Developing Academic Vocabulary Skills with English Learners with Developmental Language Disorder

Celeste Roseberry-McKibbin, Ph.D., CCC-SLP Sacramento State University CSHA, 2022

It is a well-known fact that the numbers of school-aged English Learners (ELs) are increasing across the U.S. The percentage of public-school students in the United States who were ELs was higher in fall 2017 (10.1 percent, or 5.0 million students) than in fall 2000 (8.1 percent, or 3.8 million students) (National Center for Education Statistics, 2020). Unfortunately, American schools are not providing adequate support for these students. Even typically developing ELs who do not have documented special needs may struggle academically in school (Fumero & Tibi, 2020). According to the U.S. Department of Education (2020), only 9% of ELs nationwide met reading proficiency standards in fourth grade in 2017; 5% met reading proficiency standards in 8th grade. (Note: these percentages are based on how ELs are classified in the schools as having EL status. The percentages are based upon children who persist in not acquiring English or are more recent immigrants to the U.S.) If ELs have Developmental Language Disorder (DLD), it becomes even more challenging for them to access the curriculum of the classroom, especially the English Language Arts (ELA) standards which are part of the Common Core State Standards. The ELA standards emphasize oral and written academic language expression and comprehension.

> Though achieving ELA standards requires development of skills in a variety of areas, this article focuses specifically on the acquisition of English academic vocabulary. For ELs with DLD, how do we strengthen their English oral and literate academic vocabulary skills to increase their access to ELA classroom curriculum? Academic vocabulary especially refers to vocabulary words used in reading and writing. Words are often abstract and may have multiple meanings. Knowledge of these words is especially necessary as a foundation for success in inferential and narrative language skills (Rosa-Lugo et al., 2020).

When EL students with DLD do not receive comprehensive services to help them access classroom curriculum and succeed academically, this has a negative impact on access to educational and vocational opportunities (Roseberry-McKibbin, 2022).

Thus, this miniseminar discusses several areas:

a) A basic definition of DLD in ELs and its two primary components: Limited language knowledge and cognitive processing deficits

b) Promoting the success of ELs with DLD in the achievement of the ELA standards of the Common Core State Standards in American schools

c) Using evidence-based strategies for developing vocabulary skills of ELs with DLD, including supporting a bilingual approach to intervention, teaching content-area cognates, facilitating multiple exposures and active engagement in vocabulary teaching, teaching Tier 2 vocabulary words, and incorporating phonological awareness

d) Example of a scientifically based hierarchy for teaching Tier 2 vocabulary words to ELs with DLD, including practical therapy activities for promoting academic success.

Developmental Language Disorder in English Learners

Research has found that in students with DLD across language groups, there are two major areas of weakness: language knowledge and cognitive processing skills. Recent research has emphasized the need to strengthen cognitive processing skills in ELs with DLD as a foundation for increasing language knowledge (Kohnert, Ebert, & Pham, 2021). Cognitive processing skills that need to be strengthened are selective attention, processing speed, and working memory (Delage & Frauenfelder, 2020; Fumero & Tibi, 2020; Guiberson & Rodriguez, 2020; Jackson et al., 2020; Park et al., 2020; Smolak et al., 2020). Improving cognitive processing skills can promote development of both the first language and English in EL students with DLD (Ebert et al., 2014; Ebert et al., 2012). In other words, it is important to strengthen the child's underlying learning system by improving working memory, processing speed, and selective attention as a foundation for building stronger language skills. This is true for bilingual as well as monolingual children.

For example, Park et al. (2020) examined processing speed in 8-12-year-old children with and without DLD; 35 were monolingual and 24 were bilingual. The subjects spoke Korean, Chinese, German, Bengali, French, Spanish, Albanian, Farsi, and Objibwe. Park et al. found that subjects with DLD showed slower processing time than typically developing subjects for nonlinguistic tasks (i.e., a visual choice reaction time task) and concluded that decreased processing speed predicts later language abilities, including vocabulary acquisition.

Other studies have examined the relationship between attention and impaired language processing in bilingual children with DLD (Ebert et al., 2019; Park et al., 2019). Park et al. (2019) concluded that both monolingual and bilingual children with DLD have weak executive control skills, including difficulty with attention. Ebert et al. (2019) found that monolingual English-only and bilingual Spanish-English children with DLD both showed difficulties with attention. Specific tasks used to measure attention included two nonlinguistic computerized assessments: a flanker task to measure attentional control and a continuous performance task to measure sustained attention. For the Spanish-English subjects, there was no evidence of a "bilingual cognitive advantage." Ebert et al. (2019) suggested that both monolingual and bilingual children with DLD exhibit subtle nonlinguistic deficits that are minimally affected by diverse linguistic experience.

Guiberson and Rodriguez (2020) described the use of working memory measures as potential indicators of DLD in preschool Spanish-English speaking children. Two groups of subjects were evaluated: one group was diagnosed with DLD, and the other (control) group was typically developing. Linguistic and working memory measures were collected from the children. Parents completed a vocabulary checklist; in addition, they reported on their children's longest utterances. Results of the study showed that verbal working memory was associated with linguistic measures. The children with DLD had more difficulty with verbal working memory measures (i.e., nonword repetition. Verbal working memory measures combined with vocabulary scores resulted in 79% of cases that were correctly classified. Guiberson and Rodriguez concluded that verbal working memory tasks (nonword repetition) may be useful in identifying children with DLD if combined with other more robust linguistic measures.

One might infer from these studies (Ebert et al., 2019; Park et al., 2019; Park et al., 2020) that it would be helpful to strengthen both language knowledge and cognitive processing skills (e.g., attention, processing speed, working memory) when supporting the development of academic vocabulary in ELs with DLD. This would support these learners' success in achieving ELA standards at grade level and promote attaining competence within the overall Common Core State Standards.

Common Core State Standards: Promoting Success in Achievement of English Language Arts Standards in American Schools

The Common Core State Standards, enacted in 2010, have been adopted by 42 out of 50 states (several states adopted and then repealed the standards). The overarching goal is to prepare students to succeed in a twenty-first century, globally competitive society (Common Core State Standards Initiative, 2021). Though not all states use the Common Core State Standards, most states have ELA standards that target similar areas of knowledge and skill requirements (World Population Review, 2020).

Requirements of today's ELA standards target three areas: 1) building knowledge through content-rich nonfiction, or expository (informational) text, 2) reading, writing, and speaking grounded in evidence from text and 3) regular practice with complex text and academic language. For ELs with DLD, to the greatest extent possible, they must have strong language knowledge and adequate cognitive processing skills to achieve ELA standards in U.S. schools. Speech-language pathologists (SLPs) must link all intervention activities, materials, and outcomes to help students achieve success in ELA; a major component of this is increasing these students' academic vocabulary skills.

Some ELs know fewer English vocabulary words than monolingual English speakers, and they know less about the meaning of these words. Wood et al. 2020) analyzed the vocabulary skills of typically developing ELs and several other populations; they discovered that these ELs were at risk for academic weakness in the area of vocabulary, using fewer academic words in their expository writing. The research of Bialystok et al. (2010) established that bilingual children know fewer words in English than do comparable monolingual English speakers, especially when all the children are being educated in English at school. Thus, even typically developing

ELs may need to accelerate their academic vocabulary learning just to catch up to monolingual English-speaking peers.

The need for vocabulary development is even more important for ELs with DLD. For example, the research of Sheng et al. (2012) with typically developing Spanish-speaking children and those with DLD showed that 65% of the DLD group had semantic deficits in comparison to 14% of typically developing students. Many bilingual children with DLD had sparsely linked semantic networks. For example, they have difficulty with precise definitions of vocabulary words, defining these words in vague, general, and concrete ways. They often do not know any synonyms for vocabulary words that they do know (Mesa & Yeomans-Maldonado, 2019, 2021; Owens, 2020). Kan et al. (2020) studied preschool children with DLD who spoke Cantonese as an L1 and English as an L2, concluding that their vocabulary skills in Cantonese were lower than those of typically developing peers. Because lack of vocabulary knowledge impacts every area of academics, EL students with DLD who have working memory problems and weak vocabulary skills are especially at risk for difficulties in accessing ELA curriculum. Thus, it is important to examine evidence-based strategies that have been shown to be successful in supporting vocabulary development in ELs with DLD. It is especially important to strengthen academic vocabulary skills (Rosa-Lugo et al., 2020; Westernoff et al., 2021).

Evidence-Based Strategies for Vocabulary Development in ELs With DLD

When considering evidence-based strategies that support ELs with DLD in acquiring academic vocabulary, SLPs can examine research that supports several areas that are critical to building vocabulary skills. These areas include a bilingual approach to intervention, teaching content-area cognates to link L1 and L2 learning, facilitating multiple exposures to words and active engagement during learning, teaching Tier 2 vocabulary words, and strengthening phonological awareness skills. Table 1 describes specific strategies for creating multiple exposures to words as well as promoting active engagement during the learning process.

Supporting a Bilingual Approach to Intervention

Much research has emphasized the necessity of bilingual intervention to affect positive changes in the ability of students with DLD to communicate in both the first language and English (Cycyk & Huerta, 2020; Dam, Pham, Pruitt-Lord, Limon-Hernandez, & Goodwiler, 2020; Kohnert et al., 2021; Mendez & Simon-Cereijido, 2019; Mesa & Yeomans-Maldonado, 2021; Rosa-Lugo et al., 2020; Simon-Cereijido, 2015). Thus, even if SLPs are monolingual English speakers, it is critical to involve families in carryover activities at home that are conducted in the home to promote continued L1 development (Cycyk & Huerta, 2020). Bilingual paraprofessionals and other school personnel who speak students' first languages may be engaged to facilitate bilingual intervention to improve vocabulary skills in L1 along with English (Cycyk et al., , 2021; Kohnert et al., 2021). One way to leverage L1 vocabulary skills to support the acquisition of English vocabulary is to teach content-area cognates.

Teaching Content-Area Cognates

Researchers have recommended teaching content-area cognates if possible to support increasing language skills in EL students with DLD (Dam et al., 2020; Fumero & Tibi, 2020; Kohnert et al., 2021; Sheng et al., 2016; Squires et al., , 2020). For example, many words in Spanish are quite similar to their English counterparts. Professionals can leverage students' Spanish skills as a foundation to teach new words in English. When teaching geometry to Spanish-speaking students, for example, professionals can use cognates such as angle (*ángulo*), triangle (*triángulo*), sphere (*esfera*), and parallel lines (*lineas paralelas*). A geography teacher can point out such cognates as gulf (*golfo*), arid (*arido*), and volcanic (*volcanico*). In addition to teaching content-area cognates, SLPs can reinforce new vocabulary words through providing multiple exposures to words and active engagement in learning these new words.

Facilitating Multiple Exposures and Active Engagement in Vocabulary Teaching

For EL students with DLD, it is critical to teach vocabulary through *multiple exposures* to words and *active engagement* in learning these new words (Beck et al., 2013; Green et al., 2015). Storkel et al. (2017) stated that for children with language impairment, 36 exposures to a new word was ideal to promote word learning in order to

accommodate working memory deficits. Though the research of Storkel et al. (2017) was conducted with monolingual children with DLD, one can infer that bilingual children with DLD might benefit from multiple exposures to new words as well. Developing rich vocabulary skills positively impacts a number of areas (Dam et al., 2020; Tattersall, Nelson, & Tyler, 2015). For example, one study found that larger L2 (English) vocabulary contributed to ELs' greater use of complex sentences (Paradis et al., , 2017). It is ideal if Tier 2 vocabulary words are targeted in intervention.

Teaching Tier 2 Vocabulary Words

In order to incorporate the ELA Standards into vocabulary intervention, experts today agree that "Tier 2" words should be targeted (Moore & Montgomery, 2018; Rosa-Lugo et al., 2020). Tier 1 words are the most basic, common words that many students acquire automatically from their environment (e.g. *clock, happy, play*). Tier 3 words are highly specialized, and the frequency of their use is low (e.g., *peninsula, isotope, radiation*). Tier 2 words are high frequency words that are found across a variety of domains (e.g., *measure, evaluate, fortunate, coincidence, similar*); instruction relating to the use of these words is most productive and efficient. There are many online resources to guide professionals to lists of appropriate Tier 2 words. For example, Coxhead (2021) has a comprehensive list which is available online (https://readingwise.com/blog/vocab-update-tier2-and-academic-word-list).

Professionals can increase active engagement with and support students learn Tier 2 words by connecting these new words with ones that students already know, thus building on students' prior knowledge. One way to accomplish this is through teaching synonyms. For example, if a student says, "I feel lucky that I got to go to Disneyland," the professional can say "Oh, you feel *fortunate* that you got to go to Disneyland. *Fortunate* is a college word for lucky."

It is also important to teach students vocabulary words that are critical for following directions, completing worksheets, and understanding the content of subject matter emphasized within the classroom. For example, students need to understand words such as *before, after, and next*. Standardized tests of academic achievement often use words such as *compare, contrast, define, describe, and enumerate*. Professionals need to ensure that students understand exactly what these words mean and that students can answer test questions accurately when these words are used.

Another strategy for teaching Tier 2 vocabulary words to ELs with DLD is to use curriculum materials from the classroom in intervention activities (Green et al., 2015; Ukrainetz, 2017; Roseberry-McKibbin, 2022). For example, as a practicing part time itinerant public-school SLP, the author sometimes asks students to bring their English language arts books to their therapy sessions. We use the current story they are reading to target Tier 2 vocabulary, reading comprehension, and phonological awareness among other skills.

Incorporating Phonological Awareness

Because of the reciprocal nature of vocabulary and phonological awareness skills, EL students with DLD may also need activities to stimulate the development of phonological awareness to support building vocabulary knowledge (Lonigan, 2007; McGregor & Duff, 2015). Research has shown that there is a reciprocal relationship between phonological awareness and vocabulary skills, with growth in one area positively impacting the other (Goldstein et al., 2017; Einarsdottir et al., 2016; Rosa-Lugo et al., 2020).

Phonological awareness can be defined as the ability to reflect on and consciously manipulate the sound system of a language. Phonological awareness is related to spelling, reading, and writing achievement (Pratt et al., 2020; Soto et al., 2020). Participating in activities to build phonological awareness help these students perform more successfully in the classroom; vocabulary skills benefit from these phonological awareness activities (Goldstein et al., 2017). .This is true for monolingual English-speaking students; some recent studies have shown that bilingual students with can also benefit from participating in activities to build phonological awareness skills.

For example, Einarsdottir et al. (2016) carried out a longitudinal study in Iceland with 267 Icelandic-speaking subjects. The subjects' phonological awareness skills were tested initially when they were between 5;4-

5;10 years old. The researchers contacted these subjects when they were 18-19 years old and gained permission to view their performance, in Icelandic and math, on national tests in 4th, 7th, and 10th grades. Einarsdottir et al. (2016) found that subjects' phonological awareness test scores at 5 years old strongly correlated in every grade (4, 7, 10) with math and Icelandic language scores (including vocabulary). The researchers concluded that early intervention for deficits in phonological awareness skills is crucial for later academic success, which includes grade level knowledge of academic vocabulary. Pratt et al. (2020) studied the emergent literacy skills of Spanish-speaking children with DLD and compared them with the skills of matched typically developing peers. The study found that subjects with DLD performed significantly worse than controls on a battery of emergent literacy measures. The study concluded that it is important to target both phonological and print awareness in young Spanish-speaking children with DLD.

To promote the growth of phonological awareness skills in ELs with DLD, SLPs can have students do the following (Einarsdottir et al., 2016; Goldstein et al., 2017; Lonigan, 2007; McGregor & Duff, 2015; Roseberry-McKibbin, 2022):

Count the number of words in a sentence.

Count the number of syllables in a word.

Count the number of sounds in a word.

Identify rhyming words.

Use sound-blending skills to form words from individual sounds (e.g. "d-o-g; what is that?")

Identify the first sound in a word.

Identify the last sound in a word.

There are many other phonological awareness skills that SLPs can target, but the skills listed above can serve as a good beginning foundation. For helping ELs with DLD to learn Tier 2 words. These phonological awareness activities can be incorporated into a vocabulary teaching hierarchy that is evidence-based, practical, and effective for improving the vocabulary skills of ELs with DLD.

A Scientifically Based Hierarchy for Teaching Tier 2 Vocabulary Words

A vocabulary teaching hierarchy, presented in Table 1, presents a process for teaching Tier 2 vocabulary words to EL students with DLD. This hierarchy incorporates several principles that research has proven to be ideal for supporting ELs with DLD. First, the hierarchy addresses cognitive weaknesses in working memory and attention that have been cited in the research (Delage & Frauenfelder, 2020; Fumero & Tibi, 2020; Guiberson & Rodriguez, 2020; Jackson et al.,, 2020; Park et al., 2020; Smolak et al., 2020). Cognitive weaknesses in working memory, speed, and attention can be addressed through multiple exposures to and active engagement with the word to promote deeper learning and improved retention of the words.

Second, the hierarchy incorporates phonological awareness activities since there is a strong reciprocal relationship between phonological awareness and vocabulary skills as stated. Third, the hierarchy begins with having EL students with DLD demonstrate receptive vocabulary knowledge before expressive knowledge.

It is documented that in the early stages of learning an L2, some students may go through a "silent period" where they do little-no speaking and, instead, focus on comprehension of the L2 (Bligh & Drury, 2015; Jung et al., 2017; The Education Alliance, 2021). Though not all students go through a silent period, some do. Thus, the hierarchy of objectives below starts with receptive learning of new vocabulary that does not pressure students to begin talking immediately, but gradually builds into more and more complex verbal answers as students progress through the hierarchy. The specific, measurable objectives described in Table 1 can be used by speech-language pathologists in various settings, including the public schools.

Clearly, using the hierarchy in Table 1 to teach Tier 2 curriculum vocabulary promotes phonological awareness and deep knowledge of word definitions through multiple exposures and active engagement. As

previously stated, this is helpful for ELs with DLD because it strengthens memory for new vocabulary words. Continually repeating new words in new contexts can improve attention to the words and help students retrieve them more quickly.

Summary and Conclusion

The increasing number of EL students in America's schools demands that professionals attend to their academic and learning needs. Statistics show that some typically developing ELs in American schools are not attaining grade level achievement in reading. For EL students with DLD, the situation is even more challenging: they have limited language knowledge as well as cognitive deficits in the areas of working memory, speed of processing, and attention. To improve educational outcomes for these students, this tutorial has focused on methods for improving academic vocabulary skills for increased curricular access to the ELA standards of the Common Core State Standards. Suggestions have been given for a bilingual approach to therapy which supports both L1 and English. Practical, evidence-based suggestions have been offered to help support increased access to the curriculum of the classroom through enriching and building Tier 2 academic vocabulary skills.

REFERENCES

Beck, I. L., McKeown, M. G., & Kucan, L. (2013). *Bringing words to life: Robust vocabulary instruction* (2nd ed.). New York: The Guilford Press.

Bialystok, E., Luk, G., Peets, K.F., & Yang, S. (2010). Receptive vocabulary differences in monolingual and bilingual children. *Bilingualism, Language, and Cognition, 13*(4), 525-531.

Bligh, C., & Drury, R. (2015). Perspectives on the "silent period" for emergent bilinguals in England. *Journal of Research in Childhood Education, 29*(2), 259-274.

Common Core State Standards Initiative (2021). *Preparing America's students for success.* http://www.corestandards.org/

Coxhead, A. (2021) Academic Word List PDF. https://instapdf.in/academic-word-list/

Cycyk, L.M., & Huerta, L. (2020). Exploring the cultural validity of parent-implemented naturalistic language intervention procedures for families from Spanish-speaking Latinx homes. *American Journal of Speech-Language Pathology, 29*, 124-1259.

Cycyk, L.M., De Anda, S., Moore, H., & Huerta, L. (2021). Cultural and linguistic adaptations of early language interventions; Recommendations for advancing research and practice. *American Journal of Speech-Language Pathology, 30*, 1224-1246.

Dam, Q., Pham, G.T., Pruitt-Lord, S., Limon-Hernandez, J., & Goodwiler, C. (2020). Capitalizing on cross-language similarities in intervention with bilingual children. *Journal of Communication Disorders, 87*. https://doi.org/10.1016/j.jcomdis.2020.106004.

Delage, H., & Frauenfolder, U.S. (2020). Relationship between working memory and complex syntax in preschool children with Developmental Language Disorder. *Journal of Child Language, 47(*3), 600-632.

Ebert, K.D., Kohnert, K., Pham, G., Disher, J.R., & Payesteh, B. (2014). Three treatments for bilingual children with primary language impairment: Examining cross-linguistic and cross-domain effects. *Journal of Speech, Language, and Hearing Research, 57*(1), 172-186.

Ebert, K.D., Rak, D., Slawny, C.M., & Fogg, L. (2019). Attention in bilingual children with developmental language disorder. *Journal of Speech, Language, and Hearing Research, 82*, 979-992.

Ebert, K. D., Rentmeester-Disher, J., & Kohnert, K. (2012). Nonlinguistic cognitive treatment for bilingual children with primary language impairment. *Clinical Linguistics and Phonetics, 26*, 485-501.

Einarsdottir, J.T., Bjornsdottir, A., & Simonardottir, I. (2016). The predictive value of preschool language assessments on academic achievement: A 10-year longitudinal study of Icelandic children. *American Journal of Speech-Language Pathology, 25*, 67-79.

Fumero, K., & Tibi, S. (2020). The importance of morphological awareness in bilingual language and literacy skills: Clinical implications for speech-language pathologists. *Language, Speech, and Hearing Services in Schools, 51*, 572-588.

Goldstein, H., Olszewski, A., Haring, C., Greenwood, C.R., McCune, L., Carta, J., Atwater, J., Guerrero, G., Schneider, N., McCarthy, T., & Kelley, E.S. (2017). Efficacy of a supplemental phonemic awareness curriculum to instruct preschoolers with delays in early literacy development. *Journal of Speech, Language, and Hearing Research, 60,* 89-103.

Green, L., Stockholm, M., Cearley, J., & Sheffield-Anderson, L. (2015). Direct vocabulary instruction with two 5th-grade English-language-learners with language-learning disabilities: A treatment study. *Contemporary Issues in Communication Science and Disorders, 42,* 191-201.

Guiberson, M.M., & Rodriguez, B.L. (2020). Working memory and linguistic performance of dual language learners with and without developmental language disorders. A*merican Journal of Speech-Language Pathology, 29*(3), 11113-1781.

Jackson, E., Leitao, S., Claessen, M., & Boyes, M. (2020). Working, declarative, and procedural memory in children with developmental language disorder. *Journal of Speech, Language, and Hearing Research, 63*, 4162-4178.

Jung, Y.A., Yu, M., & Kervin, T. (2017). A case study: Reading a book with young English language learners at the silent period. *European Journal of English Language Teaching, 2*(1), 121-138.

Kan, P.F., Huang, S., Winicour, E., & Yang, J. (2020). Vocabulary growth: Dual language learners at risk for language impairment. *American Journal of Speech-Language Pathology, 29*, 1178-1195.

Kohnert, K., Ebert, K.D., & Pham, G.T. (2021). *Language disorders in bilingual children and adults* (3rd ed.). San Diego, CA: Plural Publishing.

Lonigan, C.J. (2007). Vocabulary development and the development of phonological awareness skills in preschool children. In R. Wagner, A.Muse, & K. Tannenbaum (Eds.), *Vocabulary acquisition: Implications for reading comprehension* (pp. 15-31). New York, NY: Guilford.

McGregor, K., & Duff, D. (2015). Promoting diverse and deep vocabulary development. In T. Ukrainetz (Ed.), *School-age language intervention: Evidence-based practices* (pp. 247-278). Austin, TX: PRO-ED, Inc.

Mendez, L.I., & Simon-Cereijido, G. (2019). A view of the lexical-grammatical link in young Latinos with specific language impairment using language-specific and conceptual measures. *Journal of Speech, Language, and Hearing Research, 62(*6), 1775-1786.

Mesa, C., & Yeomans-Maldonado, G. (2019). The role of prekindergarten Spanish in predicting first-grade English word reading among dual-language learners. *Journal of Speech, Language, and Hearing Research, 62*, 1755-1774.

Mesa, C., & Yeomans-Maldonado, G. (2021). English and Spanish predictors of grade 3 reading comprehension in bilingual children. *Journal of Speech, Language, and Hearing Research, 64*, pp. 889-908.

Moore, B., & Montgomery, J.K. (2018). *Making a difference for America's children: Speech-language pathologists in public schools* (3rd ed.). Austin, TX: Pro-Ed.

National Center for Education Statistics (2020). *English Language Learners in public schools.* Available at https://nces.ed.gov/programs/coe/indicator_cgf.asp

Owens, R.E. (2020). *Language development: An introduction* (10th ed.). Hoboken, NJ: Pearson Education.

Paradis, J., Rusk, B., Sorenson Duncan, T., & Govindarajan, K. (2017). English second language children's acquisition of complex sentences: The role of age, input and cognitive factors. *Annual Review of Applied Linguistics, 37*, 1-20.

Park, J., Miller, C.A., Sanjeevan, T., valnHell, J.G., Weiss, D.J., & Mainela-Arnold, E. (2019). Bilingualism and attention in typically developing children and children with developmental language disorder. *Journal of Speech, Language, and Hearing Research, 62*, 4105-4118.

Park, J., Miller, C.A., Sanjeevan, T., van Hell, J.G., Weiss, D.J., & Mainela-Arnold, E. (2020). Bilingualism and processing speed in typically developing children with developmental language disorder. *Journal of Speech, Language, and Hearing Research, 5*, 1479-1493.

Pham, G., & Ebert, K.D. (2020). Diagnostic accuracy of sentence repetition and nonword repetition for Developmental Language Disorder in Vietnamese. *Journal of Speech, Language, and Hearing Research, 63*, 1521-1536.

Pratt, A.S., Grinstead, J.A., & McCauley, R.J. (2020). Emergent literacy in Spanish-speaking children with Developmental Language Disorder: Preliminary findings of delays in comprehension and code-related skills. *Journal of Speech, Language, and Hearing Research, 63*, 4193-4207.

Rosa-Lugo, L.I, Mihai, F.M., & Nutta, J.W. (2020). *Language and literacy development: English Learners with communication disorders, from theory to application* (2nd ed.). San Diego, CA: Plural Publishing, Inc.

Roseberry-McKibbin, C. (2022). M*ulticultural students with special language needs: Practical strategies for assessment and intervention* (6th ed.). Oceanside, CA: Academic Communication Associates.

Sheng, L., Peña, L. D., Bedore, L., & Fiestas, C. E. (2012). Semantic deficits in Spanish-English bilingual children with language impairment. *Journal of Speech, Language, and Hearing Research, 55*, 1-15.

Sheng, L., Lam, B.P., Cruz, D., & Fulton, A. (2016). A robust demonstration of the cognate facilitation effect in first language and second-language naming. *Journal of Experimental Child Psychology*, 2016 January. doi: 10.1016/j.ecp.2015.09.007

Simon-Cereijido, G. (2015). Preschool language interventions for Latino dual language learners with language disorders: What, in what language, and how. *Seminars in Speech and Language, 36(*2), 154-164.

Smolak, E., McGregor, K., Arbisi-Kelm, T., & Eden, N. (2020). Sustained attention in developmental language disorder and its relation to working memory and language. *Journal of Speech, Language, and Hearing Research, 63*, 4096-4108.

Soto, X.T., Crucet-Choi, A., & Goldstein, H. (2020). Effects of a supplemental Spanish phonological awareness intervention on Latinx preschoolers' dual language emergent literacy skills. *American Journal of Speech-Language Pathology, 29,* 1283-1300
.
Squires, L.R., Ohlfest, S.J., Santoro, K.E., & Roberts, J. (2020). Factors influencing cognate performance for young multilingual children's vocabulary: A research synthesis. *American Journal of Speech-Language Pathology, 29*, 2170-2188.

Storkel, H.L., Komesidou, R., Fleming, K.K., & Romine, R.S. (2017). Interactive book reading to accelerate word learning by kindergarten children with specific language impairment: Identifying adequate progress and successful learning patterns. *Language, Speech, and Hearing Services in Schools, 48,* 108-124.

Tattersall, P.J., Nelson, N.W., & Tyler, A.A. (2015). Associations among nonword repetition and phonemic and vocabulary awareness: Implications for intervention. *Child Language Teaching and Therapy, 31*(2), 159-171.

The Education Alliance (2021). *Teaching diverse learners*. https://www.brown.edu/academics/education-alliance/teaching-diverse learners/strategy-i-3

Ukrainetz, T. (2017). Commentary on "Reading comprehension is not a single ability": Implications for child language intervention. *Language, Speech, and Hearing Services in Schools, 48,* 92-97.

U.S. Department of Education (2020). Academic performance and outcome for English Learners. https://www2.ed.gov/datastory/el-outcomes/index.html

Westernoff, F., Jones-Vo, S., & Markus, P. (2021). *Powerful practices for supporting English learners: Elevating diverse assets and identities*. Thousand Oaks, CA: Corwin.

Wood, C.L., Schatschneider, C., & VelDink, A. (2020). The relation between academic word use and reading comprehension for students from diverse backgrounds. *Language, Speech, and Hearing Services in Schools, 52*, 1-15.

World Population Review (2020). *Common core states 2020.* https://worldpopulationreview.com/state-rankings/common-core-states

Table 1 Teaching Vocabulary Hierarchy for English Learners with Developmental Language Disorder

Annual Goal: The student will demonstrate increased receptive and expressive knowledge of Tier 2 vocabulary words.

Short term objective 1: When the clinician verbally presents Tier 2 target vocabulary words, the student will point to pictures of these words with 80% accuracy.

Clinician: Marisol, point to *increase.*

Student: Points to a picture of something getting bigger or larger.

Short term objective 2:

When the clinician holds up a picture and says, "Does this picture show something increasing?" the student will verbally or nonverbally indicate *yes* or *no* with 80% accuracy.

Clinician: Does this picture show something increasing?"

Student: Verbally or nonverbally indicates *yes* or *no*.

Short term objective 3:

When the clinician gives a 1-2 sentence verbal description of a target word/concept and provides the student with 2 choices of answers, the student will verbally supply the correct answer with 80% accuracy.

Clinician: "Listen. This word means that something is getting bigger or larger. Is it *decreasing or increasing?"*

Student: "Increasing."

Short term objective 4:

When shown pictures of target Tier 2 vocabulary words, the student will give verbal, one-word labels with 80% accuracy.

Clinician: (shows a picture) "Anak, what's this doing?"

Student: "Increasing."

Short term objective 5:

When asked to define a target vocabulary word, the student will give a 5+ word verbal description with 80% accuracy.

Clinician: "Mario, what does *increase* mean?"

Student: "Increase means that something gets bigger or larger—like you have more of it."

Short term objective 6:

When given a school item target vocabulary word, the student will use the word in a sentence with 80% accuracy.

Clinician: "Carlo, please use the word *increase* in a sentence."

Student: "Increase means to have more or get bigger."

Short term objective 7:

When presented with a paragraph or word list containing the school item target vocabulary word, the student will find and read the word out loud with 80% accuracy.

Clinician: "Josefina, look at this story. Please find the word *increase* and read the word to me after you find it."

Student: Finds the word *increase* and reads it aloud.

Short term objective 8:

When asked to spell a target vocabulary word, the student will spell the word out loud with 80% accuracy.

Clinician: "Jaime, please spell the word *increase.*"

Student: Spells the word aloud.

Short term objective 9:

When given a target vocabulary word, the student will write a sentence containing the word with 80% accuracy.

Clinician: "Estera, please write a sentence using the word *increase*."

Student: Writes a sentence containing the word *increase.*

Short term objective 10:

With 80% accuracy, the student will count the number of words in a sentence that he has written or in a sentence that is prewritten that contains the target vocabulary word (e.g., a sentence using the word *increase*)

Clinician: Look, Carla, please count how many words there are in this sentence.

Student: (counts the number of words)

Short term objective 11:

When given a target vocabulary word, the student will identify the number of syllables in the word with 80% accuracy.

Clinician: Nina, how many syllables are in the word *increase*?

Student: Two

Short term objective 12:

When given a target vocabulary word, the student will identify the number of sounds in the word with 80% accuracy.

Clinician: Emilio, how many sounds are in the word *increase*?

Student: Six

Short term objective 13:

When given a target vocabulary word and asked to supply a word that rhymes with it, the student will do so with 80% accuracy.

Clinician: Francisco, can you give me a word that rhymes with increase?

Student: Decrease

Short term objective 14:

When the student hears the SLP say a target vocabulary word phoneme by phoneme, the student will demonstrate word blending skills by stating the whole word with 80% accuracy.

Clinician: Montero, what word is this? I-n-c-r-ea-se.

Student: Increase

Short term objective 15:

When given a target vocabulary word, the student will identify the first sound in that word with 80% accuracy.

Clinician: Listen, Michaela. *increase.* What is the first sound in that word?

Student: I

Short term objective 16:

When given a target vocabulary word, the student will identify the last sound in that word with 80% accuracy.

Clinician: Listen, Viktor. *Increase*. What is the last sound in that word?

Student: S