

COMORBID LANGUAGE-BASED LEARNING DISABILITIES



National Center for Leadership In Intensive Interventions

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What are LBLD?

Language-based learning disabilities (LBLD) refer to difficulties with reading, writing, speaking, or listening that arise from underlying language disorders (Sun & Wallach, 2014). Some of these comorbid LBLDs include dyslexia, developmental language disorder (DLD), specific language impairment (SLI), and specific learning disability (SLD).

Language-based learning disabilities cause individuals to struggle with the acquisition, recognition, and use of words, both orally and in literacy (Catts et al., 2003; Catts et al., 2006; von Koss Torkildsen et. al., 2013).

Of the nearly 7.2 million students served under IDEA in 2020-2021, approximately 19% have a language disorder and 33% have a specific learning disability (National Center for Education Statistics, 2022).



Case Study

This practice guide is intended for practitioners who work with elementary-age students who have co-morbid language and learning disabilities (e.g. Dyslexia). These students may struggle with phonological awareness and decoding, but have relative strengths in listening comprehension.

CHALLENGES STUDENTS WITH LBLD EXPERIENCE



Language Disorder

According to the American Speech-Language-Hearing Association (ASHA), students' language disorders may manifest in the form of difficulties with the form of language (phonology, morphology, syntax), the content of language (semantics, and/or the function of language in communication (pragmatics) in any combination (ASHA, 1993).

Learning Disabilities

According to the Individuals with Disabilities Education Act, students with SLD may experience difficulties in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations (Individuals with Disabilities Education Act, 2004).



Comorbid LBLD

Given how language and literacy interact, especially in a school environment, it is imperative to ensure that students are provided access, accommodations, and targeted intervention in both areas to allow them the highest likelihood of positive outcomes.



TAXONOMY OF INTENSIVE INTERVENTION

Adapted from Fuchs, et al., 2017.



Strength

How well the selected program works for the student with intensive needs

- In a systematic review and meta-analysis of 53 articles on intervention research for students with or at risk for dyslexia, Hall et al. (2022) found that the overall weighted average of effect size was $g = .33$, however, there was significant heterogeneity across findings (e.g., decoding effect sizes ranged from $-.11$ to 2.54).
- Al Otaiba et al. (2022) synthesized 14 meta-analyses & systematic reviews of reading interventions for students with reading disabilities. The overall mean effect size of 0.39 , and effect sizes were stronger for decoding ($0.41-0.62$) than for comprehension ($0.32-0.36$)

Dosage

The number of opportunities the student has to respond, get feedback, group size, length, and sessions

- In their systematic review and meta-analysis, Hall et al. (2022) found that dosage was a significant moderator for effect size. For a one-on-one peer tutoring program, Al Otaiba et al. (2005) found that students who were tutored by peers four times a week for 30-minute sessions outperformed peers who were tutored twice a week.
- According to Gersten et al. (2009), interventions should be implemented in small homogeneous groups at least three times per week for 20–40 min sessions small groups. However, Al Otaiba et al.'s (2022) synthesis did not show a significant difference based on group size, dosage, or type of interventionist

Alignment

How well the program addresses the students specific academic/behavioral needs, addresses school wide and classroom expectations, and does not address extraneous skills

- Lovett et al. (2017) found that early intensive intervention yielded greater effects and growth over time. Students in first grade performed higher and made greater gains compared to those who first received the intervention in third grade.
- Gersten et al. (2020) found phonics interventions that included spelling were more effective than those that included phonemic awareness. Stevens et al. (2021) found no differences that favored multi-sensory approaches

Attention to Transfer

The extent to which the program helps the student generalize learned skills to other contexts

- Students who received multi-component reading intervention showed significant gains compared to control group students after receiving 70 hours of training and at follow up one year later (Morris et al., 2012)
- There is some evidence to suggest that interventions focused on decoding skills & fluency can have small to moderate transfer effects to reading comprehension (Wolff, 2011; Vadasy & Sanders, 2010). In Clarke et al. (2010), students who received an oral language intervention made greater gains than students in groups that received text comprehension or a combination of the two ($d=1.24$, compared to 0.74 and 0.88 , respectively)

Comprehensiveness

The extent to which the program includes components of explicit instruction and a plan for teaching, monitoring, and adjusting behavior

- Multicomponent interventions (Morris et al., 2012; Toste et al., 2019; Vadasy & Sanders, 2008) found positive effects for students' reading outcomes on phonological awareness, decoding, encoding, fluency, comprehension, and vocabulary.
- Schaars et al. (2017) found that children at risk are behind their typical peers in word decoding development starting from the very beginning. Explicit instruction was provided for graphemes and phonemes, word structures, phonological skills, decoding, and more.

Behavior/Academic Support

The extent to which the program includes a self-regulation and executive function component and minimizes non-preferred behaviors

- Reading interventions are not associated with improved behavioral or social outcomes (Roberts et al., 2005). More research is needed in this area.
- Milani et al. (2010) used audiobooks to reduce cognitive load; found improvement in reading accuracy, motivation, and school achievement, as well as decrease in emotional & behavioral problems

Individualization

The intervention includes a method individualizing the program by making adjustments based on data

- A meta-analysis by Jung et al. (2018) found effects of DBI in reading intervention: on performance: general reading = 0.28 ; spelling/writing = 0.47 ; progress monitoring 2x/week = 0.47 ; use CBM measure for progress monitoring = 0.55 ; decision rules based on trend-line = 0.34 ; using 8 points for trend-line = 0.48

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