Ongoing Professional Development on Function-Based Behavior Interventions

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Capstone Project: A School Improvement Plan

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Abstract

Research findings indicate that function-based behavior interventions lead to a decrease in challenging behaviors more often than interventions that are not function-based. Staff at a PK-2nd grade school in Eastern Iowa have shared that they are lacking confidence in these areas, including function-based intervention strategies, behavior assessments, and behavior plans, and would benefit from professional development on these topics. This paper proposes a plan to implement additional professional development learning, provide opportunities for mentorship, and create staff motivation and understanding of the process of functional behavior assessments and interventions. Implementation of ongoing professional development and mentoring opportunities in this area could help reduce challenging behaviors in schools and increase teacher confidence and fidelity.

Keywords: ongoing coaching and mentorship opportunities, professional development, function-based behavior interventions
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Challenging behavior is a topic that is often passionately discussed within the world of education. These challenging behaviors impact students, teachers, families, schools, and the broader educational system. However, teachers and staff often lack appropriate, researched-based ongoing professional development opportunities to address challenging behaviors in the school setting. In fact, analysis of research shows that more often than not, the educators of students with challenging behaviors typically have fewer years of teaching experience, instruction for these students is often provided by paraprofessionals who may not have training, and evidence-based classroom management practices may be excluded from the state accreditation policies for preservice teachers (Bruhn et al., 2019). An extensive and thorough review of literature has revealed a research-to-practice gap in the area of function-based interventions and ongoing professional development opportunities that this school improvement plan address. This paper discusses the impact that ongoing professional development in the area of function-based behavior interventions can have on teachers, students, and schools who are receiving them.

Teachers at an elementary school in Eastern Iowa identified that they would benefit from increased knowledge in addressing challenging behaviors. Studies show that teachers are more likely to use a new practice and engage with professional development opportunities when they have identified the area as a particular goal of their own teaching or as a gap in the curriculum they use (Schachter et al., 2019). Therefore, this PK-2nd grade elementary school would greatly benefit from ongoing professional development in function-based interventions. Currently, the professional development model being used in this school district for teachers and staff does not include long-term coaching and mentoring opportunities for the new skills learned during
professional development, information about functional behavior assessments, or function-based behavior interventions. This school needs a plan that addresses the implementation of the skills learned in professional development, especially those that involve functional behavior interventions and assessments.

The purpose of this school improvement plan is to develop an ongoing professional development process that centers around using function-based interventions to address challenging behaviors, along with providing ongoing training and professional development that supports this practice within the school and district. Research demonstrates that, “the key to addressing challenging behavior is understanding the possible function the behavior serves for the individual,” (Hirsch et al., 2023, pg. 131). Teachers in this school do not feel adequately educated in function-based behavior interventions, even though it has been presented to the school through isolated sessions of professional development. Ongoing professional development, modeling, and coaching must be provided in these areas so that teachers feel more capable in implementing these interventions. Bruhn et al. (2019) supports this idea in stating there is a need to provide effective training to educators to improve their understanding of, and self-efficacy with, the use of research-based practices for managing behavior proactively and responding to problem behavior with appropriate supports.

The research studies and information used throughout this school improvement plan were located using the DeWitt Library. When looking for resources, the priority was to include recent data, information that was geared towards elementary-age students, professional development trends and recommendations, and impacts of function-based behavior interventions on student behavior. Key components of this ongoing professional development and functional-behavior intervention research included topics on functional behavior assessments, functional behavior
interventions, classroom assessments, as well as training teachers and other staff to provide the targeted interventions and record the data on student progress. All studies used in this research were completed in 2008 or more recently. The article that is included from 2008 was not omitted in the research because it specifically details information about completing function-based behavior interventions. All other articles used were published in 2011 or more recently.

Teachers most often benefit from ongoing support, strong collaborative opportunities, and the modeling of the implementation of new professional development topics, including function-based interventions, (Courtade et al., 2017; McKenna et al., 2017; Pollack et al., 2021; Rispoli et al., 2021). An overwhelming amount of research demonstrates and supports the finding that function-based interventions have greater impact on behavior versus non-function-based interventions (Dunlap & Fox, 2011; Hirsch et al., 2023; Jeong & Copeland, 2019; McKenna et al., 2017; Rispoli et al., 2021). Therefore, providing ongoing professional development in the area of function-based interventions and assessments will lead to an increase in implementation of these practices within classrooms and a decrease in overall student challenging behaviors. Executing this plan would hopefully see a reduction in challenging student behaviors and an increase in staff levels of confidence in implementing and fidelity of applying appropriate function-based interventions as a result of the ongoing professional development provided. This plan could lead to a paradigm shift in how behavior is seen within the school and across the district. The district would benefit from a shift in teachers’ perspectives that currently focus more on “what” the student behaviors specifically are to “why” the behavior is taking place and “what” students are trying to communicate through these challenging behaviors. Additional outcomes of this plan could include: lower teacher stress levels, fewer referrals for behavior, and opportunities for peer coaching for teachers and staff.
Based on the research noted previously and the research that follows, it can be concluded that ongoing professional development is more meaningful and impactful for teachers and that function-based behavior interventions have a greater impact on targeting student behavior than non-function-based behavior interventions. The following literature review is organized by topics, including function-based interventions, functional behavior assessments, professional development opportunities, and ongoing coaching and mentorship opportunities within schools. All sections of the review impact each other and incorporating all four aspects with fidelity are keys to developing success with the school improvement plan proposed throughout this paper. The goal of this school improvement plan would be to develop a comprehensive, ongoing professional development opportunity that focuses on the area of function-based intervention that can be implemented successfully in public school settings. This is modeled and supported through research, including research completed by Pollack et al., (2021).
Review of the Literature

Function-Based Behavior Interventions

Dunlap and Fox (2011) completed a summary of prior research studies involving function-based interventions for children with challenging behavior. According to the findings, if children’s challenging behaviors are not resolved in the early childhood years, they are predictors of academic and behavioral challenges during adolescence and adulthood. Dunlap and Fox also demonstrated that the last twenty years of research have led to hundreds of investigations that show function-based interventions can lead to reductions in challenging behavior (2011). Function-based interventions are incorporated into school settings to reduce challenging behaviors that are influenced by events in the environment, the consequences, and the antecedent stimuli. These interventions are the result of functional assessments as explained by Dunlap and Fox (2011). These findings indicate the importance of emphasizing early and impactful challenging behavior intervention that will lead to student improvement.

Similar findings were corroborated by Jeong and Copeland (2019), when looking across 24 research studies that involved the comparison of function-based behavior interventions and non-function-based behavior interventions. Sixteen of the twenty-four studies revealed that function-based behavior interventions had superior effects on student behavior. The research findings also indicated that these function-based behavior interventions have a positive behavior impact on students who receive special education services, as well as students who did not receive special education services. Emphasis should be placed on the positive impact that incorporating these function-based interventions could have across student demographics.

In contrast to what the findings of their research suggest, Jeong and Copeland (2019) also determined that practitioners do not always choose to implement and use these function-based
behavior interventions because of a multitude of factors, such as (a) lack of resources or training, (b) teacher time required to do so, and (c) personal beliefs about the types of educational services students with challenging behaviors require. Additional professional development and training in the area of function-based behavior intervention implementation might alleviate these issues.

Research completed by Rispoli et al. (2021) encouraged the idea of implementing function-based behavior interventions, especially in the early childhood setting. This study took place within inclusive public preschools serving students with and without disabilities. Teachers were trained to use interventions that directly targeted the specific function of the student’s behavior over the course of a school year using the following four phases: (a) baseline, (b) Level 1—Behavior Skills Training for Teachers, (c) Level 2—Practice-Based Coaching, and (d) Level 3—Practice-Based Coaching with Self-Monitoring. The training and coaching sessions took place with the teachers in their classrooms before or after school without the students present. After completing a concurrent multiple-baseline design study with three teacher-student dyads, they were able to conclude that function-based interventions were often more effective than non-function-based interventions when implemented with fidelity. Although, Rispoli et al. (2021) does recommend future research in this area to verify a functional relation between multilevel teacher supports for function-based interventions and student challenging behaviors.

A more recent study, completed by Hirsch et al. (2023) supports the idea of implementing function-based behavior interventions based on a descriptive study in which functional behavior analysis-behavior intervention plans (FBA-BIPs) were analyzed across preschool through grade twelve students in one of the largest school districts in the United States. There were 69 FBA studies involving 146 subjects, and it was reported that the FBAs reduced the problem behavior by an average of 70.5%. There were a wide range of problem behaviors that were included in
these FBAs, including disruption, physical aggression, and defiance. Hirsch et al. (2023) notes that the “key to addressing challenging behavior is understanding the possible function the behavior serves for the individual,” (pg. 131). These findings support the claim that the function-based interventions produce significantly larger positive effects than non-function-based interventions (Hirsch et al., 2023).

Additionally, incorporating function-based behavior interventions makes it more readily accessible for students to receive their education in the least restrictive environment (LRE) when they are serviced with an individualized education plan (IEP), receiving interventions, or a going through the child-find process (Courtade et al., 2017). Function-based interventions, resulting from functional behavior assessments, make it possible to keep the best interests of students, teachers, and families in mind.

**Functional Behavior Assessments**

Functional behavior assessments (FBAs) are used to drive the process behind implementing function-based behavior interventions and creating behavior intervention plans (BIPs). These assessments commonly consist of: (a) operational definition of behavior, (b) identification of the events that are functionally related to behavior, (c) identification of the consequences that maintain the behavior, (d) hypothesis about the function of the behavior, and (e) direct observation to confirm/support the hypothesis (Hirsch et al., 2023). Although FBAs/BIPs are required by law for students receiving special education services in response to specific disciplinary actions and recommended for use proactively for behaviors that may interfere with learning, the U.S. Department of Education did not provide a defined set of regulations for FBAs, stating that schools should have the flexibility to address individual cases based on situational, environmental, and behavioral circumstances or factors (Hirsch et al.,
This has led to varying information and components of data collection being utilized in functional behavior assessments.

For example, in the study completed by Johnson and Carpenter (2022) the FBA process included: (a) observable and measurable description of the problem behaviors, (b) situations when the behavior is most likely to occur, (c) identification of the possible function of challenging behaviors, and (d) designing, implementing, and assessing the effectiveness of the intervention plan. This study specifically looked at the strategies and guidelines for adapting and implementing a structured interview with students as a part of the FBA process. Johnson and Carpenter (2022) included analysis of students’ responses to their inclusion in the FBA process by incorporating student interviews. Johnson and Carpenter’s research demonstrated that including student perspectives in the FBA process helps to produce more accurate, efficient, and effective plans (2022).

Trussell et al. demonstrated the impact of both FBA-based interventions and targeted classroom interventions in reducing problem behaviors (2008). Research was completed on the impact that specific factors could have on challenging behaviors. These factors included: functional behavior assessments, classroom assessments, and the training of teachers and other staff to provide the targeted interventions and record the data on progress. The participants in this study were three classroom teachers and three students, including a fifth-grade student, a third-grade student, and a first-grade student. The focus of this study was to determine if using FBA-based interventions to alter the student’s environment would result in problem behaviors no longer meeting the student’s needs. Results indicated that the combination of classroom supports, with individually designed behavior interventions, reduced problem behaviors across all three student participants and that even solely using FBA-based interventions resulted in decreased
challenging behaviors when compared with altering classroom factors alone (Trussell et al., 2008).

McKenna et al. (2017) studied the effectiveness of replacement behavior instruction for three elementary-aged children. Data collected for the FBA included: (a) observation data on challenging behavior, (b) scores from the Behavior Assessment Scale for Children—2 (BASC-2), (c) fidelity data, and (d) social validity data using the Intervention Rating Profile. Other components of the FBA process that helped to determine the best function-based behavior interventions consisted of a combination of indirect and direct assessment methods: (a) record review, (b) teacher and student interviews, and (c) classroom observations. The interventions that were implemented based on the FBAs were found to be effective at decreasing the challenging and off-task behavior of all three students in the study (McKenna et al., 2017). The functional behavior assessments played a key role in determining the function of each student’s behavior and led to a decrease in their challenging behaviors. These assessments provide valuable information to be analyzed and used to develop plans geared towards creating student success in the school setting.

Lane et al. (2015) completed and analyzed research in the area of educators’ participation in practice-based professional learning (PBPL) to design, implement, and evaluate functional assessment-based interventions (FABIs). In this study the team members included 342 educators including early childhood, elementary, and secondary levels. They provided teachers with instruction and professional development in using the checklist for the task analysis of the FABI process: (a) identifying students who need a FABI, (b) conducting the functional assessment, (c) collecting the baseline, (d) designing the intervention, and (e) testing the intervention. This checklist helps make the functional behavior assessment process more readily accessible to staff,
which is also supported by a critical review of research analyzing the use of the FABI model in early childhood completed by Common et al. (2022). Few studies have investigated team-based implementation of the FABI process without support from researchers or behavior analysts, but the practicality of the FABI model makes it applicable and transferable across settings and roles.

A critical review of research articles completed by Pennington et al. (2018) looked to determine the effectiveness of behavior interventions in the public-school setting. In order for an article to be selected for this research review it had to: (a) be completed in a public school with existing school staff having participated in the assessment and/or intervention, (b) contain participants in grades K-12, (c) include a functional behavior assessment, (d) include intervention data for individual students for a single-subject experimental design, (e) graph follow-up maintenance or generalization data, and (f) not be an article that only measures academic behavior. With this criteria, twenty-one articles were included in the research review. Analysis concluded that functional behavior assessments are increasingly used to design behavior intervention plans when students engage in challenging behaviors that have not been improved by classroom interventions (Pennington et al., 2018). These functional behavior assessments and related interventions can be introduced to staff through quality professional development opportunities.

**Professional Development**

Schachter et al. (2019) completed a critical review of the research literature on professional development for early childhood educators to identify what features of professional development make a difference for teacher interactions and children’s learning and development. Through this critical review, Schachter et al. (2019) was able to determine that not all professional development offerings lead to new teacher knowledge, better teacher practice, or
improved child outcomes. Several of the studies that were reviewed demonstrated that coursework, as well as individualized coaching focused on that coursework, resulted in greater impact on teacher practice and child outcomes than coursework provided in isolation. In addition, Schachter et al. (2019) found that teachers typically do not continue practices at the end of a professional development when they do not see the content or practices as beneficial. The traditional professional development in early childhood has been provided through one-time trainings that have demonstrated limited success in supporting effective changes in practice. This reiterates the importance of professional development topics and content relevant to each individual teacher.

As a conclusion of their research, Schachter et al. (2019) makes recommendations for selecting professional development for early childhood educators: (a) select a professional development content that follows the adult learners’ interests and goals, focuses on developing teaching practices, and distributes information to develop content knowledge and provide opportunities to practice new skills in classroom contexts, (b) explains why practices are considered high quality, (c) concentrates on one content area for an extended time (at least 20 hours over time), (d) provides opportunities to observe high quality practice, (e) includes chances for teachers to receive individualized feedback, and (f) facilitates teachers’ self-reflection.

In a study that took place in a Midwestern U.S. school district, Bruhn et al. (2019) completed research on the topic of data-based individualization (DBI) and evaluating how participating in ongoing professional development provided to teachers within this area impacted their perceptions and outcomes over time. DBI is a process of collecting and analyzing data on students’ response to intervention and then making intervention adaptations accordingly. In the study, Bruhn et al. (2019) explains that regardless of the type of behavioral data collected,
teachers require training and practice to become efficient, accurate, and independent in progress monitoring. Twelve general education teachers and four special education teachers from six different elementary schools participated in this study. The researchers evaluated the conceptual understanding, self-efficacy, and perceptions associated with DBI before, during, and after the provided professional development. Results indicated that after having been through the training series, only one out of the sixteen teachers would not feel comfortable implementing this intervention within the context of DBI with another student (Bruhn et al., 2019).

Richardson et al. (2019) completed research focused on a multi-year collaborative project between elementary public schools in one district and university researchers. The study took place in a rural district with a population of eight thousand students, who attended eleven elementary, four middle, and four high schools, in the southern United States. For the professional development, teachers would read a chapter from a Cognitively Guided Instruction (CGI) text and bring questions to work sessions, to then develop assignments and lessons based on their reading and discussions. After the lessons and assignments were implemented the following week, teachers and the university faculty members would reconvene and evaluate student work samples and identify additional scaffolding needed. The study concluded that to be successful, professional development activities in this context and layout had to combine new information with each teacher’s experiences, the administrator’s overall views of the school, the university faculty member’s understanding of their content area, and students’ work samples (Richardson et al., 2019).

A case-study completed by Heyd-Metzuyanim et al., (2018) researched the impact that professional development has on teacher learning. In this study, two middle school teachers attended a professional development program designed around the 5 Practices for Orchestrating
Productive Discussions and Accountable Talk. This professional development model featured a combination of whole-group sessions with teachers and coaches, school-based support, and web-based discussions that allowed for grade-level collaboration across schools (Heyd-Metzuyanim et al., 2018). This study looked to apply the theory of learning as progression to the domain of teachers’ change as result of professional development. According to that theory of learning, teachers need first to "believe" and "understand" how and why to teach in a certain way, before they can actually do it (Heyd-Metzuyanim et al., 2018). Overall, it was determined that this professional development model did not meet expectations. Out of the eight teachers studied, there were only two teachers who reached the expected goals and outcomes. Heyd-Metzuyanim et al. (2018) explain that the time and resources needed to support teachers in transitioning from more "traditional" teaching practices to discourse-rich instruction are likely not plausible when exclusively implementing programs of 30-60 hours over the course of one school year. They also hypothesized that this model was deemed unsuccessful because additional studies have shown teacher’s adoption of "reform" practices can take up to take up to five years (Heyd-Metzuyanim et al., 2018).

Professional development practices can be successful or unsuccessful based on a multitude of factors, but this information cannot be determined without careful analysis, case-study experiences, and critical reviews of research. As indicated by the research detailed above, and shared in the subsequent section, ongoing coaching and mentorship opportunities are two of the most essential components to improving teacher practice and positively impacting student outcomes through professional development. The supports that are provided to educational professionals look different for each teacher, but ongoing teacher support and a strong collaborative network and model are key components to implementing finding success with
function-based assessments and interventions, (Courtade et al., 2017; McKenna et al., 2017; Pollack et al., 2021; Rispoli et al., 2021).

**Ongoing Coaching and Mentorship Opportunities**

Research conducted by Rispoli et al. (2021) piloted and evaluated a multilevel approach to teacher professional development for function-based interventions throughout the course of one school year with three early childhood special education teachers. This multilevel approach to professional development was guided by data-driven decision making for organizing and delivering evidence-based practices. The Level 1 supports used in this study included in-service workshops, supplemental supports, and individual coaching. After baseline behavior data was gathered, participating teachers were given approximately 30 minutes of one-on-one Behavior Skills Training (BST) in their classroom, either before or after school, on function-based interventions (Rispoli et al., 2021). After this, the coach and teacher developed an initial goal focusing on the quantity of the practice or the quality of the practice. Then the coach and teacher developed an action plan to identify materials or supports needed to meet that week’s goal (Rispoli et al., 2021).

Additional coaching sessions were completed weekly and teacher implementation progress was documented, along with student behavior data. Finally, teachers were taught how to engage in self-monitoring and were able to participate in coaching, plus self-monitoring implementation in the area of function-based interventions. Rispoli et al. (2021) concluded that teachers may require varying levels of support to optimize both teacher and student outcomes. Variables that support this individualized professional development approach include: teachers’ experiences, years in practice, and prior training. The results from this study completed by Rispoli et al. (2021) emphasize the importance of the use of coaching and mentorship in early
childhood professional development because of the positive outcomes they can provide for teachers and children. The use of a wide variety of coaching formats support teachers in implementing new knowledge into their practice and help them to develop confidence in doing so.

Perry (2022) completed a three-year-long study in England that looked at a group of 40 schools that were piloting the “Wellcome CPD (Continuing Professional Development) Challenge”. Throughout this pilot program, schools were assisted in the development of continuing professional development, encouraged coaching (Champions) models, and transitioned to online formats/reduced interactions (lighter-touch models due to Covid-19).

Unintended findings of this study, as a result of the Covid-19 pandemic, were some of the pros and cons of in-person vs. online professional development. Noted pros of the online professional development included (a) development of long-term, sustained learning, with opportunities for collaborative input, discussion, practice and reflection, (b) more professional development that met individual teacher needs, (c) flexibility of access, (d) reduced cost and travel time, (e) greater choice in engagement with online professional development activities, and (f) access to synchronous and asynchronous learning so that teachers could engage at their own pace and at times which suited their professional and personal commitments (Perry, 2022). Cons of online professional development included: reduced opportunities for discussion with individual teachers, initial reluctance to engage with online professional development activities, screen fatigue, and mixed views of the quality of some professional development delivered online by external providers (Perry, 2022). Although it was not what Perry (2022) originally set out to find, it was determined that professional development planning should consider individual teacher’s needs, emphasize and encourage greater alignment with school improvement.
objectives, and closer integration with wider school development objectives, such as curriculum redesign, pedagogical development and support for pupils with special educational needs and disabilities.

Research by Pollack et al. (2021) worked to develop comprehensive, function-based intervention packages that could be implemented successfully in public school settings. Three public school staff members, with no previous training in applied behavior analysis, who worked at a special day school in southeastern United States that enrolls children with emotional/behavioral disorders participated in this study. A multiple probe across participants design was used to evaluate the effects of intensive coaching on educator fidelity of a comprehensive, function-based intervention package (Pollack et al., 2021). During the research study, participants experienced the following phases: (a) baseline, (b) standard coaching, (c) intensive coaching, (d) generalization to student, and (e) generalization to student and classroom (Pollack et al., 2021). The results of this study highlight the need to individualize training and coaching supports for educators learning to implement comprehensive, function-based interventions based not only on baseline performance but potential preferences among coaching components or styles. In the same way that teachers must differentiate for students, professional development opportunities must be provided with differentiation for staff.

In a 2019 study, Walters et al. researched the potential benefits of mentoring within a Canadian secondary school physical education context. Two experienced mentor teachers were purposely recruited to act as mentors to a group of five of pre-service teachers who expressed an interest in engaging in the study. Walters et al. (2019) sought for the mentors and protégés to develop a PLC-like relationship, allowing for all to learn without the normal constraints of a typical practicum experience. The relationship and experience were meant to be nurtured as
meaningful professional development, recognizing that it looked to mirror a professional learning community (Walters et al., 2019). The initial meeting was held at a local restaurant and parameters for the mentor-protégé experience were developed, including: (a) protégés would attend the research site at least twice a week for a minimum of two hours each visit, (b) protégés were to inform researchers of their attendance at the research site so that observations could be completed, and (c) protégés could interact with either of the mentors and would identify and/or select opportunities they desired (e.g. observing, assisting, teaching, supervising, interacting with other staff members, etc.) (Walters et al., 2019). After this experience, the findings determined that the mentor teachers and protégés experienced professional growth with respect to their own teaching identity and teaching practice (Walters et al., 2019). Overall, it can be concluded that using mentoring as a professional development practice should be encouraged across schools due to its positive impacts on both the mentors and the protégés.

**School and Community Profile**

**Student and Community Characteristics**

The school district of focus is a rural school district in Eastern Iowa, which according to the 2020 census had a population of 6,128 (US Census Bureau, 2024). The community is close-knit, deeply rooted in religion and faith, is served by a volunteer fire department and contains a YMCA, several public parks, a regional health center, a river that runs through the community, and a few state parks in the area. The school district that serves this community contains a preschool through second grade elementary building, a third through fifth grade elementary building, a sixth grade through eighth grade middle school, and a ninth through twelfth grade high school. It also has a strong relationship with the local community college and has many dual enrollment programs and credits offered between the high school and the college. There is also a
preschool through sixth grade private school that feeds to the middle school and high school in this community, as well as two preschool through sixth grade public schools in smaller surrounding communities that feed to the middle school and high school.

In the 2022-2023 school year, 214 kindergarten through second grade students were enrolled in the school where this improvement project will take place (State of Iowa, 2024). There were 1,224 total students in the district (State of Iowa, 2024). Within the school district, the ethnicity breakdown is 80.8% white, 7.5% Hawaiian/Pacific Islander, 3.7% Black/African American, 2.3% Hispanic, 4.7% Multi-racial, 0.9% Asian. Student gender is 52.3% male and 47.7% female. Out of the student population district-wide, the percentage of students being serviced with an IEP was 12.6%. There are 2.8% English Language Learners, and 64% of students are considered to be from low socio-economic status families. Additionally, student attendance averages 90% district-wide on a daily basis (State of Iowa, 2024).

According to the Iowa Department of Education, 95 out of 240 PK-2nd grade students were chronically absent during the 2022-2023 school year (State of Iowa, 2024). When this high proportion of students is chronically absent, it can be difficult to maintain implementation fidelity for interventions, both academically and behaviorally, and consistency in routines and expectations with them at school. Improving student attendance was noted as an area of focus for the 2023-2024 school year at this elementary school. Suspension and expulsion data could not be found on for this elementary school (State of Iowa, 2024). Another factor worth noting about this school is that 83.3% of licensed staff were retained between the 2021-2022 and 2022-2023 school year, but it was unclear whether this was due to retirements or resignations (State of Iowa, 2024). This indicates that there would be potential issues with staff turnover if completing a multi-year professional development opportunity.
School District Characteristics

Within this rural school district, the superintendent, school board members, and school staff work collaboratively to determine how student, staff, and community needs can be met with the best interests of all in mind. Having a clear mission statement is an important piece of the school district’s foundation and serves as the framework for making decisions to establish a common direction of growth for the school district. The mission statement for this school district in Eastern Iowa is based on the core belief that all students will be engaged and empowered to reach their highest academic potential and personal growth. Their mission statement is: “To ensure all students and staff are learning at high levels.” In order to achieve this mission, the district has also implemented a vision statement, which indicates the common goal or ambition that the district is striving to attain. The vision statement is: “To develop a culture of collaboration and communication that supports continuous improvement for all.” It has been a point of emphasis within the school district that these statements are visible and present elements throughout. They serve as a reminder to students, staff, and community members for where the district strives to be headed in the future and where they are now. The leadership within the district values input from all stakeholders and makes it a priority to have all voices heard.

School Building Characteristics

In this elementary school building, there has been a high rate of principal and school counselor turnover in the last ten years, including five different administrators and five different counselors. Parents can stay involved by participating in the Parent Lighthouse team, attending parent-teacher conferences, and joining their student for school sponsored events like Donuts with Grown-Ups and Carnival Nights. At this time, the Parent Lighthouse Team is active in helping to create, organize, and develop events within the school and community to help foster
positive relationships and connectedness. These include family events, teacher appreciation and recognition events, and fundraising efforts.

The building social emotional learning (SEL) goal is: “By May 2024, our elementary school will have a collaborative culture for staff and students as a result of strengthening our collaboration through CTTs and focusing on the SEL of staff and students as measured by student self-reflections, SEL report cards, CTT agendas, and behavioral referral data.” There are also goals for math and literacy within the school, although it has been determined by staff that SEL is the largest focus area or need for attention and improvement.

**Professional Development Practices**

In this school district, each Wednesday is an early out for professional development, collaborative teacher team (CTT) meetings, and building collaboration. Staff have shared concerns about the wide range of topics that have been inconsistently covered by professional development offered during the 2023-2024 school year. These topics include selection and piloting of a new reading curriculum for the district, Leader in Me trainings, Restorative Practices and Cultural Literacy learning opportunities, New Teacher Center Instructional Framework, Core Competencies and Conditions for Learning Data analysis, Math Workshop learning, and one day of function-based behavior training, to staff who were available to attend, provided by an AEA behavior specialist. In addition, preschool teachers have been engaging in specially designed instruction (SDI) professional development over the course of the last two school years.

The challenging behavior team (CBT) has been engaging in training through the AEA about functional behavior assessments and function-based behavior interventions. This professional development opportunity was an invite only opportunity and was not offered to the
rest of the staff. Unfortunately, only one member from the original group from the 2020-2021 school year who received the training is still at this elementary school building. Otherwise, the multi-year professional development has not seen its value as teachers and administrators have moved on from this building and district before the training was able to be built upon, cycled-through, and implemented with students and all other staff members.

**Needs Assessment**

At this elementary school building, it has been determined that ongoing professional development and continued learning opportunities in the area of function-based behavior interventions are a highly desired need, but have seen a low reality for completion opportunities. During the 2023-2024 school year, there was an inconsistent ability to fill the role of the behavior teacher and other behavior support staff members in the school building. This led to differing ideas and perspectives in how to implement and support behavior plans, as well as varying expectations for students with challenging behaviors as the school year progressed.

Strategies that have been implemented in the school, with moderate to significant teacher buy-in, and what appears to be minimal effectiveness in changing student behaviors include: (a) Behavior Reward Cards with monthly incentives to try and reward students who are not demonstrating any challenging behaviors, (b) Leader in Me awards during weekly assemblies, (c) Leader in Me Awards during monthly assemblies, including High Hopes and Count on Me Awards, (d) check-in/check-out programs, (e) student monitored behavior charts, (f) use of sensory break areas, (g) the hiring of additional staff, and (h) support from the local police department and staff in extreme scenarios.

The current professional development opportunities are not aligned to the teacher-determined needs of the building. Staff have expressed a desire for continued learning and
developed capacity for teaching students with challenging behaviors, but have not been able to access consistent, research-based methods that they can implement in their classrooms. The issue of challenging behaviors in this school, and district, can be addressed by presenting staff with the opportunity to participate in ongoing learning about function-based behavior interventions through ongoing professional development.

**Data Analysis**

Challenging behaviors have become more and more widespread in recent years. That has led to an increase in minor and major referrals within this elementary school, as well as a continued large number of referrals made to the school counselor. There are also many challenging behaviors that go unreported through formal methods, which staff has shared is because the process is not streamlined for all and expectations for what behaviors need to be documented and when they need to be documented remains unclear to all.

During the entirety of the 2022-2023 school year, there were 187 behavior referrals completed in grades K-2. This number includes referrals for both major behaviors, like fighting, stealing, bullying, and property damage, and minor behaviors, like inappropriate language, not following directions, and rough housing. As of March 19, 2024, there were 357 behavior referrals for both major and minor behaviors completed for the 2023-2024 school year. This spike in behavior referral numbers can be analyzed and interpreted in many ways. The increase could be due to a true increase in challenging student behaviors, an increase in teachers filling out referrals, or an emphasis being placed on the tracking of challenging behaviors for a few specific students who are receiving interventions. Regardless of these factors, staff have shared concerns that even though the behaviors are being recorded and tracked at a more consistent rate,
they do not know the next steps to take to truly improve and extinguish student challenging behaviors.

According to the SAMI (Self-Assessment of MTSS Implementation) Notecatcher from Spring 2023, elementary school staff had determined that next steps for social-emotional behavior health (SEBH) goals in the building were to determine a new social emotional screener, enhance staff training opportunities, and create a bank of resources for staff to use in support of SEBH areas. The Social, Academic, and Emotional Behavior Risk Screener (SAEBRS) is the SEBH screener most recently used in this school. Staff analysis indicated that using a less subjective and more developmentally appropriate social emotional screener for the PK-2nd grade building would benefit both students and staff. Another point of emphasis based on the analysis of SAMI data was placing more of an importance on the training all staff are receiving in areas of behavior assessment and create a fidelity plan to ensure behavior assessments are being measured correctly, as well as including the use of formative data to ensure the anticipated positive impacts on students are taking place. An additional potential area to improve upon based on SAMI analysis is the creation of an intervention bank with critical components of functional assessment and function-based behavior intervention resources, training opportunities, and teacher buy-in and awareness sections.

An additional next step for staff is having sit-down coaching conversations across all MTSS areas to improve fidelity of evidence-based practices and staff confidence in implementation. This is a critical element of ongoing professional development in the area of function-based behavior interventions and would align with the necessary next steps indicated by the SAMI team.
A large number of referrals to the school counselor have also been documented in both the 2022-2023 school year and the 2023-2024 school year. During the 2022-2023 school year there were 788 school counselor referrals and in the 2023-2024 school year there were 487, as of March 10, 2024. The school counselor referrals include support, meeting attendance, and requests for services like individual and small group counseling, parent meetings, 504 meetings, and IEPs, as well as responsive services like DHS contacts, crisis response, providing outside referrals, and student drop-ins. This data and information was provided by the school counselor from this elementary school.

The current system for tracking, monitoring, and creating referrals for challenging behaviors needs to be looked at and improvements must be made to maintain the sanity of staff and create buy-in from all stakeholders. Staff have shared that the referral system as it is right now is taking too long to complete, some of the questions are unclear, and they are not receiving a copy of the referral for their students unless they fill it out or it is forwarded to them by the referring party. The current system is not consistently implemented and has proven, through analysis with the AEA staff completing the function-based behavior trainings, that the school has been unknowingly reinforcing students’ negative behaviors with the consequences and interventions that have been put into place. It can be assumed that this is because staff does not have adequate training and knowledge about functional-behavior interventions, functional behavior assessments, or implementing behavior intervention plans. In multiple circumstances, it was determined that a student’s challenging behaviors were being reinforcement because staff members were mistakenly feeding the function of their behavior instead of working to implement prevention strategies, incorporate the teaching of replacement behaviors, and extinguish the problem behaviors. In fact, teachers and other school staff in this elementary
setting continuously identify a lack of quality training as one of the top barriers to implementing individualized behavior supports. The following school improvement action plan can help to alleviate some of these concerns and learning gaps that are present.

**Action Plan**

After reviewing literature, determining priorities of the staff and district, and considering available resources, the following draft of a plan has been developed to implement ongoing professional development for function-based behavior interventions in the school building. The plan incorporates the development and teaching of functional behavior assessment knowledge, developing and implementing interventions, and providing ongoing professional development and coaching in these areas. “Teachers are more likely to engage with PD or use a new practice when they have identified it as a particular goal of their own teaching or as a gap in the curriculum they use” (Schachter et al., 2019). Since the need for support in the area of challenging behaviors has already been communicated by a large portion of staff, and determined as an area of need by administrators in this building and the district as well, the first step in this plan is to continue to create teacher buy-in for these concepts.

Additionally, permission from superintendent, curriculum director, and principal will be granted. With their input, recommendations for when professional development would be most valuable in the coming year would be considered. It is also crucial to confirm that paraprofessionals and other support staff would be able to attend these professional development opportunities with appropriate monetary compensation provided. Involving everyone in these trainings will emphasize the importance of providing consistency in how students receive consequences for behaviors, initiate beginning understandings of how each students’ functions
are different, and provide rationale behind preventive strategies that are used and making sure they are implemented with fidelity.

An important aspect to consider and get whole staff feedback on before implementing additional steps of this school improvement plan is the analysis and update of the current behavior referral system. It would be beneficial to have all stakeholders involved, including teachers, paraprofessionals, administrators, school counselors, and additional support staff in order to streamline the process, make the questions clearer, and determine how data can be analyzed and used after it is collected. This process should be completed before the conclusion of the current school year so that at the beginning of the 2024-2025 school year the process can be explicitly taught, expectations can be communicated directly, and staff can begin using it with fidelity from day one. Another action step of this school improvement plan which must be completed before the completion of the current school year is filling the role of the behavior teacher with a candidate who possesses knowledge and experience in the area of functional assessment, function-based behavior interventions, and behavior intervention plans.

Additional steps to complete before the start of the 2024-2025 school year include coordination with AEA staff and others who would be willing to provide the professional development training, including the AEA behavior coach staff member that provided the four year functional behavior training with the district challenging behavior team, if she is available, and the nomination of a resident “expert” in each collaborative teaching team (CTT) to take part in the more extensive initial trainings and provide ongoing mentorship and support to other staff members as needed. Mentorship can positively influence the teaching identity and teaching practice of mentors, much the same way it does for those being mentored, (Walters et al., 2019).
In the spring of 2024, an overview and initial training, will be provided to those who are interested in being peer models and filling the “expert” mentorship role within their CTT and in the building. Most likely these roles would be filled by those who have already been receiving the CBT training throughout this school year. Through the end of the 2023-2024 school year, as well as over the summer, these mentor teachers will continue to practice their implementation skills in the area of function-based behavior interventions, share their results, and act as mentors and collaborators for other staff by offering suggestions to teachers for students who are identified as having challenging behaviors, researching additional strategies, and finding relevant supports to potentially help integrate function-based behavior interventions right away in the fall. This will hopefully make it evident to all staff that these interventions are doable and realistic to complete within the classroom environment, while also having made a positive impact on students, and staff, who have gone through the abbreviated trial process during the spring of 2024. The intention of this component is to gain buy-in from majority of staff in the building.

Prior to the function-based behavior interventions being implemented with students, the CBT and additional staff will collect additional information and insights from the AEA behavior coach who will continue to visit the school and conduct follow-up coaching and trainings with the CBT. From the behavior coach, behavior function resources will be distributed to all teachers and staff in the building to expose them to the content and allow questions and clarifications to be asked prior to the initial training being offered in fall of 2024. The behavior coach will also provide her contact information to staff for future questions that may arise over the summer and before the initial professional development in the fall. This will help the behavior coach create a more targeted agenda for the elementary school building for the fall.
As interventions are implemented by the “experts” throughout the spring, the results of the behavior interventions will be analyzed with AEA staff, the instructional coach, principal, classroom teachers, and behavior teacher at least once a month during the AEA staff member’s check-in. The CBT will meet to discuss these plans at least twice a month, in addition to meeting with the AEA staff member. Small adjustments will be made to interventions as needed, based on behaviors, stakeholder input and conversations, and data analysis. Intervention data, daily behavior data collection, anecdotal notes, and additional documentation will be communicated with families and shared as needed throughout this process.

Additional supports will be identified both within the school and outside of the school for staff to access during the duration of this plan, even though the main component of this plan is the AEA behavior coach providing ongoing professional development opportunities and peer mentoring opportunities in person or through virtual meetings. These additional supports include: (a) online self-paced professional development opportunities, (b) contact information for additional behavior coaches, teachers, and functional behavior assessment mentors, (c) a Google Drive folder containing additional resources and information presented to the CBT, and (d) resources detailing how to implement and expand on using artificial intelligence to create behavior plans and interventions. Within the school, building “experts” who will have undergone additional training prior to the 2024-2025 school year will be encouraged to share their successes, challenges, things they wish they would have done differently, etc. with others. This staff mentorship and support from within the school building itself is seen as an under-utilized, cost-effective way to engage teachers in professional development while also building collaboration and teacher confidence, (Walters et al., 2019).
At the beginning of the 2024-2025 school year, an initial professional development session will be attended by all staff, including all stakeholders involved: teachers, paraprofessionals, administrators, school counselors, and additional support staff. During this time, the Functional-Assessment Behavior Interventions (FABI) process will be explained to staff, as this will be the main process that is taught to implement with students. These FABIs are centered on the reasons why challenging behavior occurs—their function. A basic understanding of behavior functions, functional behavior assessments, intervention development and planning, and data collection will also be presented. Staff will have access to the content covered in this course before the day of the presentation in order to develop questions and points of clarification if desired.

Following this day of initial training, at least one professional development each month will take place in a whole group setting to provide additional knowledge, learning, and information on the function-based behavior interventions process. The behavior coach will also check-in with each individual teacher at least once per month to evaluate their comfort level with the content and provide coaching or mentorship as needed. Paraprofessionals and other support staff will have the opportunity to participate in these individual, classroom, and grade level meetings in order to receive additional clarifications on questions or implementation procedures that they might have.

Since weekly collaborative teaching team (CTT) meetings take place by grade level and subject area, additional professional development and coaching opportunities will be offered to each CTT in groups and on an individual basis. The behavior coach will meet with each CTT group at least once per month throughout the school year, but can provide additional supports,
like observations, data recording, online meetings, etc. throughout the entire school year on an as-needed basis.

The school building members will also work collaboratively to determine mentorship opportunities that could be provided throughout the course of the school year as each individual becomes more comfortable and confident with implementing the new professional development content with their students and in their classrooms. It will be important to keep in mind that “There is no need to rush teacher development. Allow teachers plenty of time to: engage in a variety of [professional development] activities, talk with others about what they have learned, try out strategies in the classroom, receive feedback from peers and/or mentors on their new strategies, and identify what else they need to learn,” (Schachter et al., 2019, pg. 404).

At the conclusion of the 2024-2025 school year, behavior data will be cataloged, a survey about student challenging behaviors will be sent out to families and staff, and then the staff will meet as a building to analyze behavior data, staff and family survey results, and determine strengths and challenges from this year’s ongoing professional development plan for the next year. An emphasis will be placed on creating an abbreviated training for all staff to complete at the beginning of each school year in an effort to fill in the gaps for staff who are new to the district or new to the field of education, as well as provide a refresher for returning staff about the core concepts of function-based interventions. Additionally, the process of the Functional-Assessment Behavior Interventions (FABI) will be reviewed each year, which is the process that will be primarily taught to staff by the AEA behavior coach and “expert” teachers. The implementation of this FABI process in schools is seen as a promising practice across all grades PK-12, (Hirsch et al., 2019).
As the ongoing professional development continues into the 2025-2026 school year, it will become a priority to involve parents, families, and community members in aspects of the training and making connections between Leader in Me and function-based behavior interventions. Providing resources to families would include giving them tips, insights, and additional knowledge to use with their students at home and within the community.

Finally, as the ongoing professional development in the area of function-based behavior interventions is completed for years to come, staff will work to continually reflect, identify, and communicate what additional levels of support they would like to have. Considering the fact that 10% of teachers leave the classroom within their first year, and between 40% and 50% of teachers leave within their first 5 years of teaching, it is important to make sure that all teachers feel supported and comfortable in dealing with and positively impacting student challenging behaviors (Hirsch et. al, 2019).

**Additional Considerations for Implementation**

After implementation of the school improvement plan has started, plans will be developed and continued for how to provide additional opportunities, like online professional development, conferences, or inviting speakers to continue this learning over the summer. Additionally, the use of AI in this area will be explored and elaborated on by stakeholders to potentially share more about in the future components of this school improvement plan. Emphasis will be put on encouragement of staff to expand the comfort level and knowledge in using AI software to help develop and implement behavior interventions. Staff will not be expected to achieve mastery in these areas, but it will be recommended that they explore the use of AI as a tool and option for use.
Throughout the implementation of this school improvement plan, it is important to keep in mind that training and coaching supports for educators must be individualized, based not only on their current knowledge and levels of performance, but also their preferences for coaching components and learning styles, to best support their implementation and confidence in using comprehensive, function-based interventions with students, (Pollack et al., 2021; Rispoli et al., 2021). Coaching needs also change based on the variability in class rosters.

The action plan included above was set to begin at the mid-semester point of this past school year. There is learning taking place with the challenging behavior team (CBT) within this elementary school in this semester in order to try and have staff members who feel comfortable fulfilling a mentorship or champion role. These teachers completing the training this semester will work to implement the learning and knowledge with fidelity right away in the fall and all throughout next school year, while also providing support and feedback to those who are taking part in the learning for the first time. They will fill the role of building mentors for other staff.

To monitor the success or failure of this school improvement plan several data collection methods and information sources will be used: (a) teacher feedback and survey responses, (b) student data, like the Functional Assessment Screening Tool (FAST), Student Preference Assessment (SPA), daily behavior logs, and anecdotal notes, (c) behavior referrals, (d) school counselor referrals, and (e) other stakeholder/parent feedback.

**Data Collection**

At the end of the 2024-2025 school year, the elementary school staff will complete a survey through Google Forms to gather data on their experiences with the ongoing function-based behavior intervention professional development provided to them. This survey will identify strengths and areas of growth for future years of professional development that will be
provided in this area. After the survey has been completed by staff, stakeholders will meet to discuss and analyze the results. Changes, adaptations, and a timeline for the 2025-2026 school year can be created based on the results and the analysis of the information.

Other stakeholders involved in this process including the AEA staff members, paraprofessionals within the classroom, the school principal, school staff, and other administrators will be encouraged to complete a feedback survey at the conclusion of the 2024-2025 school year as well.

**Limitations and Barriers**

There are a large number of limitations within this school improvement plan that have continued to make themselves known throughout the planning process. One limitation that could greatly impact the results of the plan are new students or staff members joining the school. When new students or new staff join the school, norms, routines, and procedures must be retaught and the school climate can alter. Teachers must have authentic, intentional participation in these professional development opportunities and be willing to participate in the mentorship opportunities without fear of showing vulnerability.

Additionally, there are several limitations that students and members of the action research team have no control over, like sleep patterns, student hunger/eating habits, sickness of students/teachers, attendance of other students within the class, and special activities, events, holidays, and weather events taking place within the course of the study.

Limitations that are moderately within the circle of control for students and teachers include: absence from school for students and teachers, a lack in consistency of behavior tracking, monitoring, and data collection, staff changes (a preschool paraprofessional resigned and the position is now being covered by subs), whether or not students take their medications
each day, and the involvement of the AEA in child-find/IEP process while students are also participating in the function-based behavior interventions.

An additional barrier might be the availability of AEA staff, especially with the decrease in funding for Iowa’s AEAs in the coming school year. This is a factor that will need to be revisited as more information about the 2024-2025 school year, funding, and roles of the AEA staff become available.

Since FBAs/BIPs were introduced as a component of typical school practices, it has been suggested by some that only board-certified behavior analysts (BCBAs) are explicitly trained to determine the function of a behavior and align it to the BIP (Lane et al., 2015). Research done by Common et al. (2022) showed a focus on increasing the promotion of the FBA/BIP implementation to educators or professionals other than behavior analysts through an improvement in its applicability and dissemination of procedures. By making the process of functional behavior assessment more streamlined, easily understandable, and accessible for educators and other professional staff, the behavior interventions that students receive will be better targeted towards their function of behavior, leading to a reduction in challenging behaviors.

**Need for Further Research**

Further research is required in the area of function-based behavior interventions, especially in the area of early childhood education, which is the focus age group of the elementary school where this school improvement plan is intended for use. It would be especially beneficial for additional research to be completed in the area of teacher fidelity with continuing and implementing function-based behavior interventions after the school improvement plan timeline. It would also be helpful to gather and locate further research in the
area of demonstrating how to implement function-based interventions in a variety of classroom settings. This could help to determine which methods are most successful for teaching staff to implement and to do so with fidelity. Finally, it would be beneficial for further research to be completed in the area of using artificial intelligence to create FBA and BIPs. This could help to develop confidence in teachers, administrators, and staff for developing, implementing, and analyzing FBAs and BIPs with less training and support.

Conclusion

Overall, this school improvement plan aims to take advantage of the positive correlation between ongoing professional development, function-based behavior interventions, and improved teacher outcomes and student behavior. There are limitations within this proposal, but success can be seen using this plan with adequate teacher buy-in.

In the past, Trussell et al. (2008) argued that there were not enough studies to accurately reflect and demonstrate the effects of function-based interventions compared to non-function-based interventions. But, there is now sufficient evidence from an overwhelming number of research articles that supports the claim that function-based interventions have greater impact on behavior versus non-function-based interventions, (Dunlap & Fox, 2011; Hirsch et al., 2023; Jeong & Copeland, 2019; McKenna et al., 2017; Rispoli et al., 2021). As demonstrated by years of research, function-based interventions can make a positive impact on the school environment for all parties involved.

“Improving teachers’ knowledge, skills, and self-efficacy in managing challenging behavior and making data-informed decisions requires effective PD that is ongoing and embeds practice through authentic learning experiences with supportive feedback,” (Bruhn et al., 2019, pg. 196). Teachers need continued opportunities and exposure to new items covered in
professional development in order to benefit from the learning and to implement the content. This continued exposure should also include opportunities to set goals, plan, practice, and reflect. Ongoing opportunities for professional development in the area of function-based behavior interventions will create a positive impact on teacher efficacy, school culture and beyond. It can be concluded that ongoing professional development is more meaningful and impactful for teachers and that function-based behavior interventions have a greater impact on targeting student behavior than non-function-based behavior interventions. They can have a widely positive impact on teachers, students, and schools who are receiving them. Implementing this school-improvement project with fidelity and intentionality provides an opportunity to support this notion.

References


https://data.census.gov/