Tailoring Effective Behavior Management Strategies for Speech-language Pathologists

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Abstract

**Purpose:** Many speech-language pathologists experience challenging behavior during service delivery, and also report minimal training in effective behavior management strategies. The purpose of this tutorial is to present low-effort behavior management strategies that SLPs can adopt, adapt, and implement.

**Method:** After providing an overall rationale for effective behavior management strategies, we present two evidence-based behavior management strategies aimed at improving positive behavior and engagement. We provide descriptions, steps, and applied examples for implementing visual activity schedules and behavior specific praise. We include three implementation scenarios and resources for SLPs to access specifically tailored to SLP practice.

**Conclusion:** Visual activity schedules and behavior specific praise are two flexible behavior management strategies that can be collaboratively created by SLPs and educators *and* implemented during a variety of instructional arrangements during speech and language therapy. Implementing evidence-based behavior management strategies may improve students’ engagement and achievement in speech and language-focused outcomes.

*Keywords*: behavior management, visual activity schedules, behavior specific praise

Tailoring Effective Behavior Management Strategies for Speech-language Pathologists

Language ability is essential for children's social and academic success and serves as a pathway to the development of successful relationships as well as for knowledge and skill acquisition (Chow & Wehby, 2018; Hulme et al., 2015; Johnson et al., 2010). It is not surprising that children who begin school with language impairments are at a significantly increased risk for poor long-term outcomes (Pickles et al., 2016; Norbury et al., 2017; Tomblin et al., 1997). In order to best serve children with speech and language impairments, we must make strong efforts to begin mitigating the adverse effects of these impairments early on, as earlier language deficits are related to poorer outcomes (Chow et al., 2018; Yew & O’Kearney, 2013). Speech-language pathologists (SLPs) in the United States are the related service providers that are most commonly responsible for identifying and addressing language impairments, and under federal regulations such as the Individuals with Disabilities Education Act (IDEA, 2004), it is our legal requirement as a public school system to provide the services needed in order to ensure children demonstrate educational progress. Intentional practical dissemination of effective strategies focused on improving the efficacy of intervention delivery of SLPs is essential, as children with speech or language impairments make up the second most common disability category in American schools which comprises 17.9% of children receiving IDEA services (US Department of Education, 2015).

**Relations between Language and Behavior**

Effective interventions to support children with speech or language impairments must consider the relationship between language and behavior. This is a particular point of concern, as we know 81% of children with behavior disorders have clinically-meaningful and unidentified language deficits (Hollo et al., 2014), and these deficits emerge across subdomains of language (Hollo et al., 2018) and language assessments (Chow & Hollo, 2018). Further, children with language impairments demonstrate more challenging behaviors concurrently (Curtis et al., 2018) and are twice as likely to demonstrate behavior problems later on than their typically developing peers (Yew & O’Kearney, 2013). Because of the significant association between low language skills and behavior problems concurrently and predictively (Chow et al., 2018; Chow et al. 2020), an explicit focus on behavior and behavior management for SLPs is essential, particularly given that children with language impairments are likely to exhibit or develop challenging behaviors (Curtis et al.; Yew & O’Kearney, 2013), and children with behavior disorders are likely to need language intervention (Benner et al., 2002; Chow, 2018; Chow & Wehby, 2019; Hollo et al., 2018).

Students who exhibit challenging behavior are less likely to engage in instruction and social interactions, thus limiting their language learning opportunities (Qi et al., 2006). In turn, students with language delays are more likely to exhibit challenging behavior and less likely to use appropriate communication and prosocial skills (Roben et al., 2013; Rescorla et al., 2007). Students with concomitant language delays and challenging behavior are likely to display low levels of academic and social engagement during their early school years that can lead to negative long term outcomes (Bulotsky-Shearer et al., 2012; Chow, 2018; Crick et al., 2006). Therefore, simultaneously targeting students’ language and prosocial skills may ameliorate the negative cycle that exists between challenging behavior and delayed language development by simultaneously increasing social and academic engagement (Vitiello & Williford, 2016).

**Behavior Management**

This tutorial aims to support the behavior management of SLPs serving children and youth with speech and language disorders given the frequent co-occurrence of language and behavioral delays. Behavior management is a collection of practices and strategies implemented during ongoing instruction designed to prevent challenging behaviors, encourage prosocial behaviors, and improve student outcomes (Simonsen et al., 2008). Behavior management includes three core components: (1) maximizing instructional time, (2) proactive management strategies, and (3) organization of activities to maximize achievement and engagement in instruction (Sugai & Horner, 2002). Instructors plan behavior management strategies to support all students in one-on-one and group instructional arrangements. Some behavior management strategies are implemented as a universal prevention strategy to support all students (e.g., setting and teaching expectations; creating predictable routines), whereas others may be implemented to support individual or small groups of students (e.g., visual supports; token boards). Effective behavior management strategies should be planned *before* instruction starts, and should be feasibly implemented alongside ongoing planned instruction (e.g., strategies to support group engagement during small group instruction; Simonsen et al., 2008).

Instruction, particularly group instruction, is likely to be efficient when proactive behavior management strategies are implemented alongside ongoing instruction (Simonsen & Myers, 2014). Proactive management strategies include preventative (implemented before challenging behavior) and reactive (implemented after prosocial and challenging behavior) strategies. Preventative strategies are designed to adapt the learning environment before challenging behaviors occur to increase the likelihood of engagement and decrease the likelihood of challenging behaviors (Blair et al., 2007; Conroy et al., 2005; Kern et al., 2002). Most preventative (or antecedent) interventions manipulate the environment, make expected behaviors more salient, modify student response options or materials, or incorporate student choice or preference in instructional activities (Ennis et al., 2018; Lane et al., 2007; Messenger et al., 2017; Zimmerman et al., 2019). Reactive strategies are designed to redirect student attention to prosocial or desired behaviors (e.g., engagement, following directions, answering questions) rather than challenging behaviors (e.g., noncompliance, aggression; Dunlap et al., 2010).

Proactive management strategies must be feasible for SLPs to implement alongside evidence-based therapies and cost effective. To maximize instruction, these strategies must also be easily applicable to groups of students while simultaneously avoiding direct comparisons between students. Many SLPs are likely using some of these behavior management principles which are grounded in applied behavior analysis (e.g., motivational considerations, clear instruction; Donaldson & Stahmer, 2014). However, efficient instruction can only occur when both preventative *and* reactive strategies are employed concurrently (Dunlap et al., 2010). Incorporating both preventative and reactive strategies to address challenging behaviors during instruction can support SLPs in setting the stage for maximizing instructional time and addressing all students’ individual goals. Two feasible proactive strategies likely familiar to SLPs include visual activity schedules (preventative) and behavior specific praise (reactive). The effectiveness and feasibility of these strategies, however, will likely be contingent on the collaborative relationship between educators and SLPs serving students in school-based settings.

**Collaboration and Behavior Management**

Many teachers do not receive effective behavior management training (Flower et al., 2017; Moore et al., 2017; Oliver & Reschly, 2010), and it is becoming evident that SLPs rarely receive any explicit instruction in behavior management (Chow & Wallace, 2019). In instructional contexts focused on teaching and learning, effective behavior management can set the stage for high-quality instruction. In the context of language intervention, researchers have argued that practitioners should focus on first establishing an ideal setting to situate high-quality, language-rich instruction (Chow et al., 2020). Because behavior management is a top concern of school-based professionals (Greenberg et al., 2014), educators must prioritize equipping themselves with effective, proactive tools to increase the likelihood their teaching is most effective. The importance of proactive, positive behavior supports has been discussed in previous tutorials (see Keller-Bell & Short [2019] for a tutorial on positive behavior interventions and supports [PBIS]). In the context of effective PBIS systems, all related service providers and their efforts to support students should be couched in a preventative, positive behavior framework created collaboratively with their educator colleagues.

Collaboration between SLPs and educators to both identify and evaluate positive behavior management strategies will ensure the strategies are both effective and efficient at supporting students across all learning contexts. SLPs and educators can collaborate to identify behavioral expectations for learning and hold those expectations constant when students are learning with both the SLP and classroom teacher. For example, the SLP and educator may identify school-wide behavioral expectations as part of a PBIS team (see <https://cutt.ly/rpsqW82> for a planning document) to support student engagement in instruction. After creating common behavioral expectations for all learning environments, the educator and SLP may then decide to select common preventative and reactive strategies to support groups of students or individual students. While instructional goals may be different (e.g., articulation goals during therapy and addition problem solving during math instruction), behavior management strategies should be the same to increase the predictability and consistency of management supports for students, particularly students with disabilities engaging in challenging behaviors (Simonsen et al., 2008).

Creating collaborative behavior management plans is particularly important because SLPs are essential providers of special education services under the provisions of IDEA (2004). We need to effectively support SLPs to deliver intervention to students aligned with their individualized education programs in order to ensure that they are receiving their legally-mandated free and appropriate public education. If SLPs are frequently experiencing challenging behavior but not equipped with the strategies to manage behavior effectively, it is likely that their students may not demonstrate meaningful educational progress. In this tutorial, we describe two evidence-based behavior management practices that align with the PBIS framework and can be feasibly implemented by both SLPs and educators. The practice descriptions, examples, and resources are tailored to SLP practice, although the strategies can be feasibly implemented by both SLPs and educators and thus, should be considered when collaboratively planning behavior management plans.

Whereas collaborative relationships are important for the success of students receiving intervention, it is important that SLPs also have the tools to deliver effective instruction in group settings. For example, we surveyed practicing school-based speech-language pathologists on their experiences and job expectations relative to service delivery in group settings (see Chow & Wallace [2019] for details on survey sample and methods). Briefly, a sample of 223 school-based SLPs reported on the prevalence of service delivery in small groups. As expected, all respondents indicated they worked one-on-one with students at least sometimes. In terms of service delivery in groups, 70% of respondents reported that they often worked in groups of two to three students (17% sometimes; 8% always), 52% reported they sometimes worked in groups of four to five students (22% often), and 33% reported that they sometimes worked in groups of six or more students (10% often). These data provide a glimpse of the relative prevalence that practicing school-based SLPs are required to deliver services in group settings. As such, professional development should be tailored to meaningfully incorporate group size as an important component, and SLPs should leverage collaborative relationships with teachers who have regular experiences with teaching as well as managing behavior in group settings.

**Purpose of the Present Tutorial**

The purpose of this manuscript is to provide a tutorial on two behavior management strategies, (1) visual activity schedules (VAS) and (2) behavior specific praise (BSP), that can be applied to support individual students *and* group performance. We present a brief review of evidence supporting the use of each strategy as well as a step-by-step guide to strategy planning, implementation, and evaluation. Finally, we include data sheets and connections to freely accessible resources to support implementation of the strategies in individual and group intervention settings. While we focus our efforts on tailoring strategies to group settings and dynamics, these strategies can be easily implemented in individual sessions of service delivery.

**Visual Activity Schedules**

Visual activity schedules (VAS) are images, photographs, line drawings, symbols, or drawings that provide a pictorial representation of the steps of an activity or routine (Wong et al., 2020). While visual supports are typically used by SLPs as tools to support students’ receptive and expressive language (Bopp et al., 2004), VAS can also be used as a preventative strategy to create environmental structure and predictability for instruction. Improvements in student engagement (Bryan & Gast, 2000), challenging behavior (Scalzo et al., 2017), and task completion (Giles & Markham, 2017) can occur simply by providing a VAS in the instructional environment. SLPs can maximize the structure of small group therapy sessions in classroom or therapy settings by creating VAS to depict each activity or task that will occur during instruction.

***Diverse Populations***

VAS are recommended for use with students with developmental disability (Lequia et al., 2012), sensory impairments (Raver et al., 2013), social and behavioral delays (Zimmerman et al., 2017; 2019), or students with typical development (Watson & DiCarlo, 2016). Numerous reviews of the strategy indicate VAS are effective with students from early childhood to adulthood (Banda & Grimmett, 2008; Bopp et al., 2004; Ganz, 2007; Knight et al., 2015; Koyama & Wang, 2011; Lequia et al., 2012, 2015; & Rispoli et al., 2011). VAS provide SLPs with a single intervention that can be effective with the diverse population of students with whom they work in school-based, clinical, community, or home settings.

***Ways to Use VAS***

Reconceptualizing VAS as structural tools to support proactive behavior management through environmental arrangement strategies can support SLPs in maximizing time in instruction and intervention, rather than focusing on addressing or redirecting challenging behavior (Chow et al., 2020). VAS can be used to describe information across activities (e.g., daily VAS; Scalazo et al., 2017) or within a single activity (e.g., art center; Zimmerman et al., 2017). During group instruction VAS can be used in the following ways: (1) describe the sequence of multiple activities (Bryan & Gast, 2000), (2) sequence the steps within an activity (Zimmerman et al., 2017), (3) identify opportunities to respond during instruction (Zimmerman et al., 2019), (4) identify opportunities for student choice during instruction (Zimmerman et al., 2017; 2019), and (5) identify required tasks to complete before accessing preferred activities or reinforcers (Warren et al., 2019; Zimmerman et al., 2017). Examples of each VAS type tailored to maximize efficient group and one-on-one instruction can be found in Table 1.

***VAS Planning***

Implementing VAS requires the following planning considerations: (1) identifying the schedule purpose, (2) identifying schedule content, (3) designing schedule format, (4) selecting instructional procedure, and (5) designing system for interacting with the schedule, and (6) creating progress monitoring systems. Each of the five considerations for VAS use will be described in detail below.

**Schedule Purpose.** The purpose of the schedule should be identified before creating the VAS. As outlined in Table 1, the VAS can have five purposes: (1) sequencing multiple activities, (2) sequencing steps within a single activity, (3) identifying opportunities to respond, (4) incorporating opportunities for student choice, or (5) listing required tasks to complete. VAS designed to sequence activities are created to show students the order of all activities that will occur during group instruction. VAS with opportunities to respond are designed to show students the number of times they must interact with group questions or prompts. VAS that incorporate student choice show the student the activities during the lesson in which they will be able to choose the (a) materials, (b) activity type, or (c) instructional partner. Finally, VAS which present required activities to a student may be used to allow the student to create their own sequence of task completion.

**Schedule Content.** After selecting the purpose of the VAS, next SLPs need to decide the content of the schedule. Schedule content is driven by two factors: (1) the schedule purpose and (2) the student’s object-picture correspondence and/or symbolic representations skills. In other words, the purpose drives what items to place on the schedule and the student’s skills drive the icon type (e.g., objects, photographs, line drawings, 2-D black and white or colored images, abstract representations, or words). The schedule purpose determines the content as SLPs decide what should be represented on the schedule; for example, if every activity during an instructional session (sequencing activities) or the steps of a single activity (sequencing steps within an activity) should be represented. Generating a list of the steps or components will assist SLPs in identifying the content to include. Four to six icons are most commonly used in VAS (range 2-27; Zimmerman, 2019), although SLPs should consider the key components specific to the instructional activity.

After listing each step or component (contingent on the type of schedule), SLPs must then decide the most appropriate icon format for their students. Evaluating a student’s symbolic communication level includes processes SLPs are already both familiar and competent with in their practice. Moving from object schedules to abstract representations may likely follow a student’s symbolic communication in systems such as speech generating devices.

**Schedule Format.** VAS can be displayed in linear, book, or digital formats (Zimmerman et al., 2019). Linear formats can be displayed vertically or horizontally (Bennett et al., 2011), book formats can display a single icon or step of the schedule on each page or multiple steps on a page (Akers et al., 2016), and digital formats can include an iPad (Broadhead et al., 2018) or iPod (Carlile et al., 2013) device. Guidance on selecting schedule formats does not currently exist, although preference assessments have been successfully used to select VAS formats with children in preschool and elementary classrooms (Giles & Markham, 2017; Zimmerman et al., 2019). After selecting the VAS presentation format, SLPs also need to decide how to format icons. Icons can be mobile (e.g., affixed with velcro or adhesive) and removed when the task/activity is complete or stationary (e.g., the schedule does not disassemble). Although explicit guidance on mobility of icon use has not been widely evaluated, student need for mobile icons has varied even within similar routines (e.g., morning routine; Zimmerman et al., 2017; 2019).

***VAS Implementation***

**Instructional Procedure.** Systematic prompting procedures have consistently been demonstrated as the most effective ways to teach VAS use to students (Zimmerman et al., 2017). Graduated guidance procedures have commonly been used with students with developmental disability and students in small instructional arrangements (e.g., game play; Betz et al., 2008). However, recent evaluations of VAS with students without identified disabilities or at-risk for disabilities suggest less-intrusive procedures such as constant time delay are also effective and allow the instructor to move freely away from the student(s) using the schedule without consistent physical prompting (Zimmerman et al., 2017; 2019). In small group arrangements, a less intrusive procedure may be preferred given SLPs are engaging in instruction with multiple students at one time. Physical and gestural prompts overwhelmingly are used more frequently than verbal prompts given the purpose of the VAS often is to deliver information about activities or routines without additional adult guidance (Zimmerman, 2019).

**Interaction System.** Once VAS materials are created, procedures for interacting with the VAS must be established. SLPs must decide how students will be cued to check the schedule, how students will indicate a task or step is complete, and how students will know to return to the schedule between steps/icons. In group instructional formats, the adult delivering instruction may choose to lead the VAS manipulation initially to model how to use the tool. However, the effectiveness of VAS includes student engagement with the tool to increase predictability in activities and routines (Zimmerman et al., 2017). Thus, assigning a student the job of checking the schedule may be preferred. Selecting this student may be strategic and focus on a student likely to engage in challenging behavior during transitions, or it could be distributed among all students in a group. Visual timers, check schedule visual cards, or verbal statements, “check your schedule” are often used to indicate times to engage with the schedule (Zimmerman, 2019). During small group instruction, a simple nonverbal gesture or naturally occurring end of one activity (e.g., clean up or all pieces in a puzzle) may be sufficient to signal students to return to the schedule. If schedule icons are mobile, collecting items in a bag or container to signal “all done” may be the cue to move to the next step. If stationary icons are used, crossing out an icon with a dry erase marker or simply checking an item off a list can cue continuation to the next icon. Regardless of how students interact with the VAS, SLPs must ensure the group instruction is complete when the schedule is complete. Adding additional tasks to the schedule can decrease the effectiveness of the tool as it no longer accurately reflects the plan for the session.

**Progress Monitoring.** Progress monitoring of VAS should include measuring both if students are on-task *and* on-schedule. In other words, student engagement with instruction should be monitored alongside recording if students are engaging in the tasks depicted on the schedule. Collecting information on student engagement in instruction can include evaluating permanent products (e.g., tasks students have completed or created work samples) and/or using momentary time sampling procedures to record student performance every 60 s. SLPs will also want to monitor their own fidelity of implementing VAS procedures as intended. Given VAS are implemented alongside ongoing instruction, any other data collection systems SLPs use (e.g., language samples, trial-based or opportunity-based accuracy recording) should continue.

***Step-by-Step Guide for Implementation***

* Step 1:Plan and create the VAS *before* using with a group
* Step 2:Introduce the purpose for the activity or lesson and review the plan by verbally reviewing the schedule with students.
* Step 3:Engage in the interaction cue with students to have them begin to check the schedule and complete the task on the first icon.
* Step 4:Deliver instruction per evidence-based practices established for speech-language therapy designed to support the populations with whom you work and targeted skills for instruction.
* Step 5:Repeat steps 3-4 until each activity on the VAS has been completed.

***VAS Summary & Recommendations***

Increasing use of VAS as a preventative behavior management strategy will support SLPs in effectively organizing group instruction. If VAS are a new strategy, we recommend starting with an across activity schedule with one icon representing each planned activity of the instructional session. Create a new VAS for each group meeting and monitor student rates of challenging behavior. Simply showing students the plan for instruction may be sufficient to decrease challenging behavior as students can see (a) the tasks they are expected to complete and (b) when the group will end. If you notice challenging behavior is still occurring, consider incorporating student choice to give students some control over either (a) the order of the icons (tasks) or (b) materials or task type in one activity (e.g., selecting a game to play or choosing if they want to voice record, write in a journal, or create a tweet in response to a reading). As SLPs create VAS for a group, patterns in the activity order of types of tasks may emerge. We recommend SLPs consider creating a VAS with the types of tasks rather than the specific tasks so the VAS can be reused every group session, but specific tasks can change. For example, if lessons are typically structured with a warm up, fluency practice, new skill instruction, game play, and free choice, consider creating icons with these labels rather than the specific warm up activity you have planned for the day. Finally, remember to strategically plan and follow through with your procedure for interacting with the schedule so the VAS becomes an environmental support students can reference independently, rather than a visual that cues *you* as the instructor to deliver more task demands. You should find your rates of task directions decreasing as you use VAS and students learn to reference the tool, rather than you, for information about what is next and how many tasks need to be completed in your group instruction.

**Behavior Specific Praise**

Behavior-specific praise (BSP) is a non-intrusive, adult-initiated strategy that increases the positivity of educational environments as well as decreases students’ challenging behaviors (Conroy et al., 2009; Partin et al., 2009). In general, BSP is a simple strategy that involves adults identifying specific behaviors that they want to see in the instructional setting and delivering praise to students for engaging in that behavior. For example, if an SLP notices one of their students sitting quietly and waiting for them to take out the lesson materials, they could say “Esther, thank you so much for sitting quietly and waiting for me to get ready. I really appreciate it!”. In this case, the SLP is praising (*thank you so much*) Esther for exhibiting a specific, desired behavior (*sitting quietly and waiting*). See Table 2 for examples of examples and nonexamples of BSP.

Effective BSP involves adult-initiated statements which communicate to students the specific behaviors that the adult desires students to engage in. The praise statement specifically refers to each situation and highlights the students’ efforts and progress rather than discussing the outcomes or students’ abilities (Conroy et al., 2009). BSP is a positive and preventive effective strategy with a robust evidence-base (Cavanaugh, 2013; Jenkins et al., 2015). Through reinforcing positive behaviors via BSP, SLPs have the opportunity to establish a positive and supportive academic environment, encourage students’ appropriate academic and social behaviors, and decrease the frequency of inappropriate behaviors. SLPs can use BSP across age and grade-level as effective praise statements are unique to each situation and environment (Partin et al., 2009).

BSP is a low-effort strategy that improves (1) following of directions (Goetz et al., 1975), (2) classroom engagement (Broden et al., 1970; Allday et al., 2012), (3) on task behaviors (Sutherland et al., 2000), (4) accurate academic responding (Sutherland & Wehby, 2001), and (5) work accuracy and completion (Alber, Heward, & Hippler, 1999). Additionally, BSP decreases students’ challenging behaviors because effective implementation allows for SLPs to ignore inappropriate behavior in an effort to avoid reinforcing the behavior (Dufrene et al., 2014; Reinke et al., 2008). Effective praise is characterized by specificity, individualization, and immediacy (Conroy et al., 2009), and adults should monitor the effectiveness, quality, and quantity of their praise in order to assess the efficacy of BSP (Sutherland et al., 2010). This low-effort practice decreases challenging behaviors in a variety of contexts and environments, is easily adaptable and individualized for unique situations, and can flexibly be implemented in the context of SLP practice.

High-quality BSP should be contingent on desirable behaviors, specific to those desirable behaviors as well as to the individual student, based on students’ effort, and focus and highlight improvement as opposed to outcomes. SLPs should also ensure that the praise they are delivering is age appropriate and culturally sensitive. Doing so can provide the necessary environmental setting for SLPs to be able to maximize the utility of the speech and language services they deliver. See Table 2 for nonexamples and examples of BSP.

***Step-by-step Guide to Effective Implementation***

In this section, we provide our recommended steps to delivering effective BSP.

* Step 1: Identify a desirable behavior you want your student to exhibit.
* Step 2: Provide a specific statement about the appropriate behavior when you see the student exhibit it.
* Step 3: Individualize each praise statement. This can be followed by an overall praise statement to other students or the group if working with more than one student.
* Step 4: Provide the BSP immediately following the desired behavior.
* Step 5: Consider the frequency of praise you deliver, and make sure that you individualize to the student(s) you are working with.
* Step 6: BSP should be adult-initiated, which allows for you to reinforce positive behavior as well as the explicit desirable behaviors you want to see.
* Step 7: Deliver praise in the context of improvement and effort. Avoid only praising for students achieving academic/learning outcomes.
* Step 8: Make sure your BSP is sincere. While this may seem obvious, you want to be sure that your students believe that you are praising in an earnest, reinforcing manner.
* Step 9: Avoid competition or comparison with other students. All students should have the opportunity to improve and demonstrate effort. Make sure to not pit students against one another, or embarrass a student for not doing “as well” as their peers.

***Strategies for Increasing BSP***

One way SLPs can improve their own delivery of BSP is through self-observation/self-monitoring. First, identify a student or a time of day where you notice higher levels of challenging behavior. Audio-record the sessions during which the challenging behavior is present, then go back and listen to the quality and quantity of the praise provided. We recommend asking yourself these questions:

1. Do I deliver praise?
2. Is the praise too general or is it behavior-specific?
3. If in a group, did every student receive some praise during the session?
4. Is the praise individualized to each student?
5. Is the praise developmentally appropriate?
6. Is the praise delivered immediately following the desired behavior?

After listening to your sessions, choose one or two appropriate behaviors you want to see students exhibit (e.g., waiting your turn to talk, keeping your hands to yourself, staying in your seat). Then, in your next session, practice providing the behavior-specific praise when you see those behaviors in subsequent sessions. One way to increase the chances you see these behaviors is you can explicitly pre-teach these skills. This is an effective way to model and promote appropriate behavior expectations, and it also increases the likelihood you will be delivering positive praise to your students.

In Table 3, we provide an example data sheet for SLPs to self-monitor their own BSP delivery. With this BSP tracker, SLPs can listen to their audio recording and to evaluate their use of BSP as well as have data to identify potential areas for improvement. SLPs can list the date and group/setting of the recording, then code the number of behavior-specific praise statements and the number of non-behavior-specific praise statements (see Table 2 for examples of these). They can then calculate the proportion of praise that was BSP in that session by activities, use this to monitor how frequently they are praising during each activity, and increase their BSP. It is important to note that delivering any praise is a good thing. The purpose of these data is to help increase the proportion of praise that is intentionally linked to positive behaviors.

***BSP Summary & Recommendations***

Behavior specific praise is a low-effort strategy that SLPs can use to promote positive learning environments, and link positive, encouraging statements to appropriate behaviors. If you are new to using explicit, behavior-specific praise, we recommend you start by selecting appropriate learning behaviors that you want to see during service delivery and praise students for that behavior, making a concerted effort to help students make the connection between the praise and the behavior. If you are not seeing the behavior you are looking for, you can begin your lesson by pre-establishing the learning behavior at the beginning of the lesson (see Chow & Gilmour, 2018). For example, you can start your lesson by teaching students that keeping your hands to yourself is a great way to focus on your learning. You can continue by saying that when you see them do this, it makes you really happy and proud. If students are having trouble understanding or you want to ensure you provide explicit directions, you can model for them the behaviors you want to see. Then, during the lesson, deliver immediate praise to students you see keeping their hands to themselves making sure to link it to the behavior by making the praise behavior specific.

We understand that therapy occurs in a variety of settings, with different numbers of students, and with variation in the types of skills students are working on. One of the advantages of BSP is that it does not necessarily have to be content-specific. You can praise students for displaying good behavior without worrying about ensuring the praise aligns with the content of their lesson or skill. BSP is a good way to promote positive behavior, reward it, and develop the conceptual link between the appropriate behavior and positive praise.

**Implementation Scenarios**

The purpose of this section is to illustrate how SLPs can use VAS and BSP in different settings. We encourage readers to consider how these strategies can improve behavior, and as such, increase the amount of effective instructional time as well as improve engagement in the content presented. We also encourage SLPs to recognize the proactive (VAS) and reactive (BSP) nature of each strategy in the context of each example. Given that challenging behavior can get in the way of effective instruction, these examples illustrate ways that SLPs can reduce challenging behavior (and improve academic behavior and engagement during instruction) to ensure that students are accessing the services they need as outlined on their IEPs. As our efforts to improve language are clearly needed, these examples are intended to contextualize VAS and BSP so that SLPs can set the stage for high-quality instruction and spend more time focused on the specific language targets for each student.

***Preschool Literacy Group***

*Miss Rashida supports three preschool students in retelling and sequencing stories after storybook reading. Two students have speech and language impairments and one student has autism and uses a speech generating device (SGD) to communicate. She creates visuals for the storybook to support the students’ engagement with reading, but has difficulty keeping all three students involved. One student has her own token board and Miss Rashida models responding and commenting using the SGD, so she feels like her hands are full while also trying to hold the storybook. She can’t add more things to manipulate, but she is worried the students’ inattention is going to lead to more challenging behaviors.*

**VAS.** Miss Rashida creates a VAS for book reading that is large and stationary, so she doesn’t have to manipulate any more materials. She combines an across activity schedule with a schedule showing opportunities to respond. First, she listed the steps in her lesson: vocabulary review, book reading with embedded questions to complete a graphic organizer, and a game or song with story sequencing. She creates a visual with each step of the lesson using photographs of each step. Then she prints small images of each student’s face and places each student’s image on each of the three VAS images so they can see their opportunities to respond in each part of the lesson. Student photos are mobile so students can remove their photo after they participate in each component of the lesson. The student photos will also serve as a prompt for Miss Rashida to ensure she is providing equitable opportunities for participation across the group. She also increases the likelihood of engagement by placing the students’ photos on the schedule. She decides to use graduated guidance to teach the young students to use the VAS.

**BSP.** Miss Rashida is frustrated when her students stand up and move around the room during her lesson, and when they blurt out responses. She rephrases these as positive behaviors that she wants to improve: staying seated and raising hands to be called on. At the beginning of her lesson, she begins audio recording herself, so that she can reflect on her implementation. During the vocabulary review, she notices that only one of her students is seated, so she praises her by saying “Rose, I really like the way you’re sitting! I can tell you’re paying attention.” Hearing this, the other two students return to their seats, and she individually praises them by name as well. Later, while the group is answering questions about their story, Miss Rashida reminds them to raise their hands. One student immediately complies, so she calls on him, saying “Thank you for raising your hand, Sam!” He beams and continues raising his hand throughout the rest of the lesson. When she listens to the recording of her session, she notes that she provided less behavior-specific praise as the lesson went on, and that she provided more praise to Jack and Sam than she did for Austin. She will be prepared to improve her delivery of BSP during the next session.

***Elementary Individual Service Delivery***

*Ms. Presley is an SLP who delivers pull-out services to students with language impairments across five elementary schools. She delivers language intervention individually to her caseload as she is responsible for the students with the most intensive needs. She has noticed that several of her students regularly seem distracted, uninterested, and have been recently engaging in disruptive behavior, seemingly in an effort to not complete therapy activities. Specifically, one of her students has resorted to pushing materials off the table at the beginning of a lesson whenever she puts them in front of him. This has resulted in her having trouble just beginning her lessons with him, which she feels is really hurting any progress she had planned on him making this year.*

**VAS.** A schedule incorporating choice and opportunities to respond would support this student in understanding how to start a lesson to promote his effort in engaging in therapy. Specifically, a mobile icon vertical picture schedule can be used to show the steps in starting the lesson to highlight for him the components he can choose to increase the likelihood of his continued engagement. Ms. Presley created a 4-step schedule: (1) choose warm up activity, (2) look at instruction, (3) choose 3 questions to answer, and (4) practice game. The first icon included images of the warmup choices and the third icon included 3 question mark symbols for the student to cross out when he had answered a question. Once the three symbols were crossed out, Ms. Presley stopped prompting the student to respond. He could answer the first three questions, answer questions throughout the instruction, or answer the last three questions; the combination of questions did not matter as long as three were answered by the student. The schedule was placed adjacent to the student’s seat at the group table and Ms. Presley chose to use constant time delay with a 5 s terminal delay interval and a gestural pointing prompt to support the student in learning how to use the VAS.

**BSP.** Ms. Presley’s main concern is the student’s tendency to push materials away, and she wants to ensure that doesn’t happen with the VAS. As her student chooses a warm-up activity, she commends him, saying “I like the way you pointed to your choice, I know exactly what you want!” and presenting him with his preferred choice immediately. The student was not as keen to interact with the VAS during the non-preferred activity, but Ms. Presley continues to model it. When they finish the activity after eliciting a third answer, she praises his effort, exclaiming “You did a great job of answering three questions! You kept your work on your desk, you powered through it, and now you’ve earned your reward!” From there, Ms. Presley uses the VAS to introduce the game, and again reinforces his use of the board by saying “Thank you for showing me what comes next. It looks like fun, so let’s get started.”

***High School Small Group Employment and Transition***

*Mr. Ilhan supports four high schoolers with developmental disabilities who spend a majority of their time at a job site that requires the students to engage with customers entering a theme park. All four students receive speech and language therapy to support their social interactions when guests ask them questions, especially how to respond if they don’t know the answers about park operations. Mr. Ilhan sees the group of young adults once a week to support their interactions in the job placement. He notices the young adults often refuse to participate in role playing scenarios during therapy sessions and decides he needs to implement behavior management strategies in his group to increase the students’ participation in and access to his therapeutic services.*

**VAS.** A within activity VAS can be created with the steps to take if a student does not know the answer to a question posed from a park guest. A within activity schedule would be the best type of VAS because students need support with a single activity: answering guest questions. Mr. Ilhan noticed the students consistently failed to answer questions about the locations of rides in the park. He created a digital schedule using the application, *Choiceworks* (Bee Visual, LLC, 2012). He selected a six-step schedule using the app: (1) greet customer, (2) repeat ride name, (3) open park map, (4) search ride location, (5) offer paper map to customer, and (6) tell customer to have a great time. Using the digital app, the icon for step 3 linked to the park map where students have learned to use the search feature to locate attractions. Mr. Ilhan met with the park management and they agreed he could download the application on the park devices used to scan tickets. He met with the students and showed them the new application. Then, he modeled how to use the application and told the students they were going to practice using the schedule. Other park employees agreed to practice using the app with Mr. Ilhan and the students at the park instead of role-playing scenarios occurring at the high school.

**BSP.** Mr. Ilhan hopes that practicing scenarios at the park will improve the students’ compliance, but he is concerned that they will continue to be reluctant to participate in a simulation activity. Mr. Ilhan decides to use behavior-specific praise to reinforce genuine participation, though he knows his students well enough to understand that over-the-top praise may be counterproductive. The first student to try the scenario, Jack, appears self-conscious and doesn’t commit fully to the role-play; he spoke with a flattened affect and broke character to ask a question about the app. Mr. Ilhan provides feedback with the “sandwich method” of praise-critique-praise. He first compliments Jack’s effort by saying “I’m impressed that you volunteered to go first, that was pretty brave of you.” He follows that with short, constructive feedback about the importance of speaking enthusiastically, even in practice scenarios, because practice will carry over for real-life situations. He closes by paying a genuine compliment to the student. “You kept excellent eye contact throughout the scenario, even when you had to glance at the app from time to time, and I know that will help your customers feel good about the interaction.” Mr. Ilhan’s other students paid attention to the praise he gave Jack and were more motivated to put effort into their attempts. By the end of the session, all four students had successfully run through the practice role-play several times each and seemed to enjoy the authentic feel of the scenario.

**Conclusion**

The purpose of this tutorial was to provide SLPs with low-effort behavior management practices that are flexible and adaptable. Given that in-service SLPs report experiencing challenging behavior, we view these practices as supportive, supplemental content for preservice as well. SLPs play a vital role in the outcomes of students receiving services under IDEA. Proactive management strategies can help situate language intervention in positive instructional environments that promote engagement and educational progress.

References

Akers, J. S., Higbee, T. S., Pollard, J. S., Pellegrino, A. J., & Gerencser, K. R. (2016). An evaluation of photographic activity schedules to increase independent playground skills in young children with autism. *Journal of Applied Behavior Analysis*, *49*(4), 954-959.

Alber, S. R., Heward, W. L., & Hippler, B. J. (1999). Teaching middle school students with learning disabilities to recruit positive teacher attention. *Exceptional Children*, *65*(2), 253-270.

Allday, R. A., Hinkson-Lee, K., Hudson, T., Neilsen-Gatti, S., Kleinke, A., & Russel, C. S. (2012). Training general educators to increase behavior-specific praise: Effects on students with EBD. *Behavioral Disorders*, *37*(2), 87-98.

Banda, D. R., & Grimmett, E. (2008). Enhancing social and transition behaviors of persons with autism through activity schedules: A review. *Education and Training in Developmental Disabilities*, *43*(3), 324-333.

Benner, G. J., Nelson, J. R., & Epstein, M. H. (2002). Language skills of children with EBD: A literature review. *Journal of Emotional and Behavioral Disorders, 10,* 43–56.

Bennett, K., Reichow, B., & Wolery, M. (2011). Effects of structured teaching on the behavior of young children with disabilities. *Focus on Autism and Other Developmental Disabilities*, *26*(3), 143-152.

Betz, A., Higbee, T. S., & Reagon, K. A. (2008). Using joint activity schedules to promote peer engagement in preschoolers with autism. *Journal of Applied Behavior Analysis*, *41*(2), 237-241.

Blair, K. C., Umbreit, J., Dunlap, G., & Jung, K. (2007). Promoting inclusion and peer participation through assessment-based intervention. *Topics in Early Childhood Special Education, 27*, 134–147.

Bopp, K. D., Brown, K. E., & Mirenda, P. (2004). Speech-language pathologists’ roles in the delivery of positive behavior support for individuals with developmental disabilities. *American Journal of Speech-Language Pathology*, *13*(1), 5-19.

Broden, M., Bruce, C., Mitchell, M. A., Carter, V., & Hall, R. V. (1970). Effects of teacher attention on attending behavior of two boys at adjacent desks. *Journal of Applied Behavior Analysis*, *3*(3), 205-211.

Brodhead, M. T., Courtney, W. T., & Thaxton, J. R. (2018). Using activity schedules to promote varied application use in children with autism. *Journal of Applied Behavior Analysis*, *51*(1), 80-86.

Bryan, L. C., & Gast, D. L. (2000). Teaching on-task and on-schedule behaviors to high-functioning children with autism via picture activity schedules. *Journal of Autism and Developmental Disorders*, *30*(6), 553-567.

Bulotsky-Shearer, R. J., Bell, E. R., Romero, S. L., & Carter, T. M. (2012). Preschool interactive

peer play mediates problem behavior and learning for low-income children. *Journal of Applied Developmental Psychology, 33*, 53–65.

Carlile, K. A., Reeve, S. A., Reeve, K. F., & DeBar, R. M. (2013). Using activity schedules on the iPod touch to teach leisure skills to children with autism. *Education and Treatment of Children*, *36*(2), 33-57.

Cavanaugh, B. (2013). Performance feedback and teachers' use of praise and opportunities to respond: A review of the literature. *Education and Treatment of Children*, 111-137.

Chow, J. C. (2018). Comorbid language and behavior problems: Development, frameworks, and intervention. *School Psychology Quarterly, 33,* 356–360.

Chow, J. C., Cunningham, J. E., & Wallace, E. S. (2020). Interaction-centered model for language and behavioral development. In T. Farmer, B. Farmer, K. Sutherland, & M. Conroy (Eds), *Handbook of Research on Emotional & Behavioral Disabilities: Interdisciplinary Developmental Perspectives on Children and Youth.* New York, NY: Routledge.

Chow, J. C., Ekholm, E., Coleman, H. (2018). Does oral language underpin the development of later behavior problems? A longitudinal meta-analysis. *School Psychology Quarterly, 33,* 337–349.

Chow, J. C., & Gilmour, A. F. (2018). Designing and Implementing Group Contingencies in the Classroom: A Teacher’s Guide. *TEACHING Exceptional Children*, *50*(4), 213-219.

Chow, J. C., & Hollo, A. (2018). Language ability of students with emotional disturbance: Discrepancies between teacher ratings and direct assessment. *Assessment for Effective Intervention, 43,* 90–95.

Chow, J. C., & Wallace, E. S. (2019). Speech-language pathologists’ behavior management training and reported experiences with challenging behavior. *Communication Disorders Quarterly*. <https://doi.org/10.1177/1525740119887914>

Chow, J. C., Walters, S., & Hollo, A. (2020). Supporting students with co-occurring language and behavioral deficits in the classroom. *TEACHING Exceptional Children*, *52*(4), 222-230.

Chow, J. C., & Wehby, J. H. (2018). Associations between language and problem behavior: A

systematic review and correlational meta-analysis. *Educational Psychology Review*,

*30*(1), 61-82.

Chow, J. C., & Wehby, J. H. (2019). Profiles of problem behavior in children with varying

language ability. *Journal of Emotional and Behavioral Disorders, 27,* 110–118.

Conroy, M. A., Dunlap, G., Clarke, S., & Alter, P. J. (2005). A descriptive analysis of positive

behavioral intervention research with younger children with challenging behavior. *Topics*

*in Early Childhood Special Education, 25*, 157–166

Conroy, M., Sutherland, K., Haydon, T., Stormont, M., & Harmon, J. (2009). Preventing and ameliorating young children's chronic problem behaviors: An ecological classroom‐based approach. *Psychology in the Schools*, *46*(1), 3-17.

Crick, N. R., Ostrov, J. M., & Werner, N. E. (2006). A longitudinal study of relational aggression, physical aggression, and children's social–psychological adjustment. *Journal of Abnormal Child Psychology*, *34*(2), 131-142.

Curtis, P. R., Frey, J. R., Watson, C. D., Hampton, L. H., Roberts, M. Y. (2018). Language disorders and problem behaviors: A meta-analysis. *Pediatrics, 142*(2). https://doi.org/10.1542/peds.2017-3551

Donaldson, A. L., & Stahmer, A. C. (2014). Team collaboration: The use of behavior principles for serving students with ASD. *Language, Speech, and Hearing Services in Schools*, *45*(4), 261-276.

Dufrene, B. A., Lestremau, L., & Zoder‐Martell, K. (2014). Direct behavioral consultation: effects on teacher’s praise and student disruptive behavior. *Psychology in the Schools*, *51*(6), 567-580.

Dunlap, G., Iovannone, R., Wilson, K. J., Kincaid, D. K., & Strain, P. (2010). Prevent-Teach-Reinforce: A standardized model of school-based behavioral intervention. *Journal of Positive Behavior Interventions*, *12*(1), 9-22.

Ennis, R. P., Lane, K. L., & Oakes, W. P. (2018). Empowering teachers with low-intensity strategies to support instruction: Within-activity choices in third-grade math with null effects. *Remedial and Special Education*, *39*(2), 77-94.

Flower, A., McKenna, J. W., & Haring, C. D. (2017). Behavior and classroom management: Are teacher preparation programs really preparing our teachers? *Preventing School Failure: Alternative Education for Children and Youth, 61,* 163–169.

Ganz, J. B. (2007). Classroom structuring methods and strategies for children and youth with autism spectrum disorders. *Exceptionality*, *15*(4), 249-260.

Giles, A., & Markham, V. (2017). Comparing book-and tablet-based picture activity schedules: Acquisition and preference. *Behavior Modification*, *41*(5), 647-664.

Goetz, E. M., Holmberg, M. C., & LeBlanc, J. M. (1975). Differential reinforcement of other behavior and noncontingent reinforcement as control procedures during the modification of a preschooler’s compliance. *Journal of Applied Behavior Analysis*, *8*(1), 77-82.

Greenberg, J., Putman, H., & Walsh, K. (2014). Training our future teachers: Classroom management. Revised. *National Council on Teacher Quality*.

Hollo, A., Chow, J. C., & Wehby, J. H. (2018). Profiles of language and behavior in students with emotional disturbance. *Behavioral Disorders, 44,* 195–204.

Hollo, A., Wehby, J. H., & Oliver, R. M. (2014). Unidentified language deficits in children with emotional and behavioral disorders: A meta-analysis. *Exceptional Children, 80,* 169–186.

Hulme, C., Nash, H. M., Gooch, D., Lervåg, A., & Snowling, M. J. (2015). The foundations of literacy development in children at familial risk of dyslexia. *Psychological Science*, *26*(12), 1877-1886.

The Individuals with Disabilities Education Act (IDEA) (2004). 20 USC §1400.

Jenkins, L. N., Floress, M. T., & Reinke, W. (2015). Rates and types of teacher praise: A review and future directions. *Psychology in the Schools*, *52*(5), 463-476.

Johnson, C. J., Beitchman, J. H., & Brownlie, E. B. (2010). Twenty-year follow-up of children with and without speech-language impairments: Family, educational, occupational, and quality of life outcomes. *American Journal of Speech-Language Pathology*, 19, 51-65.

Keller-Bell, Y., & Short, M. (2019). Positive behavioral interventions and supports in schools: A tutorial. *Language, Speech, and Hearing Services in Schools*, *50*(1), 1-15.

Kern, L., Claire, M. C., & Sokol, N. G. (2002). Assessment-based antecedent interventions used in natural settings to reduce challenging behavior: An analysis of the literature. *Education & Treatment of Children, 25*(1), 113-131.

Knight, V., Sartini, E., & Spriggs, A. D. (2015). Evaluating visual activity schedules as evidence-based practice for individuals with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, *45*(1), 157-178.

Koyama, T., & Wang, H. T. (2011). Use of activity schedule to promote independent performance of individuals with autism and other intellectual disabilities: A review. *Research in Developmental Disabilities*, *32*(6), 2235-2242.

Lane, K. L., Barton-Arwood, S. M., Spencer, J. L., & Kalberg, J. R. (2007). Teaching elementary school educators to design, implement, and evaluate functional assessment-based interventions: Successes and challenges. *Preventing School Failure: Alternative Education for Children and Youth*, *51*(4), 35-46.

Lequia, J., Machalicek, W., & Rispoli, M. J. (2012). Effects of activity schedules on challenging behavior exhibited in children with autism spectrum disorders: A systematic review. *Research in Autism Spectrum Disorders*, *6*(1), 480-492.

Lequia, J., Wilkerson, K. L., Kim, S., & Lyons, G. L. (2015). Improving transition behaviors in students with autism spectrum disorders: A comprehensive evaluation of interventions in educational settings. *Journal of Positive Behavior Interventions*, *17*(3), 146-158.

Messenger, M., Common, E. A., Lane, K. L., Oakes, W. P., Menzies, H. M., Cantwell, E. D., & Ennis, R. P. (2017). Increasing OTRs for students with internalizing behaviors: The utility of choral and mixed responding. *Behavioral Disorders, 42,* 170-184.

Moore, T. C., Wehby, J. H., Oliver, R. M., Chow, J. C., Gordon, J. R., & Mahany, L. A. (2017). Teachers’ reported knowledge and implementation of research-based classroom and behavior management strategies. *Remedial and Special Education, 38,* 222–232.

Norbury, C. F., Vamvakas, G., Gooch, D., Baird, G., Charman, T., Simonoff, E., & Pickles, A. (2017). Language growth in children with heterogeneous language disorders: A population study. *Journal of Child Psychology and Psychiatry, 58,* 1092–1105.

Oliver, R. M., & Reschly, D. J. (2010). Special education teacher preparation in classroom management: Implications for students with emotional and behavioral disorders. *Behavioral Disorders, 35,* 188–199.

Partin, T. C. M., Robertson, R. E., Maggin, D. M., Oliver, R. M., & Wehby, J. H. (2009). Using teacher praise and opportunities to respond to promote appropriate student behavior. *Preventing School Failure*, *54*(3), 172-178.

Pickles, A., Durkin, K., Mok, P. L., Toseeb, U., & Conti-Ramsden, G. (2016). Conduct problems co-occur with hyperactivity in children with language impairment: A longitudinal study from childhood to adolescence. *Autism & Developmental Language Impairments, 1,* 1–11.

Qi, C. H., Kaiser, A. P., & Milan, S. (2006). Children's behavior during teacher-directed and child-directed activities in head start. *Journal of Early Intervention*, *28*(2), 97-110.

Raver, S. A., Hester, P., Michalek, A. M., Cho, D., & Anthony, N. (2013). Impact of an activity mini-schedule on the inattention of preschoolers with cochlear implants during a group activity. *Education and Treatment of Children*, *36*(2), 15-32.

Reinke, W. M., Lewis-Palmer, T., & Merrell, K. (2008). The classroom check-up: A classwide teacher consultation model for increasing praise and decreasing disruptive behavior. *School Psychology Review*, *37*(3), 315-332.

Rescorla, L., Ross, G. S., & McClure, S. (2007). Language delay and behavioral/emotional problems in toddlers: Findings from two developmental clinics. *Journal of Speech, Language, and Hearing Research*, *50*(4), 1063-1078.

Rispoli, M., Neely, L., Lang, R., & Ganz, J. (2011). Training paraprofessionals to implement interventions for people autism spectrum disorders: A systematic review. *Developmental Neurorehabilitation*, *14*(6), 378-388.

Roben, C. K., Cole, P. M., & Armstrong, L. M. (2013). Longitudinal relations among language skills, anger expression, and regulatory strategies in early childhood. *Child Development*, *84*(3), 891-905.

Simonsen, B., Fairbanks, S., Briesch, A., Myers, D., & Sugai, G. (2008). Evidence-based practices in classroom management: Considerations for research to practice. *Education and Treatment of Children*, 351-380.

Simonsen, B., & Myers, D. (2014). *Classwide positive behavior interventions and supports: A guide to proactive classroom management*. Guilford Publications.

Scalzo, R., Davis, T. N., Weston, R., Dukes, E., Leeper, D., Min, N., ... & Weber, A. (2017). Effects of Activity Schedules on Challenging Behavior for Children with Autism. *Journal of the American Academy of Special Education Professionals*, *95*, 112.

Sugai, G., & Horner, R. H. (2002). The evolution of discipline practices: School-wide positive behavior supports. *Child and Family Behavior Therapy, 24*, 23-5

Sutherland, K. S., Conroy, M., Abrams, L., & Vo, A. (2010). Improving interactions between teachers and young children with problem behavior: A strengths-based approach. *Exceptionality*, *18*(2), 70-81.

Sutherland, K. S., & Wehby, J. H. (2001). Exploring the relationship between increased opportunities to respond to academic requests and the academic and behavioral outcomes of students with EBD: A review. *Remedial and Special Education*, *22*(2), 113-121.

Sutherland, K. S., Wehby, J. H., & Copeland, S. R. (2000). Effect of varying rates of behavior-specific praise on the on-task behavior of students with EBD. *Journal of Emotional and Behavioral Disorders*, *8*(1), 2-8.

Tomblin, J. B., Records, N. L., Buckwalter, P., Zhang, X., Smith, E., & O’Brien, M. (1997). Prevalence of specific language impairment in kindergarten children. *Journal of Speech, Language, and Hearing Research, 40,* 1245–1260.

Vitiello, V. & Williford, A. P. (2016). Relations between social skills and language and literacy

outcomes among disruptive preschoolers: Task engagement as a mediator. *Early*

*Childhood Research Quarterly, 36*, 136-144.

Warren, T., Cagliani, R. R., Whiteside, E., & Ayres, K. M. (2019). Effect of task sequence and preference on on-task behavior. *Journal of Behavioral Education*, 1-18.

Watson, K. J., & DiCarlo, C. F. (2016). Increasing completion of classroom routines through the use of picture activity schedules. *Early Childhood Education Journal*, *44*(2), 89-96.

Yew, S. G. K., & O’Kearney, R. (2013). Emotional and behavioural outcomes later in childhood and adolescence for children with specific language impairments: Meta-analyses of controlled prospective studies. *Journal of Child Psychology and Psychiatry, 54,* 516–524.

Zimmerman, K. N. (2019, October). *Designing visual supports to enhance student engagement.* Paper presented at the Teacher Educators for Children with Behavioral Disorders (TECBD) Conference. Tempe, AZ.

Zimmerman, K. N., Ledford, J. R., & Barton, E. E. (2017). Using visual activity schedules for

young children with challenging behavior. *Journal of Early Intervention, 39*, 339-358.

Zimmerman, K. N.,Ledford, J. R., Gagnon, K. L., & Martin, J. L. (2019). The effectiveness of social stories and visual supports interventions for students at-risk for emotional and behavioral disorders. *Behavioral Disorders. Advanced online publication.*  doi: 0198742919874050.