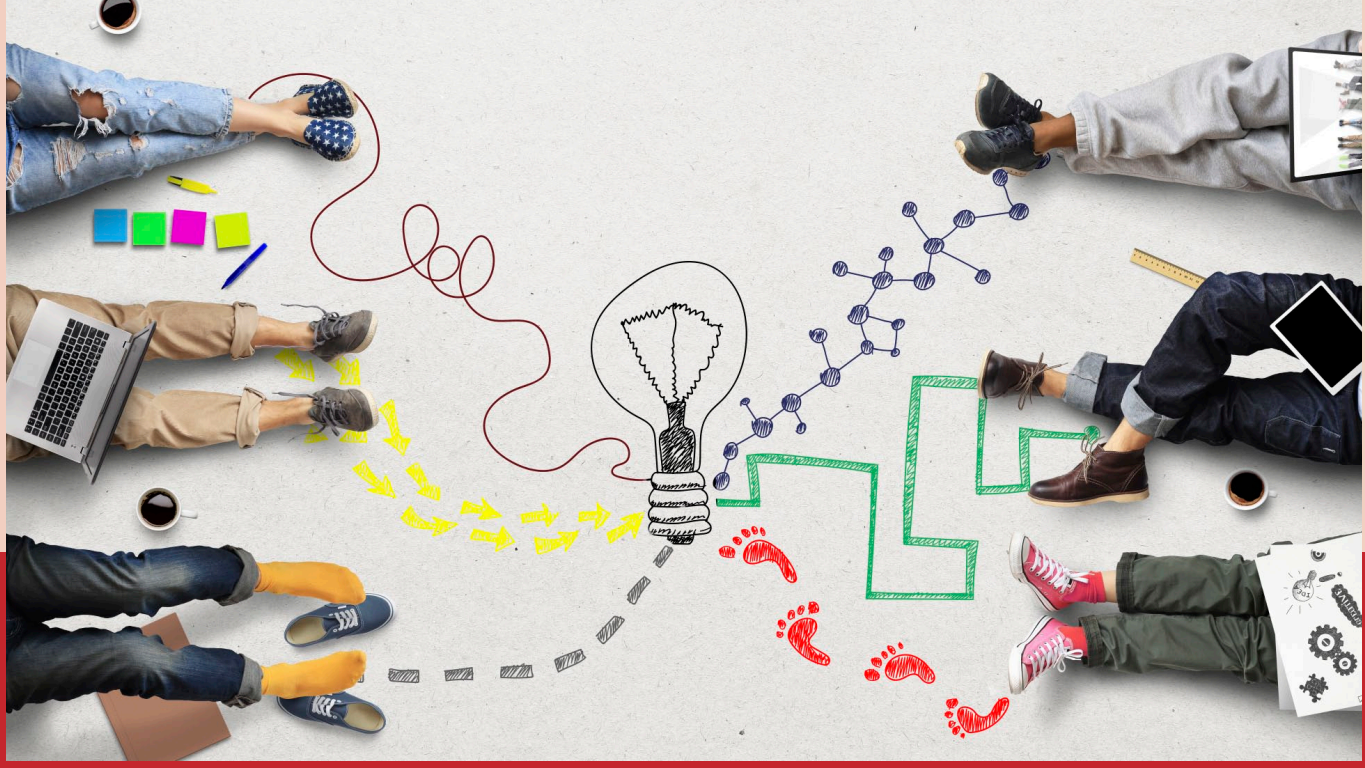

How to Establish a Language-Rich Environment Through a Collaborative SLP–Teacher Partnership

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Language development is of significant importance to policy makers, teachers, and professionals, as language skills are essential for students' abilities to navigate their environment, form relationships, and experience academic, social, and emotional success (Chow & Wehby, 2018; Dickinson et al., 2010; Law et al., 2000; Yew & O'Kearney, 2013). The need for high-quality language-learning environments in the classroom is clear. Students with higher language abilities experience greater academic success than their peers with lower language abilities (Nippold, 2016). Additionally, language is a foundational component to students' daily living and overall success (Chow & Wehby, 2018; Yew & O'Kearney, 2015). As shown through district, state, and national educational boards' expectations as well as national governing laws (e.g., Every Student Succeeds Act, 2014; No Child Left Behind Act of 2001, 2002), it is teachers' responsibilities to ensure all students in their class succeed (Dickinson & Tabors, 2001). However, some teachers begin their careers in the classroom with minimal knowledge or experience on how to create rich language learning environments and use language-supportive strategies in the classroom (Cunningham et al., 2009). This discrepancy highlights the importance and need for collaboration between speech-language pathologists (SLPs) and teachers.

An effective collaborative partnership can benefit teachers (i.e., special and general education) by providing a high-quality language-learning environment that increases the potential for students to experience academic, social, and behavioral success (Da Fonte & Barton-Arwood, 2017; Mashburn et al., 2008). Establishing and maintaining a collaborative partnership does not come with ease. An effective collaborative partnership takes time to develop and effort to maintain due to persistent systemic barriers within school systems (Hamilton-Jones & Vail, 2014). In a study conducted by Farber and Klein (1999), SLPs and teachers reported excitement toward developing collaborative relationships but also noted barriers hindering their ability to collaborate. The unfortunate reality in many schools is that there are numerous systemic barriers to collaboration, which include lack of time, limited communication, differences in training, knowledge of language development, location, and formal support (Archibald, 2017; Ehren, 2000; Hartas, 2004).

Although such a long list of barriers may make collaboration appear daunting, it is essential to remember the importance of a high-quality language-learning environment. A professional team may be able to prevent or overcome barriers that impact the effectiveness of the collaborative relationship. SLPs have expertise in language-supportive strategies that may improve the communication and literacy outcomes for all students, not only those with language disorders or other learning disabilities. Meanwhile, teachers are the experts of facilitating learning; they may have a much better understanding of their own students, how to motivate them, and what curricular and extracurricular needs these students may have. By working together, these teachers and SLPs can greatly increase the positive effects of their practices for students than if they work separately.

In this article, we provide teachers with guidelines on how to establish a successful interdisciplinary collaborative relationship with SLPs. We outline the necessary steps and characteristics of an interdisciplinary partnership and educate teachers on how to support children with language disorders in the classroom. We aim to model how an interdisciplinary partnership between a teacher and SLP helps create a language-rich environment in the classroom and enhances the likelihood of academic, emotional, social, and behavioral success among students with language disorders.

Mr. Wiley, a new third-grade teacher, felt defeated. It was the end of the first 9 weeks of his second year teaching, and he worried about one of his students, named Lane. Lane struggled to achieve above a C average in all subject areas despite her desire to succeed. Mr. Wiley understood that sometimes students may not achieve As or Bs, but this situation felt different. Mr. Wiley could tell something stood in Lane's way of achieving academic, social, and behavioral success. After reviewing Lane's grades, Mr. Wiley left school feeling puzzled. He kept asking himself how could he better support Lane and how he could help her achieve the success she deserved.

Begin With Yourself

Whether you call it self-reflection, reflective practice, or self-assessment, the process of understanding the needs of a student who is not making adequate growth begins with you. This process is a crucial examination of the current classroom climate as well as routines with the goal of separating out what is working from what is not. Extensive research connects teachers' use of self-reflection with both academic and behavioral outcomes for students (Allinder et al., 2000; Rispoli et al., 2017). Self-reflection alone does not lead to student success. Rather, success is achieved through pairing reflection with the knowledge of effective teaching practices, and collaboration can help establish the knowledge of effective teaching practices. The success of a collaborative relationship between a teacher and SLP remains dependent upon their ability and willingness to self-reflect. With teachers and SLPs who are willing to begin this process of self-reflection, there is a greater likelihood that their students will achieve higher levels of success.

Mr. Wiley decided to make a list of Lane's strengths and challenges and noted that she always put forth her best effort, she was kind, and she excelled in art. However, Lane also showed difficulty making and maintaining friends, did not regularly participate in class, struggled to follow multistep directions, and did not ask for help. Using the same reflective

An effective collaborative partnership can benefit teachers (i.e., special and general education) by providing a high-quality language-learning environment.

spirit, Mr. Wiley thought about his own abilities, including the quality of his instruction, use of evidence-based strategies, and rapport with students. Always a learner, Mr. Wiley sought the advice of a trusted colleague and veteran teacher who offered advice that Mr. Wiley had not expected: She suggested that he reach out to the school's SLP, Mr. Hart. To the veteran teacher, Lane's characteristics aligned with a student who may be experiencing language disorders. Mr. Wiley sent an email the following day and took the first step in establishing an interdisciplinary collaborative partnership.

Establishing Collaborative SLP–Teacher Partnerships

SLPs and teachers bring different but complementary skills into schools. When they combine their unique expertise to work together, they may see remarkable improvements in the success of their students (Archibald, 2017). There is minimal training for teachers and SLPs on how to establish and maintain an effective collaborative partnership despite the literature showing the benefits for students (Frazier, 2019; Heisler & Thousand, 2019; Nevin et al., 2008). Thus, we follow Watts and colleagues' (1994) four core characteristics to establish a fruitful SLP–teacher collaborative partnership: (a) cooperation, where two or more individuals work together on a joint task; (b) coordination, where two or more individuals adjust their perspectives, opinions, or work habits to ensure higher-quality teamwork; (c) cross-fertilization, where efforts are made to encourage the exchange of knowledge and skills; and (d) integration, or removal of boundaries between the two parties (Watts et al., 1994). ***Table 1*** provides definitions the characteristics and common barriers that may occur at each stage. Additionally, we further review the four characteristics in detail and provide strategies to overcome potential barriers. By striving to incorporate these core characteristics, SLPs and teachers will be able to experience a healthy and productive collaboration beneficial for themselves and their students.

Cooperation

Mr. Hart and Mr. Wiley met after school one day and discussed Lane's strengths and weaknesses. During the meeting, they discussed Lane's classroom behavior, including her lack of engagement, difficulty making friends, and inability to seek out help. Mr. Hart described to Mr. Wiley how Lane's current behaviors may be associated with a language disorder. Mr. Hart elaborated on the signs of a language disorder and how language and behavior are associated. From this initial meeting, the two professionals decided to form an interdisciplinary collaborative relationship. Both individuals believed that by working together, they could ensure that Lane received the most effective and appropriate interventions to improve her language skills. They also discussed each other's roles and responsibilities and the unique and significant professional characteristics they brought to the relationship.

One person may be able to carry the burden of a team project, but in doing so, they would lose the benefits of an effective partnership. Collaboration, distinct from working in close proximity, is a voluntary partnership between equals (L. Cook & Friend, 1991). This hypothetical teacher would miss out on the wealth of interdisciplinary knowledge that comes from working with colleagues with different skill sets, and they would be left doing the work of several people. The first step to an effective relationship occurs when two individuals decide to collaborate on a joint task. The voluntary nature of collaboration is a defining characteristic; without investment from each partner, working together is less likely to reach a successful outcome.

Sometimes, interdisciplinary partnerships can be difficult. Constraints of time and distance may make cooperation more difficult, and it has become increasingly essential for collaborators to find ways to connect when they are not in the same place or following the same schedule. Online tools involve different modalities than traditional means of working together as well as different approaches and dynamics, and they present their own benefits and challenges; however, online collaboration should be seen as an "evolution of a tradition" rather than a radical departure from our previous understanding of a collaborative partnership (Hammond, 2017). When implemented correctly, online tools can mitigate some of the key constraints preventing effective partnerships.

Coordination

Collaborative partners benefit from diverse skill sets, but they may also have different personalities and characteristics. An effective partnership will ensure that they are on the same page from the start. The second foundational component of successful collaborative partnerships involves finding a common ground through understanding each other's roles and responsibilities and adjusting work habits, perspectives, and opinions to achieve a high-quality partnership.

As a teacher, Mr. Wiley understood classroom and behavior management, knew Lane's abilities and mannerisms, and established rapport with Lane. Mr. Hart knew signs of language disorders, appropriate interventions, and the importance of language-supportive strategies in the classroom. With their professional strengths in mind, Mr. Hart and Mr. Wiley created a plan to help Lane. They decided Mr. Hart would come into Mr. Wiley's classroom and observe him and Lane. Upon this decision, they discussed whether or not Mr. Wiley was comfortable with Mr. Hart observing his lesson. This was an important step in their collaborative relationship as it allowed them to show their respect for one another. Mr. Hart showed his respect for Mr. Wiley and his classroom by holding a conversation and asking his permission. Mr. Wiley showed his respect through accepting Mr. Hart's offer to observe his lesson despite his anxiety around being observed.

Teachers may feel a sense of ownership over the classroom but should remember that it can be useful to open up the classroom for collaborative ventures. However, collaborative partners respect their collaborating teachers' ownership of the classroom and

SLPs and teachers bring different but complementary skills into schools.

Table 1 **Characteristics and Barriers of Collaboration**

Characteristic	*Definition*	*Barriers*
Cooperation	Individuals working together on a joint task	• Lack of time, limited communication • Professional hierarchies, lack of equality, existence of professional or social boundaries • Lack of interdisciplinary culture, lack of formal supports, differences in training and knowledge • Restrictions of setting/location, curriculum
Coordination	Individuals adjusting their perspectives, opinions, work habits	• Limited communication • Professional or social hierarchies, lack of equality, lack of interdisciplinary culture
Cross-fertilization	Individuals exchanging knowledge and skills	• Professional hierarchies, lack of equality, • Differences in training and service framework, curriculum, and understanding of language development
Integration	Individuals removing boundaries between the themselves	• Lack of time • Existence of professional boundaries, lack of interdisciplinary culture, lack of formal support systems

Note. This table references Watts and colleagues' (1994) description of collaboration.

ask for permission before coming into their classroom to conduct an observation. Because collaboration is such an essential component for the success of students, it is imperative for both professionals to compromise, adjust their perspective and work habits, and respect one another (Da Fonte & Barton-Arwood, 2017; Hartas, 2004).

To achieve and maintain a lasting collaborative partnership, it is important for both professionals to share their expertise and knowledge (Watts et al., 1994). By sharing knowledge and skills with their partner and showing respect, collaborators are eliminating the barriers of hierarchy and inequality (Hartas, 2004; Watts et al., 1994). When professionals show respect and exchange information, they both learn and come out with novel knowledge and information to better support their students.

Cross-Fertilization

The third characteristic of an effective collaborative partnership is cross-fertilization, in which both professionals are open and willing to share their expertise, skills, and knowledge (Watts et al., 1994). SLPs and teachers may both work in a school setting, but there are significant and meaningful differences in the paths they take to get there. Teacher preparation programs typically provide training in both how to teach and what to teach. Meanwhile, SLPs' training is typically not centered exclusively on school-based practice. Rather, it provides broader clinical skills necessary to serve a variety of populations and disorders, ranging from premature infants' swallowing skills to the communication impairments of elderly stroke patients. This is not to say that SLPs are unqualified to serve students; their state licensure and professional accreditation depend upon demonstrated mastery of the assessment and treatment of childhood disorders. The difference in training between teachers and SLPs means that many of the latter enter the workforce without crucial skills for working with children within the school setting. For instance, SLPs rarely receive explicit instruction in behavior management (Chow & Wallace, 2019). In a collaborative partnership, they may bring other skills to the table, including their extensive training in language development and interventions. When their skills and areas of expertise cross-fertilize, collaborators are able to learn from each other and improve their own craft. Cross-fertilization allows a partnership to grow from consultative in nature to cooperative (Hartas, 2004).

In their plan to maintain a collaborative relationship, Mr. Hart and Mr. Wiley decided to meet weekly, whether in person or over videoconferencing. This weekly meeting allowed them to maintain their interdisciplinary collaborative relationship and remain up-to-date on Lane's goals. After Mr. Hart observed Mr. Wiley's classroom lessons, the two professionals met and discussed Mr. Hart's observations. Mr. Hart informed Mr. Wiley that throughout his lesson he rarely used language-supportive strategies. A confused Mr. Wiley did not recall learning about language-supportive strategies during his preservice program and expressed to Mr. Hart his concerns about his limited knowledge in language disorders and the use of language-supportive strategies.

Integration

After finding unity in their purpose, logistics, and individual roles, the final step to developing and maintaining a collaborative partnership is to remove boundaries, known as integration (Watts et al., 1994). One way for SLPs and teachers to integrate is through the use of push-in therapy as this removes the boundaries of time, hierarchy, and curriculum (Heisler & Thousand, 2019). General education teachers, special education teachers, and SLPs do not follow the same schedule, nor do they implement the same curriculum. SLPs serve the entire elementary school, indicating that they are not available

during teachers' planning periods to meet. Through the use of push-in therapy, SLPs and teachers find a common time that allows them to collaborate and exchange knowledge. For example, during push-in therapy, SLPs can model the use of language-supportive strategies for general and special education teachers. In addition, push-in therapy allows for teachers to inform SLPs on their curriculum, including the new vocabulary terms that the students will learn through the lessons. During pullout therapy, the SLP can then target these same vocabulary terms, which allows for further practice, generalization, and carryover of these terms.

Later in the article we explain the components and benefits of push-in therapy and how it closes the circle on establishing effective partnerships between teachers and SLPs. In this next section, we explain the signs and characteristics of a language disorder. Preservice programs provide minimal content on language disorders and how to support these students in the classroom despite their reporting an interest in further understanding language disorders and working with SLPs (Archibald, 2017). Thus, we provide the foundation for what a language disorder may look like in the classroom to allow educators to understand the value behind collaborating with an SLP and implementing language-supportive strategies.

Understanding Language Disorders

Mr. Hart described to Mr. Wiley the three main areas of language disorders in school-age students. He reviewed with Mr. Wiley the importance of students' morphological, syntactical, and phonological abilities and their influence on students' overall academic success. After their discussion about common areas of language disorders, Mr. Wiley felt like he understood the fundamental concepts of these three domains of language.

Age-appropriate language skills allow students to engage in their environments, form relationships, and experience success in reading and writing (Durkin & Conti-Ramsden, 2010; Yew & O'Kearney, 2013). The inability to effectively communicate is one of the most common developmental problems in children, with 7% of school-age children presenting with language disorders (Bryan et al., 2015; Tomblin et al., 2000). In addition, students with language disorders are 6 times more likely than their peers with typically developing language to have a reading impairment (Adlof & Hogan, 2019; Stoeckel et al., 2013). To experience success in reading, students need to have skills in decoding and language comprehension (Adlof & Hogan, 2019). Furthermore, by third grade, students' reading level is dependent upon their oral language ability (Adlof & Hogan, 2019). Students' reading ability during elementary school is influenced by their morphology, syntax, phonology, semantics, and pragmatics.

Unfortunately, it is common for students to have disorders in morphology, syntax, and phonology, as they affect the largest subgroup of students with language disorders (Haskill & Tyler, 2007; Howland et al., 2019). Morphology is associated with students' vocabulary ability, suggesting students who experience disorders in morphology will also encounter difficulty comprehending and using age-appropriate vocabulary (Prince, 2009). Additionally, phonology is associated with deficits in combining sounds, thus potentially leading to a higher probability for deficits in reading (Nippold, 2016). Teachers should look for the following characteristics: difficulty elaborately explaining scenarios or events; use of shorter, less grammatically complex sentences; difficulty with agreement and tense; limited variation in vocabulary; and deficits in reading and writing (Hay & Moran, 2005). It is imperative for the field to address students' language abilities to set students up for future academic success. According to Adlof and Hogan (2019), we need to foster students' language comprehension, which will support their future oral language development, which influences their success in reading. Additionally, although pragmatic deficits are often associated with children on the autism spectrum, they are also common in children with language disorders. Difficulties in pragmatics often affect social interactions and "linguistic pragmatics," which involve narrative skills, including the interpretation of ambiguous sentences, expressions (e.g., figures of speech), or internal states (e.g., the emotions of a character; Norbury et al., 2004). In this article, we aim to inform teachers on the domain in which students experience language disorders and how language disorders may impact their students overall academic success. ***Table 2*** presents definitions and examples of morphological, syntactical, phonological, semantic, and pragmatic abilities.

Mr. Wiley still felt uncertain as to how to support students who experienced disorders in their morphology, syntax, or phonology. He expressed his concerns to Mr. Hart. Mr. Hart discussed tips on how to create a language-rich environment in the classroom to maximize students' language ability. He dove into four evidence-based language-supportive strategies that can be easily implemented: modeling, expansion, wh- *questions, and scaffolding.*

Language-Supportive Strategies

Teachers' use of language-supportive strategies promotes a language-rich environment that supports students who may have language disorders. Literature provides support behind teachers' use of the following four strategies: (a) modeling, (b) expansion (c) *wh-* questions, and (d) scaffolding. These four strategies can be easily incorporated into teachers' everyday use to help establish a rich language-learning environment aimed at maximizing students' language growth and abilities. It is imperative teachers establish a collaborative partnership with SLPs to gain the knowledge and skills needed to implement language-supportive strategies, especially for those teachers who have minimal knowledge or experience on how to create high-quality language-learning environments. Modeling, expansion, *wh-* questions, and scaffolding are evidence-based strategies that support and improve students' language ability (Justice et al., 2018; Pentimonti et al., 2017). ***Table 3*** provides definitions and examples of language-supportive strategies. The examples show an exchange between teacher and student. A teacher–SLP collaborative partnership may help teachers increase their use of language-supportive strategies through exchanges of knowledge and push-in therapy. Furthermore, suggesting

Table 2 **Language Domains and Examples**

Domain	*Definition*	*Sample errors*
Morphology	The structure of words and how they are formed (Nippold, 2016); a student's acquisition of inflectional (singular to plural *s*, present to past tense, and possessive) and derivational morphemes (suffixes and prefixes; Turnbull & Justice, 2016)	Inflectional: "Those boy[s] eat [ate] our pizza!" Derivational: "Don't take it personal[ly]."
Syntax	How to interpret and follow the rules of language; a student's ability to increase their utterance length, acquire different sentence modalities, and develop complex syntax (Turnbull & Justice, 2016)	Simple: "He runs." Complex: "He runs quickly across the field to get the ball."
Phonology	A student's ability to understand and verbalize how sounds go together (Nippold, 2016)	A student may have difficulty sounding out the word "cherry" or blending the individual sounds of "ch-air-ee" into one word.
Semantics	A student's ability to understand the meaning of words and use them appropriately (Turnbull & Justice, 2016)	A student may call all vehicles "cars," including trucks and buses.
Pragmatics	A student's ability to communicate appropriately based on social and situational contexts (Geurts & Embrechts, 2008)	A student may not understand the expression "The world is my oyster." A student may not understand why the Grinch doesn't like Christmas in Dr. Seuss's *How the Grinch Stole Christmas!*

potential improvements in students' language ability may also increase their successes in literacy and writing, as language is a fundamental component to overall academic success (Chow & Wehby, 2018; Hay & Moran, 2005; Nippold, 2016).

Modeling

Modeling is defined as any statement or question that teachers use to provide an example of the ideal response they expect from their students. Furthermore, the teacher provides the child with an example of a response that exposes students to new vocabulary and models complex language structures (Hoff, 2003; Pentimonti et al., 2017). Teachers who use modeling to show their students diverse vocabulary and complex language structures have a significant impact on their student's language development and improve the likelihood students will use sentences with complex syntax (Chow et al., 2020; Hoff, 2003). Furthermore, modeling facilitates language growth especially through increases in students' vocabulary and advanced language forms and is easily implemented through a variety of activities and contexts (Justice et al., 2018). Teachers can incorporate modeling in a one-on-one, small-group, or whole-group context in literacy, social studies, science, language arts, or math. For example, teachers can implement modeling during their lessons by using a vocabulary term in a sentence, providing students with a contextual example of how to use a novel vocabulary word.

> **These four strategies can be easily incorporated into teachers' everyday use to help establish a rich language learning environment.**

Expansion

Expansion is used when teachers extend what students say by retelling the idea with the addition of appropriate vocabulary. Teachers' use of expansion must come after a student's statement or question. Expansion encourages teachers to lengthen students' utterances by adding adjectives or prepositional phrases or providing statements or questions that extend what students said or did by providing any additional information on the object, action, or topic (Cabell et al., 2015). Expansion provides students with a direct comparison between their original statement and their teacher's expanded response, which allows them to see the difference in complexity and vocabulary (Justice et al., 2018). For example, a student uses a simple sentence, such as "The monkey is in the tree," and the teacher responds by lengthening the sentence with a prepositional phrase: "The monkey is swinging on a branch in the

Table 3 **Definitions and Examples of Language-Supportive Strategies**

Variable	*Definition*	*Example*	
		Teacher	*Student*
Modeling	The teacher uses a new vocabulary word in a sentence.	The giraffe has a long neck to reach the leaves on the tree.	My headphone cord is long to reach my ears and the computer.
Wh- questions			
Open-ended	The teacher asks a question that provokes the student to respond with more than one word.	What is your favorite memory from your vacation?	My favorite memory is building a sandcastle at the beach with my dad.
Closed-ended	The teacher asks a simple *wh-* question that provokes the student to respond with one or two words.	Who jumped over the fence?	The dog.
Expansion	The teacher responds to the student's statement by adding onto the student's utterance (must increase length of child utterance).	The active dog jumped over the tall fence.	The dog jumped.
Scaffolding			
Generalizing	The teacher prompts the student to take the context of the lesson beyond the current scenario.	Tell me about a vacation you have been on.	I went to the beach, like the family in the book.
Reasoning	The teacher prompts the student to explain the *why*.	The dog ran out of the fenced in yard. Why do you think he left the yard?	To chase a squirrel.
Predicting	The teacher prompts the student to think about what might happen next.	What do you think will happen next?	The boy will catch the dog.
Co-participating	The teacher and the student respond to the teacher's question together.	Call out with me the word that is what utensil you use to eat cereal. (*With children*) Spoon!	(*With teacher*) Spoon!
Reducing choices	The teacher reduces the number of correct answers in the choice selection.	What animal is white and lives in the cold? A polar bear or flamingo?	Polar bear.

tree." Expansion holds students' focus because their teacher builds off of a statement a student made, thus allowing students to focus more on the expanded version of the statement rather than try to recall the conversational topic and requiring their working memory (Justice et al., 2018). It is important to note that this language-supportive strategy may serve as expansion to one student in the group but modeling to another student in the group, as they all hear the teacher's diverse vocabulary and more complex sentence structure.

Wh- Questions

Wh- questions are those which use "what," "when," "where," "how," "which," or "why" within the questions. There are two different types of wh- *questions, open-ended and closed-ended. Teachers' may use either type of* wh- *question to increase engagement; however, open-ended questions elicit language from students and provide an opportunity for them to practice using new vocabulary and complex syntax (Justice et al., 2009; Pentimonti et al., 2017; Wasik & Hindman, 2011). Open-ended* wh- *questions require students to respond with more than one word, thus*

allowing them to use novel vocabulary and complex syntax. For example, asking students how they want to spend their summer provides students an opportunity to talk and respond with more than one word. Wh- questions are easily implemented in a variety of contexts and across lessons. We challenge teachers to use more open-ended questions throughout the day, such as during free play, instructional time, and literacy.

Scaffolding

For the purposes of this article, we discuss five different subcategories of scaffolding: (a) generalizing, (b) reasoning, (c) predicting, (d) co-participating, and (e) reducing choices (Justice et al., 2009; Pentimonti et al., 2017). *Generalizing* is defined as a teacher-provided prompt that encourages the student to think outside of the lesson. Teachers can implement generalizing during literacy activities by asking students to take an idea from the book and recall a similar experience in their personal lives. *Reasoning* is a teacher-directed prompt that asks students to explain the reason an occurrence took place, the *why*. Teachers can easily implement reasoning by asking students "why" questions. Reasoning encourages students to explain, which provides them an opportunity to practice novel vocabulary and advanced language forms. *Predicting* is defined as a teacher-directed prompt that asks students to hypothesize an event that may happen next or in the future (Pentimonti et al., 2017). For example, during teacher-led book reading, teachers may ask their students what they think will come next. *Co-participating* is a teacher-directed prompt that asks students to produce the correct answer at the same time as their teacher. *Reducing choices* occurs when the teacher decreases the number of choices of correct answers. Typically, reducing choices occurs when teachers provide an "either–or" for students. This increases students' opportunities of success and engagement but does not provide them with opportunities to practice advanced language forms. These six strategies are not dependent upon one and other; thus, any one of these six strategies is an example of scaffolding (Justice et al., 2009; Pentimonti et al., 2017).

Scaffolding is easiest implemented during literacy activities; however, with patience and practice, teachers can use scaffolding throughout the day in a variety of activities to help in creating a rich language environment. Additionally, scaffolding requires teachers to assess the level of the students they direct their scaffolding prompts toward, as students with lower language skills may require more support at first. However, over time, teachers can decrease their level of support to encourage students' language growth.

Practical Strategies to Improve Collaboration and Outcomes for Students With Language Disorders

Now with a foundational understanding of language disorders and strategies to improve language outcomes, we integrate what we know about collaboration and supporting language outcomes by providing two strategies, push-in therapy and self-monitoring. Push-in therapy will allow for an exchange of knowledge between teachers and SLPs. SLPs will be able to model how to effectively implement language-supportive strategies, and teachers will inform SLPs about the curriculum. Self-monitoring will provide a means for teachers to independently practice their implementation of language-supportive strategies. These two strategies provide teachers with a method on how to effectively maintain a collaborative partnership as well as continue supporting students with language disorders.

Fast-forward 3 months. Lane qualified for speech and language services. Because of their already-established collaborative relationship, Mr. Hart and Mr. Wiley were already on the same page about helping improve Lane's language skills. At one of their weekly meetings, they decided to implement in-class (push-in) therapy in Mr. Wiley's classroom. Because of their time together during in-class therapy, Mr. Wiley shared his knowledge on classroom and behavior management strategies, which Mr. Hart implemented during his group sessions in the therapy room. Additionally, Mr. Wiley increased his use of language-supportive strategies because of his time observing Mr. Hart during in-class therapy. Their exchange of knowledge enhanced their interdisciplinary collaborative partnership and helped create a language-rich environment for all students in the classroom.

In-Class Therapy

Direct speech and language services are traditionally viewed as a "pullout" model, in which the therapist brings students to a separate setting for therapy. However, literature supports SLPs moving to collaborative services, often referred to as "push-in" or "integrated" services, to increase the therapeutic benefits for students with language disorders (Archibald, 2017). This model typically improves communication interactions within the classroom setting and provides a higher likelihood of generalization for students (Archibald, 2017; Blosser, 2012). Push-in therapy services allow students to remain in the classroom with their same-age peers. Additionally, the integration of services allows students to receive the expertise of multiple service providers, which allows the students to more readily acquire age-appropriate skills and work toward being able to generalize due to interactions with their peers (Archibald, 2017; Individuals With Disabilities Education Improvement Act, 2004). Teachers benefit from push-in therapy, as well: Teachers may observe SLPs' use of strategies, and SLPs may gain a better understanding of the classroom environment, curriculum, and social experiences (Archibald, 2017; Nippold, 2011).

Although there are many different ways for teachers to collaborate within the classroom setting, the following section draws from the work of Heisler and Thousand (2019) to illustrate examples of effective co-teaching partnerships between SLPs and other teachers. Both special education and general education teachers may benefit from in-class collaboration with SLPs, and the following strategies may be useful in either setting.

Supportive co-teaching. One teacher maintains the leadership role while the other teacher monitors the whole class and provides targeted support as needed by students with or without language impairments. During a whole-group math lesson, an SLP might use modeling to support the acquisition of the term "elapsed" during a lesson about time.

Parallel teaching. The students are divided and the classroom teacher and

SLP each instruct a designated group of students simultaneously. The SLP works with the group of students that needs more modification of content or slower pacing to master the educational content.

Complementary co-teaching. During instruction in a whole-group setting, one co-teacher enhances the instruction provided by the other co-teacher, each relying on one another's expertise. An SLP may complement a teacher through visuals, additional examples, or language-supportive strategies.

Despite research showing benefits of push-in therapy for students with language disorders, there is resistance to change SLPs' typical pullout service model in schools (Green et al., 2019). Push-in therapy requires an effective collaborative relationship, requiring time, resources, and planning (Archibald, 2017; Hartas, 2004). However, using Watts and colleagues' (1994) four essential components discussed earlier—cooperation, coordination, cross-fertilization, and integration—there is a greater potential in establishing an effective SLP–teacher collaboration and implementing push-in therapy.

A Self-Monitoring Tool to Access Your Use of Language-Supportive Strategies

Using evidence-based strategies is not enough to ensure positive results; they must be implemented correctly and consistently (B. Cook & Odom, 2013). For this reason, self-reflection is a hallmark of best practice and is a preparation standard of the Council for Exceptional Children (2020; Standard 1.3). Because teachers may not receive regular feedback, it is important to regularly reflect on your own teaching performance, specifically, in the use of language-supportive strategies in your classroom. This monitoring and reflection process will allow for adjustment of existing practices and improvement in your teaching strategies where necessary. Often, teachers may have their students use self-monitoring although they may not have considered using it as a tool for examining their own behaviors (Hager, 2018). Research has found self-monitoring to be an effective tool to increase the use of evidence-based practices in the classroom (Oliver et al., 2015; Simonsen et al., 2013; Sutherland & Wehby, 2001). Teachers have numerous prior responsibilities when conducting and engaging their students during lessons, which is why we suggest using a video recording to monitor language-supportive strategies. To examine the use of language-supportive strategies in your classroom, we recommend using a frequency count. First begin by targeting one strategy you want to examine, such as using closed- and open-ended *wh-* questions. Over time, you might be able to analyze multiple strategies at a time, but it is best to start with one or two. Using a pencil and paper, tally the number of times you use open- versus closed-ended *wh-* questions during the recording. These data can be used to focus on details of teaching that are often otherwise overlooked, often bringing to attention areas in need of improvement (Gaudin & Chaliès, 2015). It may also be helpful to closely monitor students' progress using a similar strategy. An initial viewing of the video could focus on yourself, with a second viewing focused on the student. Repeated over time, use of these video artifacts may provide evidence to how the student is responding to the increased use of these strategies and provide data to support future decision making.

Mr. Wiley thought of an excellent idea to help him monitor his progress on his frequency of using language-supportive strategies during instructional time in the classroom. Mr. Wiley video-recorded himself and used a progress self-monitoring tool: Mr. Wiley recorded his lessons and would sit and watch his lessons while taking data on his frequency of each language-supportive strategy. Mr. Wiley realized this tool really helped him see which strategies he used too frequently and which strategies he rarely implemented. Mr. Wiley shared this tool with Mr. Hart and provided him with the reasons behind why professionals and teachers should use it more often.

To achieve and maintain a lasting collaborative partnership, it is important for both professionals to share their expertise and knowledge (Watts et al., 1994). By integrating cross-fertilization and sharing your knowledge and skills with your partner, you are eliminating the barriers of hierarchy, inequality, and differences in training (Hartas, 2004; Watts et al., 1994). When professionals show respect and exchange information, they both learn and come out with novel knowledge and information to better support their students. Cross-fertilization allows a partnership to grow from consultative in nature to cooperative (Hartas, 2004).

Mr. Hart and Mr. Wiley's relationship set an example of an effective interdisciplinary collaborative partnership for the other teachers in the school as well as provided teachers with multiple evidence-based strategies to implement into their instruction. Before long, other teachers reached out to Mr. Hart seeking the same guidance and desire to develop a collaborative partnership. Mr. Wiley and Mr. Hart set something special in motion at Forks Elementary School. They experienced such great success because they moved beyond a traditional "consultative relationship," which implies limited interactions and a power imbalance between members, into what Hartas (2004) describes as a "series of co-equal interaction" (p. 46–47). The serial nature of their interactions ensured ongoing efforts from both participants to continue working together toward their common goal, and their status as co-equals facilitated the bidirectional exchange of information. Mr. Hart was able to share his expertise to improve Lane's outcomes, but it

When professionals show respect and exchange information, they both learn and come out with novel knowledge and information to better support their students.

was just as important for Mr. Wiley to "sound the alarm" about Lane's lack of progress and to contribute his knowledge of curricular demands and needs.

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REFERENCES

Adlof, S. M., & Hogan, T. P. (2019). If we don't look, we won't see: Measuring language development to inform literacy instruction. *Policy Insights from the Behavioral and Brain Sciences*, *6*(2), 210–217.https://doi.org/10.1177/2372732219839075

Allinder, R., Bolling, R., Oats, R., & Gagnon, W. (2000). Effects of teacher self-monitoring on implementation of curriculum-based measurement and mathematics computation achievement of students with disabilities. *Remedial and Special Education*, *21*(4), 219–226. https://doi.org/10.1177/074193250002100403

Archibald, L. M. (2017). SLP-educator classroom collaboration: A review to inform reason-based practice. *Autism & Developmental Language Impairments*, *2*, 1–17. https://doi.org/10.1177/2396941516680369

Blosser, J. (2012). Outcomes matter in school service delivery. In L. A. Golpher & C. Frattali (Eds.), *Outcomes in speech-language pathology* (2nd ed., pp. 116–140). Thieme Medical.

Bryan, K., Garvani, G., Gregory, J., & Kilner, K. (2015). Language difficulties and criminal justice: The need for earlier identification. *International Journal of Language & Communication Disorders*, *50*(6), 763–775. https://doi.org/10.1111/1460-6984.12183

Cabell, S. Q., Justice, L. M., McGinty, A. S., DeCoster, J., & Forston, L. D. (2015). Teacher–child conversations in preschool classrooms: Contributions to children's vocabulary development. *Early Childhood Research Quarterly*, *30*, 80–92. https://doi.org/10.1016/j.ecresq.2014.09.004

Chow, J. C., Cunningham, J., & Stehle Wallace, E. (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* (pp. 1–28). Routledge.

Chow, J. C., & Wallace, E. S. (2020). Speech-language pathologists' behavior management training and reported experiences with challenging behavior. *Communication Disorders Quarterly*. https://doi.org/10.1177/1525740119887914

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. https://doi.org/10.1007/s10648-016-9385-z

Cook, B. G., & Odom, S. L. (2013). Evidence-based practices and implementation science in special education. *Exceptional Children*, *79*(2), 135–144. https://doi.org/10.1177/001440291307900201

Cook, L., & Friend, M. (1991). Principles for the practice of collaboration in schools. *Preventing School Failure: Alternative Education for Children and Youth*, *35*(4), 6–9. https://doi.org/10.1080/1045988X.1991.9944251

Council for Exceptional Children. (2020). *Initial practice-based professional preparation standards for special educators*. https://exceptionalchildren.org/standards/initial-practice-based-professional-preparation-standards-special-educators

Da Fonte, M. A., & Barton-Arwood, S. M. (2017). Collaboration of general and special education teachers: Perspectives and strategies. *Intervention in School and Clinic*, *53*(2), 99–106. https://doi.org/10.1177/1053451217693370

Dickinson, D. K., Golinkoff, R. M., & Hirsh-Pasek, K. (2010). Speaking out for language: Why language is central to reading development. *Educational Researcher*, *39*(4), 305–310. https://doi.org/10.3102/0013189X10370204

Dickinson, D. K., & Tabors, P. O. (Eds.). (2001). *Beginning literacy with language: Young children learning at home and school*. Brookes.

Durkin, K., & Conti-Ramsden, G. (2010). Young people with specific language impairment: A review of social and emotional functioning in adolescence. *Child Language Teaching and Therapy*, *26*(2), 105–121. https://doi.org/10.1177/0265659010368750

Ehren, B. J. (2000). Maintaining a therapeutic focus and sharing responsibility for student success: Keys to in-classroom speech-language services. *Language, Speech, and Hearing Services in Schools*, *31*(3), 219–229. https://doi.org/10.1044/0161-1461.3103.219

Every Student Succeeds Act, S. 1177, 114th Cong. (2014).

Farber, J. G., & Klein, E. R. (1999). Classroom-based assessment of a collaborative intervention program with kindergarten and first-grade students. *Language, Speech, and Hearing Services in Schools*, *30*(1), 83–91.

Frazier, K. F., Whitby, P. J., Kucharczyk, S., Perryman, K. L., Thomas, J., Koch, L. C., & Bengtson, E. (2019). Interprofessional education: Teaming for transition from adolescence to adulthood for people with significant disabilities. *Perspectives of the ASHA Special Interest Groups*, *4*(3), 492–501.

Gaudin, C., & Chaliès, S. (2015). Video viewing in teacher education and professional development: A literature review. *Educational Research Review*, *16*(16), 41–67. https://doi.org/10.1016/j.edurev.2015.06.001

Geurts, H. M., & Embrechts, M. (2008). Language profiles in ASD, SLI, and ADHD. *Journal of Autism and Developmental Disorders*, *38*(10), 1931–1943.

Green, L., Chance, P., & Stockholm, M. (2019). Implementation and perceptions of classroom-based service Delivery: A survey of public school clinicians. *Language, Speech, and Hearing Services in Schools*, *50*(4), 656–672. https://doi.org/10.1044/2019_LSHSS-18-0101

Hager, K. D. (2018). Teachers' use of video self-monitoring to improve delivery of effective teaching practices. *TEACHING Exceptional Children*, *50*(5), 283–290. https://doi.org/10.1177/0040059918765749

Hamilton-Jones, B. M., & Vail, C. O. (2014). Preparing special educators for collaboration in the classroom: Pre-service teachers' beliefs and perspectives. *International Journal of Special Education*, *29*(1), 76–86.

Hammond, M. (2017). Online collaboration and cooperation: The recurring importance of evidence, rationale and viability. *Education and Information Technologies*, *22*(3), 1005–1024. https://doi.org/10.1007/s10639-016-9469-x

Hartas, D. (2004). Teacher and speech-language therapist collaboration: Being equal and achieving a common goal?. *Child Language Teaching and Therapy*, *20*(1), 33–54. https://doi.org/10.1191/0265659004ct262oa

Haskill, A. M., & Tyler, A. A. (2007). A comparison of linguistic profiles in subgroups of children with specific language impairment. *American Journal of Speech-Language Pathology*, *16*(3), 209–221. https://doi.org/10.1044/1058-0360(2007/026)

Hay, E., & Moran, C. (2005). Discourse formulation in children with closed head injury. *American Journal of Speech-Language Pathology*, *14*(4), 324–336.https://doi.org/10.1044/1058-0360(2005/031)

Heisler, L. A., & Thousand, J. S. (2019). A guide to co-teaching for the SLP: A tutorial. *Communication Disorders Quarterly*. https://doi.org/10.1177/1525740119886310

Hoff, E. (2003). The specificity of environmental influence: Socioeconomic status affects early vocabulary development via maternal speech. *Child Development*, *74*(5), 1368–1378. https://doi.org/10.1111/1467-8624.00612

Howland, C., Baker, E., Munro, N., & McLeod, S. (2019). Realisation of grammatical morphemes by children with phonological impairment. *Clinical Linguistics & Phonetics*, *33*(1/2), 20–41. https://doi.org/10.1080/02699206.2018.1518487

Individuals With Disabilities Education Improvement Act, 20 U.S.C. §§ 1400 *et seq*. (2004). https://sites.ed.gov/idea/

Justice, L. M., Bowles, R. P., Pence Turnbull, K. L., & Skibbe, L. E. (2009). School readiness among children with varying histories of language difficulties. *Developmental Psychology*, *45*(2), 460–476. https://doi.org/10.1037/a0014324

Justice, L. M., Chen, J., Tambyraja, S., & Logan, J. (2018). Increasing caregivers' adherence to an early-literacy intervention improves the print knowledge of children with language impairment. *Journal of Autism and Developmental Disorders*, *48*(12), 4179–4192. https://doi.org/10.1007/s10803-018-3646-2

Law, J., Boyle, J., Harris, F., Harkness, A., & Nye, C. (2000). Prevalence and natural history of primary speech and language delay: Findings from a systematic review of the literature. *International Journal of Language and Communication Disorders*, *35*, 165–188.

Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., Early, D., Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development*, *79*(3), 732–749. https://doi.org/10.1111/j.1467-8624.2008.01154.x

Nevin, A. I., Cramer, E., Voigt, J., & Salazar, L. (2008). Instructional modifications, adaptations, and accommodations of coteachers who loop: A descriptive case study. *Teacher Education and Special Education*, *31*(4), 283–297. https://doi.org/10.1177/0888406408330648

Nippold, M. A. (2011). Language intervention in the classroom: What it looks like. *Language, Speech, and Hearing Services in Schools*, *42*(4), 393–394. https://doi.org/10.1044/0161-1461(2011/ed-04)

Nippold, M. A. (2016). *Later language development: School-age children, adolescents, and young adults*. PRO-ED.

No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002). https://www2.ed.gov/nclb/landing.jhtml

Norbury, C.F., Nash, M., Baird, G., & Bishop, D. V. (2004). Using a parental checklist to identify the diagnostic groups in children with communication impairment: A validation of Children's Communication Checklist-2. *International Journal of Language & Communication Disorders*, *39*(3), 345–364.

Oliver, R. M., Wehby, J. H., & Nelson, J. R. (2015). Helping teachers maintain classroom management practices using a self-monitoring checklist. *Teaching & Teacher Education*, *51*, 113–120. https://doi.org/10.1016/j.tate.2015.06.007

Pentimonti, J. M., Justice, L. M., Yeomans-Maldonado, G., McGinty, A. S., Slocum, L., & O'Connell, A. (2017). Teachers' use of high-and low-support scaffolding strategies to differentiate language instruction in high-risk/economically disadvantaged settings. *Journal of Early Intervention*, *39*(2), 125–146. https://doi.org/10.1177/1053815117700865

Prince, R. E. C. (2009). Usable knowledge from Harvard Graduate School of Education - Morphological analysis: New light on a vital reading skill, HGSE Nonie Lesaux. http://www.uknow.gse. harvard.edu/teaching/TC102-407.html

Rispoli, M., Zaini, S., Mason, R., Brodhead, M., Burke, M., & Gregori, E. (2017). A systematic review of teacher self-monitoring on implementation of behavioral practices. *Teaching and Teacher Education*, *63*, 58–72. https://doi.org/10.1016/j.tate.2016.12.007

Ritzman, M. J., Sanger, D., & Coufal, K. L. (2006). A case study of a collaborative speech-language pathologist. *Communication Disorders Quarterly*, *27*(4), 221–231. https://doi.org/10.1177/15257401060270040501

Simonsen, B., MacSuga, A. S., Fallon, L. M., & Sugai, G. (2013). The effects of self-monitoring on teachers' use of specific praise. *Journal of Positive Behavior Interventions*, *15*(1), 5–15. https://doi.org/10.1177/1098300712440453

Stoeckel, R. E., Colligan, R. C., Barbaresi, W. J., Weaver, A. L., Killian, J. M., & Katusic, S. K. (2013). Early speech-language impairment and risk for written language disorder: A population-based study. *Journal of Developmental & Behavioral Pediatrics*, *34*, 38–44. https://doi.org/10.1097%2FDBP.0b013e31827ba22a

Sutherland, K. S., & Wehby, J. H. (2001). The effect of self-evaluation on teaching behavior in classrooms for students with emotional and behavioral disorders. *The Journal of Special Education*, *35*(3), 161–171. https://doi.org/10.1177/002246690103500306

Tomblin, J. B., Zhang, X., Buckwalter, P., & Catts, H. (2000). The association of reading disability, behavioral disorders, and language impairment among second-grade children. *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, *41*(4), 473–482. https://doi.org/10.1111/1469-7610.00632

Turnbull, K. L. P., & Justice, L. M. (2016). *Language development from theory to practice*. Pearson.

Wasik, B. A., & Hindman, A. H. (2011). Improving vocabulary and pre-literacy skills of at-risk preschoolers through teacher professional development. *Journal of Educational Psychology*, *103*(2), 455–469. https://doi.org/10.1037/a0023067

Watts, A. G., Guichard, J., Plant, P., & Roderiguez, L. (1994). *Educational and vocational guidance in the European community*. Publications Office of the EU.

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*(5), 516–524. https://doi.org/10.1111/jcpp.12009

Yew, S. G. K., & O'Kearney, R. (2015). The role of early language difficulties in the trajectories of conduct problems across childhood. *Journal of Abnormal Child Psychology*, *43*(8), 1515–1527. https://doi.org/10.1007/s10802-015-0040-9

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