



My conclusions from research:

Compelling evidence from a convergence of research on reading is clearly indicating that approximately 95% of all students can achieve literacy skills at or approaching grade level. These statistics include students with dyslexia and other learning disabilities.

Students are most successful when they receive effective early instruction and intervention, although it is never too late to provide intervention. This instruction should be provided by teachers who are both well-informed and well-supported. The most powerful instruction is comprehensive, systematic, explicit, intensive, multimodal, and informed by data. High impact instruction is designed to appropriately integrate elements of oral language development, phoneme awareness, phonics (decoding and encoding), fluency, vocabulary development, and key reading comprehension skills and strategies plus content knowledge.

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“Researchers now estimate that 95 percent of all children can be taught to read by the end of first grade, with future achievement constrained only by students’ reasoning and listening comprehension abilities.” (p. 5)

Moats, L. C. (2020). *Teaching Reading Is Rocket Science: What Expert Teachers of Reading Should Know and Be Able to Do*. American Federation of Teachers, 1-29.

“Over the past 30 years, considerable scientific knowledge has accrued regarding the understanding and preventing reading difficulties in young children...showing clear efficacy for early interventions and improved outcomes in word reading, fluency, and comprehension in the early grades (K-2). (p. 160)

Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M.A. (2019). *Learning disabilities: From identification to intervention*. NY: Guilford Press.

“We know that students with reading disabilities require intensive treatments over time, provided in small groups or 1:1, and addressing the critical elements of reading through explicit, systematic instruction and abundant opportunities for practice and feedback.” (p. 51)

Vaughn, S., & Wanzek, J. (2014). Intensive interventions in reading for students with reading disabilities: Meaningful impacts. *Learning Disabilities Research & Practice*, 29(2), 46-53.

“Results demonstrate the ability of students with low IQs, including **students with mild to moderate ID**, to **learn basic reading skills** when provided appropriate, comprehensive reading instruction for an extended period of time.” (p. 287)

Allor, J. H., Mathes, P.G., Roberts, J. K., Cheatham, J. P., & Al Otaiba, S. (2014). Is scientifically based reading instruction effective for students with below-average IQs? *Exceptional Children*, 80(3), 287-306.

“A large body of research evidence shows that with appropriate, intensive instruction, **all but the most severe reading disabilities** can be ameliorated in the early grades and students can get on track toward academic success...The methods supported by research are those that are explicit, systematic, cumulative, and multisensory, in that they integrate listening, speaking, reading, and writing.” (p. 51)

Moats, L. (Spring, 2011). Knowledge and practice standards for Teachers of Reading—A new initiative by the International Reading Association. *Perspectives on Language and Literacy*, 51-52.

“Several decades of research on effective reading interventions shows us that it is possible to substantially reduce the 36% of fourth graders reading below grade level on NAEP or the 17.5% of students with reading disabilities. **Better classroom instruction can reduce the numbers of low-achieving students to around 5%**. Supplemental small-group or one-on-one tutoring can reduce the numbers even further to 1%-3%.” (p. 269-270)

Foorman, B., & Al Otaiba, S. (2009). Reading remediation: State of the art. In K. Pugh & P. McCardle (Eds.), *How children learn to read: Current issues and new directions in the integration of cognition, neurobiology and genetics of reading and dyslexia research and practice* (p. 257–274). NY: Psychology Press.

“Research has shown that effective primary classroom teachers can reduce the percentage of children who do not perform on grade level to **about 5-7%**, or about one child in a 20-child classroom.” (p. 14)

Al Otaiba, S., Connor, C. M., Foorman, B., Schatschneider, C., Greulich, L., & Sidler, J. F. (2009). Identifying and intervening with beginning readers who are at-risk for dyslexia. *Perspectives on Language and Literacy*, 35(4), 13-19.

“We now have considerable evidence available concerning the effectiveness of intensive and explicit reading interventions for children who have struggled in learning to read. We know, for example, that it is possible to teach **almost all children** to accurately apply the alphabetic principle in decoding novel words, even if they have struggled to acquire this skill during the first 3-4 years of schooling.” (p. 537)

Torgesen, J. K. (2007). Recent discoveries on remedial interventions for children with dyslexia. In M. J. Snowling & C. Hulme, (Eds.) *The Science of Reading: A Handbook*, pp. 521-537. Malden, MA: Blackwell Publishing.

“Finally, there is now considerable evidence, from recent intervention studies, that reading difficulties in **most beginning readers** may not be directly caused by biologically-based cognitive deficits intrinsic to the child, but may in fact be related to the opportunities provided for children to learn to read.” (p. 378)

Vellutino, F. R., & Fletcher, J. M. (2007). Developmental dyslexia. In M. J. Snowling & C. Hulme, (Eds.) *The Science of Reading: A Handbook*, pp. 362-278. Malden, MA: Blackwell Publishing.

“It is never too late” [to provide effective reading instruction to overcome dyslexia] p. 11...[although] reading disabilities diagnosed after third grade are much more difficult to remediate.” p. 30

Shaywitz, S. (2003) *Overcoming dyslexia*. NY: Knopf.

“Our findings show that successful completion of an intensive remediation program in reading is associated with dramatic changes in brain activation profiles in children with very severe reading difficulties.... The implications of these findings for education are clear: instruction seems to play a significant role in the development of neural systems that are specialized for reading. When provided with appropriate and sufficiently intense instruction, **reading difficulties can be overcome in many children.**” (p. 1210 & 1212)

Simos, P. G., Fletcher, J. M., Bergman, E., Breier, J. I., Foorman, B. R., Castillo, E. M., et al. (2002). Dyslexia-specific brain activation profile becomes normal following successful remedial training. *Neurology*, 58, 1203–1213.

"In summary, effective classroom reading instruction on phonemic awareness, phonemic decoding, fluency in word recognition & text processing, construction of meaning, vocabulary, spelling, and writing can maximize the probability that **all but a very small percentage of children can learn to read on grade level**. To address the needs of that small percentage we need to provide additional instruction on the same components in a small group or 1-1 format. However, research shows that such instruction will need to be more explicit and comprehensive, more intensive and supportive than that typically provided by schools."

Rashotte, C.A., MacPhee, K., & Torgeson, J. K. (2001). The effectiveness of a group reading instruction program with poor readers in multiple grades. *Learning Disability Quarterly*, 24, 119-134.

Additional Citations and Resources:

Archer, A. L., Hughes, C. A. (2010). *Explicit Instruction: Effective and Efficient Teaching*. NY: Guilford Press.

Blaunstein, P., & Lyon, R. (2006). *Why Kids Can't Read: Challenging the Status Quo in Education*. Toronto: Rowan and Littlefield.

Al Otaiba, S., & Torgesen, J. (2007). Effects from intensive standardized kindergarten and first-grade interventions for the prevention of reading difficulties. In S.R. Jimerson, M.K. Burns, & A.M. VanDerHeyden (Eds.), *Handbook of Response to Intervention: The Science and Practice of Assessment and Intervention* (pp. 212–222). New York: Springer.

Cárdenas-Hagan, E. (2020). *Literacy Foundations for English Learners: A Comprehensive Guide to Evidence-Based Instruction*. Baltimore: Brookes.

Carnine, D. W., Silbert, J., Kame'enui, E. J., Tarver, S.G. (2010). *Direct Instruction Reading 5th Edition*. NY: Pearson.

Castle, A., Rastle, Nation, K. (2018). Ending the reading wars: Reading acquisition from novice to expert. *Psychological Science in the Public Interest*, 19(1) 5–51.

Fielding, L., Kerr, N., & Rosier, P. (2007). *Annual Growth for all Students, Catch-Up Growth for those who are Behind*. Kennewick: The New Foundation Press.

Foorman, B.R., Brier, J.I., & Fletcher, J. M. (2003). Interventions aimed at improving reading success: An evidenced-based approach. *Developmental Neuropsychology*, 24(3), 613-639.

Mathes, P., Denton, C., Fletcher, J., Anthony, J. L., Francis, D., & Schatschneider, C. (2005). The effects of theoretically different instruction and student characteristics on the skills of struggling readers. *Reading Research Quarterly*, 40(2), 148-182.

Smartt, S. M., & Glaser, D. R. (2010). *Next STEPS in Literacy Instruction: Connecting Assessments to Effective Interventions*. Baltimore: Brookes.

Torgeson, J. K. (Spring-Summer, 1998). Catch them before they fall: Identification and assessment to prevent reading failure in young children. *American Educator*, 22, 32-39.

The challenging 5-7%:

Al Otaiba, S., & Fuchs, D. (2001). Characteristics of children who are unresponsive to early literacy intervention. A review of the literature. *Remedial and Special Education*, 23, 300-316.

Al Otaiba, S., & Fuchs, D. (2006). Who are the young children for whom best practices in reading are ineffective? An experimental and longitudinal study. *Journal of Learning Disabilities*, 39(5), 414-431.

Torgesen, J. K. (2000). Individual differences in response to early interventions in reading: The lingering problem of treatment resisters. *Learning Disabilities Research & Practice*, 15, 55–64.

Wanzek, J., & Vaughn, S. (2009). Students demonstrating persistent low response to reading intervention: Three case studies. *Learning Disabilities Research & Practice*, 24(3), 151-163.

COMPLETE LIST OF STUDIES AND RESOURCES CITED:

Al Otaiba, S., & Fuchs, D. (2001). Characteristics of children who are unresponsive to early literacy intervention. A review of the literature. *Remedial and Special Education*, 23, 300-316.

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Mathes, P., Denton, C. A., Fletcher, J. M., Anthony, J. L., Francis, D. J., & Schatschneider, C. (2005). The effects of theoretically different instruction and student characteristics on the skills of struggling readers. *Reading Research Quarterly*, 40(2), 148-182.

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