were sufficient change effects in terms of immediacy and change for level, trend, and variability. Half of the data had low overlapping data between phases. The multiple baseline design across behaviors did not allow for a rating of similar data patterns across phases. The between phases ratings indicated four opportunities for demonstration of treatment change effects for disruptive behavior. Treatment effects were present for two of the four ratings. The overall effectiveness rating, as measured by visual analysis, indicated that (a) there were at least five data points per

phase, (b) there were not at least three demonstrations of treatment effects, (c) there were two instances of noneffects, and (d) the ratio of effects to noneffects was greater than 3:1. These findings indicate that the data provide no evidence for intervention effectiveness.

Figure 2

Participant 1A: Percentage of Intervals with Behaviors

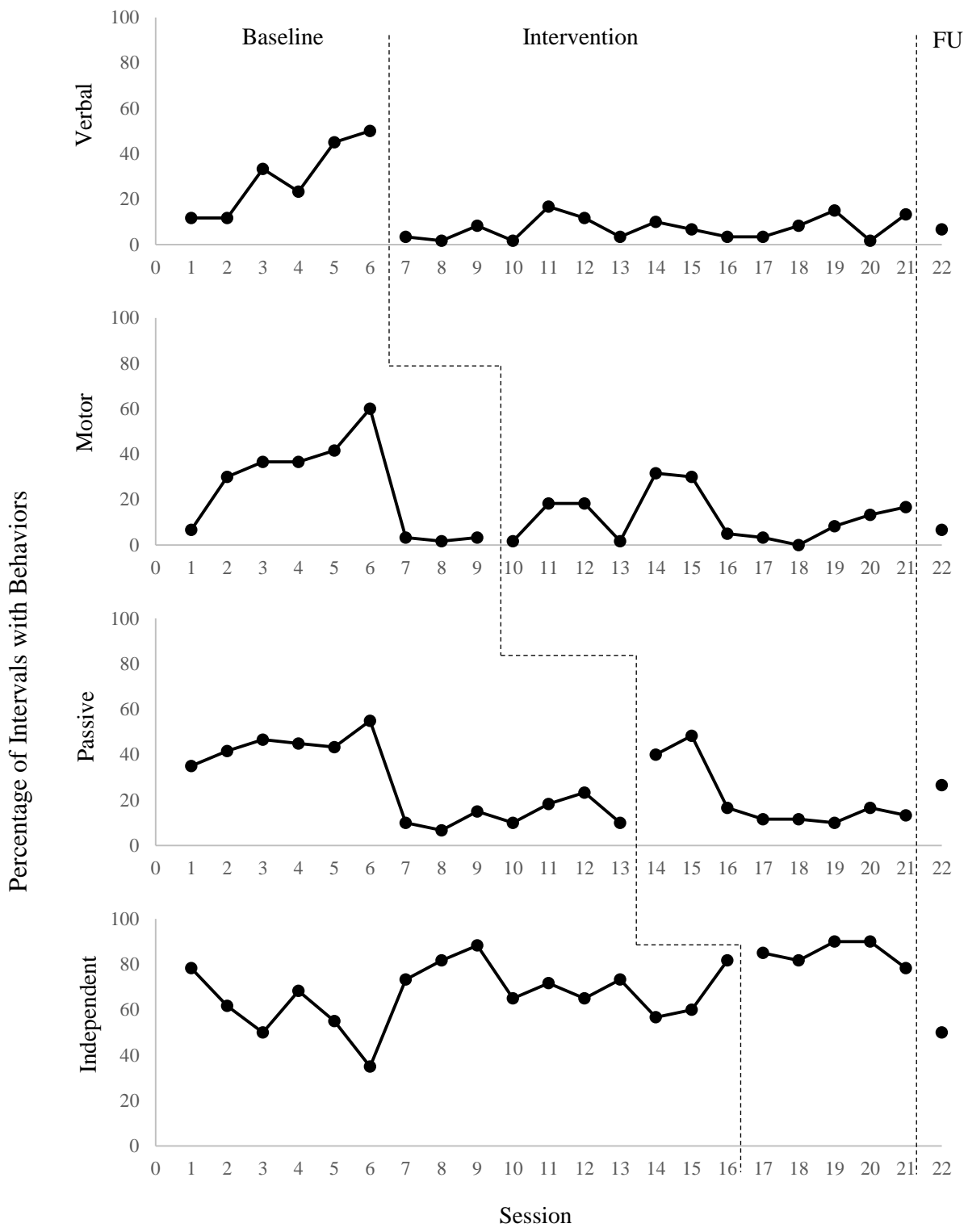


Table 8

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Partial Interval Recording for Participant 1A

	Behavior			
	Verbal	Motor	Passive	Independent Engaged Time
Baseline				
Change	1	0	1	1
Predictable	1	0	0	1
Consistent Variability	1	0	1	1
Trend	1	0	0	1
Within Phase Analysis				
Sufficient Data Points	2	2	2	2
Predictable	1	1	0	1
Consistent Variability	1	1	0	1
Trend	1	1	1	1
Between Phase Basic Effect				
Basic Effects	1	0	0	1
Level – Immediacy	1	0	0	1
Trend – Immediacy	1	1	0	1
Level – Change	1	0	0	1
Trend – Change	1	0	0	0
Variability – Change	1	1	1	1
Low Overlap	1	0	0	1
Similar Phases	-	-	-	-

Table 8 (continued)

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Partial Interval Recording for Participant 1A

	Behavior			
	Verbal	Motor	Passive	Independent Engaged Time
Between Phase				
Opportunity to Demonstrate Effect	1	1	1	1
Treatment Effects Demonstrated	1	0	0	1
Demonstrations of Treatment Effect	0	0	0	0
Ratio	0	0	0	0
Overall Evidence	0	0	0	0

Table 9

Means and Standard Deviations of Participant 1A Behavior

	Baseline		Intervention	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Off-task Verbalizations	29.17	16.42	7.22	4.97
Off-task Passive	27.69	17.19	21.04	14.64
Off-task Motor	24.44	21.36	12.36	10.9
Independent Engaged Time	66.56	13.57	85.0	5.14

Table 9 displays the means and standard deviations of Participant 1A's behaviors. Participant 1A's Off-task Verbalizations decreased from Baseline ($M = 29.17$, $SD = 16.42$) to Intervention ($M = 7.22$, $SD = 4.97$). The Effect Size for Off-task Verbalizations was -1.34. The NAP ES for Off-task Verbalizations was .84. The difference in slope between Baseline and

Intervention was -7.77 . The B-A Variance between Baseline (224.77) and Intervention (24.69) was -200.08 .

Participant 1A's Off-task Motor behaviors also decreased from Baseline ($M = 24.44$, $SD = 21.36$) to Intervention ($M = 12.36$, $SD = 10.9$). The Effect Size for Off-task Motor was $-.57$. The NAP ES for Off-task Motor was $.34$. The difference in slope between Baseline and Intervention was 2.12 . The B-A Variance between Baseline (401.85) and Intervention (109.01) for Off-task Motor was -292.84 .

Similarly, Participant 1A's Off-task Passive behavior decreased from Baseline ($M = 27.69$, $SD = 17.19$) to Intervention ($M = 21.04$, $SD = 14.64$). The Effect Size for the Off-task Passive Intervention was $-.39$. The NAP effect size for Off-task Passive was $.14$. The difference in slope between the Off-task Passive Baseline and Intervention was -1.24 . The B-A Variance for Off-task Passive was -85.42 , with Baseline as 272.88 and Intervention as 187.46 .

Finally, 1A's Independent Engaged Time increased from Baseline ($M = 66.56$, $SD = 13.57$) to Intervention ($M = 85.0$, $SD = 5.14$). The Effect Size for Independent Engaged Time was 1.36 . The NAP effect size for Independent Engaged Time $.84$. The difference in slope between Baseline and Intervention was 1.06 . The B-A Variance for Independent Engaged Time was -151.62 , with Baseline Variance as 172.73 and Intervention Variance as 21.11 .

Direct observation of 1B across behaviors. The multiple baseline design utilized for Participant 1B met WWC *Design Standards* and the WWC evidence criteria were therefore utilized to examine 1B's outcomes. Table 10 includes the WWC standards for Participant 1B and Figure 3 displays a graph of the data. Per the WWC standards, the three baseline phases for 1B indicated that all behaviors at baseline required change, and the majority of the baseline data showed sufficient predictability, consistency, and appropriate trend. All within phase analysis

ratings for intervention indicated that the intervention data were predictable, consistent, and having appropriate trend. The between phase effects indicated that two of three of the interventions demonstrated basic effects. Similarly, less than half of the data indicated that there were sufficient change effects in terms of immediacy and change for level, trend, and variability. One third of the data had low overlapping data between phases. The multiple baseline design across behaviors did not allow for a rating of similar data patterns across phases. The between phases ratings indicated three opportunities for demonstration of treatment change effects for disruptive behavior. Treatment effects were present for one of the three ratings. The overall effectiveness rating indicated that (a) there were at least five data points per phase, (b) there were not at least three demonstrations of treatment effects, (c) there were two instances of non-effects, (d) the ratio of effects to non-effects was greater than 3:1. These findings indicate that the data provide no evidence for intervention effectiveness.

Figure 3

Participant 1B: Percentage of Intervals with Off-task Behaviors

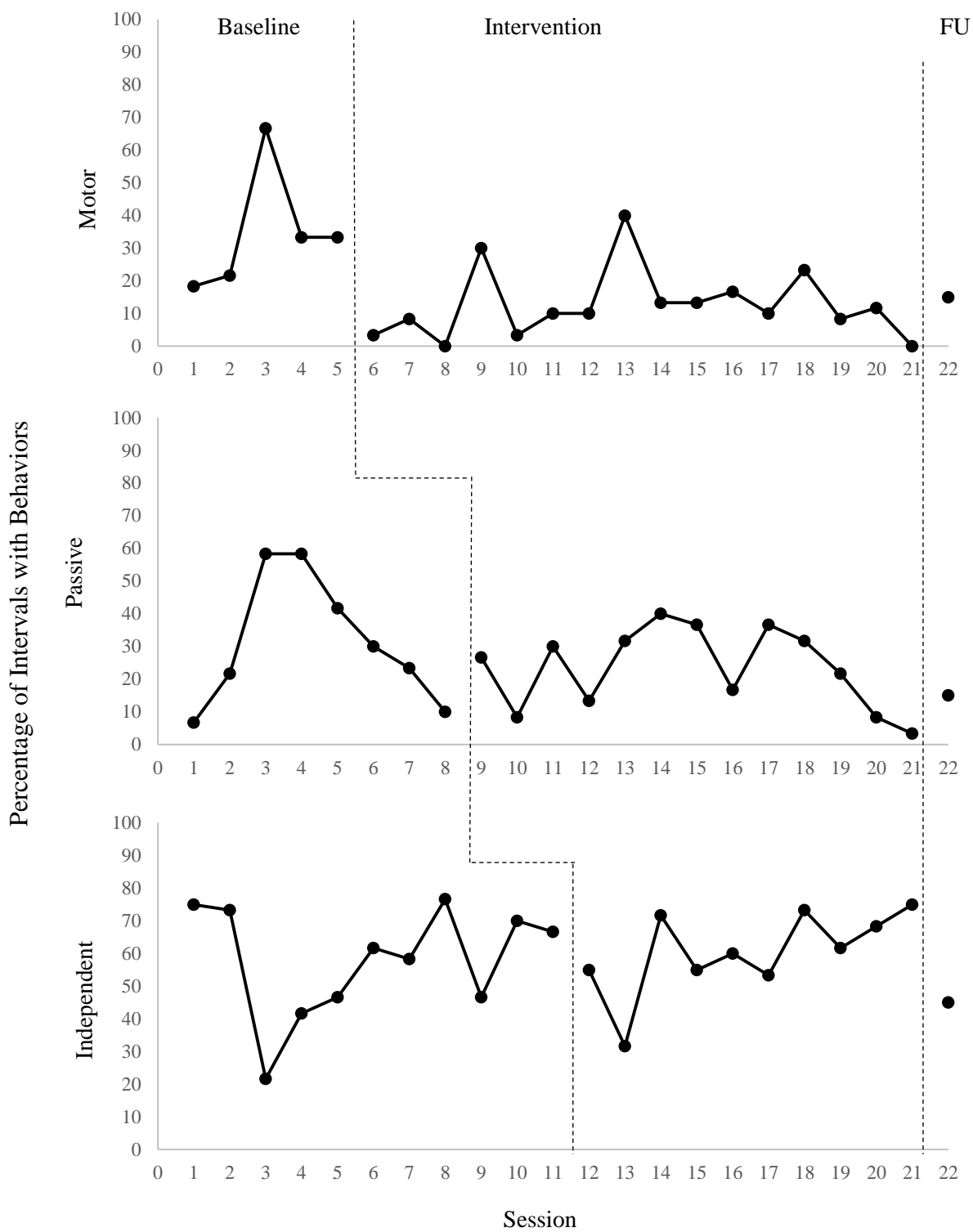


Table 10

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Partial Interval Recording for Participant 1B

	Behavior		
	Motor	Passive	Independent Engaged Time
Baseline			
Change	1	1	1
Predictable	1	0	1
Consistent Variability	1	0	1
Trend	1	0	1
Within Phase Analysis			
Sufficient Data Points	2	2	2
Predictable	1	1	1
Consistent Variability	1	1	1
Trend	1	1	1
Between Phase Effect			
Basic Effects	1	0	1
Level – Immediacy	1	0	0
Trend – Immediacy	1	1	0
Level – Change	1	0	0
Trend – Change	1	0	1
Variability – Change	0	0	0
Low Overlap	1	0	0
Similar Phase	-	-	-
Between Phase			
Opportunity to Demonstrate Effect	1	1	1
Treatment Effects Demonstrated	1	0	0

Table 10 (continued)

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Partial Interval Recording for Participant 1B

Overall Effectiveness	Behavior		
	Motor	Passive	Independent Engaged Time
Data Points Per Phase	2	2	2
Demonstrations of Treatment Effect	0	0	0
Ratio	0	0	0
Overall Evidence	0	0	0

Table 11

Means and Standard Deviations of Participant 1B Behavior

	Baseline		Intervention	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Off-task Motor	34.67	19.13	12.6	10.75
Off-task Passive	31.25	19.96	23.46	12.33
Independent Engaged Time	58.03	17.17	60.5	12.94

Table 11 displays the means and standard deviations for Participant 1B's behaviors during the baseline and intervention phases. Participant 1B demonstrated a decrease in Off-task Motor from Baseline ($M = 34.67$, $SD = 19.13$) to Intervention ($M = 12.6$, $SD = 10.75$). The Effect Size for the Off-task Motor intervention was -1.15 . The NAP ES for Off-task Motor was $.8$. The difference in slope between Baseline and Intervention was -4.04 . The B-A Variance for Off-task Motor was -184.34 , with Baseline Variance at 292.67 and Intervention Variance as 108.32 .

Participant 1B's Off-task Passive behaviors also decreased from Baseline ($M = 31.25$, $SD = 19.96$) to Intervention ($M = 23.46$, $SD = 12.33$). The Effect Size for the Off-task Passive Intervention was $-.39$. The NAP ES for Off-task Passive was $.19$. The difference in slope between Baseline and Intervention for the Off-task Passive Intervention was $.11$. The Off-task Passive B-A Variance between Baseline (348.44) and Intervention (140.37) was -208.07 .

Finally, Participant 1B's Independent Engaged Time increased from Baseline ($M = 58.03$, $SD = 17.17$) to Intervention ($M = 60.5$, $SD = 12.94$). The Effect Size for the Independent Engaged Time Intervention was $.14$. The NAP ES for Independent Engaged Time was $.03$. The difference in slope for Independent Engaged Time between Baseline and Intervention was 1.71 . The B-A Variance for Independent Engaged Time was -117.51 , with Baseline Variance being 268.09 and Intervention Variance as 150.58 .

Direct observation of 2A across settings. The multiple baseline design that was implemented across settings utilized for Participant 2A met WWC *Design Standards* and the WWC evidence criteria were therefore utilized to examine Participant 2A's externalizing behavior problems at baseline and intervention. Figure 4 provides a graph of the data for Participant 2A. Table 12 outlines the WWC standards as they apply to Participant 2A. Per the WWC standards, the three baseline phases for 2A indicated that all behaviors at baseline required change, and almost all areas rated indicated sufficient predictability, consistency, and appropriate trend. Most of the within phase analysis ratings for intervention indicated that the intervention data were predictable, consistent, and had appropriate trend. The between phase effects indicated that all of the interventions demonstrated basic effects. Similarly, the majority of the data indicated that there were sufficient change effects in terms of immediacy and change for level, trend, and variability. All three interventions demonstrated low overlapping data

between phases. The multiple baseline design across settings did not allow for a rating of similar data patterns across phases. The between phases ratings indicated three opportunities for demonstration of treatment change effects for disruptive behavior, and treatment change effects were observed for all three opportunities. The overall effectiveness rating indicated that (a) there were at least five data points per phase, (b) there were at least three demonstrations of treatment effects, (c) there were no instances of non-effects. These findings indicate that the data provide strong evidence for intervention effectiveness.

Figure 4

Participant 2A: Percentage of Interval with Behaviors

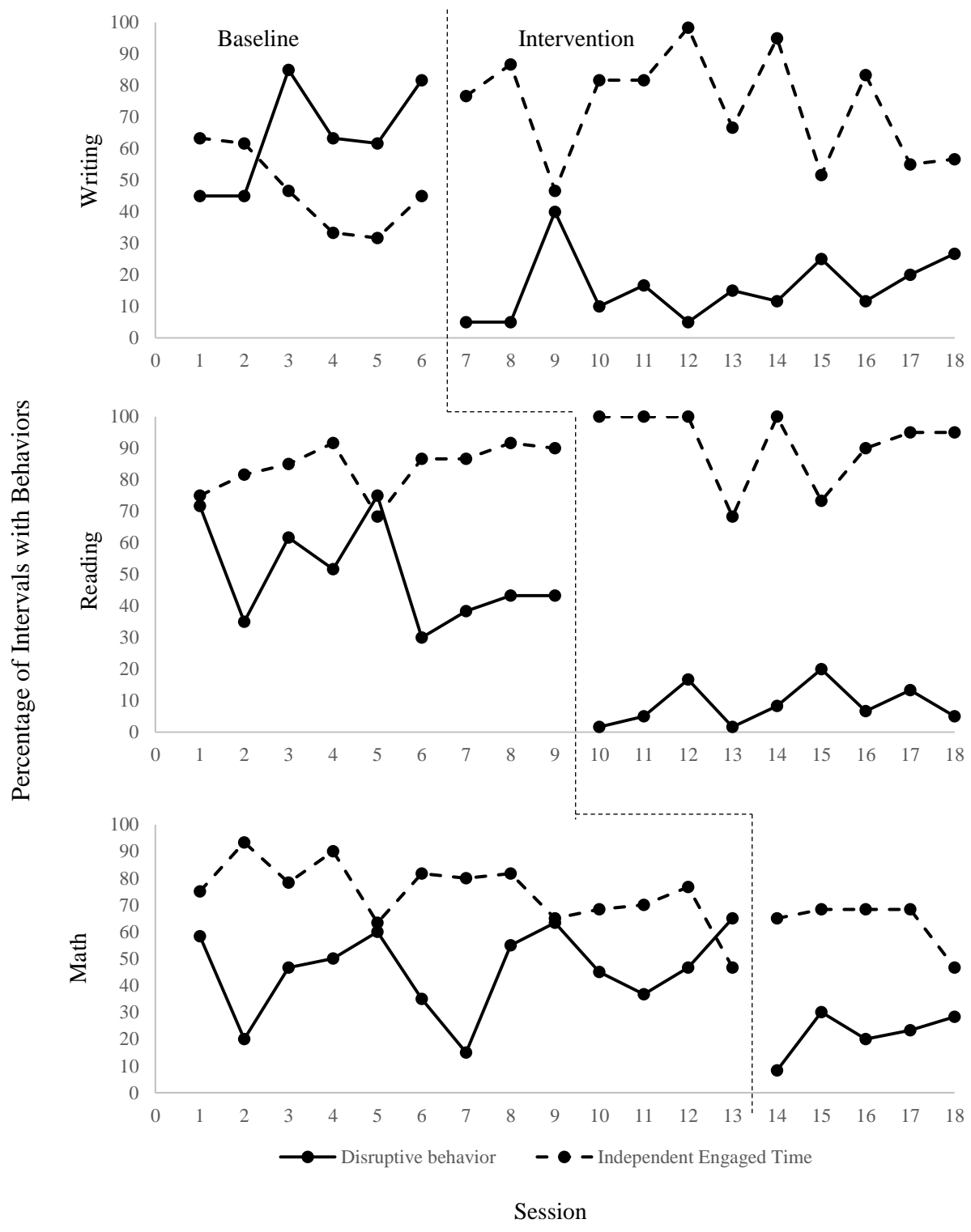


Table 12

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Partial Interval Recording for Participant 2A

	Setting		
	Writing	Reading	Math
Baseline			
Change	1	1	1
Predictable	1	1	1
Consistent Variability	1	1	1
Trend	1	1	1
Within Phase Analysis			
Sufficient Data Points	2	2	2
Predictable	1	1	1
Consistent Variability	1	1	1
Trend	1	1	0
Between Phase Basic Effect			
Basic Effects	1	1	1
Level – Immediacy	1	1	1
Trend –Immediacy	0	1	1
Level – Change	1	1	1
Trend – Change	1	0	0
Variability – Change	1	1	1
Low Overlap	1	1	1
Similar Phases	-	-	-
Between Phase			
Opportunity to Demonstrate Effect	1	1	1
Treatment Effects Demonstrated	1	1	1

Table 12 (continued)

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Partial Interval Recording for Participant 2A

	Setting		
	Writing	Reading	Math
Overall Effectiveness			
Data Points Per Phase	2	2	2
Demonstrations of Treatment Effect	2	2	2
Ratio	2	2	2
Overall Evidence	2	2	2

Table 13 displays Participant 2A's baseline and intervention disruptive behavior means and standard deviations across the three settings. Participant 2A's disruptive behavior in writing decreased, with a baseline mean of 63.61 ($M = 63.61, SD = 17.21$) to intervention with a mean of 15.97 ($M = 15.97, SD = 10.55$). The NAP ES for 2A's disruptive behavior in writing was 1.0. The Effect Size for the writing intervention was -2.56. For the writing intervention, when examining the difference between the baseline slope and intervention slope, the slope was -5.19. The B-A variance was -144.62 when measuring the difference in average variance between baseline (246.68) and intervention (102.06) for writing.

Similarly, in reading, Participant 2A's disruptive behaviors decreased from baseline ($M = 50.0, SD = 16.14$) to intervention ($M = 8.7, SD = 6.55$). Participant 2A's NAP ES in reading was 1.0. The Effect Size for reading intervention was -2.77. The slope difference, when comparing the intervention slope to the baseline slope was 3.22 for reading. The B-A variance was -193.35 when comparing the difference in average variance between the baseline (231.48) and intervention (38.18).

Participant 2A exhibited a disruptive behavior mean of 45.9 ($M = 45.9, SD = 15.69$) during math baseline. During math intervention, 2A's disruptive behaviors decreased to occurring an average of 22.0 ($M = 22.0, SD = 8.61$). The NAP ES for math for 2A was .77. The Effect Size for math intervention was -1.52. The slope difference, when comparing the baseline slope to the intervention slope, was 2.54. The B-A variance when comparing the average variance between baseline (227.19) and intervention (59.33) was -167.85.

The results of the Koehler-Levin *dual regulated-randomization* procedure indicated a statistically significant decrease in Disruptive Behavior ($p = .0208$; Koehler & Levin, 1998). No statistically significant differences were found between Baseline and Intervention for either slope or variance.

Table 13

Means and Standard Deviations of Participant 2A Disruptive Behavior

	Baseline		Intervention	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Writing	63.61	17.21	15.97	10.55
Reading	50.0	16.14	8.7	6.55
Math	45.9	15.69	22.0	8.61

Table 14 displays the means and standard deviations of Participant 2A's independent engaged time during baseline and intervention. Participant 2A's independent engaged time in writing also increased from baseline ($M = 46.94, SD = 13.47$) to intervention ($M = 73.33, SD = 17.48$). Participant 2A's independent engaged time increased in reading from baseline ($M = 84.07, SD = 7.91$) to intervention ($M = 91.3, SD = 12.16$). Participant 2A's independent engaged

time decreased for math from baseline ($M = 74.62$, $SD = 12.23$) to intervention ($M = 52.78$, $SD = 9.43$). Based on the researcher's interactions with 2A's mother, there could be multiple factors influencing the decrease in the amount of independent engaged time, including changes in curriculum difficulty and parent engagement. These variables are discussed in the limitations section.

Table 14

Means and Standard Deviations of Participant 2A Independent Engaged Time

	Baseline		Intervention	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Writing	46.94	13.47	73.33	17.48
Reading	84.07	7.91	91.3	12.16
Math	74.62	12.23	52.78	9.43

Direct observation of 2B across settings. The multiple baseline design across settings that was implemented for Participant 2B adhered to *WWC Design Standards*. The WWC evidence criteria were therefore used to assess the effectiveness of the intervention. Table 15 includes the WWC standards as they apply to Participants 2B. Figure 5 displays a graph of Participant 2B's behavioral data. As measured by WWC standards, the three baseline phases for 2B indicated that all behaviors at baseline required change. Similarly, the majority of the baseline data across the three phases demonstrated sufficient predictability, consistency, and appropriate trend. All visual analyses demonstrated that the within phase data for the intervention phase was predictable, consistent, and having appropriate trend. The between phase effects indicated that all of the interventions demonstrated basic effects. Similarly, almost all of the data indicated that there were sufficient change effects in terms of immediacy and change for level,

trend, and variability. All of data had low overlapping data between phases. The multiple baseline design across settings did not allow for a rating of similar data patterns across phases. The between phases ratings indicated three opportunities for demonstration of treatment change effects for disruptive behavior and treatment effects were present for all three opportunities for change. The overall effectiveness rating indicated that (a) there were at least five data points per phase, (b) there were at least three demonstrations of treatment effects, (c) there were no instances of non-effects, (d) the ratio of effects to non-effects was less than 3:1. These findings indicate that the data provides strong evidence for intervention effectiveness.

Figure 5

Participant 2B: Percentage of Interval with Behaviors

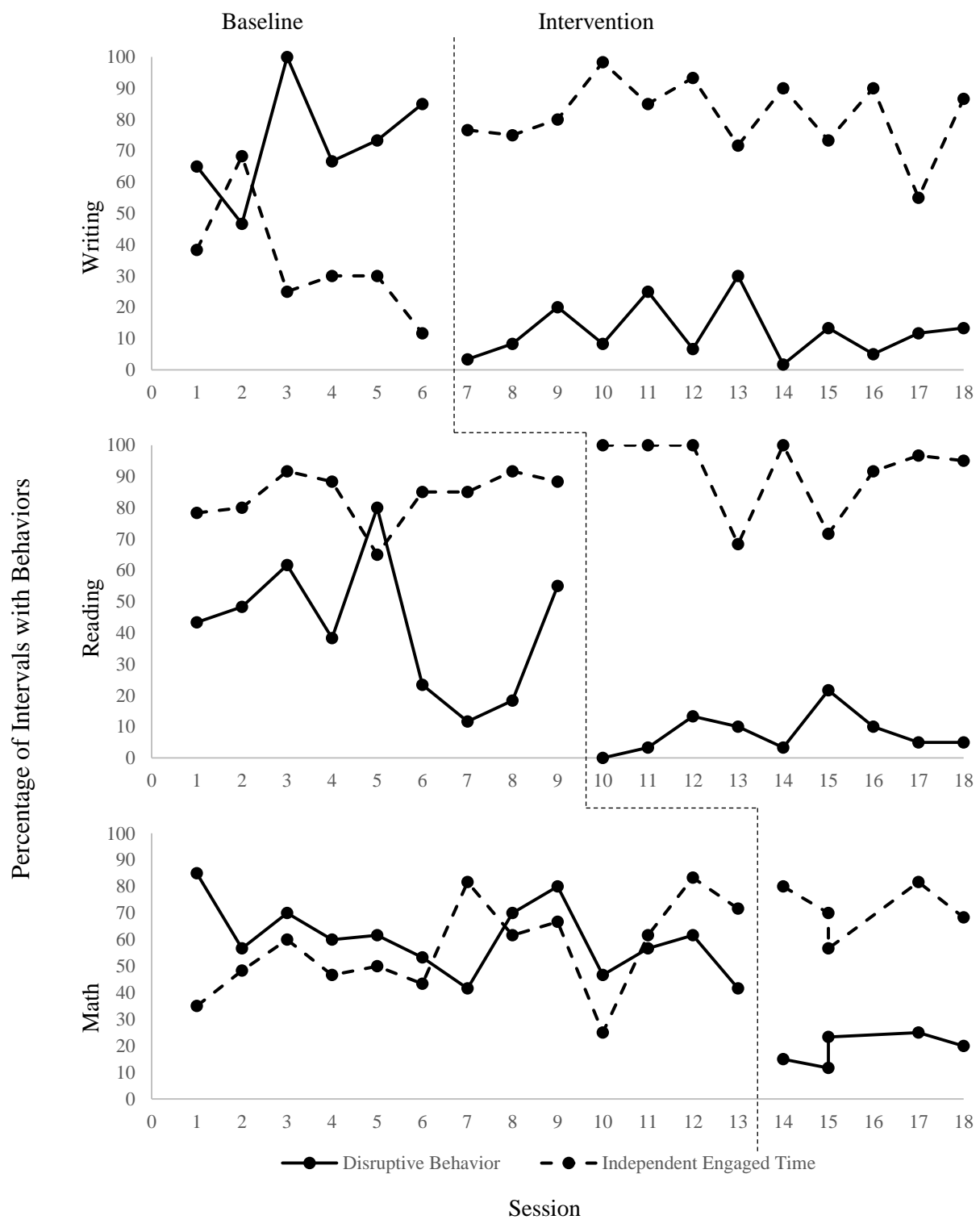


Table 15

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Partial Interval Recording for Participant 2B

	Setting		
	Writing	Reading	Math
Baseline			
Change	1	1	1
Predictable	1	0	1
Consistent Variability	1	0	1
Trend	1	1	0
Within Phase Analysis			
Sufficient Data Points	2	2	2
Predictable	1	1	1
Consistent Variability	1	1	1
Trend	1	1	1
Between Phase Basic Effect			
Basic Effects	1	1	1
Level – Immediacy	1	1	1
Trend –Immediacy	1	1	1
Level – Change	1	1	1
Trend – Change	1	1	0
Variability – Change	1	1	1
Low Overlap	1	1	1
Similar Phases	-	-	-
Between Phase			
Opportunity to Demonstrate Effect	1	1	1
Treatment Effects Demonstrated	1	1	1

Table 15 (continued)

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Partial Interval Recording for Participant 2B

	Setting		
	Writing	Reading	Math
Overall Effectiveness			
Data Points Per Phase	2	2	2
Demonstrations of Treatment Effect	2	2	2
Ratio	2	2	2
Overall Evidence	2	2	2

Table 16

Means and Standard Deviations of Disruptive Behavior for Participant 2B

	Baseline		Intervention	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Writing	77.78	18.28	12.22	8.77
Reading	42.2	22.03	7.96	6.6
Math	60.38	13.37	19.0	5.6

Table 16 displays the means and standard deviations for Participant 2B' disruptive behaviors at baseline and intervention. Participant 2B's Disruptive Behavior also decreased from baseline ($M = 72.78$, $SD = 18.28$) to intervention ($M = 12.22$, $SD = 8.77$) in writing. The Effect Size for writing was -3.31. The NAP ES for writing was 1.0. The difference in slope when comparing the baseline to intervention slope for writing was -4.14. The B-A variance, when comparing the difference of average variance between baseline (278.40) and intervention (70.52) was -207.87.

Participant 2B's Disruptive Behavior also decreased from baseline ($M = 42.2$, $SD = 22.03$) to intervention ($M = 7.96$, $SD = 6.6$) in reading. The Effect Size for the reading intervention was -1.55 . The NAP ES for reading was $.93$. The difference in slope between baseline and intervention was 3.14 . The B-A variance, when comparing the difference between the average baseline (431.48) and intervention (38.75), was -392.73 .

Finally, Participant 2B's Disruptive Behavior decreased from baseline ($M = 60.38$, $SD = 13.37$) to intervention ($M = 19.0$, $SD = 5.6$) in math. The Effect Size for the math intervention was -3.10 . The NAP Effect Size for math was 1.0 . The difference in slope when comparing the baseline to intervention slope for math was 3.84 . The B-A variance was -139.91 , with an average baseline variance of 165.02 and intervention variance of 25.11 .

The results of the Koehler-Levin *dual regulated randomization* procedure denote a statistically significant decrease in the amount of Disruptive Behavior exhibited by Participant 2B ($p = .0208$; Koehler & Levin, 1998). No statistically significant differences were found when comparing the slopes and variances between baseline and intervention, indicating that the participant's behavior did not change significantly in the amount that it varied between sessions when comparing baseline and intervention, nor did the participant's trend of behavior occurrences change between baseline and intervention.

Table 17

Means and Standard Deviations of Independent Engaged Time for Participant 2B

	Baseline		Intervention	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Writing	33.89	19.02	81.25	11.83
Reading	83.7	8.41	91.48	12.54
Math	56.54	17.29	71.33	10.10

Table 17 displays the means and standard deviations of Participant 2B's independent engaged time at baseline and intervention. Participant 2B's Independent Engaged Time in writing also increased from baseline ($M = 33.89$, $SD = 19.02$) to intervention ($M = 81.25$, $SD = 11.83$). Participant 2B's Independent Engaged Time in reading also increased from baseline ($M = 83.7$, $SD = 8.41$) to intervention ($M = 91.48$, $SD = 12.54$). Participant 2B's Independent Engaged Time increased from baseline ($M = 56.54$, $SD = 17.29$) to intervention ($M = 71.33$, $SD = 10.10$) in math.

Direct observation of 3A, 3B, 3C across participants. The multiple baseline design across participants utilized for Participants 3A, 3B, and 3C met WWC design standards and the WWC evidence criteria were therefore utilized to examine the participants' disruptive behavior. Table 18 includes the WWC standards as they apply to Participants 3A, 3B, and 3C. Figure 6 displays the graphs of the data for Participant 3A, 3B, and 3C. Per the WWC standards, the three baseline phases for the participants indicated that all participants at demonstrated behaviors at baseline that required change, and almost all baseline data indicated sufficient predictability, sufficient consistency, and appropriate trend. All the within phase analysis ratings for intervention also indicated that the intervention data were predictable, consistent, and having appropriate trend. The between phase effects indicated that all the interventions demonstrated basic effects. Similarly, almost all of the data indicated that there was sufficient effect in terms of immediacy and change for level, trend, and variability. All the disruptive behavior data had low overlap between phases. The multiple baseline design across participants did not allow for a rating of similar data patterns across phases. The between phases ratings indicated three opportunities for demonstration of change for disruptive behavior. Treatment effects were present for all three ratings. The overall effectiveness rating indicated that (a) there were at least five data points per

phase, (b) there were at least three demonstrations of treatment effects, (c) there were no instances of non-effects, (d) the ratio of effects to non-effects was not greater than 3:1. These findings indicate that the data provides strong evidence for intervention effectiveness.

Figure 6

Participants 3A, 3B, 3C: Percentage of Intervals with Behaviors

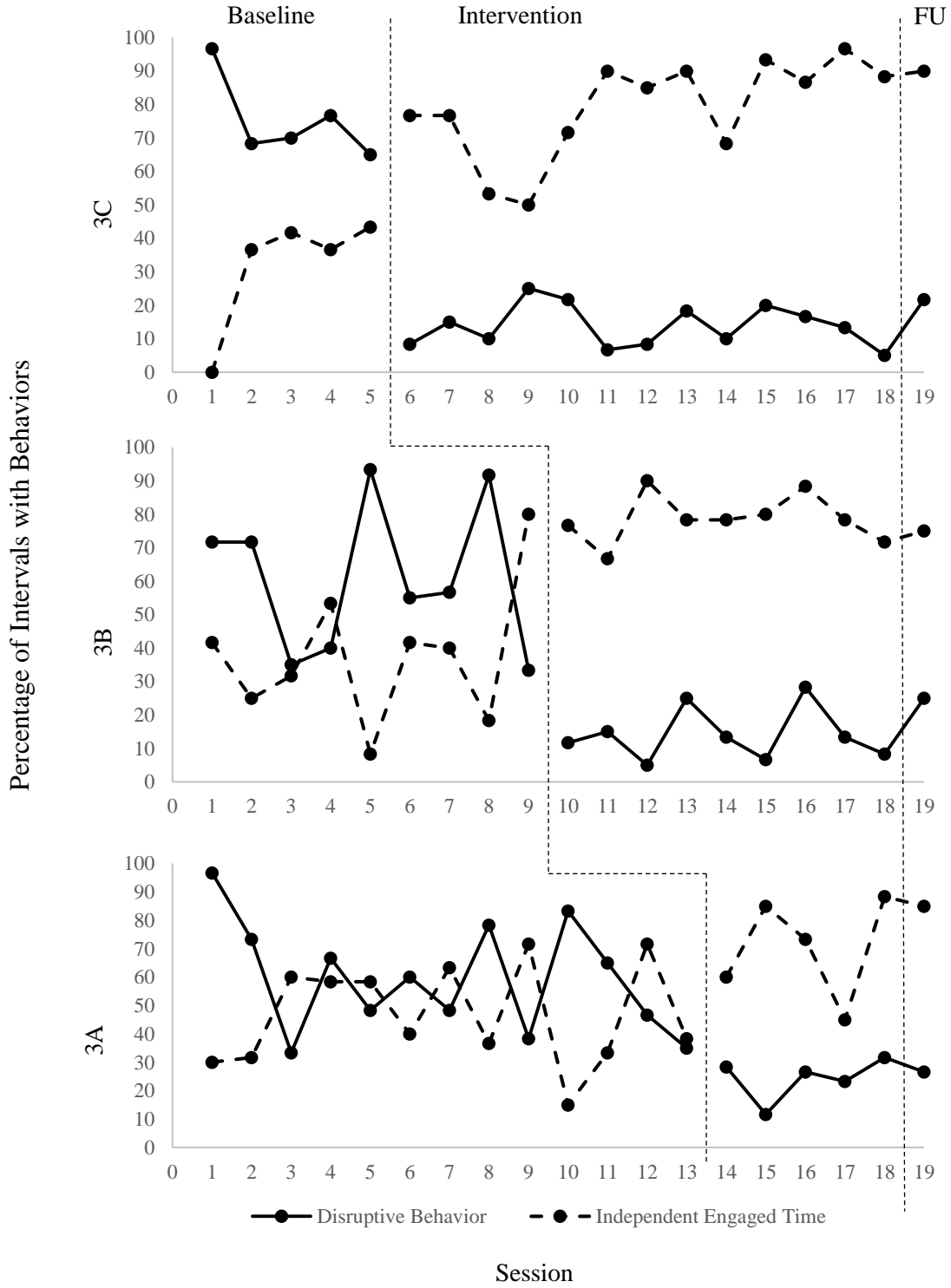


Table 18

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Partial Interval Recording for Participants 3A, 3B, 3C

	Child		
	3A	3B	3C
Baseline			
Change	1	1	1
Predictable	1	1	0
Consistent Variability	1	1	1
Trend	1	1	0
Within Phase Analysis			
Sufficient Data Points	2	2	2
Predictable	1	1	1
Consistent Variability	1	1	1
Trend	1	1	1
Between Phase Basic Effect			
Basic Effects	1	1	1
Level – Immediacy	0	1	1
Trend – Immediacy	0	1	1
Level – Change	1	1	1
Trend – Change	1	1	1
Variability – Change	1	1	1
Low Overlap	1	1	1
Similar Phases	-	-	-
Between Phase			
Opportunity to Demonstrate Effect	1	1	1
Treatment Effects Demonstrated	1	1	1

Table 18 (continued)

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Partial Interval Recording for Participants 3A, 3B, 3C

	Child		
	3A	3B	3C
Overall Effectiveness			
Data Points Per Phase	2	2	2
Demonstrations of Treatment Effect	2	2	2
Ratio	2	2	2
Overall Evidence	2	2	2

Table 19

Means and Standard Deviations of Disruptive Behavior for Participant 3A, 3B, 3C

	Baseline		Intervention	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
3A	59.88	19.84	24.33	7.69
3B	60.93	22.78	14.1	7.9
3C	75.33	12.67	13.72	6.28

Table 19 displays the means and standard deviations of Participant 3A, 3B, and 3C's disruptive behaviors at baseline and intervention. Participant 3A exhibited a decrease in Disruptive Behaviors from Baseline ($M = 59.88$, $SD = 19.84$) to Intervention ($M = 24.33$, $SD = 7.69$). The Effect Size for Participant 3A was -1.77. The NAP Effect Size for 3A was 1.00. The difference in slope for 3A between Baseline and Intervention was 3.64. The B-A Variance for Participant 3A was -316.08, with Baseline Variance as 363.41 and Intervention Variance as 47.33.

Participant 3B also demonstrated a decrease in Disruptive Behaviors from Baseline ($M = 60.93$, $SD = 22.78$) to Intervention ($M = 14.1$, $SD = 7.9$). The Effect Size for Participant 3B was -2.06 . The NAP ES for Participant 3B was 1.00 . The difference in slope between Baseline and Intervention for Participant 3B was $.75$. The B-A Variance between Baseline (461.18) and Intervention (55.62) for Participant 3B was -405.56 .

Participant 3C also exhibited a decrease in Disruptive Behaviors from Baseline ($M = 75.33$, $SD = 12.67$) to Intervention ($M = 13.72$, $SD = 6.28$). The Effect Size for Participant 3C was -4.87 . The NAP ES was 1.00 . The difference in slope between Baseline and Intervention was 5.34 . The B-A Variance for Participant 3C was -91.83 between Baseline (128.22) and Intervention (36.39).

The Koehler-Levin *dual regulated randomization* procedure indicated that there was a statistically significant decrease in student disruptive behavior ($p = .0417$; Koehler & Levin, 1998) from Baseline to Intervention. There was not a significant difference in the slope or variance between Baseline and Intervention.

Table 20

Means and Standard Deviations of Independent Engaged Time for Participants 3A, 3B, 3C

Participant	Baseline		Intervention	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
3A	46.79	17.97	70.33	18.00
3B	37.78	20.93	78.7	7.25
3C	31.67	17.95	78.97	14.78

Table 20 displays the means and standard deviations of Participant 3A, 3B, and 3C's independent engaged time at baseline and intervention. Participant 3A exhibited an increase in

Independent Engaged Time from Baseline ($M = 46.79$, $SD = 17.97$) to Intervention ($M = 70.33$, $SD = 18.00$). Participant 3B also demonstrated an increase in Independent Engaged Time from Baseline ($M = 37.78$, $SD = 20.93$) to Intervention ($M = 78.7$, $SD = 7.25$). Finally, Participant 3C also exhibited an increase in Independent Engaged Time from Baseline ($M = 46.79$, $SD = 17.97$) to Intervention ($M = 70.33$, $SD = 18.00$).

Goal attainment scaling for participant 1A. For Participant 1A, the Off-task Motor behavior code was adapted during baseline to best fit the description of his motor related behavior concerns. For this reason, there is not baseline GAS data for Off-task Motor, as his mother did not report on a continuous behavior code for Off-task Motor, but his mother rated his intervention mean as 5.18 ($SD = 1.24$). 1A's mother's ratings of his behaviors all increased from baseline to intervention. Participant 1A's mother rated his Off-task Verbal behaviors as improving from Baseline ($M = 1.57$, $SD = .53$) to Intervention ($M = 5.3$, $SD = .65$). 1A's mother also rated his Off-task Passive behaviors as improving from Baseline ($M = 3.69$, $SD = 1.96$) to Intervention ($M = 5.0$, $SD = .77$). Participant 1A's mother also rated 1A's Independent Engaged Time as improving from Baseline ($M = 4.9$, $SD = 1$) to Intervention ($M = 5.17$, $SD = .94$). Table 21 includes the GAS means and standard deviations for Participant 1A.

Table 21

GAS Baseline and Intervention Means and Standard Deviations for Participant 1A

Participant	Behavior code	Baseline <i>M</i>	Baseline <i>SD</i>	Intervention <i>M</i>	Intervention <i>SD</i>
1A	Off-Task Verbal	1.57	.53	5.3	.65
	Off-Task Motor	N/A	N/A	5.18	1.24
	Off-Task Passive	3.69	1.96	5.0	.77
	Independent Engaged Time	4.9	1	5.17	.94

The multiple baseline design that was utilized to assess the GAS for Participant 1A did not meet WWC evidence criteria, as no interobserver agreement was collected for the GAS data. Although no baseline data were collected for Off-task Motor, the MBD included three phases that contained both baseline and intervention. Table 22 includes the WWC standards as they apply to Participant 1A's mothers' ratings of 1A's behaviors. Figure 7 provides a graph of the GAS data for Participant 1A Per the WWC standards, one (Off-task Verbal) of the three baseline phases for 1A indicated that a need for change. Approximately half of the baseline data showed sufficient predictability, sufficient consistency, and appropriate trend. Similarly, most of the within phase analysis ratings for intervention indicated that the intervention data were predictable, consistent, and having appropriate trend. The between phase effects indicated that one of the interventions demonstrated basic effects. Similarly, less than 25% of the data indicated that there were sufficient change effects in terms of immediacy and change for level, trend, and variability. Only one of the interventions demonstrated low overlap. The multiple baseline design across behaviors did not allow for a rating of similar data patterns across phases. The between phases ratings indicated three opportunities for demonstration of treatment change effects for

behavior changes. Treatment effects were present for one of the three ratings. The overall effectiveness rating indicated that (a) there were not at least five data points per phase, (b) there were not at least three demonstrations of treatment effects, (c) there were two instances of non-effects, (d) the ratio of effects to non-effects was greater than 3:1. The current MBD visual analysis cannot be evaluated within *WWC Design Standards*, and these findings indicate that the data provided no evidence for intervention effectiveness.

Figure 7

Participant 1A: Goal Attainment Scaling

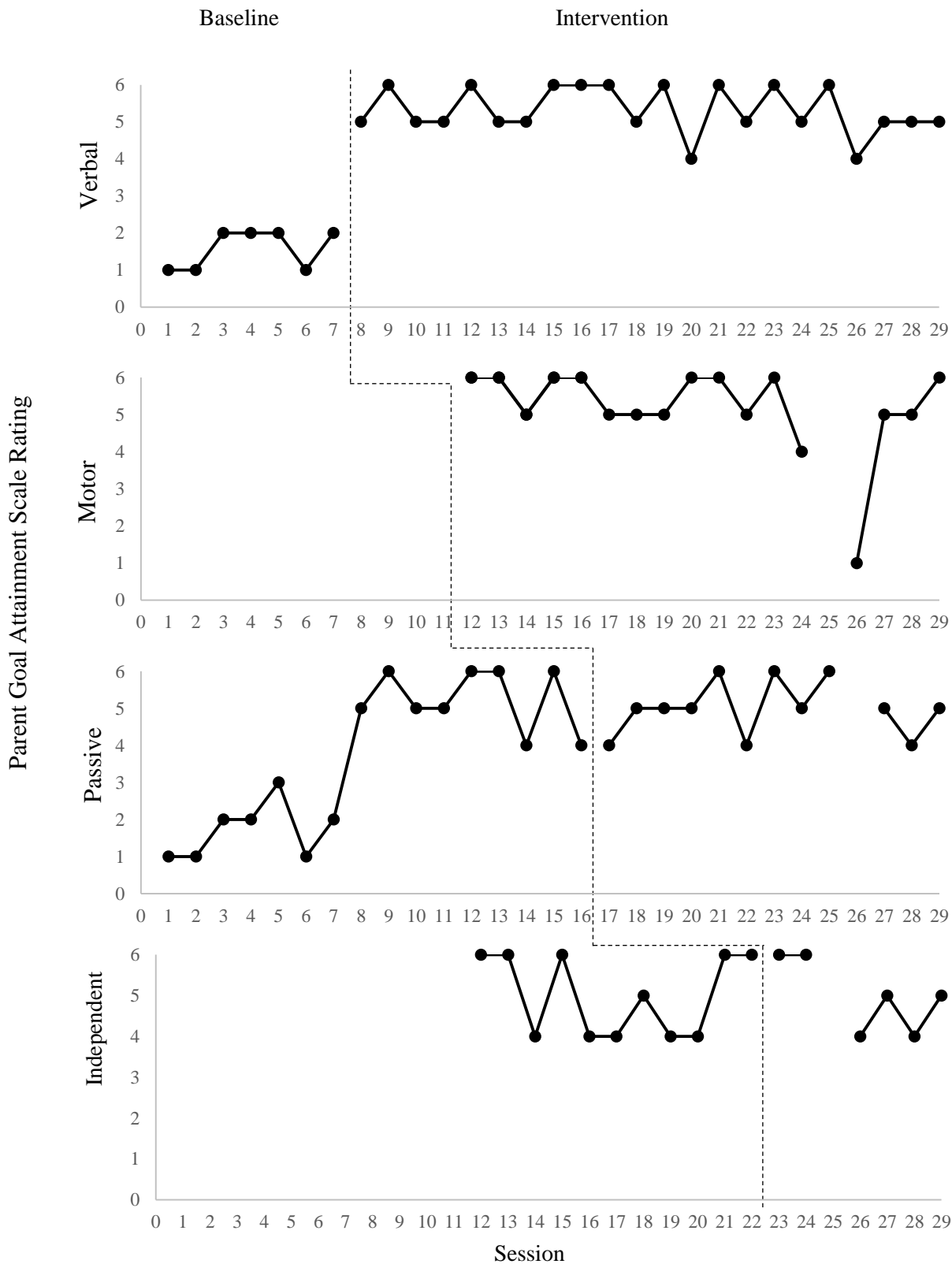


Table 22

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Goal Attainment Scaling for Participant 1A

	Behaviors			
	Off-Task Verbal	Off-Task Motor	Off-Task Passive	Independent Engaged Time
Baseline				
Change	1	0	0	0
Predictable	1	0	0	1
Consistent Variability	1	0	0	1
Trend	1	0	0	1
Within Phase Analysis				
Sufficient Data Points	2	0	2	2
Predictable	1	1	1	1
Consistent Variability	1	1	1	1
Trend	1	1	1	1
Between Phase Basic Effect				
Basic Effects	1	0	0	0
Level – Immediacy	1	0	0	0
Trend –Immediacy	0	0	0	0
Level – Change	1	0	0	0
Trend – Change	0	0	0	0
Variability – Change	0	0	1	0
Low Overlap	1	0	0	0
Similar Phases	-	-	-	-
Between Phase				
Opportunity to Demonstrate Effect	1	0	1	1
Treatment Effects Demonstrated	1	0	0	0

Table 22 (continued)

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Goal Attainment Scaling for Participant 1A

	Behaviors			
	Off-Task Verbal	Off-Task Motor	Off-Task Passive	Independent Engaged Time
Overall Effectiveness				
Data Points Per Phase	2	0	2	2
Demonstrations of Treatment Effect	1	0	0	0
Ratio	0	0	0	0
Overall Evidence	0	0	0	0

Goal Attainment Scaling for Participant 1B. For Participant 1B, the Independent Engaged Time behavior code was added to his behavior codes part of the way through the baseline, as the initial third behavior, Off-task Verbal, code was not measuring sufficient need for change and therefore, the baseline GAS for Independent Engaged Time was not measured for 1B.

The GAS data for Participant 1B can be found in Table 23. Participant 1B's mother rated his Off-task Motor behaviors as improving from Baseline ($M = 3.2, SD = 1.1$) to Intervention ($M = 4.15, SD = 1.26$). Participant 1B's mother also rated his Off-task Passive behaviors as improving from Baseline ($M = 2.88, SD = 1.46$) to Intervention ($M = 3.65, SD = 1.14$). Participant 1B's mother did not rate his Independent Engaged Time at Baseline, but at Intervention rated his behaviors on average as 3.36 ($SD = 1.5$).

Table 23

GAS Baseline and Intervention Means and Standard Deviations for Participant 1B

Participant	Behavior Code	Baseline <i>M</i>	Baseline <i>SD</i>	Intervention <i>M</i>	Intervention <i>SD</i>
1B	Off-Task Motor	3.2	1.1	4.15	1.26
	Off-Task Passive	2.88	1.46	3.65	1.14
	Independent Engaged Time	N/A	N/A	3.36	1.50

The multiple baseline design utilized to assess the GAS data that were collected for Participant 1B did not meet WWC *Design Standards* and the WWC evidence criteria, as there were only two opportunities to demonstrate change. Although the design did not meet WWC design standards, the WWC visual analysis procedures were utilized to assess the mother's perceptions of Participant 1B's behaviors. The GAS data for Participant 1B can be found in Figure 8. The WWC criteria as they apply to Participant 1B can be found in Table 24. Since the MBD does not meet design standards, the visual analysis cannot be utilized to determine the evidence for perceived change. Per the WWC standards, the two baseline phases that were measured with GAS for 1B indicated that both behaviors at baseline required change. Approximately 50% of the baseline data demonstrated sufficient predictability, sufficient consistency, and appropriate trend. None of the intervention phases demonstrated sufficient predictability or consistency in variability, but all intervention phases demonstrated appropriate trend. The between phase effects indicated that one of three of the interventions demonstrated basic effects. Similarly, less than half of the data indicated that there were sufficient change effects in terms of immediacy and change for level, trend, and variability. None of the data had low overlapping data between phases. The multiple baseline design across behaviors did not

allow for a rating of similar data patterns across phases. The between phases ratings indicated three opportunities for demonstration of treatment change effects for disruptive behavior.

Treatment effects were present for zero of the three ratings. The overall effectiveness rating indicated that (a) there were not at least five data points per phase, (b) there were not at least three demonstrations of treatment effects, (c) there were two instances of non-effects, (d) the ratio of effects to non-effects was greater than 3:1. These findings indicate that the data provides no evidence for intervention effectiveness.

Figure 8

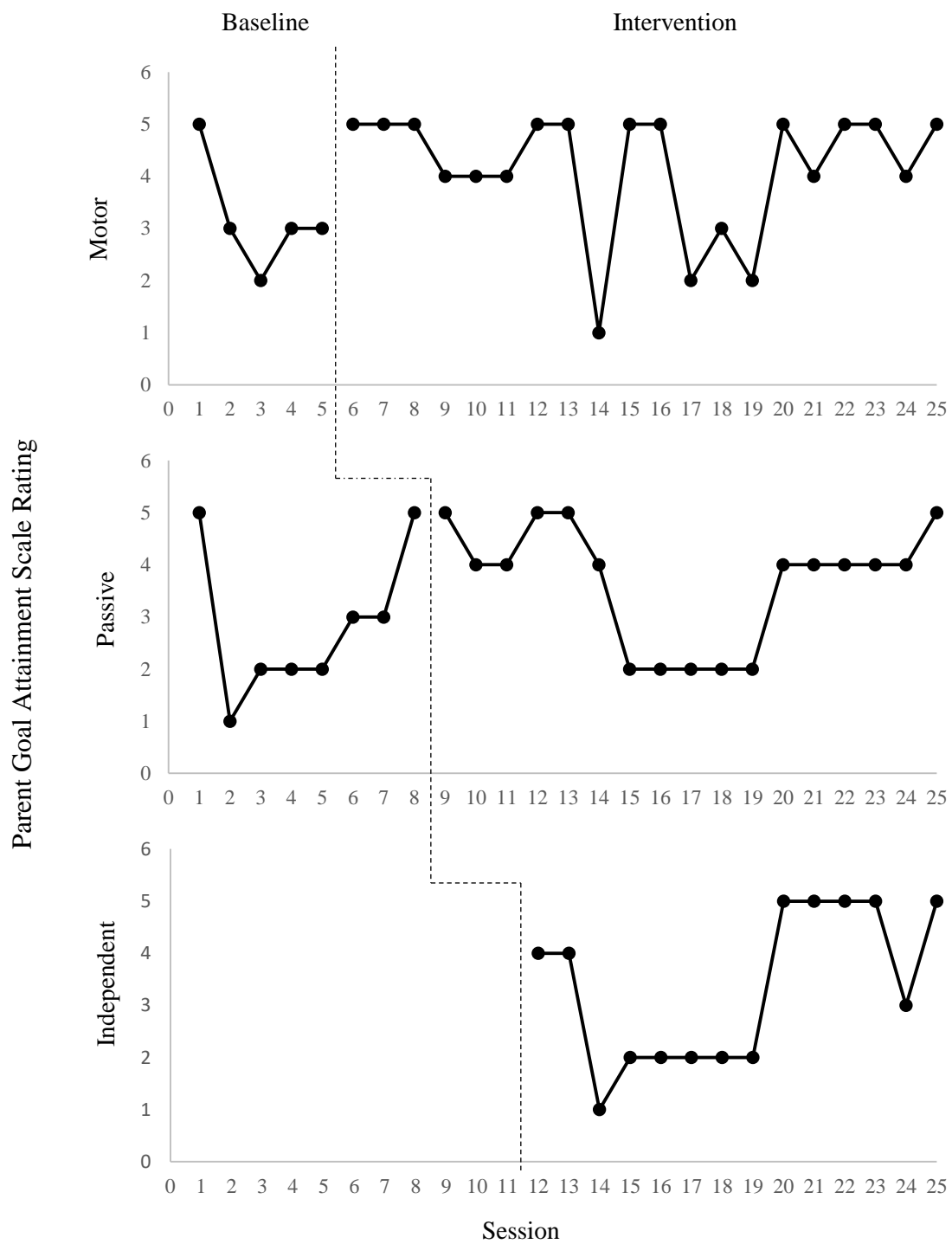
Participant 1B: Goal Attainment Scaling

Table 24

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Goal Attainment Scaling for Participant 1B

	Behaviors		
	Motor	Passive	Independent Engaged Time
Baseline			
Change	1	1	0
Predictable	0	1	0
Consistent Variability	0	0	0
Trend	1	1	0
Within Phase Analysis			
Sufficient Data Points	2	2	0
Predictable	0	0	0
Consistent Variability	0	0	0
Trend	1	1	1
Between Phase Basic Effect			
Basic Effects	0	0	0
Level – Immediacy	1	0	0
Trend –Immediacy	1	1	0
Level – Change	1	0	0
Trend – Change	1	0	0
Variability – Change	0	0	0
Low Overlap	0	0	0
Similar Phases	-	-	-
Between Phase			
Opportunity to Demonstrate Effect	1	1	0
Treatment Effects Demonstrated	0	0	0

Table 24 (continued)

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Goal Attainment Scaling for Participant 1B

	Behaviors		
	Motor	Passive	Independent Engaged Time
Overall Effectiveness			
Data Points Per Phase	2	2	0
Demonstrations of Treatment Effect	0	0	0
Ratio	0	0	0
Overall Evidence	0	0	0

Goal attainment scaling for participant 2A. Participant 2A and 2B's mother initially did not complete the GAS for her children, which led to no data collected for baseline for Writing for either 2A or 2B. Table 25 provides GAS data for Participant 2A. Participant 2A's mother's composite of his behaviors indicated that his behaviors improved from Baseline ($M = 3.0$, $SD = 1.07$) to Intervention ($M = 5.0$, $SD = .53$). Participant 2A's mother similarly rated his behavior composite as improving from Baseline ($M = 3.25$, $SD = .83$) to Intervention ($M = 6.0$, $SD = 0$) in Reading. Participant 2A's mother also rated his behavior at Intervention for reading with a mean of 5.6 ($SD = .48$).

Table 25

GAS Baseline and Intervention Means and Standard Deviations for Participant 2A

Participant	Setting	Behavior Code	Baseline <i>M</i>	Baseline <i>SD</i>	Intervention <i>M</i>	Intervention <i>SD</i>
2A	Math	Off-Task Motor	3.0	1.55	5.0	.58
	Math	Off-Task Verbal	3.0	1.55	5.0	.58
	Math	Independent Engaged Time	3.0	1.55	5.0	.58
	Math	Average of all Behaviors	3.0	1.55	5.0	.58
	Reading	Off-Task Motor	3.25	.96	6.0	0
	Reading	Off-Task Verbal	3.25	.96	6.0	0
	Reading	Independent Engaged Time	3.25	.96	6.0	0
	Reading	Average of all Behaviors	3.25	.96	6.0	0
	Writing	Off-Task Motor	N/A	N/A	5.6	.51
	Writing	Off-Task Verbal	N/A	N/A	5.6	.51
	Writing	Independent Engaged Time	N/A	N/A	5.6	.51
	Writing	Average of all Behaviors	N/A	N/A	5.6	.51

The GAS data that were utilized to measure Participant 2A's behaviors, as measured by his mother did not meet WWC standards for visual analysis, as she did not complete GAS for writing baseline, causing there to be only two staggered opportunities to observe change. The

data were still visually analyzed, but the results should be considered with caution, given that the data did not meet WWC preliminary standards. Table 26 outlines the WWC standards as they apply to Participant 2A. The GAS data for Participant 2A is graphed in Figure 9. The two baseline phases that could be measured for Participant 2A indicated that both behaviors at baseline required change, and almost all areas rated indicated sufficient predictability, sufficient consistency, and appropriate trend for those two baselines. Most of the within phase analysis ratings for intervention indicated that the intervention data were predictable, consistent, and having appropriate trend. The between phase effects indicated that the two interventions that could be measured demonstrated basic effects. Similarly, of the two baselines that were measured, majority of the data indicated that there were sufficient change effects in terms of immediacy and change for level, trend, and variability. The two interventions with baseline and intervention data demonstrated low overlapping data between phases. The multiple baseline design across settings did not allow for a rating of similar data patterns across phases. The between phases ratings indicated two opportunities for demonstration of treatment change effects for disruptive behavior, and treatment change effects were observed for those two opportunities. The overall effectiveness rating indicated that (a) there were not at least five data points per phase, (b) there were not at least three demonstrations of treatment effects, and (c) there were no instances of non-effects. These findings indicate that the data provide no evidence for intervention effectiveness. Although the GAS visual analysis did not provide any opportunity to assess effectiveness within WWC standards due to the missing data, the two phase changes that were measured indicated improvement from baseline to intervention for both interventions

Figure 9

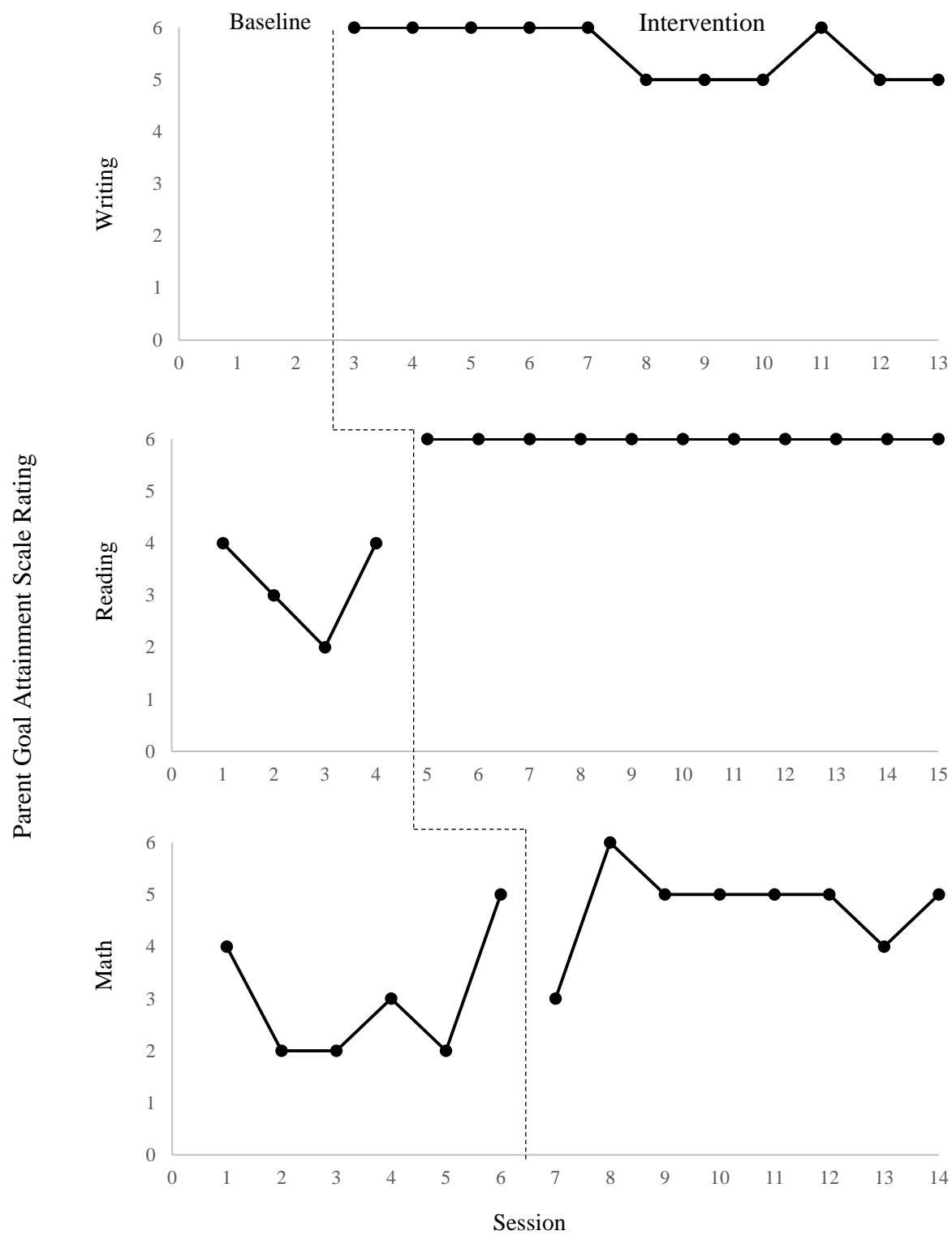
Participant 2A: Goal Attainment Scaling

Table 26

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Goal Attainment Scaling for Participant 2A

	Settings		
	Writing	Reading	Math
Baseline			
Change	0	1	1
Predictable	0	1	1
Consistent Variability	0	1	1
Trend	0	1	0
Within Phase Analysis			
Sufficient Data Points	0	0	2
Predictable	1	1	1
Consistent Variability	1	1	1
Trend	1	1	1
Between Phase Basic Effect			
Basic Effects	0	1	1
Level – Immediacy	0	1	1
Trend – Immediacy	0	1	0
Level – Change	0	1	1
Trend – Change	0	1	1
Variability – Change	0	1	1
Low Overlap	0	1	1
Similar Phases		-	
Between Phase			
Opportunity to Demonstrate Effect	0	1	1
Treatment Effects Demonstrated	0	1	1

Table 26 (continued)

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Goal Attainment Scaling for Participant 2A

	Settings		
	Writing	Reading	Math
Overall Effectiveness			
Data Points Per Phase	0	1	2
Demonstrations of Treatment Effect	0	0	0
Ratio	2	2	2
Overall Evidence	0	0	0

Goal attainment scaling for participant 2B. Participant 2B's mother rated his composite behaviors at math baseline as between *Average* and *Worse than Normal* ($M = 2.57$, $SD = .79$). Participant 2B's mother indicated that she perceived his behaviors as improving during math intervention, with her ratings falling between *Significantly Better than Normal* and *Best Possible* ($M = 5.29$, $SD = .76$).

Participant 2B's mother rated his behaviors at reading baseline as between *Worse than Normal* and *Average* ($M = 2.5$, $SD = .58$). Participant 2B's mother rated his behavior at reading intervention with a mean of 5.9, indicating that she perceived his behaviors as between *Significantly Better than Normal* and *Best Possible* ($M = 5.9$, $SD = .3$).

Finally, 2B's mother did not provide GAS ratings for his behaviors at baseline for writing, but at writing intervention she rated his behavior on average as between *Significantly Better than Normal* and *Best Possible* ($M = 5.7$, $SD = .63$). The GAS means and standard deviations for Participant 2B can be found in Table 27.

Table 27

GAS Baseline and Intervention Means and Standard Deviations for Participant 2B

Participant	Setting	Behavior code	Baseline <i>M</i>	Baseline <i>SD</i>	Intervention <i>M</i>	Intervention <i>SD</i>
2B	Math	Off-Task Motor	2.57	.79	5.29	.76
	Math	Off-Task Verbal	2.57	.79	5.29	.76
	Math	Independent Engaged Time	2.57	.79	5.29	.76
	Math	Average of all Behaviors	2.57	.79	5.29	.76
	Reading	Off-Task Motor	2.5	.58	5.9	.30
	Reading	Off-Task Verbal	2.5	.58	5.9	.30
	Reading	Independent Engaged Time	2.5	.58	5.9	.30
	Reading	Average of all Behaviors	2.5	.58	5.9	.30
	Writing	Off-Task Motor	N/A	N/A	5.7	.63
	Writing	Off-Task Verbal	N/A	N/A	5.7	.63
	Writing	Independent Engaged Time	N/A	N/A	5.7	.63
	Writing	Average of all Behaviors	N/A	N/A	5.7	.63

The multiple baseline design across settings that was implemented to visually analyze Participant 2B's mother's ratings of his behavior does not meet WWC *Design Standards*, as there are only two opportunities to demonstrate change that are measured. Although the MBD does not meet design standards, the visual analysis procedure was utilized to assess the data that

were available. These data should be interpreted with caution, however, as they cannot show evidence for change per WWC standards. Table 28 includes the WWC standards as they apply to Participant 2B and Figure 10 provides a graph of the GAS data. As measured by WWC standards, the two baseline phases that were measured for 2B indicated that they required change. Only the GAS for the reading setting demonstrated sufficient predictability, sufficient consistency, and appropriate trend. Most of the intervention data demonstrated that the within phase data for the intervention phase was predictable, consistent, and having appropriate trend. The between phase effects indicated that all of the interventions that could be compared to baseline demonstrated basic effects. Similarly, almost all of the data indicated that there were sufficient change effects in terms of immediacy and change for level, trend, and variability. All of data that could be compared between baseline and intervention had low overlapping data between phases. The multiple baseline design across settings did not allow for a rating of similar data patterns across phases. The between phases ratings indicated two opportunities for demonstration of treatment change effects for behavior changes and treatment effects were present for the two opportunities for change.

The overall effectiveness rating indicated that (a) there were not at least five data points per phase, (b) there were not at least three demonstrations of treatment effects, (c) there were no instances of non-effects, (d) the ratio of effects to non-effects was less than 3:1. Due to the lack of a third opportunity to demonstrate change, these data do not show evidence of change. The two phase changes that were measured indicated observable change between baseline and intervention.

Figure 10

Participant 2B: Goal Attainment Scaling

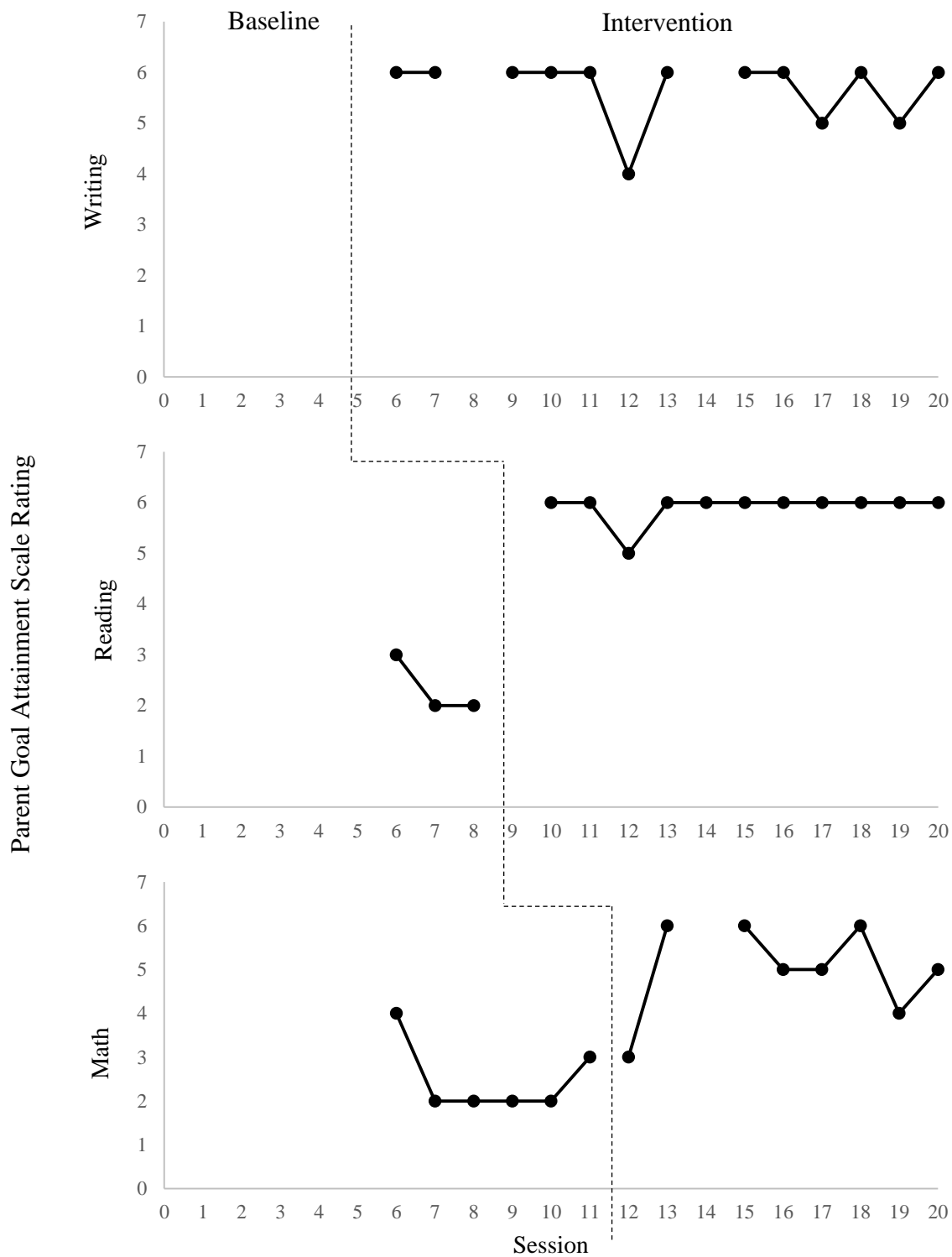


Table 28

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Goal Attainment Scaling for Participant 2B

	Settings		
	Writing	Reading	Math
Baseline			
Change	0	1	1
Predictable	0	1	0
Consistent Variability	0	1	0
Trend	0	1	0
Within Phase Analysis			
Sufficient Data Points	0	1	2
Predictable	1	1	1
Consistent Variability	1	1	1
Trend	1	1	0
Between Phase Basic Effect			
Basic Effects	0	1	1
Level – Immediacy	0	1	0
Trend – Immediacy	0	1	1
Level – Change	0	1	1
Trend – Change	0	1	1
Variability – Change	0	1	1
Low Overlap	0	1	1
Similar Phases	-	-	-
Between Phase			
Opportunity to Demonstrate Effect	0	1	1
Treatment Effects Demonstrated	0	1	1

Table 28 (continued)

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Goal Attainment Scaling for Participant 2B

	Settings		
	Writing	Reading	Math
Overall Effectiveness			
Data Points Per Phase	0	1	2
Total Demonstrations of Treatment Effect	0	0	0
Ratio	2	2	2
Overall Evidence	0	0	0

Goal attainment scaling for participants 3A, 3B, 3C. The GAS means and standard deviations for Participants 3A, 3B, and 3C can be found in Table 29. Participant 3A's mother rated 3A as exhibiting composite behaviors at baseline that were approximately *Average* ($M = 3.04$, $SD = .34$). Participant 3A's mother rated his behaviors as improving during intervention, with an intervention mean between *Better than Normal* and *Significantly Better than Normal* ($M = 4.13$, $SD = .54$).

Participant 3B's mother rated his overall behaviors at baseline as between *Worse than Normal* and *Average* ($M = 2.83$, $SD = .64$). During intervention, Participant 3B's mother rated his overall behaviors as improved, with their average falling between *Better than Normal* and *Significantly Better than Normal* ($M = 4.7$, $SD = .84$).

Finally, Participant 3C's mother's GAS ratings indicate that at baseline she perceived her daughter as exhibiting behaviors that were between *Worse than Normal* and *Average* ($M = 2.6$, $SD = .5$). During intervention, Participant 3C's mother rated her overall behaviors as falling between *Better than Normal* and *Significantly Better than Normal* ($M = 4.66$, $SD = .96$).

Table 29

GAS Baseline and Intervention Means and Standard Deviations for Participants 3A, 3B, 3C

Participant	Behavior code	Baseline	Baseline	Inter	Interv
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
3A	Off-Task Motor	3.1	.28	4.2	.41
	Off-Task Passive	3.1	.28	3.8	.75
	Off-Task Verbal	3	.41	4.2	.41
	Independent Engaged Time	3	.41	4.3	.52
	Average of all Behaviors	3.04	.34	4.13	.54
3B	Off-Task Motor	3	.53	5	.5
	Off-Task Passive	2.8	.71	4.8	.67
	Independent Engaged Time	2.8	.71	4.3	1.2
	Average of all Behaviors	2.83	.64	4.7	.84
3C	Off-Task Verbal	2.8	.5	4.6	.92
	Off-Task Motor	2.5	.58	5.0	.78
	Off-Task Passive	2.5	.58	4.4	.99
	Inappropriate Sitting	2.75	.5	4.7	1.28
	Independent Engaged Time	2.5	.58	4.5	.74
	Average of all Behaviors	2.6	.5	4.66	.96

Note. Interv = Intervention.

The multiple baseline design across participants utilized for Participants 3A, 3B, and 3C did not meet WWC *Design Standards* because no interobserver agreement data were collected on the GAS. Table 30 includes the WWC standards as they apply to Participants 3A, 3B, and 3C. Figure 11 displays the GAS data for Participants 3A, 3B, 3C. Per the WWC standards, the three baseline phases for the participants indicated that all participants at demonstrated behaviors at baseline that required change and almost all the baseline data indicated sufficient predictability, sufficient consistency, and appropriate trend. All the within phase analysis ratings for intervention also indicated that the intervention data were predictable, consistent, and had appropriate trend. The between phase effects indicated that per the mother's ratings, all the interventions demonstrated basic effects. Similarly, almost all the data indicated that there were sufficient change effects in terms of immediacy and change for level, trend, and variability. All

the data had low overlapping data between phases. The multiple baseline design across participants did not allow for a rating of similar data patterns across phases. The between phases ratings indicated three opportunities for demonstration of treatment change effects for disruptive behavior. Treatment effects were present for all three ratings. The overall effectiveness rating indicated that (a) there were at least five data points per phase, (b) there were at least three demonstrations of treatment effects, (c) there were no instances of non-effects, (d) the ratio of effects to non-effects was not greater than 3:1. Although the GAS data do not meet WWC *Single Case Design Standards*, and therefore cannot be evaluated within the context of WWC standards, these findings indicate that the data provides strong evidence for intervention effectiveness.

Figure 11

Participants 3A, 3B, 3C: Goal Attainment Scaling

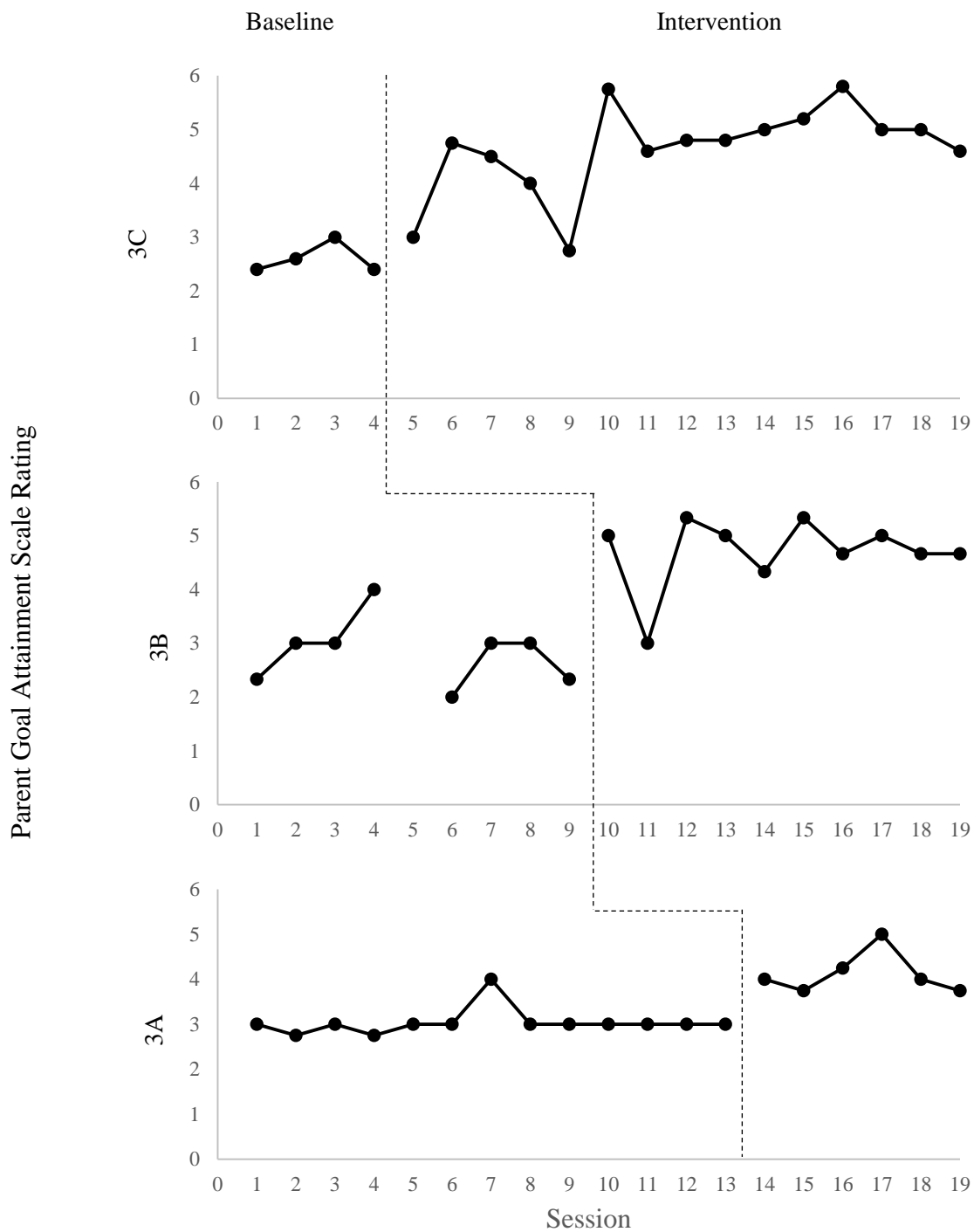


Table 30

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Goal Attainment Scaling for Participants 3A, 3B and 3C

	Child		
	3A	3B	3C
Baseline			
Change	1	1	1
Predictable	1	1	1
Consistent Variability	1	1	1
Trend	1	1	1
Within Phase Analysis			
Sufficient Data Points	1	2	2
Predictable	1	1	1
Consistent Variability	1	1	1
Trend	1	1	1
Between Phase Basic Effect			
Basic Effects	1	1	1
Level – Immediacy	1	1	1
Trend –Immediacy	1	1	0
Level – Change	1	1	1
Trend – Change	1	0	1
Variability – Change	1	0	0
Low Overlap	1	1	1
Similar Phases	-	-	-
Between Phase			
Opportunity to Demonstrate Effect	1	1	1
Treatment Effects Demonstrated	1	1	1

Table 30 (continued)

What Works Clearinghouse Single Case Design Visual Analysis Standards Applied to Goal Attainment Scaling for Participants 3A, 3B and 3C

	Child		
	3A	3B	3C
Overall Effectiveness			
Data Points Per Phase	1	2	2
Demonstrations of Treatment Effect	2	2	2
Ratio	2	2	2
Overall Evidence	1	1	1

Behavior Assessment Scale for Children-3 (BASC-3). Tables of each child's pre and post intervention BASC-3 ratings are provided in Appendix T. Parent reports of the children's externalizing behaviors before and after intervention are described below.

The Externalizing Problems Composite is comprised of the following subscales: Hyperactivity, Aggression, and Conduct Problems. Participant 1A's mother ratings of his behavior prior to the intervention placed his Externalizing Problems within the Clinically Significant range, with Aggression falling into the Clinically Significant range, and Hyperactivity and Conduct Problems falling into the At-Risk range. At the conclusion of the consultation and intervention process, Participant 1A's mother's rating of Externalizing Problems fell within the At-Risk range, with Aggression falling into the Clinically Significant range, and Hyperactivity and Conduct Problems falling into the At-Risk range. Therefore, Participant 1A's mother perceived his overall externalizing behavior problems as somewhat less severe.

At the beginning of the consultative relationship, 1B's mother's completion of the BASC-3 indicated that she perceived her son as within the Clinically Significant range in the

Externalizing Problems Composite, as well as within all subscales. At the conclusion of the intervention, 1B's mother ratings of his Externalizing Problems Composite within the Clinically Significant range, with Hyperactivity and Aggression falling within Clinically Significant range, and Conduct Problems dropping into the At-Risk range. The BASC-3 Post ratings indicate that 1B's mother perceives him as exhibiting somewhat less severe externalizing behaviors relating to Conduct Problems after the intervention.

Prior to beginning data collection, 2A's mother rated 2A's overall Externalizing Problems as within the Average range, with Aggression as the only Externalizing Problems subscale falling outside of the Average range, with an At-Risk rating. After the consultation and intervention process was concluded, 2A's mother rated all of his externalizing behaviors within the Average range, indicating that she perceived improvement in his behaviors relating to aggression.

Prior to beginning the research with 2B, 2B's mother completed a BASC-3, rating her son's behavior as within the At-Risk range for the Externalizing Problems Composite. The Aggression and Conduct Problems subscales fell within the Average range, whereas her ratings of his behaviors relating to hyperactivity fell within the Clinically Significant range. After the completion of the intervention and consultation, 2B's mother's ratings of his externalizing behavior caused his Externalizing Behavior Composite to fall within the Average range, with Hyperactivity and Aggression falling in the Average range, and Conduct Problems falling into the Below Average range. The mother's rating of 2B's hyperactive behavior moved from being rated as Clinically Significant to Average, indicating that she perceived his behaviors relating to hyperactivity as decreasing after the implementation of the intervention.

Participant 3A's mother completed the BASC-3 Parent Rating Scale for Preschool (PRS-P), as the child was five during the research. The Externalizing Problems Composite for the BASC-3 PRS-P includes Hyperactive and Aggression subscales. Participant 3A's mother rated him as having behaviors within the Average range for both subscales and the composite prior to beginning the intervention period. At the conclusion of the research, 3A's mother rated him as exhibiting Below Average behaviors relating to hyperactivity, behaviors that fell within the Average range for Aggression, with an Externalizing Problems Composite within the Below Average range. The mother's ratings of 3A's behavior before and after intervention indicate that she did not perceive him as exhibiting significant externalizing behavior concerns prior to the intervention, and perceived even fewer externalizing behavior concerns after the intervention.

Participant 3B's mother completed the BASC-3 PRS-C prior to beginning the consultation process. Both prior to and after the intervention period, Participant 3B's mother rated his externalizing behaviors on the BASC-3 within the Average range. These ratings indicate that Participant 3B's mother did not perceive him as experiencing severe externalizing behavior concerns either before or after the intervention period.

Prior to beginning the consultative process, Participant 3C's mother rated her Externalizing Behavior Problems Composite within the Average range, with Aggression and Conduct Problems falling within the Average range, and Hyperactivity falling within the At-Risk range. At the conclusion of the consultation process, Participant 3C's mother rated her within the Average range for the Externalizing Behavior Problems Composite as well as the three subscales within the composite.

In summary, the results of the visual analyses for the participants are discussed. The results of the visual analysis for Participant 1A indicate that there was no evidence of

intervention effects given the multiple baseline design, but that a generalizable impact of the Off-task Verbalization intervention may have occurred on the other behaviors that were also measured. Similarly, the visual analysis for Participant 1B also did not provide evidence of intervention effects, but did indicate that the initial intervention that was implemented, for Off-task Passive, may have had generalizable effects on the other behaviors that were also measured. The visual analysis multiple baseline results of Participants 2A and 2B indicated intervention effects across settings. Similarly, the visual analysis that was completed on the data for Participants 3A, 3B, and 3C indicated intervention effects for all participants across participants.

Research Question 2

2. Can in-home consultation provided to parents' homeschooling their children with externalizing behavior problems experience increase the self-efficacy in their parenting skills?

Prediction 2. Parents who receive parent-consultation will experience increased self-efficacy in their parenting skills after receiving parent-consultation (Heath et al., 2015).

Table 31 includes the PSOC means pre and post intervention. The PSOC pre mean for the mother of participants 1A and 1B was 3.15 ($SD = .21$) and the PSOC post mean for the mother of participants 1A and 1B was 3.53 ($SD = 0.0$) indicating a slightly higher sense of parenting competence after completing the research. The mother of participants 2A and 2B provided a PSOC pre mean rating of 3.36 ($SD = 2.48$) and a PSOC post mean rating of 3.18 ($SD = 0.0$), indicating a slight decrease in her rating of parenting sense of competence. Finally, the mother of participants 3A, 3B, and 3C provided a mean PSOC pre score of 4.00 ($SD = .16$) and a PSOC post mean score of 4.06 ($SD = .06$), indicating a slight increase in her ratings of her parenting sense of competency.

Table 31

PSOC Means Pre and Post Intervention

Participant	PSOC Pre <i>M</i>	PSOC Post <i>M</i>
1A	3.00	3.53
1B	3.29	3.53
2A	3.53	3.18
2B	3.18	3.18
3A	4.12	4.06
3B	4.06	4.00
3C	3.82	4.12

Note. 1 = *strongly disagree*, 6 = *strongly agree*.

Research Question 3

3. Can in-home consultation provided to parents' homeschooling their children with externalizing behavior problems experience increase in their teaching self-efficacy?

Prediction 3. It was predicted that after engaging in problem-solving consultation, parents will have significantly higher self-efficacy in teaching compared to before consultation.

The TSES means can be found in Table 32. The TSES pre mean ratings provided by the mother of participants 1A and 1B was 7.26 ($SD = .1$) and the TSES post mean provided by the mother of participants 1A and 1B was 6.63 ($SD = .16$), indicating a slight decrease in her rating of her self-efficacy in teaching. The mother of participants 2A and 2B provided an overall TSES pre mean of 6.65 ($SD = .09$) and an overall TSES post mean of 6.92 ($SD = 0.0$), indicating that she perceived herself as having slightly more teaching self-efficacy at the conclusion of the research than at the beginning. Finally, the overall TSES mean for the mother of participants 3A, 3B, and 3C was 4.49 ($SD = .37$) and an overall TSES post mean of 6.0 ($SD = .13$). For five of the seven assessments completed by the parents, parents rated their self-efficacy as higher after completing the intervention than before the intervention.

Table 32

TSES Means Pre and Post Intervention

Participant	TSES Pre <i>M</i>	TSES Post <i>M</i>
1A	7.33	6.74
1B	7.19	6.52
2A	6.71	6.92
2B	6.58	6.92
3A	4.39	6.13
3B	4.9	5.87
3C	4.18	6.00

Note. Respondents answered the question stem, “How much can you do...? on a scale from 1 = nothing, 6 = a great deal.

Research Question 4

4. Will parents find the consultation process as well as the Behavior Support Plan (BSP) effective and acceptable to implement?

Prediction 4. It was predicted that the homeschooling parents who implement the intervention will report high levels of acceptability and effectiveness.

Table 33 provides information on the parents BIRS acceptability means before and after intervention. Participant 1A and 1B’s mother rated the overall acceptability prior to the intervention as 5.10 ($SD = .13$). At the conclusion of the intervention, the parent of participants 1A and 1B provided an overall mean rating of acceptability of 5.52 ($SD = .06$), indicating a slight increase in her perceived acceptability of the intervention from the beginning of the intervention to the completion of the intervention. The parent of participants 2A and 2B provided an overall pre-intervention mean of acceptability of 5.2 ($SD = .14$) and a post-intervention mean rating of acceptability of 5.6 ($SD = .08$) indicating that she perceived an increase in acceptability in the intervention after the completion of the intervention when compared to prior to beginning the intervention. Finally, the parent of participants 3A, 3B, and 3C provided a mean pre-intervention

rating of 5.36 ($SD = .04$) and a post-intervention rating of 5.98 ($SD = .04$), indicating that she perceived an increase in the acceptability of the intervention after completing the intervention.

Table 34 provides information on the parents BIRS effectiveness means before and after intervention. The parent of participant 1A and 1B provided a pre-intervention overall mean rating of effectiveness of 4.59 ($SD = .29$) and a post-intervention overall mean rating of 4.83 ($SD = .15$), indicating that she rated an increase in perceived effectiveness of the intervention at the conclusion of the intervention when compared to prior to the intervention. The parent of participants 2A and 2B provided an overall pre-intervention mean rating of effectiveness of 5.02 ($SD = .32$) and an overall post-intervention mean rating of effectiveness of 5.6 ($SD = .08$), indicating a slight increase in her rating of intervention effectiveness from pre to post-intervention. Finally, the parent of participants 3A, 3B, and 3C provided an overall pre-intervention mean effectiveness rating of 5.19 ($SD = .05$) and an overall post-intervention mean effectiveness rating of 6.0 ($SD = 0.0$), indicating an overall increase in the perceived effectiveness of the intervention at the conclusion of the intervention when compared to prior to the intervention.

Table 33

BIRS Acceptability Means Pre and Post Intervention

Participant	BIRS Acceptability Pre <i>M</i>	BIRS Acceptability Post <i>M</i>
1A	5.13(verbal) 5.13 (motor) 4.93(passive) 5.13(independent)	5.47(verbal) 5.60(motor) 5.47(passive) 5.60(independent)
1B	5.07(motor) 5.00 (passive) 5.33 (independent)	5.47(motor) 5.47(passive) 5.53(independent work)
2A	5.40(writing) 5.13(reading) 5.13(math)	5.53(writing) 5.53(reading) 5.53(math)
2B	5.07(writing) 5.00(reading) 5.20(math)	5.67 (writing) 5.67(reading) 5.67(math)
3A	5.38	5.93
3B	5.38	6.00
3C	5.31	6.00

Note. 1 = strongly disagree, 6 = strongly agree.

Table 34

BIRS Effectiveness Means Pre and Post Intervention

Participant	BIRS Effectiveness pre <i>M</i>	BIRS Effectiveness post <i>M</i>
1A	4.56 (verbal) 4.56(motor) 4.67(passive) 4.78(independent)	4.89(verbal) 5.00(motor) 4.89(passive) 5.00(independent)
1B	4.00(motor) 4.67(passive) 4.89(independent)	4.67(motor) 4.67(passive) 4.67(independent)
2A	5.33(writing) 5.11(reading) 5.22(math)	5.67(writing) 5.67(reading) 5.67(math)
2B	4.67(writing) 4.56(reading) 5.22(math)	5.33(writing) 5.33(reading) 5.33(math)
3A	5.22	6.00
3B	5.22	6.00
3C	5.14	6.00

Note. 1 = *strongly disagree*, 6 = *strongly agree*.

Research Question 5

5. Will parents find their collaboration and relationship with the consultant acceptable?

Prediction 5. It was predicted that parents will rate their interactions with the consultant to be acceptable.

Table 35 includes the mean parent CEF ratings before and after the intervention. The parent ratings of the consultant-consultee collaborative relationship, based on CEF pre and CEF post are listed in Table 33. The CEF is comprised of 12 Likert-Scale questions ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Prior to beginning the consultant-consultee relationship, the parent of participants 1A and 1B provided an average rating of her expectations of working with the consultant of 5.75 ($SD = 0.0$) and increased her mean rating of working with

the consultant at the conclusion of the research to 7.0 ($SD = 0.0$). Similarly, the parent of participants 2A and 2B provided a mean overall pre-consultation rating of her expectations of working with the consultant as 6.58 ($SD = 0.0$) and her post-consultation mean overall ratings indicated a slight increase in her perceived relationship and experience with the consultant, being 6.67 ($SD = 0.0$). Finally the parent of participants 3A, 3B, and 3C provided a pre-consultation mean rating across children of 5.83 ($SD = 0.0$) and a post-consultation mean rating across children of 6.83 ($SD = 0.0$), again indicating high initial expectations of the consultant-consultee relationship and an increase in the rating of the relationship at the conclusion of the research. All three parents ratings of the consultant-consultee relationship after completing the consultation process were higher than their CEF ratings prior to the consultation process, indicating that their experiences of the consultant-consultee relationship was better than they initially anticipated.

Table 35

CEF Means Pre and Post Intervention

Participant	CEF Pre <i>M</i>	CEF Post <i>M</i>
1A	5.75	7
1B	5.75	7
2A	6.58	6.67
2B	6.58	6.67
3A	5.83	6.83
3B	5.83	6.83
3C	5.83	6.83

Note. 1 = strongly disagree, 7 = strongly agree.

Research Question 6

6. Exploratory question: Will homeschooling parents find it acceptable to complete consultation with public school mental health professionals, such as school psychologists?

The parent perceptions of their acceptability of working with mental health professionals are displayed in Table 36.

Table 36

Parent Ratings of Acceptability of Working with Mental Health Professionals

Question	Parent 1 rating	Parent 2 rating	Parent 3 rating	Average rating
I would find it acceptable to complete a similar consultation process with a school psychologist from a public school.	3	4	3	3.33
I would find it acceptable to receive expertise from a school psychologist from a public school regarding my child's behavior.	5	3	3	3.67
I would find it acceptable to have my child receive testing (academic, behavioral, cognitive) from a school psychologist in public school.	6	5	3	4.67
I would find it acceptable to complete a similar consultation process with a school psychologist in private practice.	7	6	7	6.67
I would find it acceptable to receive expertise from a school psychologist in private practice regarding my child's behavior.	7	6	7	6.67
I would find it acceptable to have my child receive testing (academic, behavioral, cognitive) from a school psychologist in private practice.	7	7	7	7

Note. 1 = *strongly disagree*, 7 = *strongly agree*.

All three parents rated working with school psychologists in public school settings (across all contexts of working together) as being less acceptable than completing similar procedures with school psychologists in private practice settings. The context in which the homeschooling parents found working with a school psychologist as least acceptable was completing a similar consultation process with a school psychologist in a public school, as parent ratings ranged from somewhat disagree to neutral. The most acceptable practice, as rated by the three parents enrolled in the research was receiving testing (academic, behavioral, cognitive)

from a school psychologist in private practice, with all three parents “strongly agreeing” with the acceptability.

The open-ended questions on the Acceptability of Working with Mental Health Professionals addressed potential benefits and barriers relating to homeschooling families working with school psychologists in public schools, as well as school psychologists in private practice. Parents’ responses to the questions are listed in Table 37.

Table 37

Parents Open-Ended Answers to Acceptability of Working with Mental Health Professionals

Do you see potential barriers to working with a school psychologist in the public school?

Family 1: Fear of intervention or regulation or being reported; politically, we just want to be left alone (there is pressure to not allow any involvement from public school); I would assume the psychologist could not support my homeschooling decision or understand how our needs are different from a classroom

Family 2: Public school agenda; over diagnosis vs. objective assessment; will a public school psych support/encourage my choice to homeschool or push to send child to school; no choice in individual [to work with]

Family 3: Yes, government/state level influence over homeschoolers

Do you see potential benefits of working with a school psychologist in a public school?

Family 1: Obviously my boys are not typical students and I could use testing, assessment, tools, training, interventions

Family 2: Helpful to have legitimate answers to learning and behaviors from testing (i.e., [2B] does NOT have ADHD or dyslexia but performance anxiety); free testing?

Family 3: Possibly if there can be trust built between secular/homeschool worlds; homeschoolers value their freedom from government/state ties

Do you see potential barriers to working with a school psychologist in private practice?

Family 1: lack of support for or understanding of homeschooling

Family 2: cost, cost, cost

Family 3: none really except maybe cost

Do you see potential benefits to working with a school psychologist in private practice?

Family 1: Obviously my boys are not typical students and I could use testing, assessments, tools, training, interventions; less likely to be biased against homeschooling

Family 2: no personal benefit with end diagnosis (convince parent to send child to school to be in special ed. program which gets school \$); more supportive of homeschooling???.; choice [of mental health professional to work with, compared to mental health professional in schools]

Family 3: Yes, totally. I think it would be an amazing tool and service.

In summary, the results of research questions two through six provide information examining factors that complement and influence the results found in research question one. Research question two examined parents sense of competency in parenting before and after completing the research. Overall, parents tended to rate themselves as having slightly higher parenting self-efficacy after the completion of the research compared to the beginning of the research. Research question three addressed parents' sense of self-efficacy in their teaching before and after completion of the research. The results indicated that the majority of parents in the research experienced an increase in their teaching self-efficacy at the conclusion of the study, when compared their ratings of teaching self-efficacy at the beginning of the research.

Research question four addressed parents' ratings of the effectiveness and acceptability of the behavior support plan that was collaboratively developed by the consultant and parent. Prior to completing the behavior support plan, parents tended to "agree" with the acceptability and effectiveness of the behavior support plan. At the conclusion of the research, parents' ratings of the acceptability and effectiveness of the research tended to increase to fall between "agree" and "strongly agree." Research question five examined the parents' perceptions of the collaboration and support they would receive while working with the consultant. Prior to the research, the parents tended to rate their expectations of working with the consultant as high, and their ratings increased at the conclusion of the research, indicating that they perceived their relationship with the consultant as helpful and collaborative.

Finally, research question six explored parents' perceptions of collaborating with school psychologists for various reasons (assessment, expertise, and consultation) in public school and private practice settings. The ratings indicated that parents tended to feel more positively about working with a school psychologist in a private setting than in a school setting.

Discussion

The current research utilized the problem-solving consultation process with homeschooling parents who had a child with behavior concerns. The research examined (a) the effectiveness of the problem-solving consultation model with homeschooling parents, (b) whether problem-solving consultation can improve parent self-efficacy in regards to both their parenting and teaching, (c) parents' perceived acceptability and effectiveness of the behavior plans, (d) parents' perceived acceptability of collaboration with a consultant, and (e) parents' perceived acceptability of working with mental health professionals, such as school psychologists.

The present study sought to extend previous research on problem-solving consultation for children who exhibit externalizing behavior problems. Previous research on problem-solving consultation has shown it to be effective in addressing academic and behavioral concerns in public school settings (e.g., Bice-Urbach & Kratochwill, 2016). Problem-solving consultation has been shown to be acceptable to teachers and parents who have completed the process (Bice-Urbach & Kratochwill, 2016; Sheridan et al., 2001; Sheridan & Steck, 1995). This research builds upon the previous research by applying the problem-solving consultation model to parent within the homeschool setting. According to research, one reason that homeschooling families report choosing to homeschool is due to their children's mental health needs or other special needs (Redford et al., 2017). Homeschooling parents have also reported lack of access to services that would benefit their children and are commonly available in the public school setting, such as assessments and support from professionals (Fields-Smith & Williams, 2009). Prior to the current research, no research could be found that examined how problem-solving consultation could be used to support homeschooling families, indicating that this research may

provide foundational information regarding how future researchers and practitioners can engage with and support homeschooling families.

Main Findings

Research Question 1. Can in-home consultation provided to homeschooling parents who reduce child externalizing behavior problems?

The Multiple Baseline Design BSPs completed with Participants 2A, 2B, and 3A, 3B, and 3C supported prediction one, that the problem-solving consultation model can be used in a homeschool setting to decrease externalizing behavior problems. The NAP ES and Koehler-Levin (1998) *dual regulated-randomization* procedure indicated intervention effectiveness for Participants 2A, 2B, 3A, 3B, and 3C.

These findings extend previous research on problem-solving consultation, by applying the problem-solving consultation model with a new population: homeschooling families. Previous research has found the problem-solving consultation method to be effective in decreasing externalizing behavior concerns across diverse populations (Sheridan et al., 2006). Parent involvement in the consultation process in public schools has shown effectiveness in addressing both academic and behavior concerns regardless of varying family factors, such as ethnicity, race, SES, level of maternal education, language spoken at home, and family composition (Sheridan et al., 2006). The current research is unique from typical parent involvement programs as well as CBC in that the parent plays the role of both the teacher and parent, and although the research takes place in the families' homes, the behaviors addressed were specifically related to the child's educational experience (Dunst et al., 2007; Sheridan & Kratochwill, 2008). Furthermore, research on FCS and parent training interventions indicates that the skills learned by the parents in the current research are likely to be more generalizable

and sustainable than if the parents had not been trained in the utilization of the intervention (Dunst et al., 2007; Kaiser et al., 1998).

The results of the visual analyses of Participants 1A and 1B did not show evidence of a decrease of externalizing behavior problems. This indicates that based on the visual analyses, the interventions did not show evidence of significantly changing the participants' behaviors within a MBD across behaviors format. Since two of the five MBDs in the current research did not provide evidence of observable change, the prediction that problem-solving consultation is effective in decreasing externalizing behavior concerns was not supported by all outcomes of the research.

The PIR data for Participant 1A and 1B can be best understood within their individual contexts. Participant 1A's interventions were implemented in a hierarchical fashion (Richman et al., 1999). Although the first intervention focused specifically on behavior expectations relating to off-task verbalizations, the positive attention and rewards that he received as a part of that intervention may have decreased his other off-task behaviors and increased his independent work completion. Similarly, due to randomization, Participant 1A started his first behavioral intervention briefly after his brother, Participant 1B. Participant 1A may have benefitted from interventions for Participant 1B. For example, the parent may have used Participant 1B's BSP strategies with Participant 1A. Indeed, previous research indicates that consultation can lead to skills in parents and teachers that are generalizable across settings, behaviors, and students (Sheridan & Kratochwill, 2008). Since Participant 1A's mother had been trained in the implementation of the intervention with one specific behavior, Off-task Verbalizations, she may have utilized the behavior management skills such as ignoring off-task behavior and providing positive attention to on-task behavior.

Although visual analysis for Participant 1A did not indicate evidence of intervention effect, mean occurrences of Participant 1A's off-task behaviors were all lower after the intervention, and his mean for Independent Engaged Time was higher after the intervention. Thus, increasing the dosage or modifying BSP strategies may have improved Participant 1A's response to the problem-solving consultation. Based on visual analysis of Participant 1A, the decrease in off-task behaviors and increase in on-task behaviors tended to occur after the sixth data point, when the intervention for Off-task Verbal began. The co-occurrence of an increase in on-task behaviors and decrease in off-task behaviors indicates that the intervention of Off-task Verbalization may have addressed the function of the other behaviors that were measured by researcher. The change in all behaviors that occurred after data point 6 tended to remain consistent throughout the data collection, reinforcing the concept that the intervention for Off-task Verbalization influenced all of Participant 1A's measured behaviors. These findings indicate that the problem-solving consultation model can be used to develop a function-based intervention that can address multiple behavior concerns that are the product of the same function.

Participant 1B's behaviors as measured by PIR can be further understood within increased context. Prior to the consultation process, Participant 1B's mother rated him on the BASC-3 as Clinically Significant for all subscales within Externalizing Behaviors (Appendix T). Participant 1B had also previously received a diagnosis of ADHD and was taking medication for his ADHD symptoms during the entirety of the research. Throughout the research, Participant 1B's mother reported that there was ongoing communication with their doctor in terms of medication modifications in order to best meet Participant 1B's needs. These pieces of information provide context to understanding Participant 1B's behaviors, as they indicate that

Participant 1B may have been in need of support for his ADHD that was greater than the scope of the current research.

Similarly, throughout the implementation of Participant 1B's BSP, the consultant and mother collaborated to adapt the interventions with goals to decrease 1B's disruptive behaviors and increase his independent engaged time. Throughout the intervention implementation period, the consultant and mother noted that Participant 1B's disruptive behavior decreased and independent engaged time increased immediately after receiving positive attention but would exhibit problem behaviors during the three minute period between receiving positive attention. The consultant decided to implement positive attention at a more frequent rate and assess whether or not it would increase his on-task behavior. In response, a modification was made at data point 19 whereby Participant 1B would receive positive attention every minute. Previous research has shown that providing attention to students can be effective in increasing appropriate behavior, particularly when their off-task behaviors are related to attention-seeking behaviors (Sheridan & Witte, 2010). The research on the utility of positive attention, in concert with the current findings, indicate that BSPs can be adapted throughout the consultation process to better support students' function-based needs. Similarly, the current research indicated that providing attention in increasingly brief time spans is likely to increase the on-task behavior of students whose off-task behavior is related to attention-seeking tendencies.

Although the visual analysis of Participant 1B's data did not indicate strong evidence for intervention effects, the NAP ES for Off-task Motor indicates low data overlap between the baseline and intervention phases. Similarly, the means for Participant 1B's off-task behaviors were lower during the intervention phase relative to the baseline phase, and his Independent Engaged Time mean was higher in intervention than it was during baseline.

For all behaviors that received GAS ratings at baseline and intervention, parents rated their children's behaviors as closer to their desired goal for that behavior at the conclusion of consultation. The GAS data for Participants 3A, 3B, and 3C included three starting points and demonstrated strong evidence for intervention effects based on parent ratings. GAS ratings are helpful in assessing the rater's perceptions of the change in behavior (Kiresuk & Sherman, 1968). Similarly, GAS ratings are recommended during consultative processes because they provide the consultee opportunities to communicate their perceptions of child behavior (Sladeczek et al., 2001). Previous research has found that teachers who engage in the consultation and BSP process tend to rate their students' behaviors as closer to desired outcome during intervention when compared to their ratings of behaviors at baseline (Bice-Urbach & Kratochwill, 2016). As noted above, all GAS ratings that occurred at baseline and intervention demonstrated higher GAS ratings at intervention than baseline, indicating that all parents involved in the research perceived their children's behavior as improved during intervention.

Parents also noted an increase in Independent Engaged Time as evidenced by their GAS ratings. In all instances where parents' baseline and intervention GAS mean ratings could be compared, parents' ratings of child independent engaged time during intervention was closer to the desired behavior outcomes than during baseline. Similarly, the mean percentage of Independent Engaged Time increased from baseline to intervention in 10 of the 11 instances where the means were compared. Participant 2A's independent engaged time in math was the only instance when the mean did not increase. Based on the consultation process, an increase in Independent Engaged Time was a desired outcome for all families. Previous research has shown that the quality of parent-child interactions and child externalizing behavior concerns have transactional effects on each other (Pearl et al., 2014). These findings may suggest that as

homeschooling parents perceive their children as having fewer externalizing behavior concerns, and more positive behaviors, they are more likely to share in positive interactions with their children. One factor that may contribute to that rationale is that all interventions developed for the participants in the study included an element of child praise.

Research Question 2. Will homeschooling parents report an increase in parenting self-efficacy after completing problem-solving consultation?

Previous research has shown that parents report increases in self-efficacy after receiving parent consultation regarding their children's externalizing behavior concerns (Heath et al., 2015). Parents mean PSOC scores tended to increase slightly from before the consultation process to the conclusion of the consultation process. These results indicate that the consultation process may have slightly influenced parents' perceptions of their abilities, but did not seem to substantially influence their self-perceptions. Problem-solving consultation for parents in a homeschool setting may have been too distal to influence parent perceptions of their parenting self-efficacy.

The minimal change in parent sense of self-confidence as rated by parents on the PSOC could be due to multiple factors. For example, parents could perceive their teaching role as distinct from their overall parenting role. A second potential reason for the minimal change in the PSOC scores pre and post consultation could be that all parents in the research had other children who were not enrolled in the study. Although the researcher guided the parent to complete the PSOC with the particular participating child in mind, their interactions with their other children could have influenced their perceptions of their parenting self-efficacy. A third reason for the lack of change in PSOC scores could be due to the breadth of the assessment. Many of the questions on the PSOC address how the parents generally feel about parenting (e.g. "A difficult

problem in being a parent is not knowing whether you're doing a good job or a bad one") rather than their specific abilities to address behavioral concerns as a parent. Thus, it is possible that parents' self-efficacy may have improved in certain areas that are not captured in PSOC ratings.

Research Question 3. Do homeschooling parents report increased teaching self-efficacy after completing problem-solving consultation?

Parents reported an overall mean increase in teaching self-efficacy from pre-consultation to post-consultation. Two of the three parents involved in the research did not have backgrounds in education. The parent of Family 2 taught in the public education classroom prior to homeschooling her children. The consultation process, and the collaborative development of behavior plans based on evidence-based interventions (Sheridan & Witte, 2010) may have provided the parents an opportunity to develop their repertoire of evidence-based classroom management skills and thereby increase their self-efficacy as teachers. This is an important finding as research indicates parents who feel efficacious in providing academic support to their children tend to be engaged in their child's schoolwork (O'Sullivan et al., 2014). Furthermore, two of the homeschooling parents disclosed that they were considering sending their children back to public school due to difficulty managing their children's behavior. Thus, the increase in teaching self-efficacy reported by parents in the present study may facilitate their continued use of homeschooling.

According to previous research, parents who choose to homeschool their children tend to have high self-efficacy in terms of their ability to educate their children (Van Galen, 1988). Although homeschooling parents tend to have high self-efficacy in their ability to educate their children, they tend to lack training in how to provide a homeschool education (Redford et al., 2017, Van Galen, 1988). According to a 2017 report by the NCES, approximately one quarter of

homeschooling parents receive training relating to their homeschooling skills. The current research indicates that parents who homeschool their children could experience increased self-efficacy by engaging in learning experiences relating to behavior management (Redford et al., 2017).

Research Question 4. Will homeschooling parents find the Behavior Support Plan (BSP) effective and acceptable to implement?

Previous research has shown that when teachers complete similar BSP processes within consultative relationships, they find the implementation of the BSPs to be acceptable (Bice-Urbach & Kratochwill, 2016). Similarly, parents who have completed CBC have also reported high levels of treatment acceptability (Sheridan & Steck, 1995). As noted in the results section, parents began the consultation with relatively high ratings of acceptability and effectiveness of the intervention and provided even higher ratings at the conclusion of the consultation process. These findings indicate that homeschooling parents found the interventions to be effective in decreasing problem behavior, to be feasible to complete within their home environment, and to be acceptable to other parents and families in similar situations.

Previous research has found a correlation between teacher perceived acceptability and effectiveness of classroom programming and treatment fidelity to the programming (Lakin & Shannon, 2015). This finding indicates that adherence to treatment plans is related to ratings of acceptability and effectiveness. The high acceptability and effectiveness ratings provided by the parents in the current research indicates that they found the BSP to be appropriate and feasible to implement to address their children's behavioral needs, which could have been related to their high levels of treatment integrity as measured by the researcher.

Research Question 5. Is the consultation process acceptable to homeschooling parents?

An area of interest in the research of collaborating with homeschooling families was the level of parent perceived acceptability of the consultative process and consultant-parent relationship. Prior to this study, no research could be found that investigated problem-solving consultation with homeschooling parents. Previous researchers found that the problem-solving consultation was acceptable to teachers (Bice-Urbach & Kratochwill, 2016). Similarly, behavioral consultation has also been found to be acceptable to parents who have engaged in the CBC process (Sheridan & Steck, 1995). Homeschooling parents in the present study reported that the problem-solving consultation process was acceptable. All parents in the research rated the consultation process and relationship with the consultant as relatively high prior to beginning the consultative process, and all parents increased their ratings of their satisfaction and the helpfulness of the consultation process at the end of the consultative relationship.

The CEF addresses issues of collaboration and mutual intervention development, consultant knowledge, and the ability of the consultant to assist in developing strategies that will be acceptable within the parents' school environment. The high ratings on the CEF at the conclusion of the consultative process indicate that the consultation process is perceived as beneficial within the homeschooling environment. The increased CEF rating from pre to post intervention may suggest that once homeschooling parents are exposed to the consultation process for their own children, they may find the consultation process increasingly acceptable. As discussed above, the CEF contains multiple questions regarding the fit of the consultant's ideas with the school environment and specific pupil needs, since the parents' ratings on the CEF were high at the end of the research, this indicates that the parents in the research perceived the consultation process as appropriate for their specific homeschooling environment and student.

A critique of FCS is that it can be time intensive for the families involved due to the involved nature of the consultation (Ingersoll & Dvortcsak, 2006). The high ratings from parents on the CEF indicates that although the consultation process required many hours for each participant, the parents still found the consultation process to be purposeful and engaging. Similarly, the FCS and problem-solving consultation models are designed to utilize the consultee's expertise on the context of the child's behavior, the function of the child's behavior, and to provide feedback on strategies that would be acceptable given the child and the setting (Kratochwill & Bergan, 1990; McWilliam et al., 1998). The high CEF ratings indicate that parents perceived their relationship with the consultant as collaborative and that their opinions, ideas, and needs were appreciated by the consultant and considered in the development of the BSPs. This indicates that the consultant developed a consultant-consultee process that was aligned with the purpose of problem-solving consultation (Kratochwill & Bergan, 1990).

Research Question 6. Exploratory question: Is working with mental health professionals acceptable to homeschooling parents?

Parents rated their acceptability and responded to open-ended questions about their perceived benefits and costs to working with privately practicing and publicly employed mental health professionals. Based on their ratings, parents reported consulting with a mental health professional who was in private practice as more acceptable than working with a mental health professional in a public school, as noted by a higher overall parent mean acceptability rating for completing consultation with a school psychologist in a private practice setting than the mean acceptability rating for consulting with a school psychologist in a public school setting. This finding indicates that researchers and practitioners who are interested in supporting homeschooling families with mental health services may have more homeschooling parents who

are interested in receiving services in private practice settings. All homeschooling parents noted that a barrier to working with privately practicing mental health professionals would be the cost of mental health services. Previous research has found that homeschool families report having a lack of access to education related services and resources (Fields-Smith & Williams, 2009). A benefit of utilizing the consultation model within public schools is that it provides teachers skills in addressing problem behaviors that can then be generalized with other students (Feldman & Kratochwill, 2003). These findings can be applied within the homeschooling context as well, as all families in the present study had multiple children being homeschooled. Therefore, strategies can be utilized across different settings and behaviors for the student of concern, as well as for different children/pupils of the parent/teacher who completed the consultation process.

Limitations and Future Research Directions

There were several limitations that should be considered upon review of the current research. First of all, each family who enrolled in the research had multiple children for whom the parent completed the consultation and BSP process. For Family 1 (Participant 1A and Participant 1B), a MBD across behaviors design was for both participants. The BSPs were implemented independently, but took place in a school room where both children were aware of their siblings' behavior support plan. The co-occurring BSPs could have influenced both the mother's interactions with the child (e.g., utilizing BSP strategies with a child who was not in intervention phase) as well as the siblings' interactions with each other (e.g., when one sibling began intervention first, he may have decreased off-task interactions with his brother, influencing his brother's behavior). The co-occurring BSPs could have caused the participants behaviors to have a transactional effect on each other. Future researchers should complete single case research with independent family units, so as to decrease issues of internal validity.

Participants 2A and 2B engaged in similar BSPs across settings (writing, reading, math). Since Participants 2A and 2B completed their school work together, their intervention start times were paired. Although their intervention start times were paired, their mutual participation in the intervention could have influenced each participants' behaviors. As noted above, future research should be complete with distinct family units, so as to reduce the potential influence of sibling interactions on the outcome data.

For Participants 3A, 3B, and 3C, their BSP times were implemented in a staggered manner, as the SCD for family three was MBD across participants. Participants 3A, 3B, and 3C completed their work independently of one another, but within the same room. For all three families, there may have been an influence of having siblings also receiving behavior support on each participant's behavior support plan, as these siblings likely experienced variation in their mother's availability due to her implementation of a sibling's BSP. Similarly, for Family 3, the child whose intervention began after his sibling's was able to observe the BSP of his sibling prior to their BSP start date. The social-comparison theory posits that parent-child interaction dynamics influences sibling relationship, indicating that when parents have negative interactions with a specific child, the sibling relationships will also experience more stress and negativity (Brody, Stoneman, & McCoy, 1992). This theory indicates that changes in parent-child dynamics that occurred during the research could have influenced sibling interactions, therefore influencing the outcome data. Future research should consider examining problem-solving consultation with more homeschooling families than the present study with one student per family.

Second, the intervention randomization for Participants 1A and 1B did not occur. Interventions were implemented in a hierarchical manner. Previous research has utilized

response classes for individuals whose behaviors serve the same function (Richman et al., 1999), which informed the present study. Since dual randomization was not completed for Participants 1A and 1B, it was not possible to utilize Koehler-Levin *dual regulated-randomization* (1998) to assess the statistical significance of the interventions. Future research should use dual randomization as described by Koehler and Levin (1998) when implementing single case design research with homeschooling families.

Third, GAS ratings for Families 1 and 2 across all phases were not available. For Family 1, the mother did not report on the same behaviors across intervention and baseline, making some of her GAS ratings incomparable. With Family 2, the parent did not complete GAS scales. In the absence of GAS ratings for all families, comparisons across baseline and intervention phases were not possible for Participants 1A, 1B and 2A and 2B. Future research should collect and examine GAS ratings for all families in a time series fashion.

A fourth limitation, based on the researcher's observations, to varying degrees, all three families exhibited flexibility in their implementation of homeschooling. One family (Family 2) in the research was particularly flexible in the implementation/development of curriculum. For example, Participant 2A was allowed to flip through his math book during the entirety of the math observation periods throughout the research, so as to complete the math pages that he found the most desirable. This situation meant that as he progressed in completing the most desirable work, as the research progressed his work became more difficult, which led him to need more support from his mother. The curriculum changes for Participant 2A could have influenced the internal validity of the research. Future researchers who complete research with homeschooling families should consider the content of the academic curriculum as well as the manner in which

the curriculum is implemented to measure the influence of the curriculum on the child's behavior and reduce issues of internal validity.

Throughout the research, parents were flexible with curriculum planning and implementation. For example, one parent noted to the consultant that because her children were behaving better in the intervention period, she adapted the curriculum she was using and began providing them with significantly more difficult work, as she knew that they were more likely to complete the work without exhibiting problem behaviors. The adaptation in curriculum difficulty is a variable that could have influenced the children's (2A and 2B) behavior, such as increasing the students' requests for support, therefore decreasing their independent engaged time and should be considered in the examination of the data. Overall, homeschooling lends itself to many levels of flexibility. This flexibility should be accounted for in future research. For the present study, flexibility in instructional approaches should be taken into consideration when drawing conclusions from the research, as the variance in difficulty of the curriculum may have influenced the child's behavior independent of the intervention and therefore influenced the internal validity of the research. Although the homeschooling parents demonstrated flexibility in how much they interacted with their children and in the difficulty of the curriculum that they provided to their children, the researcher did not observe any variation in treatment integrity in relation to these changes, indicating that the parents were able to implement the interventions with high fidelity in the context of varying classroom factors.

Fifth, another area in which implementation of homeschooling curriculum flexibility could have influenced the children's behaviors was during the follow-up period. One follow-up data point six weeks after the research had been concluded, during summer 2017. However, due to variability in family homeschool schedules, follow-up data could only be collected for two

families. In absence of follow-up data for all families the maintenance of intervention effects is unknown. Future research should seek to collect sufficient follow-up data to determine a pattern of responding. Similarly, due to the flexibility in scheduling in homeschooling, future research should examine homeschooling families' adherence to intervention protocol when the researcher is not present. Due to homeschooling parents' unique role during the school day, of often teaching children at multiple grade levels and also needing to attend to non-curricular child needs, future research may also examine varying levels of simplicity and complexity in intervention implementation to assess how intervention complexity influences parent adherence to intervention protocol.

Similarly, parents reported inconsistently implementing BSPs during the summer. Inconsistent implementation of BSPs could have influenced the students' behaviors as measured by PIR. This information should be considered when examining the follow up data. Future research could develop with families a procedure to plan for consistent, albeit faded, implementation through a follow-up period.

A sixth limitation included the reality that the population of participants was relatively homogeneous in that all of the parents enrolled in the research reported choosing to homeschool due in part to: (a) religious, family, or moral reasoning and (b) educational values. Two (Family 2 and Family 3) of the three parents in the research discussed their dissatisfaction with their experience of having a child in the public school system as rationale for homeschooling. In addition, all families in the research were two parent households in which one parent worked full-time and the other parent stayed home full-time to provide a homeschooling education to their children. These homogeneous demographics did not provide an opportunity to explore the nuances of homeschooling for families in different settings, such as single-parent homes or

homeschooling due to expulsion, and therefore do not support generalizability to other homeschooling populations. Future research could investigate problem-solving consultation with homeschool families from different backgrounds.

A seventh limitation relates to the engagement of only one parent in the research. All children in the research were from two parent households, yet only the mother in each family engaged in the consultation and behavioral interventions. Future homeschooling consultative research should involve all of the children's caregivers in order to increase generalizability.

The eighth limitation was that the consultant and observers were not blind to the baseline or intervention phases of the research while completing the behavior coding. The consultant was engaged in consulting with and coaching the parent through the baseline and intervention phases, and therefore could not be blind to the phases. Similarly, the coders completed a treatment integrity form for each family during intervention. For both the consultant and observers, being aware of the phases was unavoidable and this knowledge may have inadvertently influenced their coding of the child's behavior. It may be useful for future research to explore keeping observers blind to phase changes.

A ninth limitation included the lack of qualitative data gathered on the homeschooling families past experiences with school psychologists, consultation, and behavioral interventions. This qualitative data would have provided insight into families' experiences and knowledge of consultation and intervention prior to their completion of the consultation and intervention process. Similarly, this information would have provided insight into the families' previous interactions with mental health professionals, which could have provided information on how rapport can be built between homeschooling families and mental health professionals. Future research with homeschooling families should collect more information on their experiences with

learning evidence-based behavioral interventions as well as their interactions with mental health professionals in order to continue to build a comprehensive understanding of how homeschooling families can be supported.

A tenth potential limitation to consider is that when considering applying the research to practice, the potential cost involved must be weighed. The parents who enrolled in the research received the consultation and behavior support free of charge, as it was a dissertation study. Similarly, in the acceptability of working with mental health professionals, all three parents noted that they would prefer to work with a private practice school psychologist, rather than a public school psychologist. In the open-ended questions about barriers to working with a private practice school psychologist, all three parents noted the cost involved. Therefore, there seems to be a discrepancy between the services that homeschooling families' desire, and what they find to be financially feasible. The researcher recognizes that although all families involved in the research reported a positive experience in working with the consultant and completing the implementation process, that financial barriers may influence the feasibility of engaging in the consultation and restrict homeschooling families from seeking out similar resources in the future. Further research should be completed to examine how behavioral consultation can be completed with homeschooling families in a cost-effective and efficient manner.

One means of increasing the cost-effectiveness, efficiency and feasibility of the problem-solving consultation process for homeschooling families could be to utilize teleconsultation with the population. For the current research, the consultant was responsible for driving to each homeschooling families' home to complete the behavioral observations and consultation. In order to decrease the travel component of the consultant support, the consultation and behavioral observations could be completed using a video chat platform. Previous research has found

problem-solving teleconsultation to be an acceptable and effective means of providing consultation, particularly for those in rural areas.

An eleventh limitation includes the measurement of IOA for treatment integrity. The IOA for treatment integrity was measured by analyzing point-by-point agreement in rating between primary observer and interobserver. Utilizing an intraclass correlation method for measuring agreement would have provided a more robust analysis of IOA for treatment integrity.

The assessment of the function of the child's behaviors is a twelfth limitation. The environmental contingency data was collected using a functional analysis interview. The researcher largely relied on parent-report regarding the function of the child's behavior in order to develop the behavioral interventions. Future researchers should complete more comprehensive functional behavior analyses regarding child behavior in order to improve the specificity of the the behavioral intervention to best meet the child's behavioral function.

A final limitation is the intertwined nature of the problem-solving consultation and function-based evidence-based intervention that occurred in the current research. Both function-based interventions and problem-solving consultation have robust research supporting their independent efficacy in reducing behavior concerns (Carter & Horner, 2007; Kratochwill & Bergan, 1990). The independent efficacy of problem-solving consultation and function-based intervention beg the answer to what degree each tool facilitated the positive behavior change in the students. Future research should compare the utility of function-based interventions against function-based interventions that were developed within the context of problem-solving consultation. This research would lead to further understanding of the value-added to the function-based interventions by problem-solving consultation.

Implications

The findings of this research suggest implications for the future research and practice of problem-solving consultation and the broader field of school psychology. Based on the findings of the current research, and their integration with previous research on consultation, homeschooling, and externalizing behaviors, further examination is warranted in several areas (a) further research on how school psychologists can support families with homeschooled children with disabilities, (b) the utility of consultation for homeschooling families with children with academic concerns, (c) integrating consultation and behavior support plans across all educational and extracurricular settings for homeschooling families, (d) the influence of problem-solving consultation on the parent-child relationship for homeschooling families, and (e) the degree to which problem-solving consultation influences parent interest in continuing to homeschool. Similarly, the research has implications for practicing school psychologists in public schools, as well as those in private practice.

The current research focused solely on externalizing behavior problems for homeschooled children within the home setting. According to a 2012 report by the NCES (Redford et al., 2017), 15% of homeschooling parents reported choosing to homeschool based on their child's physical or mental health concerns and 17% of homeschooling parents noted having a child with special needs as a reason for homeschooling. Future research about how to support homeschooling families with children with learning disabilities or other physical or mental health concerns would be beneficial.

Similarly, CBC has also been shown to be effective in addressing the academic concerns, with high acceptability from the parents who were engaged in the CBC process (Sheridan et al., 2001). The current research applied problem-solving consultation to the homeschooling

population to specifically address externalizing behavior concerns. Future research could examine the utility of consultation for homeschooling families with children with learning disabilities or other academic concerns.

Homeschooling families who enrolled in the research engaged in homeschooling extracurricular groups throughout the week, and some of the parents shared that they were experiencing behavior concerns with their children in the extracurricular or homeschool group setting. These parental concerns indicate that similar consultation might focus on settings in and out of the home. Using CBC (Sheridan & Kratochwill, 2008) with homeschool group leaders or other supportive adults playing the role of the teacher in addition to parents may be one approach to address the multiple settings and individuals supporting children.

The topic of parent-child relationships is another area that may be helpful for future research to investigate. Previous research has shown that the teacher-child relationship is a significant predictor of child externalizing behavior in the classroom, and that closeness and reduced conflict are predictive of fewer behavior concerns in students (Ladd & Burgess, 2001). Similarly, as previously discussed, child externalizing behavior concern and parent disengagement are transactionally related, indicating that they cause the other to increase (Lovejoy et al., 2000). These findings suggest the following research questions may be useful to consider: What is the effect of problem-solving consultation for homeschooling families on parent-child relationship quality?

As anecdotally discussed in this document, two of the homeschooling parents reported that they considered putting their children in public school due to difficulties managing their child's externalizing behavior concerns. These reports align with past research that has found child externalizing behavior problems and parent disengagement are related (Lovejoy et al.,

2000). Problem-solving consultation is often utilized as a preventative measure prior to developing individualized education plans for students (Feldman & Kratochwill, 2003). With this context, it may be helpful to examine the effect of problem-solving consultation in homeschooling environments on homeschool retention rates, particularly for children who exhibit externalizing behavior concerns.

The current research has implications for practicing mental health professionals as well. School psychologists in public school settings could utilize problem-solving consultation to support homeschooling families who reach out to public schools for behavior management support or who are transitioning from a public school to homeschool education, given that the school psychologist has approval from the school to utilize resources in that manner. School psychologists working in either public schools or private practice can utilize the qualitative information of homeschooling parents who reported that the support of a school psychologist could be helpful by broadening the services that are provided to homeschooling families. For example, school psychologists could develop seminars in which homeschooling families can learn about evidence-based behavior management strategies, as well as evidence-based interventions for specific learning disabilities or behavioral concerns. These seminars could serve a two-fold purpose in increasing homeschooling families' knowledge of evidence-based practice as well as providing a low commitment opportunity for homeschooling families to meet and build rapport with school psychologists prior to engaging in more time-intense school psychologist support such as behavioral consultation. The current research also indicates that homeschooling families may be interested in receiving comprehensive behavior support strategies for all children receiving a homeschool education within the home, as all families in the current research enrolled multiple children in each family. This indicates that classroom wide

behavior interventions could be utilized for homeschooling families. Similarly, mental health professionals who work in private practice can utilize the problem-solving consultation model to provide homeschooling parents the skills and strategies for addressing behavior concerns, rather than solely providing behavioral therapy to the child.

Conclusion

In closing, the current research indicates that homeschooling families benefit from completing the problem-solving consultation process, as evidenced by observations of reduced disruptive behaviors and parent ratings that indicate perceptions of improved behavior during intervention. Similarly, the current research has found that the BSPs developed through the problem-solving consultation process were overall perceived as acceptable and effective to the homeschooling parents involved in the research, as well as the consultation process itself being deemed acceptable. Several implications and future directions can be considered to further investigate appropriate methods to support homeschooling parents who have a child with externalizing behavior concerns.

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Appendices

Appendix A: Inclusion/Exclusion Criteria Form

Inclusion and Child Criteria Form

Name: _____ Date: _____

1. Parent inclusion criteria:

- a. At least one parent must be at home with the student during the majority of the academic day and engaged in the student's academic work.

i. Do you meet this criterion? Yes No

- b. Parent must be able to spend 15 minutes per day in teaching with child during research.

i. Do you meet this criterion? Yes No

2. Child inclusion criteria:

- a. Child must be between the ages of 5 and 16 years old.

i. Does your child meet this criterion? Yes No

- b. Child must be currently homeschooled by at least one parent in the home environment.

i. Does your child meet this criterion? Yes No

- c. At least one of the student's behaviors on the BASC-PRS (Reynolds & Kamphaus, 2015) is within the At-Risk range or above (If child is in the At-Risk range in a subscale that does not measure an externalizing behavior concern, then the consultant must ensure that the child is exhibiting off-task behavior at a rate of 30% based on two PIR observations).

i. Does your child meet this criterion? Yes No

3. Child criteria:

- a. Is your child currently receiving therapy for any behavior concern?

i. Yes No

b. Does your child have any diagnoses other than externalizing behavior problems?

i. Yes No

If yes, please explain:

c. Has your child been expelled from any private or public school?

i. Yes No

d. Is your child currently taking any medication for his/her behaviors?

i. Yes No

If yes, please explain:

Appendix B: Demographics form

Demographics form

Name _____ Date _____

1. Gender of primary homeschooling parent:

 Female Male

2. Gender of child in study:

 Female Male

3. Ethnicity of primary homeschooling parent:

 Caucasian/White African American/Black Asian American Hispanic American Indian Biracial Other: Please specify: _____ Prefer not to say

4. Ethnicity of child:

 Caucasian/White African American/Black Asian American Hispanic American Indian Biracial Other: Please specify: _____ Prefer not to say

5. Age of child:

 5 6 7 8 9 10 11 12 13 14 15 16

6. Age of primary homeschooling parent:

 18-24 25-30 30-35 35-40 40-45 45-50 50-55 55+

7. Level of education of primary homeschooling parent:

 Some high school High school diploma/GED Vocational/Technical degree

- Some college
- College degree
- Master's degree
- Doctoral degree
- Professional degree
- Other: Please specify: _____

8. Income of family:

- Under \$10,000
- \$10,000-\$19,999
- \$20,000-\$39,999
- \$40,000-\$74,999
- \$75,000-\$99,999
- \$100,000-\$149,999
- \$150,000 +
- Prefer not to say

9. Number of parents in household:

- One parent
- Two parents
- Non-parental guardians

10. Number of children living in household:

- 1
- 2
- 3
- 4
- 5
- 6+

11. Number of children in household currently being homeschooled:

- 1
- 2
- 3
- 4
- 5
- 6+

12. Reason for homeschooling, check all that apply and please add additional information if appropriate on item k:

- a. Religious/moral/family values
- b. Educational values
- c. Cultural values
- d. Dissatisfaction with child's public school experience related to behavioral concerns
- e. Dissatisfaction with child's public school experience related to academic concerns
- f. Dissatisfaction with child's public school experience related to other concerns in school setting
- g. Specific mental health needs of child
- h. Specific physical needs of child
- i. Specific disability of child
- j. Other. Please specify: _____

- k. Additional information on reason for homeschooling:

13. Previous academic experience of child being homeschooled:

- Only homeschool education
- Public school education
- Private school education
- Charter school education

If child has previously experienced other educational environments, please describe reasoning for transitioning into

homeschooling: _____

14. Number of years child has been homeschooled: _____

15. Number of years of homeschooling experience: _____

16. Please briefly describe the curriculum that you use with your child:

17. Please briefly describe the desired outcomes that you have for your child's homeschooling experience:

18. Please describe the behavior management strategies that you have previously attempted with your child:

19. Please describe behavior management strategies that you would find acceptable for intervening with your child:

Appendix C: Recruitment Flyer

**Homeschooling Families**

Do you have a 5-16 year-old child who struggles to stay on-task during the school day?

We are researchers at the University of Wisconsin-Madison who are conducting a study to increase academic engaged time and decrease off-task behaviors among six to fifteen year-old students. There is no cost to participating.

During the project we will:

- Give you new ideas and strategies you can use to help support your child's learning
- Decrease behaviors that interfere with your instruction and your child's work completion (for example, off-task, talking-back)
- Increase behaviors that will help your child stay on-task and focused on learning and your instruction
- Better understand how homeschooling parents can learn skills to support their child's positive behavior



There is a screening process involved in determining the eligibility of participants, and not all participants will be eligible to participate. If you are interested in participating in this study, please contact Rachel DeRoos to find out if you are eligible (contact information provided below).

Rachel DeRoos, M.S.

University of Wisconsin – Madison

deroos@wisc.edu

Stanley Garbacz, Ph.D.

University of Wisconsin – Madison

sgarbacz@wisc.edu

Appendix D: Weekly Implementation Checklist

Weekly Intervention Chart

Dates: _____

Participant ID: _____

Week of implementation: _____

Day of the week	Monday	Tuesday	Wednesday	Thursday	Friday
Amount of minutes implemented					
Adherence of implementation	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
Notes regarding implementation					

Behavior number	Behavior	Intervention	Adherence level
1.			0. No implementation 1. Partial implementation of intervention 2. Implementation of most intervention 3. Complete implementation of intervention
2.			0. No implementation 1. Partial implementation of intervention 2. Implementation of most intervention 3. Complete implementation of intervention
3.			0. No implementation 1. Partial implementation of intervention 2. Implementation of most intervention 3. Complete implementation of intervention
4.			0. No implementation 1. Partial implementation of intervention 2. Implementation of most intervention 3. Complete implementation of intervention
5.			0. No implementation 1. Partial implementation of intervention 2. Implementation of most intervention 3. Complete implementation of intervention

Appendix E: Parent Consent Form

University of Wisconsin-Madison***The Effectiveness of Behavioral Consultation on Homeschooled Students with Externalizing Behavior Problems*****DESCRIPTION OF THE RESEARCH**

You are invited to participate in a research study of consultation for parents who are homeschooling a child with disruptive behaviors. The research is being conducted as part of a dissertation at the University of Wisconsin-Madison by Mrs. Rachel DeRoos and under the supervision of Dr. Stanley Garbacz. Consultation will involve teaching the parent practical intervention techniques to decrease the child's disruptive behavior and increase the child's time attending to academic work. We hope to better understand how school psychologists can support families who have decided to homeschool, and how behavior consultation applies to a homeschool setting. This information will be used to develop programs that are helpful and acceptable to parents in homeschool settings.

DESCRIPTION OF YOUR ROLE IN THE RESEARCH

Parents that are interested in participation will be asked to (a) identify one of their children in need of behavioral support for disruptive behaviors, (b) fill out a questionnaire about the child's behavior, (c) meet with the consultant to define and discuss the child's problem behaviors, (d) collect information on their perceptions of the child's behavior, (e) meet with the consultant to evaluate the problem and determine a fitting intervention, (f) implement an intervention and collect information the child's behavior three times a week, (g) participate in two support sessions with the consultant regarding intervention implementation, (h) meet with the consultant and discuss the effectiveness of the intervention, and (i) complete questionnaires about the acceptability and feasibility of the intervention.

For the study, parents will participate in four 1-hour meetings and two 30-minute meetings with the consultant in order to develop an intervention plan and receive training and support in implementation of that plan. The parent will also spend approximately 4 hours completing training with the consultant regarding how to implement the intervention and collect information on the student's behaviors. All these meetings will take place in the parents' home and will be based on the parents' schedule and availability. The total duration of parent and child involvement in our program will be twelve weeks. The intervention will be implemented within the home for an hour a day during school days during those twelve weeks and data will be collected on the student for 15 minutes a day two times a week. Twice times a week the researcher will visit the home to record 15 minutes of the intervention. The researcher will then watch the recorded intervention to measure how the intervention is being implemented as well as the child's behavior. Although these observations will be recorded, both your child's and your identity will be protected. Similarly, all information regarding your family will be de-identified to protect the privacy of your family. All materials for the intervention will be provided by the

researcher. This study will require approximately 22-23 hours of parent involvement from the beginning of the research to its completion.

ARE THERE ANY RISKS TO THE RESEARCH?

The risks to this research are minimal but may include stress relating to the time commitment of the research. Similarly, parents may be uncomfortable being observed and videotaped while they are teaching their child. There is also a risk that your child's disruptive behaviors may slightly increase at the beginning of the intervention, as the student learns the new behavior expectations and identifies what will be seen as acceptable within the home. Another possible risk is a breach of confidentiality. A breach in confidentiality could come in the form of the form of the researcher or study team members reporting any abuse or neglect that they observe to the appropriate authorities. Any abuse or neglect that occurs in the home must be reported to the appropriate authorities, and any abuse or neglect that was videotaped can be used as evidence.

WHAT ARE THE BENEFITS OF THE RESEARCH?

There are no direct benefits. However, a potential benefit could be that some parents may feel as though they have gained competency in addressing their child's behavior through the consultation and training they have received. The child may benefit from increased on-task time as a result from the research. The child may also exhibit fewer externalizing behavior problems as a result of the research.

WILL MY CONFIDENTIALITY BE PROTECTED?

Many measures will be taken to assure the parent and child's confidentiality. The data will only be accessed by approved personnel. Once the data has been collected, it will immediately be de-identified to protect the privacy of the family. No names or identifying information will be made public as a result of the study, as both the students and parents will be referred to by codes. Similarly, all documents containing identifying information about the participants of this study will be password protected to ensure confidentiality. At the end of each week, all online communication will be deleted by the consultant and stored on a password protected hard drive.

The researcher will be required to report to the appropriate authorities if any abuse or neglect is suspected or witnessed while in your home. Similarly, if the research assistants watching the videotaped interactions that happen in your home view any abuse or neglect, they are also required to report to the appropriate authorities, and may use the video as evidence.

CAN I CHANGE MY MIND?

Your participation in this project is completely voluntary and not consenting to participate involves no negative consequences. If you do choose to participate, we anticipate minimal risks to you. If you choose to participate in this study you may still choose to withdraw from the study at any time. If you agree to participate, please sign the attached consent form and return it at your earliest convenience. I, Rachel, will contact you with further information about participation in this research if you agree to participate. If you have any questions about your rights as a

research participant, please contact the Education and Social/Behavioral Science IRB Office at 608-263-2320.

Thank you for your interest in this research, and please do not hesitate to call or write if you have any questions.

Rachel

deroos@wisc.edu

DeRoos, M.S. Stanley Garbacz, Ph.D.

Assistant Professor

University of Wisconsin-Madison

Parent Consent Form

University of Wisconsin-Madison Research Project

The Effectiveness of Behavioral Consultation on Home Educated Students with Externalizing Behavior Problems

I _____ consent to my child's participation in a study conducted by Rachel DeRoos, M.S. and Stanley Garbacz, Ph.D. on the use of behavior consultation for homeschooling students. I understand that I can withdraw my child from the study at any time without penalty or loss of benefits.

Student's Printed Name

Parent's Printed Name

Parent's Signature

Date

Appendix F: Student Verbal Assent Script



Verbal Assent Script:

I am working with someone from the University of Wisconsin-Madison to help make your schooling at home the best it can be. We will be part of something called a research study.

As part of the study, you and I will work together to help to make your time learning more productive.

A few days a week, someone from the University will come to your home and watch you learning with your parent. Most of the time, the person will just watch, but sometimes the person will talk with you parent to help make your learning experience better. When the person from the university comes, they will videotape you and your parent, so they can watch it later and think of more ways to help your parent help you learn.

We hope that this project will help you feel good about being a homeschooled student. Your parent(s) said it is okay for you to be a part of the study. If you do not want to do this, you do not have to. Also, if you want to stop being a part of this project or doing any of the activities, that is okay. Just tell me.

Would you like to be a part of this project? That means that we will work together to figure how to make you feel good about working on your school work. I will talk with someone from the University about how that plan is going, and they will sometimes watch how you work.

Appendix G: PII

Problem Identification Interview

Child's code: _____

Sex: _____

Grade: _____

Consultant: _____

Consultee code: _____

Consultant note: The purposes of the PII are to

- Define the problem(s) in behavioral terms
- Provide a tentative identification of behavior in terms of antecedent, situation, and consequent conditions
- Provide tentative strength of the behavior (e.g., how often or how severe)
- Establish a procedure for the collection of baseline data in terms of the sampling plan and what behavior is to be recorded, who is to record it, and how it is to be recorded.

The consultant should question and/or comment on the following areas:

1. Opening salutation
2. General statement to introduce discussion (e.g., "Describe Diane's hyperactive behavior," or "Let's see, you referred Johnny because of his poor self-concept, lack of progress, and rebellious behavior. Which of these do you want to start with? Describe Johnny's rebellion (poor self-concept or lack of progress in the classroom)").

Record Responses: _____

3. Behavior specification (e.g., “What does Charles do when he is hyperactive?” or “What does Mary do when she is disrespectful?” A precise description of the behavior of concern to the consultee or client, e.g., “What _____ does __ do?”)

a. Specify examples: _____

Important: Ask for as many examples of the problem behavior as possible.

b. Specify priorities: _____

Important: After eliciting all the examples that the consultee or client can give, ask which behavior is causing the most difficulty and establish a priority.

(Note: To help prioritize problems, ask the consultee or client, “On a scale of 0 to 10, where 0 = no problem and 10 = severe problem, how severe is the problem for you?”)

4. Behavior setting (a precise description of the settings in which the problem behaviors occur, e.g., “Where _____ does __ do this?”)

a. Specify examples (e.g., home, where in home): _____

Important: Ask for as many examples of settings as possible.

b. Specify priorities: _____

Important: After eliciting all the examples that the consultee or client can give, ask which setting is causing the most difficulty and establish priorities. (Note: Settings may be ranked in the same manner as behaviors.)

5. Identify the antecedents: What happens right before the problem behavior occurs? (e.g., “What happens before Mary makes an obscene gesture to the rest of the class?” or “What happens before George begins to hit other children?”). Record response: _____

10. Summarize and validate behavior and behavior strength:

- a. "You have said that Jason makes you angry and upset by wetting his bed."
- b. "That he wets his bed approximately four times a week?"
- c. "Is that right?"

Record responses: _____

11. Tentative definition of goal-question consultee (e.g., "How often would Patrick have to turn in his work to get along okay?" or "How frequently could Charles leave his seat without causing problems?") Record responses: _____

12. Assets question: Determine what the student is good at (e.g., "Is there something that Mary does well?") Record responses: _____

13. Question about approach to teaching or existing procedures (e.g., "How long are Charles and the other students doing seat work problems?" or "What kind of...?") Record responses: _____

14. Summarization statement and validation (e.g., "Let's see, the main problem is that Charles gets out of his seat and runs around the room during independent work assignments. He does this about four times each day. Is that right?") Record responses: _____

-
-
-
15. Directional statement to provide rationale for data recording (e.g., “We need some record of Sarah’s completion of homework assignments, how often assignments are completed, what assignments are completed, and so on. This record will help us to determine how frequently the behavior is occurring, and it may give us some clues to the nature of the problem. Also, the record will help us decide whether any plan we initiate has been effective.”) Record responses: _____
-
-
-
-

16. Discuss data collection procedures. Data may be collected in two ways:

- a. Partial Interval Recording
- b. Goal Attainment Scaling

17. Summarize and validate recording procedures (e.g., “We have agreed that you will record the amount of time that Doug’s tantrums last by recording the start and stop times. You will do this for 3 days and you will use this form. You will also record what happens before the behavior occurs and what you do after it has occurred. Is this okay with you?”) Record responses: _____
-
-
-
-

18. Establish a date to begin data collection. Record response: _____
-
-
-

19. Establish date of next appointment.

Record Response:

Date: _____

Day: _____

Time: _____

Place: _____

20. Closing salutation.

Appendix H: FAI

Functional Assessment Interview

Child's code: _____ Sex: _____

School _____ code: Grade _____:

Consultant: _____

Consultee code: _____

A. DESCRIBE THE BEHAVIORS

1. For each of the behaviors of concern, define the topography (how it is performed), frequency (how often it occurs per day, week, or month), duration (how long it lasts when it occurs), and intensity (how damaging or destructive the behaviors are when they occur)

	Behavior	Topography	Frequency	Duration	Intensity
a.	_____	_____	_____	_____	_____
b.	_____	_____	_____	_____	_____
c.	_____	_____	_____	_____	_____
d.	_____	_____	_____	_____	_____
e.	_____	_____	_____	_____	_____
f.	_____	_____	_____	_____	_____
g.	_____	_____	_____	_____	_____
h.	_____	_____	_____	_____	_____

i. _____

j. _____

2. Which of the behaviors described above are likely to occur together in some way? Do they occur about the same time? In some kind of predictable sequence or “chain”? In response to the same type of situation? _____

B. DEFINE ECOLOGICAL EVENTS (SETTING EVENTS) THAT PREDICT OR SET UP THE PROBLEM BEHAVIORS.

1. What medical or physical conditions (if any) does the person experience that may affect his or her behavior? (e.g., asthma, allergies, rashes, sinus infections, seizures)? _____

2. Describe the sleep patterns of the individual and the extent to which these patterns may affect his or her behavior? _____

3. Describe the eating routines and diet of the person and the extent to which these may affect his or her behavior. _____

4. To what extent are the activities on the daily schedule predictable for the person, with regard to what will be happening, when it will occur, with whom, and for how long? _____

5. To what extent does the person have the opportunity during the day to make choices about his or her activities and reinforcing events? (e.g., food, clothing, social companions, leisure activities) _____

6. How many other persons are typically around the individual at home, school, or work (including staff, classmates, and housemates)? Does the person typically seem bothered in situations that are more crowded and noisy? _____

7. What is the pattern of staffing support that the person receives in home, school, work, and other settings (e.g., 1:1, 2:1)? Do you believe that the number of staff, the training of staff, or their social interactions with the person affect the problem behaviors? _____

C. DEFINE SPECIFIC IMMEDIATE ANTECEDENT EVENTS THAT PREDICT WHEN THE BEHAVIORS ARE LIKELY AND NOT LIKELY TO OCCUR.

1. Time of the day: When are the behaviors most and least likely to happen?
Most likely: _____

Least likely: _____

2. Settings: Where are the behaviors most likely to happen?

Most likely: _____

Least likely: _____

3. People: With whom are the behaviors most and least likely to happen?

Most likely: _____

Least likely: _____

4. Activity: What activities are most and least likely to produce the behaviors?

Most likely: _____

Least likely: _____

5. Are there particular or idiosyncratic situations or events not listed above that sometimes seem to “set off” the behaviors, such as particular demands, noises, lights, clothing? _____

6. What one thing could you do that would most likely make the undesirable behaviors occur? _____

7. Briefly describe how the person's behavior would be affected if...
- You asked him to perform a difficult task. _____

 - You interrupted a desired activity, such as eating ice cream or watching tv? _____

 - You unexpectedly changed his or her typical routine or schedule of activities. _____

 - She or he wanted something but wasn't able to get it (e.g., food item up on a shelf). _____

 - You didn't pay attention to the person or left him or her alone for a while (e.g., 15 minutes). _____

D. IDENTIFY THE CONSEQUENCES OR OUTCOMES OF THE PROBLEM BEHAVIORS THAT MAY BE MAINTAINING THEM (I.E., THE FUNCTIONS THEY SERVE FOR THE PERSON IN PARTICULAR SITUATIONS).

- Think of each of the behaviors listed in Section A, and try to identify the specific consequences or outcomes the person gets when the behavior occur in different situations.

Behavior	Particular situations	What exactly does he/she get?	What exactly does he/she avoid?
----------	-----------------------	-------------------------------	---------------------------------

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____
- h. _____
- i. _____
- j. _____

E. WHAT FUNCTIONAL ALTERNATIVE BEHAVIORS DOES THE PERSON ALREADY KNOW HOW TO DO?

1. What socially appropriate behaviors or skills can the person already perform that may generate the same outcomes or reinforces produced by the problem behaviors? _____

F. WHAT ARE THINGS YOU SHOULD DO AND THINGS YOU SHOULD AVOID IN WORKING WITH AND SUPPORTING THIS PERSON?

1. What things can you do to improve the likelihood that a teaching session or other activity will go well with this person? _____

2. What things should you avoid that might interfere with or disrupt a teaching session or activity with this person? _____

G. WHAT ARE THINGS THE PERSON LIKES AND ARE REINFORCING FOR HIM OR HER?

1. Food items: _____

2. Toys and objects: _____

3. Activities at home: _____

4. Activities/outings in the community: _____

5. Other: _____

Adapted from (Sheridan & Kratochwill, 2008; Bice-Urbach & Kratochwill, 2016)

--	--	--	--

Level of Adherence:

0 = None

1 = Limited

2 = Substantial

3 = Complete

Quality of
Implementation:

0 = Poor

1 = Fair

2 = Good

3 = Excellent

Adapted from (Bice-Urbach & Kratochwill, 2016)

Appendix J: PAI

Problem Analysis Interview

Child's code: _____

Sex: _____

Grade: _____

Consultant: _____

Consultee code: _____

Assessor note: The purposes of the PAI are to:

- Evaluate and obtain agreement on the sufficiency and the adequacy of the baseline data.
- Conduct a tentative functional analysis-discuss the antecedent, consequent, and sequential conditions.
- Discuss and reach agreement on the goal for the behavior change.
- Design an intervention plan, including a specification of the antecedent, situational, or consequent conditions to be changed and of the who, what, and where regarding the change.
- Reaffirm the record-keeping procedure.
- Schedule the problem-solving support sessions.

The consultant should question an/or comment on the following areas:

1. Opening salutation.
2. General statement about the data and the problem (e.g., "Let's look at the record on Jimmy's hitting") Record responses: _____

3. Questions or statement about strength of behavior (e.g., "It looks as if Jimmy refused to do the assigned work except on Tuesday.") Record responses: _____

4. Questions about conditions: antecedent, consequent, and sequential (e.g., “Did you notice anything in particular that happened just before...?” or “What happened after Mary...?” or “What was going on when Jimmy...?”) Record responses:

Antecedent: _____

Consequent: _____

Sequential: _____

5. Summarize statement specifying target behavior, conditions, and strengths (e.g., “Let’s see, Mary was ‘disrespectful’ by talking back or used abusive language on 3 days last week. This behavior seemed to be related to comments made by other students. We would like to eliminate this behavior and help her produce more positive comments. Is that right?”). Record responses: _____

6. Question and/or statement interpreting the behavior (e.g., “What do you think Mary is ‘disrespectful’?”) Record responses: _____

7. Questions about the plan (e.g., “We need to try something different. What could be done before Mary makes the abusive remarks?” “What could be done to change the setting in which Charles gets into fights?” “How could we remove the attention from the disruptive behavior?”) Record responses: _____

8. Summarize and validate the plan (e.g., “Then we’ll try this...”) Record responses: _____

9. Statement on continuing recording procedure (an informal written agreement on the plan, the data recording, etc.) Record responses: _____

10. Establish date of next appointments

Record responses:

Dates: _____

Days: _____

Times: _____

Place: _____

11. Closing salutation.

Appendix K: PI

Plan Implementation Support Session

Child's code: _____

Sex: _____

Grade: _____

Consultant: _____

Consultee code: _____

1. Opening salutation.
2. General statement about the data and the problem (e.g., "Let's look at the record on Jimmy's hitting") Record responses: _____

3. Question about the plan implementation (e.g., "How have things been going in implementing the plan?"). Record responses: _____

4. Question about what is going well (e.g., "What things seem to be going well?") Record responses: _____

5. Question about what is not going well (e.g., "What things could be going better?") Record responses: _____

-
-
-
-
6. Conversation about how to improve the things that aren't going well (e.g. "Let's talk about how to improve...") Record responses: _____

-
-
-
-
7. Question about where the student is in comparison to the goal ("How close is Jimmy to reaching his goal for staying in his seat?") Record response: _____

-
-
-
-
8. Closing salutation.

Appendix L: TEI

Treatment Evaluation Interview

Child's code: _____

Sex: _____

Grade: _____

Consultant: _____

Consultee code: _____

Consultant note: The purposes of the TEI are to:

- Determine if the goals of consultation have been obtained.
- Evaluate the effectiveness of the treatment plan.
- Discuss strategies and tactics regarding the continuation, modification, or termination of the treatment plan.
- Schedule additional interviews if necessary or terminate consultation.

The consultant should question and/or comment in the following areas:

1. Opening salutation
2. Evaluate goal attainment: Questions about outcomes (e.g., "How did things go?") Record responses: _____

3. Questions about goal attainment (e.g., "Is Charles completing his work now?" or "can we say that the goal of increasing Charles's work completion has been attained now?") Record responses: _____

-
-
4. Evaluate plan effectiveness: Questions regarding internal validity of plan (e.g., “Would you say that the contract procedure was responsible for reducing John’s profane language?”) Record responses: _____

 5. Evaluate external validity of plan (e.g., “Do you think this plan would have worked with another student?”) Record responses: _____

 6. Conduct post-implementation planning: Questions and statements regarding plan continuation (e.g., “Do you want to leave the point system in effect for another week to see if John’s progress continues?” or “Perhaps we should continue the DRL program for another week”) Record responses: _____

 7. Questions and statements regarding plan modification (e.g., “You are saying that you want to discontinue the contract procedure because it has worked so well” or “How could we change the reinforcement procedure to make our plan more effective?” or “Perhaps you could reinforce more frequently”) Record responses: _____

 8. Design procedures to facilitate generalization and maintenance (e.g., “What procedures can be implemented to be sure that Sally continues to finish her housework?”) Record responses: _____

-
-
9. Arrange for follow-up assessment (e.g., “Now that we have success in the program for George, how can we monitor his progress in the future?”) Record responses: _____
-
-
-
-
-
-
10. Arrange for subsequent interviews or terminate consultation: Questions and statements regarding future interviews (e.g., “When can we get together again to discuss Gwen’s progress under our new plan?” or “We probably need to meet again next week to discuss our new plan”) Record responses: _____
-
-
-
-
-
-
11. Statements regarding termination of consultation (e.g., “Since our goals for Bob have been met, this will be the last time we need to meet unless you have further concerns” or “If you have further problems, please feel free to call me”) Record responses: _____
-
-
-
-
-
-
12. Closing salutation

Appendix M: TEI Checklist

Treatment Evaluation Interview Checklist

Date: _____ Observer _____:

Child _____ code: Reliability _____:

Consultee _____ code: Session _____ #:

Consultant: _____

Interview	objective	Occurrence	Response
1. Opening salutation	_____	_____	_____
2. Outcome questions	_____	_____	_____
3. Goal attainment questions	_____	_____	_____
4. Internal validity	_____	_____	_____
5. External validity	_____	_____	_____
6. Plan continuation	_____	_____	_____
7. Plan modification validation	_____	_____	_____
8. Generalization and maintenance	_____	_____	_____
9. Follow-up assessment	_____	_____	_____
10. Future interviews	_____	_____	_____
11. Termination of consultation	_____	_____	_____
12. Closing salutation	_____	_____	_____

Adapted from (Sheridan & Kratochwill, 2008; Bice-Urbach & Kratochwill, 2016)

Appendix Q: Partial Interval Recording Template

Partial Interval Recording Sheet

Student Code: _____ Date: _____

Parent code/Observer: _____

Class Activity: _____

 Parent interacting with many children Parent interacting with child individually

 Independent work

Directions: Each box represents a 15 second interval. Observe each student and record the data during the observation. Record the data for a full fifteen minutes.

				1					2					3
Student														
				4					5					6
Student														
				7					8					9
Student														
				10					11					12
Student														
				13					14					15
Student														

Off-Task Codes:

Adapted from (Bice-Urbach & Kratochwill, in press)

Appendix L: PII Checklist

Problem Identification Interview Checklist

Date: _____ Observer _____:

Child _____ Code: Reliability _____:

Consultee _____ code: Session _____ #:

Consultant: _____

Interview	Objective	Occurrence	Response
1. Opening Salutation	_____	_____	_____
2. General Statement	_____	_____	_____
3. Behavior Specification	_____	_____	_____
a. Specify examples	_____	_____	_____
b. Specify priorities	_____	_____	_____
4. Behavior setting	_____	_____	_____
a. Specify examples	_____	_____	_____
b. Specify priorities	_____	_____	_____
5. Identify antecedents	_____	_____	_____
6. Identify sequential conditions	_____	_____	_____
7. Identify consequences	_____	_____	_____
8. Summarize and validate	_____	_____	_____
9. Behavior strength	_____	_____	_____
10. Summarize and validate	_____	_____	_____
11. Tentative definition of goal	_____	_____	_____
12. Assets question	_____	_____	_____
13. Question about existing procedures	_____	_____	_____
14. Summarize and validate	_____	_____	_____
15. Directional statement about data recording	_____	_____	_____
16. Data collection procedures	_____	_____	_____
17. Summarize and validate	_____	_____	_____
18. Date to begin data collection	_____	_____	_____
19. Establish date of next appointment	_____	_____	_____
20. Closing salutation	_____	_____	_____

Adapted from (Sheridan & Kratochwill, 2008; Bice-Urbach & Kratochwill, 2016)

Appendix M: PAI Checklist

Problem Analysis Interview Checklist

Date: _____ Observer _____:

Child _____ code: Reliability _____:

Consultee _____ code: Session _____ #:

Consultant: _____

Interview	objective	Occurrence	Response
1. Opening salutation	_____	_____	_____
2. General statement	_____	_____	_____
3. Behavior strength	_____	_____	_____
4. Behavior conditions			
a. Antecedent	_____	_____	_____
b. Consequent	_____	_____	_____
c. Sequential	_____	_____	_____
5. Summarize and validate	_____	_____	_____
6. Interpretation	_____	_____	_____
7. Plan statement	_____	_____	_____
8. Summarize and validate	_____	_____	_____
9. Continuing data collection	_____	_____	_____
10. Establish date of next appointments	_____	_____	_____
11. Closing salutation	_____	_____	_____

Adapted from (Sheridan & Kratochwill, 2008; Bice-Urbach & Kratochwill, 2016)

Appendix N: PI Support Session Checklist

Plan Implementation Support Session Data Sheet

Date: _____ Observer _____:

Child _____ code: Reliability _____:

Consultee _____ code: Session _____ #:

Consultant: _____

Interview	objective	Occurrence	Response
1. Opening salutation	_____	_____	_____
2. General statement	_____	_____	_____
3. Plan implementation	_____	_____	_____
4. Steps going well	_____	_____	_____
5. Steps to improve	_____	_____	_____
6. Problem-solving	_____	_____	_____
7. Goal comparison	_____	_____	_____
8. Closing salutation	_____	_____	_____

Adapted from (Sheridan & Kratochwill, 2008; Bice-Urbach & Kratochwill, 2016)

Appendix O: GAS Template

GOAL ATTAINMENT SCALE WORKSHEET

Student's Code: _____

Consultee's Code:

Date: _____

Goal attainment scaling (GAS) provides a method for monitoring treatment progress regarding a target behavior or problem situation. The basic elements of a GAS are a 7-point scale ranging from a 0 (skill not evident) to +6 (reaching or exceeding a goal). By using the numerical ratings for each of the 7 behavior descriptions or benchmarks, the respondent should be able to provide a daily report of treatment progress.

	Monday	Tuesday	Wednesday	Thursday	Friday
+6					
+5					
+4					
+3					
+2					
+1					
0					
Week of:					

Target Behavior:

6 Benchmark: Best possible

5 Benchmark: Significantly better than normal

4 Benchmark: Better than normal

3 Benchmark: Average

2 Benchmark: Worse than normal

1 Benchmark: Significantly worse than normal

0 Benchmark: Worst possible

Adapted from (Bice-Urbach & Kratochwill, 2016)

Appendix P: BIRS

Behavior Intervention Ratings Scale

Consultee code: _____

Instructions: After reading each of the following statements, indicate a numerical rating that best describes your agreement with the statement. 1 is Strongly Disagree. 6 is Strongly Agree. There are no right or wrong answers.

Statement	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
	1	2	3	4	5	6
1. This would be an acceptable intervention for the child's problem behavior.						
2. Most parents would find this intervention appropriate for behavior problems in addition to the one described.						
3. The intervention should prove effective in changing in child's problem behavior.						
4. I would suggest the use of this intervention to other parents.						
5. The child's behavior problem is severe enough to warrant use of this intervention.						
6. Most parents would find this intervention suitable for the behavior problem described.						

7. I would be willing to use this in the classroom setting.						
8. The intervention would not result in negative side-effects for the child.						
9. The intervention would be appropriate intervention for a variety of children.						
10. The intervention is consistent with those I have used in classroom settings.						
11. The intervention was a fair way to handle the child's problem behavior.						
12. The intervention is reasonable for the behavior problem described.						
13. I like the procedures used in the intervention.						
14. This intervention was a good way to handle this child's behavior problem.						
15. Overall, the intervention would be beneficial for the child.						
16. The intervention would quickly improve the child's behavior.						
17. The intervention would produce a lasting improvement in the child's behavior.						
18. The intervention would improve the child's behavior to the point that it would not noticeably deviate						

from other classmates' behavior.						
19. Soon after using the intervention, the teacher would notice a positive change in the problem behavior.						
20. The child's behavior will remain at an improved level even after the intervention is discontinued.						
21. Using the intervention should not only improve the child's behavior in the classroom, but also in other settings (e.g., other classrooms, home).						
22. When comparing this child with a well-behaved peer before and after use of the intervention, the child's and the peer's behavior would be more alike after using the intervention.						
23. The intervention should produce enough improvement in the child's behavior so the behavior no longer is a problem in the classroom.						
24. Other behaviors related to the problem behavior also are likely to be improved by the intervention.						

Adapted from (Von Brock & Elliot, 1987; Bice-Urbach & Kratochwill, 2016)

Appendix Q: Consultant Evaluation Form Pre

The Consultant Evaluation Form-Pre

Consultee code: _____

Instructions: After reading each of the following statements, indicate a numerical rating that best describes the level of satisfaction/helpfulness experienced with the consultant. 1 is Strongly Disagree. 7 is Strongly Agree. There are no right or wrong answers.

Statement	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
1. The consultant will be generally helpful.							
2. The consultant will offer useful information.							
3. The consultant's ideas as to the primary goals of schools will be similar to my own ideas.							
4. The consultant will help me find alternative solutions to problems.							
5. The consultant will be a good listener.							
6. The consultant will help me identify useful resources.							
7. The consultant will fit well into the school's environment.							

8. The consultant will encourage me to consider a number of points of view.							
9. The consultant will view her role as a collaborator rather than an expert.							
10. The consultant will help me find ways to apply the content of our discussions to specific pupil or classroom situations.							
11. The consultant will offer assistance without completely “taking over” the management of the problems.							
12. I would request services from this consultant again, assuming that other consultants were available.							

Adapted from (Erchul, 1987; Bice-Urbach & Kratochwill, 2016)

Appendix R: Consultant Evaluation Form-Post

The Consultant Evaluation Form-Post

Consultee code: _____

Instructions: After reading each of the following statements, indicate a numerical rating that best describes the level of satisfaction/helpfulness experienced with the consultant. 1 is Strongly Disagree. 7 is Strongly Agree. There are no right or wrong answers.

Statement	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
1. The consultant was generally helpful.							
2. The consultant offered useful information.							
3. The consultant's ideas as to the primary goals of school were similar to my own ideas.							
4. The consultant helped me find alternative solutions to problems.							
5. The consultant was a good listener.							
6. The consultant helped me identify useful resources.							
7. The consultant fit well							

into the school's environment.							
8. The consultant encouraged me to consider a number of points of view.							
9. The consultant viewed her role as a collaborator rather than an expert.							
10. The consultant helped me find ways to apply the content of our discussions to specific pupil or classroom situations.							
11. The consultant was able to offer assistance without completely "taking over" the management of the problems.							
12. I would request services from this consultant again, assuming that other consultants were available.							

Adapted from (Erchul, 1987; Bice-Urbach & Kratochwill, 2016)

Appendix S: Acceptability of Working with Mental Health Professionals

Acceptability of Working with Mental Health Professionals

Statement	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
	1	2	3	4	5	6	7
I would find it acceptable to complete a similar consultation process with a school psychologist from a public school.							
I would find it acceptable to receive expertise from a school psychologist from a public school regarding my child's behavior.							
I would find it acceptable to have my child receive testing (academic, behavioral, cognitive) from a school psychologist							

in public school.							
I would find it acceptable to complete a similar consultation process with a school psychologist in private practice.							
I would find it acceptable to receive expertise from a school psychologist in private practice regarding my child's behavior.							
I would find it acceptable to have my child receive testing (academic, behavioral, cognitive) from a school psychologist in private practice.							
Do you see potential barriers to working with							

a school psychologist in the public school?	
Do you see potential benefits of working with a school psychologist in a public school?	
Do you see potential barriers to working with a school psychologist in private practice?	

Do you see potential benefits to working with a school psychologist in private practice?	

Appendix T: BASC-3 results

Participant 1A

Participant 1A BASC-3 Pre			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	74	97	Clinically Significant
Hyperactivity	70	96	At-Risk
Aggression	76	98	Clinically Significant
Conduct Problems	67	94	At-Risk
Internalizing Problems	55	74	Average
Anxiety	49	53	Average
Depression	69	95	At-Risk
Somatization	44	33	Average
Behavior Symptoms Index	70	96	At-Risk
Attention Problems	58	79	Average
Atypicality	74	96	Clinically Significant
Withdrawal	41	15	Average
Adaptive Skills	38	13	At-Risk
Adaptability	34	6	At-Risk
Social Skills	40	16	Average
Leadership	52	53	Average
Activities of Daily Living	34	7	At-Risk
Functional Communication	37	11	At-Risk

Participant 1A BASC-3 Post			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	70	96	At-Risk
Hyperactivity	61	87	At-Risk
Aggression	76	98	Clinically Significant
Conduct Problems	65	92	At-Risk
Internalizing Problems	46	42	Average
Anxiety	44	31	Average
Depression	53	70	Average
Somatization	44	33	Average
Behavior Symptoms Index	61	86	At-Risk
Attention Problems	60	86	At-Risk
Atypicality	44	30	Average
Withdrawal	56	73	Average
Adaptive Skills	40	17	Average
Adaptability	40	18	Average
Social Skills	40	16	Average
Leadership	45	30	Average
Activities of Daily Living	43	25	At-Risk
Functional Communication	39	14	Average

Participant 1B

Participant 1B BASC-3 Pre			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	86	99	Clinically Significant
Hyperactivity	88	99	Clinically Significant
Aggression	80	98	Clinically Significant
Conduct Problems	76	97	Clinically Significant
Internalizing Problems	47	45	Average
Anxiety	51	60	Average
Depression	48	54	Average
Somatization	44	33	Average
Behavior Symptoms Index	77	99	Clinically Significant
Attention Problems	70	96	At-Risk
Atypicality	84	99	Clinically Significant
Withdrawal	53	72	Average
Adaptive Skills	32	6	At-Risk
Adaptability	38	13	At-Risk
Social Skills	45	28	Average
Leadership	38	13	At-Risk
Activities of Daily Living	28	2	Clinically Significant
Functional Communication	28	2	Clinically Significant

Participant 1B BASC-3 Post			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	74	97	Clinically Significant
Hyperactivity	74	97	Clinically Significant
Aggression	72	96	Clinically Significant
Conduct Problems	67	94	At-Risk
Internalizing Problems	49	53	Average
Anxiety	52	66	Average
Depression	48	54	Average
Somatization	47	44	Average
Behavior Symptoms Index	68	95	At-Risk
Attention Problems	58	79	Average
Atypicality	74	96	Clinically Significant
Withdrawal	55	78	Average
Adaptive Skills	36	10	At-Risk
Adaptability	42	24	Average
Social Skills	45	28	Average
Leadership	40	18	Average
Activities of Daily Living	32	5	At-Risk
Functional Communication	31	5	At-Risk

Participant 2A

Participant 2A BASC-3 Pre			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	57	80	Average
Hyperactivity	47	46	Average
Aggression	70	93	At-Risk
Conduct Problems	53	68	Average
Internalizing Problems	63	89	At-Risk
Anxiety	70	97	At-Risk
Depression	73	96	Clinically Significant
Somatization	38	4	Below average
Behavior Symptoms Index	60	84	At-Risk
Attention Problems	39	13	Below average
Atypicality	43	27	Average
Withdrawal	73	97	Clinically Significant
Adaptive Skills	46	33	Average
Adaptability	31	4	At-Risk
Social Skills	44	26	Average
Leadership	38	12	At-Risk
Activities of Daily Living	64	92	Above average
Functional Communication	54	63	Average

Participant 2A BASC-3 Post			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	43	30	Average
Hyperactivity	40	14	Average
Aggression	54	73	Average
Conduct Problems	53	6	Average
Internalizing Problems	46	39	Average
Anxiety	53	67	Average
Depression	48	50	Average
Somatization	38	4	Below Average
Behavior Symptoms Index	45	37	Average
Attention Problems	36	7	Average
Atypicality	41	12	Average
Withdrawal	58	82	Average
Adaptive Skills	55	68	Average
Adaptability	51	53	Average
Social Skills	58	76	Average
Leadership	44	30	Average
Activities of Daily Living	59	80	Average
Functional Communication	62	88	Above Average

Participant 2B

Participant 2B BASC-3 Pre			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	63	91 st	At-risk
Hyperactivity	82	99 th	Clinically Significant
Aggression	58	83 rd	Average
Conduct Problems	45	36 th	Average
Internalizing Problems	53	68 th	Average
Anxiety	57	80 th	Average
Depression	63	90 th	At-risk
Somatization	37	6 th	Below Average
Behavior Symptoms Index	63	89 th	At-risk
Attention Problems	67	94 th	At-risk
Atypicality	41	13 th	Average
Withdrawal	48	55 th	Average
Adaptive Skills	46	34 th	Average
Adaptability	49	46 th	Average
Social Skills	51	49 th	Average
Leadership	40	18 th	Average
Activities of Daily Living	50	47 th	Average
Functional Communication	44	24 th	Average

Participant 2B BASC-3 Post			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	43	24	Average
Hyperactivity	47	44	Average
Aggression	47	48	Average
Conduct Problems	37	1	Below Average
Internalizing Problems	46	40	Average
Anxiety	55	76	Average
Depression	48	54	Average
Somatization	37	6	Below Average
Behavior Symptoms Index	44	33	Average
Attention Problems	51	58	Average
Atypicality	41	13	Average
Withdrawal	41	15	Average
Adaptive Skills	54	63	Average
Adaptability	55	69	Average
Social Skills	50	43	Average
Leadership	54	62	Average
Activities of Daily Living	57	73	Average
Functional Communication	53	58	Average

Participant 3A

Participant 3A BASC-3 Pre			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	43	25	Average
Hyperactivity	45	37	Average
Aggression	42	18	Average
Internalizing Problems	50	57	Average
Anxiety	49	49	Average
Depression	58	81	Average
Somatization	44	30	Average
Behavior Symptoms Index	49	56	Average
Attention Problems	42	25	Average
Atypicality	44	30	Average
Withdrawal	65	92	At-risk
Adaptive Skills	43	23	Average
Adaptability	42	23	Average
Social Skills	44	27	Average
Activities of Daily Living	52	50	Average
Functional Communication	39	15	Average

Participant 3A BASC-3 Post			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	39	10	Below Average
Hyperactivity	39	9	Below Average
Aggression	42	18	Average
Internalizing Problems	45	35	Average
Anxiety	55	72	Average
Depression	47	44	Average
Somatization	37	6	Below Average
Behavior Symptoms Index	45	34	Average
Attention Problems	45	33	Average
Atypicality	46	45	Average
Withdrawal	69	95	At-Risk
Adaptive Skills	49	42	Average
Adaptability	46	35	Average
Social Skills	46	32	Average
Activities of Daily Living	59	82	Average
Functional Communication	46	33	Average

Participant 3B

Participant 3B BASC-3 Pre			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	55	76	Average
Hyperactivity	49	53	Average
Aggression	58	83	Average
Conduct Problems	56	73	Average
Internalizing Problems	42	18	Average
Anxiety	47	46	Average
Depression	40	10	Average
Somatization	42	23	Average
Behavior Symptoms Index	48	49	Average
Attention Problems	47	41	Average
Atypicality	46	47	Average
Withdrawal	51	64	Average
Adaptive Skills	45	31	Average
Adaptability	49	46	Average
Social Skills	38	13	At-Risk
Leadership	40	18	Average
Activities of Daily Living	50	47	Average
Functional Communication	53	58	Average

Participant 3B BASC-3 Post			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	50	57	Average
Hyperactivity	47	44	Average
Aggression	51	63	Average
Conduct Problems	51	63	Average
Internalizing Problems	42	23	Average
Anxiety	51	60	Average
Depression	40	10	Average
Somatization	40	14	Average
Behavior Symptoms Index	44	32	Average
Attention Problems	49	50	Average
Atypicality	41	13	Average
Withdrawal	46	44	Average
Adaptive Skills	53	56	Average
Adaptability	58	76	Average
Social Skills	50	43	Average
Leadership	38	13	At-Risk
Activities of Daily Living	55	65	Average
Functional Communication	60	83	Average

Participant 3C

Participant 3C BASC-3 Pre			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	58	81	Average
Hyperactivity	61	85	At-Risk
Aggression	54	73	Average
Conduct Problems	56	75	Average
Internalizing Problems	66	94	At-Risk
Anxiety	90	99	Clinically Significant
Depression	64	91	At-Risk
Somatization	40	13	Average
Behavior Symptoms Index	76	98	Clinically Significant
Attention Problems	65	92	At-Risk
Atypicality	81	98	Clinically Significant
Withdrawal	96	99	Clinically Significant
Adaptive Skills	30	3	At-Risk
Adaptability	29	1	Clinically Significant
Social Skills	35	9	At-Risk
Leadership	27	1	Clinically Significant
Activities of Daily Living	44	2	At-Risk
Functional Communication	26	1	Clinically Significant

Participant 3C BASC-3 Post			
Composite/Scale Name	T-Score	Percentile Rank	Classification Range
Externalizing Problems	50	62	Average
Hyperactivity	49	53	Average
Aggression	54	73	Average
Conduct Problems	48	49	Average
Internalizing Problems	56	76	Average
Anxiety	68	96	At-Risk
Depression	58	82	Average
Somatization	38	4	Below Average
Behavior Symptoms Index	63	88	At-Risk
Attention Problems	54	67	Average
Atypicality	58	83	Average
Withdrawal	86	99	Clinically Significant
Adaptive Skills	37	10	At-Risk
Adaptability	33	3	At-Risk
Social Skills	37	12	At-Risk
Leadership	33	5	At-Risk
Activities of Daily Living	48	42	Average
Functional Communication	40	17	Average

Appendix U: Parent Sense of Competence Scale
 Parenting Sense of Competence Scale
 (Gibaud-Wallston & Wandersman, 1978)

Please rate the extent to which you agree or disagree with each of the following statements.

	Strongly Disagree	Somewhat Disagree	Disagree	Agree	Somewhat Agree	Strongly Agree
	1	2	3	4	5	6
1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.	1	2	3	4	5	6
2. Even though being a parent could be rewarding, I am frustrated now while my child is at his / her present age.	1	2	3	4	5	6
3. I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot.	1	2	3	4	5	6
4. I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.	1	2	3	4	5	6
5. My mother was better prepared to be a good mother than I am.	1	2	3	4	5	6
6. I would make a fine model for a new mother to follow in order to learn what she would need to know in order to be a good parent.	1	2	3	4	5	6
7. Being a parent is manageable, and any problems are easily solved.	1	2	3	4	5	6
8. A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one.	1	2	3	4	5	6
9. Sometimes I feel like I'm not getting anything done.	1	2	3	4	5	6
10. I meet by own personal expectations for expertise in caring for my child.	1	2	3	4	5	6
11. If anyone can find the answer to what is troubling my child, I am the one.	1	2	3	4	5	6
12. My talents and interests are in other areas, not being a parent.	1	2	3	4	5	6
13. Considering how long I've been a mother, I feel thoroughly familiar with this role.	1	2	3	4	5	6

14. If being a mother of a child were only more interesting, I would be motivated to do a better job as a parent. 1 2 3 4 5 6
15. I honestly believe I have all the skills necessary to be a good mother to my child. 1 2 3 4 5 6
16. Being a parent makes me tense and anxious. 1 2 3 4 5 6
17. Being a good mother is a reward in itself. 1 2 3 4 5 6

Appendix V: Teacher Sense of Self-Efficacy Scale

Teachers' Sense of Efficacy Scale¹ (long form)

Teacher Beliefs	How much can you do?									
	Nothing	Very Little	Some influence	Quite A Bit	A Great Deal					
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.										
1. How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
2. How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
3. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
4. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
5. To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
6. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
7. How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
8. How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
9. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
10. How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
11. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
12. How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
13. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
14. How much can you do to improve the understanding of a student who is falling?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
15. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
16. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
17. How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
18. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
19. How well can you keep a few problem students from ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
20. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
21. How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
22. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
23. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
24. How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	