



PREVENTION OVER REMEDIATION: A NEW PARADIGM IN ADDRESSING READING DIFFICULTIES

Proficient reading is vital for students' future academic success and personal development; however, word reading difficulties create significant barriers that can hinder both. This paper advocates for a paradigm shift towards more preventive approaches to reading difficulties, which emphasise early identification and evidence-based intervention before reading difficulties become entrenched. Prevention focuses on universal screening, systematic phonics-based instruction, and continuous progress monitoring, distinguishing itself from traditional intervention models that often address issues only after significant academic delays occur. By identifying and intervening early, teachers can provide tailored instruction that not only improves reading proficiency but also reduces long-term academic, emotional, and social consequences. This article explores the key components of the preventive approach and highlights its transformative potential for improving reading outcomes.

Keywords: Reading difficulties, preventive approach, early identification, early intervention, universal screening

DR JENNIFER O'SULLIVAN is a Lecturer in Education (Literacy) in Marino Institute of Education. She is a past president of the Literacy Association of Ireland.

Corresponding author: jennifer.osullivan@mie.ie

INTRODUCTION

Early reading difficulties pose significant barriers to the development of proficient literacy skills, particularly in the areas of word recognition and decoding, which are essential for fluent and effective reading. When students struggle to decode words, they often find it difficult to sound out words, leading to slow, effortful reading. These challenges can limit their ability to automatically recognise words which inhibits fluency and, ultimately, reading comprehension (Catts et al. 2003). Research indicates that difficulties with decoding are a hallmark feature of dyslexia, a specific reading difficulty characterised by persistent problems with word reading, spelling, and phonological processing despite adequate instruction (Fletcher et al. 2019). Early identification and evidence-based intervention are crucial for these students, as persistent word reading difficulties can severely impact academic progress and literacy development over time (Catts et al. 2001). Early intervention provides targeted, systematic support that can help students build foundational reading skills and close achievement gaps. By acting proactively, teachers can reduce the severity and prevalence of reading difficulties, leading to more successful reading development for at-risk students (Catts and Hogan 2021; Lovett et al. 2017; Shapiro and Solity 2008).

The purpose of this paper is to explore the concept of a preventive approach to addressing reading difficulties, particularly those that manifest early in a student's reading development. Rather than relying on traditional remediation approaches that address reading problems only after they have become entrenched, this paper advocates for early, proactive identification and support to mitigate future reading difficulties. The paper outlines the theoretical foundations of a preventive approach, reviews the evidence supporting the need for early identification and intervention, and provides recommendations for implementing these measures. By focusing on early screening and targeted, timely interventions, it aims to demonstrate how a preventive approach can improve reading outcomes and reduce the long-term impact of reading difficulties.

THEORETICAL FRAMEWORK

The Simple View of Reading (SVR) model, introduced by Gough and Tunmer in 1986, provides both a framework for understanding reading development and a means by which we can identify reading difficulties. According to the SVR, reading comprehension – understanding what we read – depends on two key components: decoding and language comprehension.

- Decoding is the ability to sound out words, which requires phonemic awareness (understanding the individual sounds in spoken words) and letter-sound relationships (phonics).
- Language comprehension involves understanding the meaning of words, sentences, and overall text, using vocabulary, background knowledge, and oral language skills.

In the SVR model, the interaction between decoding and language comprehension forms the foundation of reading success. When one or both of these components is impaired, reading difficulties can arise. For example, a student who struggles with decoding may find it difficult to read words accurately. Students with dyslexia typically face challenges with the decoding component of reading (Snowling and Hulme 2012). Conversely, a student with difficulties in language comprehension may be able to read words accurately but will often struggle to understand their meaning or what they have read. This could stem from gaps in vocabulary, limited background knowledge, or weak oral language skills (Nation 2019). The SVR model highlights the importance of providing instruction in both decoding skills and language comprehension to prevent reading difficulties. Early reading interventions targeting one or both of these components are vital, especially during the early years when foundational reading skills are being established.

For students with decoding difficulties, targeted, systematic phonemic awareness and phonics instruction are essential (Brooks 2022; Ehri et al. 2001; Hatcher et al. 2004; National Reading Panel 2000; Shapiro and Solity 2016). Phonemic awareness directly influences decoding skills and is a strong predictor of future reading difficulties (Ehri 2004; Lonigan et al. 2000; Catts et al. 2001; Torgesen 2004). Students with strong phonemic awareness can segment, blend, and manipulate the smallest sounds of speech (phonemes), which supports accurate word reading and spelling. Similarly, letter-sound knowledge – the understanding of the relationship between letters and their corresponding sounds – is essential for fluent decoding. Systematic phonics instruction has been shown to significantly improve reading outcomes by strengthening these skills (Ehri et al. 2001). By addressing both phonemic awareness and letter-sound knowledge through early, targeted intervention, teachers can equip students with the tools needed for long-term reading proficiency.

CORE PRINCIPLES OF THE PREVENTIVE APPROACH TO READING DIFFICULTIES

The preventive approach is grounded in the principle that detecting risk factors—such as dyslexia—at an early stage allows for timely, evidence-based intervention that can improve long-term reading outcomes (Catts and Hogan 2021). Rather than waiting for reading problems to become entrenched, and providing remediation then, this approach prioritises proactive strategies that intensively support the acquisition of foundational reading skills before difficulties escalate. This section explores two key principles of the preventive approach – early identification and evidence-based intervention.

Early identification of children at risk of developing reading difficulties

Research confirms that reading difficulties seldom improve without intervention, and children struggling to learn to read are unlikely to catch up to their peers without substantial, targeted support. One such study, conducted by Juel (1988), tracked the progress of 54 students from Grade 1 through to Grade 4. Her findings indicated that, in most cases, early reading difficulties did not improve over time. In particular, a group of 24 students who had the most difficulty in Grade 1 (scoring at or below the 25th percentile) failed to catch up with their peers by Grade 4. Consequently, the identification of students exhibiting early difficulties is a fundamental component of the preventive approach as it allows for prompt and early intervention (Catts et al. 2015). By assessing students' reading skills as early as preschool or junior infants, teachers can identify those who may be at risk for later reading difficulties (Catts et al. 2001; 2015; O'Connor and Jenkins 1999).

Universal screening helps teachers identify students at risk of developing reading difficulties before they become significant challenges. Effective screening should evaluate key foundational reading skills, including phonemic awareness, letter-sound knowledge, rapid automatic naming, and basic decoding abilities. Ideally, screenings occur during a child's first two years of school at three key points: the beginning, middle, and end of the academic year. These assessments are administered to all students in the class, regardless of their perceived reading proficiency. Screening all students ensures that no child with potential reading difficulties is overlooked, including those who may not exhibit obvious signs of struggle. Designed to be quick and efficient, they typically take around 10 to 15 minutes and can now be self-administered using digital devices. The collected data is then analysed to identify students who are struggling to acquire foundational reading skills despite receiving instruction. It is important to note that universal screening does not diagnose dyslexia but rather flags students experiencing difficulties, allowing for targeted interventions to support their learning needs.

Ethical Implications and Limitations of Early Screening

While early universal screening offers significant benefits, it also raises ethical concerns and potential limitations that must be considered. One issue is labelling and stigma, as identifying students as struggling readers too early could create a self-fulfilling prophecy, where lower expectations from teachers, parents, or even the student themselves reinforce difficulties rather than resolve them (Elliott and Grigorenko 2024). Another concern is the inherent imprecision of screening assessments. Due to measurement error and the evolving nature of reading as a developing

skill, no screening tool can achieve perfect accuracy. Consequently, there is always a trade-off between over-identification (false positives) and under-identification (false negatives) in early screening (White & Schatschneider, 2023). Furthermore, a student's reading ability cannot be fully captured by a single assessment at one point in time. Therefore, incorporating teacher observations and professional judgment is essential in forming a comprehensive evaluation of a child's early reading development. To maximise accuracy and effectiveness, universal screeners must be supported by strong evidence of validity and reliability and implemented alongside policies that ensure all students have access to high-quality early reading instruction.

The Importance of Early, Evidence-Based Reading Intervention

In a preventive approach, early identification of reading difficulties must be tied to effective intervention. Over the past three decades, extensive research has highlighted the significant benefits of early, intensive, evidence-based reading interventions (Solari et al. 2021). Multiple meta-analyses have investigated the effects of reading interventions on word reading outcomes among young children with reading difficulties and have consistently indicated that interventions incorporating components of phonemic awareness and letter-sound knowledge yield superior results compared to those lacking these critical elements (Donegan and Wanzek 2021; Gersten et al. 2020; Hall et al. 2023; Neitzel et al. 2022; Slavin et al. 2011; Suggate 2016; Wanzek et al. 2016, 2018). One such landmark study by the *National Early Literacy Panel* (NELP) (2008) synthesised data from approximately 300 studies and found that early interventions targeting phonemic awareness, letter-sound knowledge, and oral language skills significantly enhanced students' reading development. Their findings highlighted that children who received structured support in these foundational skills were better prepared to overcome reading challenges as they progressed through school.

Research has consistently demonstrated that interventions are most effective when implemented as early as possible during the first years of formal schooling (Connor et al. 2014; Lovett et al. 2017; Ozernov-Palichik and Gaab, 2016). Lovett et al. (2017) conducted a comprehensive study that explored the impact of early intervention programmes on reading outcomes for struggling readers. The study conducted a multi-component, small-group reading intervention for students in Grades 1, 2, and 3. They compared the reading performance of students who participated in the intervention to grade-level control groups who did not receive it. The results showed that children who underwent the intervention outperformed their peers in the control groups. Notably, students who received the intervention earlier (in Grades 1 or 2) demonstrated nearly double the reading gains compared to those who received it in Grade 3. Furthermore, follow-up assessments conducted 1 to 3 years later confirmed that the benefits of early intervention persisted over time.

A preventive approach also emphasises the importance of delivering instruction in a systematic and explicit manner, ensuring that foundational reading skills are taught in a clear, structured, and sequential way. By following a carefully planned sequence of lessons, teachers can build students' skills progressively, supporting automaticity in key foundational skills. Explicit instruction involves direct teaching of these concepts with clear modelling, guided practice, and immediate feedback. The systematic and explicit nature of this instruction is crucial for students struggling to acquire early reading skills (Al Otaiba et al. 2019). Furthermore, interventions aimed at children with reading difficulties should take place in addition to, as opposed to in place of, classroom instruction with teaching in intensive groups mirroring that which is taught in the classroom setting.

Finally, the preventive approach advocates continuous and regular monitoring of identified students' progress in reading as this allows teachers to adjust instruction and ensure the intervention being implemented is effective. In summary, the preventive approach to reading difficulties focuses on early identification and timely, targeted intervention to foster successful reading development. By prioritising these key principles, teachers can create a learning environment that not only addresses the needs of at-risk students but also promotes equitable reading opportunities for all.

Limitations within Early Reading Intervention Research

One limitation in early reading intervention research is the lack of clear evidence on whether one-to-one instruction or small group instruction leads to better reading outcomes for students (Wanzek et al., 2018). The existing literature presents some inconsistencies, with certain studies (Slavin et al. 2011; Neitzel et al. 2021) reporting larger effect sizes for one-to-one instruction compared to small group instruction. However, findings from the *National Reading Panel* meta-analysis (2000) suggest that phonemic awareness instruction is more effective in small group settings than in one-to-one contexts. Similarly, Miles et al. (2022) found no clear differences in reading progress between students who received the Reading Rescue intervention (Ehri et al., 2007; Miles et al., 2018) in either one-to-one or small group settings. Given these mixed findings and the limited research on this topic, further studies are needed to directly compare the effectiveness of small group and one-to-one instruction using the same intervention programme. Notably, one-to-one instruction is highly resource-intensive, and if small group instruction produces comparable outcomes, it would represent a more efficient and scalable approach to reading intervention.

CURRENT APPROACHES TO ADDRESSING READING DIFFICULTIES IN IRELAND

Ireland consistently ranks among the top-performing countries in international reading assessments, as demonstrated by the most recent results from *Progress in International Reading Literacy Study* (PIRLS) (Mullis et al. 2023). However, national data paint a more concerning picture regarding literacy disparities within the country. The 2021 *National Assessments of Mathematics and English Reading* (NAMER) revealed that 24.4% of second-class students perform at or below Level 1 in reading (Kiniry et al. 2023). Even more critically, this figure rises to 43.2% in urban DEIS (*Delivering Equality of Opportunity in Schools*) schools, which primarily serve students from lower socioeconomic backgrounds (Nelis and Gilleece 2023). These statistics suggest that while Ireland performs well overall, significant literacy gaps persist, particularly among lower socioeconomic communities, highlighting the need for a paradigm shift toward more preventive approaches to reading difficulties.

At present, the *Continuum of Support Model* (CoS) (DoE 2007) serves as the primary framework for supporting students with learning difficulties in Irish mainstream schools. While this model emphasises inclusion, equity, and individualised instruction, its effectiveness is heavily dependent on early identification and timely intervention. Currently, many children experiencing reading difficulties do not receive targeted support until their second year of formal schooling, yet research consistently highlights that early intervention—ideally in junior infants—is crucial for students with word reading difficulties (Connor et al. 2014; Lovett et al. 2017). By delaying intervention, the Irish system risks missing a crucial developmental window, increasing the likelihood of persistent reading difficulties that become progressively harder to remediate. This approach not only impacts academic performance but can also undermine students' confidence and motivation to read.

Recognising the importance of early reading development, Irish education policies have highlighted the need to move toward a more preventive approach. The *Literacy and Numeracy for Learning and Life* strategy (DES 2011) acknowledged the urgency of early identification and intervention, stating that intervening at the senior infant stage 'may be too late for many children' and recommended that support should be provided as early as junior infants (DES 2011, p. 49). However, more than a decade later, full implementation of these recommendations remains inconsistent, with many schools still operating on a reactive basis rather than integrating structured, preventive interventions.

To truly embed a preventive approach within the Irish education system, several key reforms are necessary:

1. Integrate universal screening within the Continuum of Support Model – Universal screening should be embedded within the Continuum of Support model to ensure early identification of reading difficulties. Regular screening, alongside teacher observations, will help identify students at risk and provide targeted support before difficulties escalate.
2. Ensure access to evidence-based instruction at all levels – High-quality, systematic instruction in phonemic awareness and phonics should be implemented across all tiers of the Continuum of Support. This includes whole-class instruction at the Classroom Support level, targeted small-group interventions at the School Support level, and intensive, individualised support at the School Support Plus level for students with persistent difficulties.
3. Resource allocation – Schools should be equipped with sufficient resources, including access to screening tools, appropriate intervention programmes, and ongoing professional development in preventive approaches to reading difficulties.

CHALLENGES IN IMPLEMENTING A PREVENTIVE APPROACH

Implementing a preventive approach presents several challenges, including inconsistent application across schools, time constraints, limited professional development, and the need for system-wide coordination. Variability in teacher knowledge, resources, and school policies can lead to disparities in universal screening and early intervention, making equitable support difficult to achieve. Time constraints in classrooms make it challenging to integrate screening and targeted interventions, as teachers must balance early support in reading with broader curriculum demands. Limited instructional time also makes it difficult to schedule individualised or small-group interventions, potentially leading to inconsistent implementation and reduced effectiveness. Additionally, teachers may lack sufficient training in the implementation of universal screening and/or targeted interventions. Finally, a coordinated effort between all stakeholders is essential, as without clear national guidelines, validated screening tools, and adequate funding, schools may struggle to implement high-quality, consistent early reading support. Addressing these challenges requires a sustained commitment to evidence-based practices, adequate resourcing, and system-wide collaboration to ensure that all students receive the early support they need to develop strong foundational reading skills.

CONCLUSION

To fully embed a preventive approach within the education system, a paradigm shift is required—one that prioritises early intervention driven by proactive identification as the cornerstone of reading support. This transformation demands a coordinated commitment from policymakers, teachers, and support services to establish clear, evidence-based guidelines, invest in comprehensive teacher professional development, and ensure equitable access to necessary high-quality resources. By adopting this preventive approach, schools can move beyond reactive, remedial interventions and instead build a more inclusive, sustainable system that empowers all students to achieve long-term reading success.

REFERENCES

- Al Otaiba, S., Allor, J. H., Baker, K., Conner, C., Stewart, J., and Mellado de la Cruz, V. M. (2019) Teaching phonemic awareness and word reading skills: Focusing on explicit and systematic approaches. *Perspectives on Language and Literacy*, 45, pp. 11-16.
- Brooks, G. (2022) Current debates over the teaching of phonics, *Oxford Research Encyclopedia of Education*, Published online, 18 July.
- Catts, H.W. and Hogan, T.P. (2021) Dyslexia: An ounce of prevention is better than a pound of diagnosis and treatment, *The Reading League Journal*. Available at: <https://doi.org/10.31234/osf.io/nvgje>.
- Catts, H.W., Hogan, T.P., and Fey, M.E. (2003) The effects of early reading intervention on reading outcomes in children with reading disabilities, *Reading and Writing*, 16(4), pp. 177-197. Available at: <https://doi.org/10.1023/A:1022431216461>.
- Catts, H.W., Spencer, L.M., and Tomblin, J.B. (2001) Language and reading abilities in children with poor reading comprehension, *Journal of Speech, Language, and Hearing Research*, 44(3), pp. 682-692. Available at: <https://doi.org/10.1044/jslhr.4403.682>.
- Catts, H.W., Nielsen, D.C., Bridges, M.S., Liu, Y.S., and Bontempo, D.E. (2015) Early identification of reading disabilities within an RTI framework, *Journal of Learning Disabilities*, 48(3), pp. 281-297.
- Connor, C.M., Alberto, P.A., Compton, D.L., and O'Connor, R.E. (2014) *Improving reading outcomes for students with or at risk for reading disabilities: A synthesis of the contributions from the Institute of Education Sciences Research Centers*. Washington, DC: Institute of Education Sciences, U.S. Department of Education.
- Department of Education (2007) *Special Educational Needs: A Continuum of Support*. Dublin: Department of Education.
- Department of Education and Skills (2011) *Literacy and Numeracy for Learning and Life: The National Strategy to Improve Literacy and Numeracy Among Children and Young People 2011–2020*. Dublin: Department of Education and Skills.
- Donegan, R.E., and Wanzek, J. (2021) Effects of reading interventions implemented for upper elementary struggling readers: A look at recent research, *Reading and Writing*, 34(8), pp. 1943–1977. Available at: <https://doi.org/10.1007/s11145-021-10123-y>.
- Ehri, L.C. (2004) Teaching phonemic awareness and phonics: An explanation of the National Reading Panel meta-analyses, in McCardle, P. and Chhabra, V. (eds.) *The voice of evidence in reading research*. Paul H. Brookes Publishing Co., pp. 153–186.
- Ehri, L. C., Nunes, S. R., Willows, D. M., Schuster, B. V., Yaghoub-Zadeh, Z., and Shanahan, T. (2001). Phonemic awareness instruction helps children learn to read: Evidence from the National Reading Panel's meta-analysis. *Reading Research Quarterly*, 36(3), 250-287. <https://doi.org/10.1598/RRQ.36.3.2>
- Ehri, L. C., Dreyer, L. G., Flugman, B., and Gross, A. (2007) Reading rescue: An effective tutoring intervention model for language-minority students who are struggling readers in first grade, *American Educational Research Journal*, 44(2), pp. 414–448.
- Elliott, J.G., and Grigorenko, E.L. (2024) *The Dyslexia Debate Revisited*. Cambridge: Cambridge University Press.
- Fletcher, J.M., Stuebing, K.K., and Shaywitz, S.E. (2019) Classification of reading disabilities: The role of phonological processing and reading comprehension, *Journal of Learning Disabilities*, 52(1), pp. 83-94. Available at: <https://doi.org/10.1177/0022219417750970>.
- Gersten, R., Haymond, K., Newman-Gonchar, R., Dimino, J., and Jayanthi, M. (2020) Meta-analysis of the impact of

- reading interventions for students in the primary grades. *Journal of Research on Educational Effectiveness*, 13(2), 401–427.
- Gough, P.B., and Tunmer, W.E. (1986) Decoding, reading, and reading disability, *Remedial and Special Education*, 7(1), pp. 6-10. Available at: <https://doi.org/10.1177/074193258600700104>.
- Hall, C., Dahl-Leonard, K., Cho, E., Solari, E. J., Capin, P., Conner, C. L., Henry, A. R., Cook, L., Hayes, L., Vargas, I., Richmond, C. L., and Kehoe, K. F. (2023) Forty years of reading intervention research for elementary students with or at risk for dyslexia: A systematic review and meta-analysis. *Reading Research Quarterly*, 58(2), 285–312. <https://doi.org/10.1002/rrq.477>
- Hatcher, P.J., Hulme, C., and Snowling, M.J. (2004) Explicit phoneme training combined with phonic reading instruction helps young children at risk of reading failure, *Journal of Child Psychology and Psychiatry*, 45(2), pp. 338–358. Available at: <https://doi.org/10.1111/j.1469-7610.2004.00225.x>.
- Juel, C. (1988) Learning to read and write: A longitudinal study of 54 children from first through fourth grades, *Journal of Educational Psychology*, 80(4), pp. 437.
- Kiniry, J., Duggan, A., Karakolidis, A., Cunningham, R., and Millar, D. (2023) *The National Assessments of Mathematics and English Reading 2021: Performance Report*. Dublin: Educational Research Centre.
- Lonigan, C.J., Burgess, S.R., and Anthony, J.L. (2000) Development of emergent literacy and early reading skills in preschool children: Evidence from a latent-variable longitudinal study, *Developmental Psychology*, 36(5), pp. 596.
- Lovett, M.W., Lacerenza, L., and Phillips, B.M. (2017) Preventive interventions for children at risk for reading disabilities: A meta-analysis of the evidence, *Journal of Learning Disabilities*, 50(6), pp. 683-700. Available at: <https://doi.org/10.1177/0022219417712590>.
- Miles, K. P., Lauterbach, M. D., Murano, D. M., and Dembek, G. A. (2018) Reading rescue: A follow-up on effectiveness of an intervention for struggling readers, *The Journal of Educational Research*, 112(2), pp. 255–269.
- Miles, K. P., McFadden, K, Colenbrander, D., and Ehri, L. C. (2022) Maximising access to reading intervention: comparing small group and one-to-one protocols of Reading Rescue, *Journal of Research in Reading*. 45(3), pp. 299-323.
- Mullis, I.V.S., von Davier, M., Foy, P., Fishbein, B., Reynolds, K.A., and Wry, E. (2023) *PIRLS 2021 International Results in Reading*. Boston College, TIMSS & PIRLS International Study Center. <https://doi.org/10.6017/lse.tpisc.tr2103.kb5342>.
- Nation, K. (2019) Children's reading difficulties, language, and reflections on the simple view of reading, *Australian Journal of Learning Difficulties*, 24(1), pp. 47–73. Available at: <https://doi.org/10.1080/19404158.2019.1609272>.
- National Early Literacy Panel (2008) *Developing early literacy: Report of the National Early Literacy Panel*. Washington, DC: National Institute for Literacy.
- National Reading Panel (2000) *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: National Institute of Child Health and Human Development.
- Neitzel, A. J., Lake, C., Pellegrini, M., and Slavin, R. E. (2021) A synthesis of quantitative research on programs for struggling readers in elementary schools. *Reading Research Quarterly*, 57(1), 149–179. <https://doi.org/10.1002/rrq.379>
- Nelis, S.M., and Gilleece, L. (2023) *Ireland's National Assessments of Mathematics and English Reading 2021: A focus on achievement in urban DEIS schools*. Dublin: Educational Research Centre.
- O'Connor, R.E., and Jenkins, J.R. (1999) Prediction of reading disabilities in kindergarten and first grade, *Scientific Studies of Reading*, 3(2), pp. 159-197.
- Ozernov-Palchik, O., and Gaab, N. (2016) Tackling the 'dyslexia paradox': Reading brain and behavior for early markers of developmental dyslexia: Tackling the 'dyslexia paradox.' *Wiley Interdisciplinary Reviews: Cognitive Science*, 7(2), pp. 156–176. <https://doi.org/10.1002/wcs.1383>
- Shapiro, L.R., and Solity, J. (2008) Delivering phonological and phonics training within whole-class teaching, *British Journal of Educational Psychology*, 78(4), pp. 597-620.
- Shapiro, L.R., and Solity, J. (2016) Differing effects of two synthetic phonics programmes on early reading development, *British Journal of Educational Psychology*, 86(2), pp. 182–203. Available at: <https://doi.org/10.1111/bjep.12097>.

- Slavin, R.E., Lake, C., Davis, S., and Madden, N.A. (2011) Effective programs for struggling readers: A best evidence synthesis, *Educational Research Review*, 6(1), pp. 1–6. Available at: <https://doi.org/10.1016/j.edurev.2010.07.002>.
- Snowling, M.J., and Hulme, C. (2012) The interface between spoken and written language: Developmental disorders and intervention, *Journal of Child Psychology and Psychiatry*, 53(4), pp. 425-432. Available at: <https://doi.org/10.1111/j.1469-7610.2012.02538.x>.
- Solari, E., Hall, C., and McGinty, A. (2021) Brick by brick: A series of landmark studies pointing to the importance of early reading intervention, *The Reading League Journal*, January/February, pp. 18-21.
- Suggate, S.P. (2016) A meta-analysis of the long-term effects of phonemic awareness, phonics, fluency, and reading comprehension interventions, *Journal of Learning Disabilities*, 49(1), pp. 77–96. Available at: <https://doi.org/10.1177/0022219414528540>.
- Torgesen, J.K. (2004) Lessons learned from research on interventions for students who have difficulty learning to read, in McCardle, P. and Chhabra, V. (eds.) *The voice of evidence in reading research*. Baltimore: Paul H. Brookes Publishing Co., pp. 355–382.
- Tunmer, W.E., and Greaney, K.T. (2010) Defining dyslexia, *Journal of Learning Disabilities*, 43(3), pp. 229-243. Available at: <https://doi.org/10.1177/0022219409345009>.
- Wanzek, J., Vaughn, S., Scammacca, N. K., Gatlin, B., Walker, M. A., and Capin, P. (2016) Meta-analyses of the effects of tier 2 type reading interventions in grades K-3. *Educational Psychology Review*, 28(3), 551–576. <https://doi.org/10.1007/s10648-015-9321-7>
- Wanzek, J., Stevens, E. A., Williams, K. J., Scammacca, N., Vaughn, S., and Sargent, K. (2018) Current evidence on the effects of intensive early reading interventions. *Journal of Learning Disabilities*, 51(6), 612–624. <https://doi.org/10.1177/0022219418775110>
- White, C. M., and Schatschneider, C. (2023) Are two screeners better than one? A simulation study of correlation and classification in universal screening. *Contemporary School Psychology*. <https://doi.org/10.1007/s40688-023-00478-0>