
Thank you for your request to our REL Reference Desk regarding evidence-based information about emergent literacy. Ask A REL is a collaborative reference desk service provided by the ten regional educational laboratories (REL) that, by design, functions much in the same way as a technical reference library. It provides references, referrals, and brief responses in the form of citations on research based education questions.

The information below represents the most rigorous research available. Researchers consider the type of methodology and give priority to research reports that employ well described and thorough methods. The resources were also selected based on the date of the publication with a preference for research from the last ten years. Additional criteria for inclusion include the source and funder of the resource.

Question: *We are planning a professional development activity for new regional staff in Florida. These regional staff will be responsible for providing programmatic support to child care providers. I am requesting recommendations for articles and books on emergent literacy.*

Search Process

Key words and search strings used in the search: *emergent literacy AND best practice; prekindergarten AND reading instruction; early childhood AND emergent literacy*

Search databases and websites:

1. ERIC: <http://www.eric.ed.gov/>
2. JSTOR: <http://www.jstor.org/action/showAdvancedSearch>
3. Google Scholar: www.google.com/scholar
4. Institute of Education Sciences (IES) Resources: <http://ies.ed.gov>
5. What Works Clearinghouse: <http://ies.ed.gov/ncee/wwc/>

Sample Citations Retrieved:

Burchinal, M., Vandergrift, N., Pianta, R., & Mashburn, A. (2010). Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs. *Early Childhood Research Quarterly*, 25, 166-176. doi: 10.1016/j.ecresq.2009.10.004

Abstract/Summary: Over the past five decades, the federal government and most states have invested heavily in providing publicly-funded child care and early education opportunities for 3- and 4-year-old children from low-income families. Policy makers and parents want to identify "the level" or "threshold" in quality of teacher-child interaction and intentional instruction related

to better child outcomes to most efficiently use child care to improve school readiness. Academic and social outcomes for children from low-income families were predicted from measures of teacher-child interactions and instructional quality in a spline regression analysis of data from an 11-state pre-kindergarten evaluation. Findings suggested that the quality of teacher-child interactions was a stronger predictor of higher social competence and lower levels of behavior problems in higher than in lower quality classrooms. Further, findings suggested that quality of instruction was related to language, read and math skills more strongly in higher quality than in lower quality classrooms. These findings suggest that high-quality classrooms may be necessary to improve social and academic outcomes in pre-kindergarten programs for low-income children.

Callaghan, G., & Madelaine, A. (2012). Levelling the playing field for kindergarten entry: Research implications for preschool early literacy instruction. *Australasian Journal of Early Childhood*, 37(1), 13-23.

Abstract/Summary: The purpose of this paper is to consider the importance of intervening with early literacy instruction at the preschool level. Research has found phonological awareness skills in preschool to be one of the most robust predictors of early reading success in a child's first few years of formal schooling. The efficacy of phonological awareness instruction at the preschool level is discussed, as well as the research implications for best practice in teaching it. Shared book reading plays an important role in facilitating oral language development in young children. Two types of shared book-reading techniques (dialogic and non-dialogic) are reviewed, and their effect on oral language outcomes is examined. A plethora of research has examined phonological awareness intervention in preschool and kindergarten, but much less research is available on shared book-reading interventions in these settings. It is concluded that both phonological awareness and shared book reading are necessary components of a preschool early literacy intervention, as they are important prerequisite skills for decoding, spelling and reading comprehension.

Camilli, G., Vargas, S., Ryan, S., & Barnett, W. S. (2010). Meta-analysis of the effects of early education interventions on cognitive and social development. *Teachers College Record*, 112, 151-179.

Abstract/Summary: There is much current interest in the impact of early childhood education programs on preschoolers and, in particular, on the magnitude of cognitive and affective gains. Because this new segment of public education requires significant funding, accurate descriptions are required of the potential benefits and costs of implementing specific preschool programs. To address this issue comprehensively, a meta-analysis was conducted for the purpose of synthesizing the outcomes of comparative studies in this area. A total of 123 comparative studies of early childhood interventions were analyzed. Each study provided a number of contrasts,

where a contrast is defined as the comparison of an intervention group of children with an alternative intervention or no intervention group. A prevalent pedagogical approach in these studies was direct instruction, but inquiry-based pedagogical approaches also occurred in some interventions. No assumption was made that nominally similar interventions were equivalent. The meta-analytic database included both quasi-experimental and randomized studies. A coding strategy was developed to record information for computing study effects, study design, sample characteristics, and program characteristics. Consistent with the accrued research base on the effects of preschool education, significant effects were found in this study for children who attend a preschool program prior to entering kindergarten. Although the largest effect sizes were observed for cognitive outcomes, a preschool education was also found to impact children's social skills and school progress. Specific aspects of the treatments that positively correlated with gains included teacher-directed instruction and small-group instruction, but provision of additional services tended to be associated with smaller gains. Given the current state of research on the efficacy of early childhood interventions, there is both good and bad news. The good news is that a host of original and synthetic studies have found positive effects for a range of outcomes, and this pattern is clearest for outcomes relating to cognitive development. Moreover, many promising variables for program design have been identified and linked to outcomes, though little more can be said of the link than that it is positive. The bad news is that there is much less empirical information available for designing interventions at multiple levels with multiple components.

Cunningham, A., E., Zibulsky, J., & Callahan, M., D. (2009). Starting small: Building preschool teacher knowledge that supports early literacy development. *Reading & Writing*, 22, 487-510. doi: 10.1007/s11145-009-9164-z

Abstract/Summary: A growing body of research is emerging that investigates the teacher knowledge base essential for supporting reading and writing development at the elementary school level. However, even though increasing recognition is given to the pivotal role that preschool teachers play in cultivating children's early literacy development, considerably fewer studies have examined the knowledge base of these early childhood educators. This paper will discuss the existing research literature and then examine a recent study that investigated the knowledge constructs of 20 preschool teachers. Findings indicate that preschool teachers lack the disciplinary knowledge required to promote early literacy and, in fact, tend to overestimate what they know, creating a potential obstacle for seeking additional knowledge. Recommendations for strengthening professional development programs and developing more robust measures of preschool teacher knowledge are proposed.

Dennis, L. R., Lynch, S. A., & Stockall, N. (2012). Planning literacy environments for diverse preschoolers. *Young Exceptional Children, 15*(3), 3-19. doi: 10.1177/1096250612437745

Abstract/Summary: Emergent literacy" is defined as the developmental process beginning at birth in which children acquire the foundation for reading and writing, including language, listening comprehension, concepts of print, alphabetic knowledge, and phonological awareness. The environment within which emergent literacy skills develop is also an important consideration. Children who are immersed in literacy-rich environments learn about language, reading, and writing by participating in meaningful activities such as handling books and listening to stories read aloud. Teachers recognize the impact that books and book reading can have in the development of early literacy skills for young children. They also realize that teachers are responsible for ensuring that children are exposed to literacy and literacy-related concepts. Preparing the classroom, selecting appropriate books, and engaging the children during book reading sessions are all important aspects of good literacy practice. This article discusses these considerations for teachers of young children.

Fantuzzo, J. W., Gadsden, V. L., & McDermott, P. A. (2011). An integrated curriculum to improve mathematics, language, and literacy for head start children. *American Educational Research Journal, 48*, 763-793. doi: 10.3102/0002831210385446

Abstract/Summary: This article reports on the development and field trial of an integrated Head Start curriculum (Evidence-Based Program for Integrated Curricula [EPIC]) that focuses on comprehensive mathematics, language, and literacy skills. Seventy Head Start classrooms (N = 1,415 children) were randomly assigned to one of two curriculum programs: EPIC or the Developmental Learning Materials Early Childhood Express, with curricula implemented as stand-alone programs. EPIC included instruction in mathematics, language, literacy, and approaches to learning skills; formative assessment; and a learning community for teachers. Multilevel growth modeling through four direct assessments revealed significant main effects and growth rates in mathematics and listening comprehension favoring EPIC, controlling for demographics and special needs and language status. Both programs produced significant growth rates in literacy.

Justice, L. M., McGinty, A. S., Piasta, S. B., Kaderavek, J. N., & Fan, X. (2010). Print-focused read-alouds in preschool classrooms: Intervention effectiveness and moderators of child outcomes. *Language, Speech, and Hearing Services in Schools, 41*, 504-520. doi: 10.1044/0161-1461(2010/09-0056)

Abstract/Summary: This study was conducted to determine the effectiveness of teachers' use of a print-referencing style during whole-class read-alouds with respect to accelerating 4- and 5-

year-old children's print-knowledge development. It also examined 8 specific child- and setting-level moderators to determine whether these influenced the relation between teachers' use of a print-referencing style and children's print-knowledge development. In this randomized controlled trial, 59 teachers were randomly assigned to 2 conditions. Teachers in the experimental group ($n = 31$) integrated explicit references to specified print targets within each of 120 read-aloud sessions conducted in their classrooms over a 30-week period; comparison teachers ($n = 28$) read the same set of book titles along the same schedule but read using their business-as-usual reading style. Children's gains over the 30-week period on a composite measure of print knowledge were compared for a subset of children who were randomly selected from the experimental ($n = 201$) and comparison ($n = 178$) classrooms. When controlling for fall print knowledge, child age, and classroom quality, children who experienced a print-referencing style of reading had significantly higher print knowledge scores in the spring than did children in the comparison classroom. None of the child-level (age, initial literacy skills, language ability) or setting-level characteristics (program type, instructional quality, average level of classroom socioeconomic status, teachers' education level, teachers' experience) significantly moderated intervention effects. Considered in tandem with prior study findings concerning this approach to emergent literacy intervention, print-focused read-alouds appear to constitute an evidence-based practice with net positive impacts on children's literacy development.

Lonigan, C. J., Farver, J. M., Phillips, B. M., & Clancy-Menchetti, J. (2011). Promoting the development of preschool children's emergent literacy skills: A randomized evaluation of a literacy-focused curriculum and two professional development models. *Reading and Writing: An Interdisciplinary Journal*, 24, 305-337. doi: 10.1007/s11145-009-9214-6

Abstract/Summary: To date, there have been few causally interpretable evaluations of the impacts of preschool curricula on the skills of children at-risk for academic difficulties, and even fewer studies have demonstrated statistically significant or educationally meaningful effects. In this cluster-randomized study, we evaluated the impacts of a literacy-focused preschool curriculum and two types of professional development on the emergent literacy skills of preschool children at-risk for educational difficulties. Forty-eight preschools were randomly assigned to a business-as-usual control, a literacy-focused curriculum with workshop-only professional development, or a literacy-focused curriculum with workshop plus in-class mentoring professional development conditions. An ethnically diverse group of 739 preschool children was assessed on language and literacy outcomes. Results revealed significant and moderate effects for the curriculum and small, mostly non-significant, effects of professional development across child outcomes and classroom measures.

Lonigan, C. J., Allan, N. P., & Lerner, M. D. (2011). Assessment of preschool early literacy skills: Linking children's educational needs with empirically supported instructional activities. *Psychology in the Schools, 48*, 488-501. doi: 10.1002/pits.20569

Abstract/Summary: The importance of the preschool period in becoming a skilled reader is highlighted by a significant body of evidence that preschool children's development in the areas of oral language, phonological awareness, and print knowledge is predictive of how well they will learn to read once they are exposed to formal reading instruction in elementary school. Although there are now a number of empirically supported instructional activities for helping children who are at risk of later reading difficulties to acquire these early literacy skills, limitations in instructional time and opportunities in most preschool settings require the use of valid assessment procedures to ensure that instructional resources are utilized efficiently. In this article, we discuss the degree to which informal, diagnostic, screening, and progress-monitoring assessments of preschool early literacy skills can inform instructional decisions by considering the strengths and weaknesses of each approach to assessment.

Lonigan, C. J., Schatschneider, C., Westberg, L. (2008). Impact of code-focused interventions on young children's early literacy skills. *Developing early literacy Report of the National Early Literacy Panel*. Louisville, KY: Author.

Abstract/Summary: "The National Early Literacy Panel (NELP) identified 83 studies that examined the effectiveness of various interventions that attempted to teach children code-related skills. Interventions in this category focused on teaching aspects of the alphabetic principle (i.e., the knowledge that letters in written words represent the sounds in spoken words). This was the largest collection of intervention studies that the panel reviewed, and it included interventions aimed at the development of phonological awareness (PA), alphabet knowledge (AK), and early decoding skills (i.e., phonics). The studies analyzed in this chapter are listed at the end of the chapter. Most often, the children in these studies were attending some type of preschool or kindergarten program, and the interventions were implemented in addition to whatever education activities were already part of their preschool or kindergarten experiences. Children in the comparison groups usually received the regular (often unspecified) activities of their preschool or kindergarten programs, but sometimes the comparison-group children received an alternative intervention designed to provide a specific contrast to the code-focused teaching" (p. 107).

Mraz, M. (2011). Supporting early childhood educators through professional development partnerships. *NHSA Dialog, 14*, 332-338. doi: 10.1080/15240754.2011.613128

Abstract/Summary: This article summarizes the findings of a study that examined instruction in early childhood classrooms where teachers participated in high-quality, sustained, and intensive

professional development through an Early Childhood Educator Professional Development partnership on literacy practices essential to school success. Comparisons made between teachers who participated in the professional development program and those who did not found consistent differences in instructional practices. Practical implications of the findings for early literacy teachers are discussed.

Neumann, S. B., & Cunningham, L. (2009). The Impact of Professional Development and Coaching on Early Language and Literacy Instructional Practices. *American Educational Research Journal*, 46, 532-566. doi: 10.3102/0002831208328088

Abstract/Summary: This study examines the impact of professional development on teacher knowledge and quality early language and literacy practices in center- and home-based care settings. Participants from 291 sites (177 centers; 114 home-based) in four cities were randomly selected to: Group 1, 3-credit course in early language and literacy; Group 2, course plus ongoing coaching; Group 3, control group. Analysis of covariance indicated no significant differences between groups on teacher knowledge. However, there were statistically significant improvements in language and literacy practices for teachers who received coursework plus coaching with substantial effect sizes for both center- and home-based providers. Professional development alone had negligible effects on improvements in quality practices. Coursework and coaching may represent a promising quality investment in early childhood.

Pentimonti, J. M., & Justice, L. M. (2010). Teachers' use of scaffolding strategies during read alouds in the preschool classroom. *Early Childhood Education Journal*, 37, 241-248. doi: 10.1007/s10643-009-0348-6

Abstract/Summary: Relatively little is known regarding preschool teachers' use of specific scaffolds, including those high support scaffolds (e.g., co-participating, eliciting, reducing choices) that may be important for children who are struggling to acquire language and literacy concepts. The goal of this study was to characterize preschool teachers' use of six types of scaffolds (generalizing, reasoning, predicting, co-participating, reducing choices, eliciting; see O'Connor et al. in "Ladders to literacy", Paul H. Brookes Publishing, Baltimore, MD, 2005) within the whole group read aloud session. Two specific questions were addressed: (1) To what extent do preschool teachers use high and low support scaffolds during whole group read aloud sessions? and (2) To what extent does preschool teachers' perceived frequency of use of specific scaffolds correspond to their actual use of scaffolds? Videotaped classroom observations were carried out for five preschool teachers conducting whole group read alouds in their classrooms; frequency of use for six types of scaffolds was coded using systematic observation procedures. Results indicated that teachers showed a preference for three types of scaffolds, all of which were low support, and that the three types of high support scaffolds occurred at very low rates.

Additionally, results showed a substantial discrepancy between teachers' perceived frequency of use of specific types of scaffolds relative to their actual use. Together, findings suggest that preschool teachers may benefit from professional development focused on using a range of scaffolds, to include high support scaffolds beneficial to children who may need high levels of support to participate in read alouds.

Phillips, B. M., Clancy-Menchetti, J., & Lonigan, C. J. (2008). Successful phonological awareness instruction with preschool children: Lessons from the classroom. *Topics in Early Childhood Special Education, 28*, 3-17. doi: 10.1177/0271121407313813

Abstract/Summary: Phonological awareness is one of several key precursor skills to conventional literacy that develop during the preschool period. Significant amounts of research support the causal and predictive relation between phonological awareness and children's ease of learning to decode and spell. However, many preschool curricula and early childhood educational and caregiving settings are still lacking in robust instruction in this area, and many preschool instructors do not yet have a strong grasp of the developmental trajectory of phonological awareness nor of how to incorporate effective support and instruction into a developmentally appropriate teaching plan. This article summarizes what is known from high-quality research about the development of phonological awareness and about how this informs effective pedagogical strategies for its instruction. Numerous examples are given of effective instructional strategies derived from randomized trials of preschool curricula and interventions.

Phillips, B. M., & Piasta, S. B. (2013). Phonological awareness and print knowledge: Key precursors and instructional targets to promote reading success. In T. Shanahan and C. J. Lonigan (Eds.), *Literacy in Preschool and Kindergarten Children: The National Early Literacy Panel and Beyond*, pp. 95-116. New York, NY: Brookes.

Abstract/Summary: This chapter summarizes the relevant National Early Literacy Panel (NELP; 2008) results on the efficacy of teaching phonological awareness (PA) and alphabetical knowledge (AK) in preschool and kindergarten classrooms and extends this work by 1) highlighting a number of empirically supported instructional design elements for teaching PA and AK, 2) reviewing observational research on the implementation of PA and AK instruction in early childhood, and 3) offering some suggestions for future research on both PA and AK instructional design and professional development. We generally limit our review to studies of children learning literacy in English but also highlight selected work in other languages where appropriate. Furthermore, our focus in this chapter is limited to the development of children's early code-focused "inside-out" skills, although we readily acknowledge that such instruction is just one element of a comprehensive early literacy program.

Piasta, S. B., & Wagner, R. K. (2010). Developing early literacy skills: A meta-analysis of alphabet learning and instruction. *Reading Research Quarterly, 45*(1), 8-38.

Abstract/Summary: Alphabet knowledge is a hallmark of early literacy and facilitating its development has become a primary objective of preschool instruction and intervention. However, little agreement exists about how to promote the development of alphabet knowledge effectively. A meta-analysis of the effects of instruction on alphabet outcomes demonstrated that instructional impacts differed by type of alphabet outcome examined and content of instruction provided. School-based instruction yielded larger effects than home-based instruction; small-group instruction yielded larger effects than individual tutoring programs. We found minimal evidence of transfer of alphabet instruction to early phonological, reading, or spelling skills. Implications for research and practice are discussed.

Piasta, S. B., Purpura, D. J., & Wagner, R. K. (2010). Fostering alphabet knowledge development: A comparison of two instructional approaches. *Reading & Writing, 23*, 607-626. doi:10.1007/s11145-009-9174-x

Abstract/Summary: Preschool-aged children (n = 58) were randomly assigned to receive small group instruction in letter names and/or sounds or numbers (treated control). Alphabet instruction followed one of two approaches currently utilized in early childhood classrooms: combined letter name and sound instruction or letter sound only instruction. Thirty-four 15 minute lessons were provided, with children pre- and post-tested on alphabet, phonological awareness, letter-word identification, emergent reading, and developmental spelling measures. Results suggest benefits of combined letter name and sound instruction in promoting children's letter sound acquisition. Benefits did not generalize to other emergent literacy skills.

Puranik, C. S., Lonigan, C. J., & Kim, Y. (2011). Contributions of emergent literacy skills to name writing, letter writing, and spelling in preschool children. *Early Childhood Research Quarterly, 26*, 465-474. doi: 10.1016/j.ecresq.2011.03.002

Abstract/Summary: The purpose of this study was to examine which emergent literacy skills contribute to preschool children's emergent writing (name-writing, letter-writing, and spelling) skills. Emergent reading and writing tasks were administered to 296 preschool children aged 4-5 years. Print knowledge and letter-writing skills made positive contributions to name writing; whereas alphabet knowledge, print knowledge, and name writing made positive contributions to letter writing. Both name-writing and letter-writing skills made significant contributions to the

prediction of spelling after controlling for age, parental education, print knowledge, phonological awareness, and letter-name and letter-sound knowledge; however, only letter-writing abilities made a significant unique contribution to the prediction of spelling when both letter-writing and name-writing skills were considered together. Name writing reflects knowledge of some letters rather than a broader knowledge of letters that may be needed to support early spelling. Children's letter-writing skills may be a better indicator of children's emergent literacy and developing spelling skills than are their name-writing skills at the end of the preschool year. Spelling is a developmentally complex skill beginning in preschool and includes letter writing and blending skills, print knowledge, and letter-name and letter-sound knowledge.

Purpura, D. J., Hume, L. E., Sims, D. M., & Lonigan, C. J. (2011). Early literacy and early numeracy: The value of including early literacy skills in the prediction of numeracy development. *Journal of Experimental Child Psychology, 110*, 647-658. doi: 10.1016/j.jecp.2011.07.004

Abstract/Summary: The purpose of this study was to examine whether early literacy skills uniquely predict early numeracy skills development. During the first year of the study, 69 3- to 5-year-old preschoolers were assessed on the Preschool Early Numeracy Skills (PENS) test and the Test of Preschool Early Literacy Skills (TOPEL). Participants were assessed again a year later on the PENS test and on the Applied Problems and Calculation subtests of the Woodcock-Johnson III Tests of Achievement. Three mixed effect regressions were conducted using Time 2 PENS, Applied Problems, and Calculation as the dependent variables. Print Knowledge and Vocabulary accounted for unique variance in the prediction of Time 2 numeracy scores. Phonological Awareness did not uniquely predict any of the mathematics domains. The findings of this study identify an important link between early literacy and early numeracy development.

Reid, E. R. (2010). The history of early literacy research and its effect on the project "enriching a child's literacy environment (ECLE)". *Forum on Public Policy Online, 2010*(5), 31-31.

Abstract/Summary: By presenting a brief general history of educators' efforts and struggles to influence the intellectual and social growth of young children, it will help the reader understand why the Exemplary Center for Reading Instruction (ECRI), a research and consulting group concerned with instructional practices, sought for and obtained funds from the U.S. Department of Education to conduct three major studies pertaining to early childhood education over a period of 25 years. The first study was to determine the best age to introduce literacy instruction (three, four, five, or six) and to see if early gains in achievement, resulting from those experiences, would be maintained once the children reached the ages of seven or eight. A second study from 1983 through 1991 known as "Early Start" was conducted with preschool and kindergarten age students as an integral part of a total school curriculum program. A third study, "Enriching a

Child's Literacy Environment" (ECLE), was developed and evaluated from 1988 through 1993 and then funded by the Program Effectiveness Panel, U.S. Department of Education in 1994 so ECLE could be disseminated nationally. Its purpose is to teach parents and care providers of infants six months of age to three years of age to enrich their home/center environment and, thereby, improve their children's mental and psychomotor skills. Descriptions of the studies, their findings and effects are described in this paper.

Shanahan, T., & Lonigan, C. J. (2010). The national early literacy panel: A summary of the process and the report. *Educational Researcher*, 39, 279-285. Doi: 10.3102/0013189X10369172

Abstract/Summary: This article summarizes "Developing Early Literacy: Report of the National Early Literacy Panel," which was published in 2008. That report provides an extensive meta-analysis of approximately 300 studies showing which early literacy measures correlate with later literacy achievement. It also provides a series of meta-analyses of a comprehensive collection of experimental and quasi-experimental studies of ways of teaching early literacy (preschool and kindergarten) that have been published in refereed journals. These analyses examine the effects of code-based instruction, shared book reading, home/parent interventions, preschool/kindergarten interventions, and early language teaching.

Wilcox, J. M., Gray, S. I., Guimond, A. B., & Lafferty, A. E. (2011). Efficacy of the "TELL" language and literacy curriculum for preschoolers with developmental speech and/or language impairment. *Early Childhood Research Quarterly*, 26, 278-294. doi: 10.1016/j.ecresq.2010.12.003

Abstract/Summary: The purpose of this investigation was to examine the efficacy of a new preschool oral language and early literacy curriculum package ("Teaching Early Literacy and Language" ["TELL"]) for children with developmental speech and/or language impairment (DSL) either as a primary (e.g., specific to speech and/or language) or secondary impairment (e.g., developmental delay that includes DSL). Participants included 118 children (30 females, 88 males, M age = 53.58 months) with DSL and their 29 preschool teachers. The design was a randomized controlled trial (RCT) with assignment to experimental versus contrast conditions at the classroom level. Teachers in "TELL" classes received formal training, in-class support, and mentoring to implement the curriculum. Dependent measures for the children included scores on the "Clinical Evaluation of Language Fundamentals-Preschool 2nd" edition (CELF-P2), the "Phonological Awareness Literacy Screening for Preschool" ("PALS-PreK"), the "Renfrew Bus Story" ("BUS"), and a receptive and expressive vocabulary measure developed for this investigation (VOCAB). Results indicated that when compared to the contrast group, children in the "TELL" condition demonstrated greater gains on the phonological awareness subtest of the

"CELF-P2," the sentence length score of the BUS, the letter sounds, beginning sound awareness, and rhyme awareness subtests of the "PALS-PreK", and "VOCAB." Results suggest that the "TELL" curriculum package has promise for promoting gains in early literacy and oral language skills in preschool children with DLSI.

Duke, N. K., & Block, M. K. (2012). Improving reading in the primary grades. *Future of Children*, 22, 55-72.

Abstract/Summary: Almost fifteen years have passed since the publication of the National Research Council's seminal report "Preventing Reading Difficulties in Young Children," which provided research-based recommendations on what could be done to better position students in pre-kindergarten through third grade for success in grade four and above. This article by Nell Duke and Meghan Block first examines whether specific key recommendations from the report have been implemented in U.S. classrooms. They find that recommendations regarding increased access to kindergarten and greater attention to and improvement of students' word-reading skills have been widely adopted. Others have not. Vocabulary and comprehension, long neglected in the primary grades, still appear to be neglected. Contrary to the report's recommendations, attention to building conceptual and content knowledge in science and social studies has actually decreased in the past fifteen years. In other words, the easier-to-master skills are being attended to, but the broader domains of accomplishment that constitute preparation for comprehension and learning in the later grades--vocabulary knowledge, comprehension strategy use, and conceptual and content knowledge--are being neglected. Near stagnation in fourth-grade students' comprehension achievement is thus unsurprising. The authors then turn to research and reviews of research on improving primary-grade reading published since 1998, when "Preventing Reading Difficulties" was issued. They discuss several instructional approaches identified as effective in improving word-reading skill, vocabulary and conceptual knowledge, comprehension strategies, and reading outside of school; they discuss advances in interventions for struggling readers, and in whole-school literacy reform. Duke and Block then identify three key obstacles that have prevented widespread adoption of these best practices in teaching reading. The first obstacle is a short-term orientation toward instruction and instructional reform that perpetuates a focus on the easier-to-learn reading skills at the expense of vocabulary, conceptual and content knowledge, and reading comprehension strategies. The second is a lack of expertise among many educators in how to effectively teach these harder-to-master reading skills, and the third is the limited time available in the school day and year to meet unprecedented expectations for children's learning. Policy makers, the education community, and parents must attend to these three challenges if they wish to see meaningful improvements in the reading skills of American children.

Gersten, R., Compton, D., Connor, C.M., Dimino, J., Santoro, L., Linan-Thompson, S., and Tilly, W.D. (2008). *Assisting students struggling with reading: Response to Intervention and multi-tier intervention for reading in the primary grades. A practice guide.* (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc/publications/practiceguides/>.

Abstract/Summary: This guide offers five specific recommendations to help educators identify struggling readers and implement evidence-based strategies to promote their reading achievement. Teachers and reading specialists can utilize these strategies to implement RtI and multi-tier intervention methods and frameworks at the classroom or school level. Recommendations cover how to screen students for reading problems, design a multi-tier intervention program, adjust instruction to help struggling readers, and monitor student progress.

Juel, C., & Minden-Cupp, C. (2000). Learning to read words: Linguistic units and instructional strategies. *Reading Research Quarterly*, 35, 458-492. doi: 10.1598/RRQ.35.4.2

Abstract/Summary: Analyzes word recognition instruction in four first- grade classrooms. Finds that: differential instruction may be helpful in first grade; children who enter first grade with low literacy benefit from early and heavy exposure to phonics; and a structured phonics curriculum that includes both onsets and rimes and sounding and blending phonemes within rimes is effective.

Maynard, K. L., Pullen, P. C., & Coyne, M. D. (2010). Teaching vocabulary to first-grade students through repeated shared storybook reading: A comparison of rich and basic instruction to incidental exposure. *Literacy Research and Instruction*, 49, 209-242. doi: 10.1080/19388070902943245

Abstract/Summary: The purpose of this study was to evaluate effectiveness of rich and basic instruction to incidental exposure of target words with first-grade students within the context of repeated shared storybook reading. Participants were 224 first-grade students, randomly assigned to a condition by classroom, from three elementary schools that serve large numbers of students at-risk for experiencing reading difficulties. All three conditions received large group instruction of the storybook intervention in three 20-30 minute sessions over the course of one week. Results indicated that rich instruction was superior to both basic and incidental exposure across all taught measures. These results were maintained at delayed post-test three weeks following the conclusion of the intervention. Implications are discussed in relation to a three-step approach to vocabulary instruction.

McCutchen, D., Abbott, R. D., Green, L. B., Beretvas, N. S., Cox, S., Potter, N. S., Quirogo, T., & Gray, A. L. (2002). Beginning literacy: Links among teacher knowledge, teacher practice, and student learning. *Journal of Learning Disabilities, 35*, 69-86. doi: 10.1177/002221940203500106

Abstract/Summary: A study investigated the effects of a 2-week summer institute that taught kindergarten and first-grade teachers (n=44) about learning disabilities and effective instruction, stressing the importance of explicit instruction in phonological and orthographic awareness. First-graders taught by trained teachers outperformed controls on phonological awareness and on all reading measures.

Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). *Improving reading comprehension in kindergarten through 3rd grade: A practice guide* (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from whatworks.ed.gov/publications/practiceguides.

Abstract/Summary: Students who read with understanding at an early age gain access to a broader range of texts, knowledge, and educational opportunities, making early reading comprehension instruction particularly critical. This guide recommends five specific steps that teachers, reading coaches, and principals can take to successfully improve reading comprehension for young readers.

Taylor, B. M., Pearson, D. P., Clark, K., & Walpole, S. (2000). Effective schools and accomplished teachers: Lessons about primary-grade reading instruction in low-income schools. *Elementary School Journal, 101*, 121-165. doi: 10.1086/499662

Abstract/Summary: We investigated school and classroom factors related to primary-grade reading achievement in schools with moderate to high numbers of students on subsidized lunch. 14 schools across the United States and 2 teachers in each of grades K-3 participated. 2 low and 2 average readers per class were tested individually in the fall and spring on measures of reading accuracy, fluency, and comprehension. The teachers were observed 5 times by trained observers between December and April during an hour of reading instruction, completed a written survey, completed a weekly log of reading/language arts activities in February and again in April, and were interviewed in May. Each school was identified as most, moderately, or least effective based on several measures of reading achievement in the primary grades. A combination of school and teacher factors, many of which were intertwined, was found to be important in the most effective schools. Statistically significant school factors included strong links to parents, systematic assessment of pupil progress, and strong building communication and collaboration.

A collaborative model for the delivery of reading instruction, including early reading interventions, was a hallmark of the most effective schools. Statistically significant teacher factors included time spent in small-group instruction, time spent in independent reading, high levels of student on-task behavior, and strong home communication. More of the most accomplished teachers and teachers in the most effective schools supplemented explicit phonics instruction with coaching in which they taught students strategies for applying phonics to their everyday reading. Additionally, more of the most accomplished teachers and teachers in the most effective schools employed higher-level questions in discussions of text, and the most accomplished teachers were more likely to ask students to write in response to reading. In all of the most effective schools, reading was clearly a priority at both the school and classroom levels.

Weiser, B., & Mathes, P. (2011). Using encoding instruction to improve the reading and spelling performances of elementary students at risk for literacy difficulties: A best-evidence synthesis. *Review of Educational Research, 81*, 170-200. doi: 10.3102/0034654310396719

Abstract/Summary: Although connectionist models provide a framework explaining how the decoding and encoding abilities work reciprocally to enhance reading and spelling ability, encoding instruction in today's schools is not a priority. Although a limited amount of high-quality experimental or control studies to date (N = 11) give empirical support to using direct, explicit encoding instruction to increase the reading and spelling abilities of those students at risk for literacy failure, the benefits of integrating this instruction into current reading curriculums warrant further consideration. Students receiving encoding instruction and guided practice that included using (a) manipulatives (e.g., letter tiles, plastic letters) to learn phoneme-grapheme relationships and words and (b) writing phoneme-grapheme relationships and words made from these correspondences significantly outperformed contrast groups not receiving encoding instruction. Robust Cohen's d effect sizes, favoring the treatment groups, were found in areas of phonemic awareness, spelling, decoding, fluency, comprehension, and writing. Educational implications of these findings suggest that there is support for using encoding instruction to increase the literacy performances of at-risk primary grade students and that encoding instruction can be successful in improving the reading and spelling performances of older students with learning disabilities. Importantly, there is also evidence to support the transfer effects of early encoding instruction on later reading, writing, and spelling performances.

Wharton-McDonald, R., Pressley, M., & Hampston, J. M. (1998). Literacy instruction in nine first-grade classrooms: Teacher characteristics and student achievement. *The Elementary School Journal, 99*, 101-128. doi: 10.1086/461918

Abstract/Summary: Classroom observations & in-depth interviews were used to study first-

grade teachers (N = 9) classified as outstanding or typical in their ability to help students develop literacy skills. Based on observational measures of student reading & writing achievement & student engagement, three groups of teachers emerged from the original nine. Eight practices & beliefs distinguished the instruction of the teachers whose students demonstrated the highest levels on these measures: (1) coherent & thorough integration of skills with high-quality reading & writing experiences, (2) a high density of instruction (integration of multiple goals in a single lesson), (3) extensive use of scaffolding, (4) encouragement of student self-regulation, (5) a thorough integration of reading & writing activities, (6) high expectations for all students, (7) masterful classroom management, & (8) an awareness of their practices & the goals underlying them. Teaching practices observed in seven of the nine classrooms are also discussed. These data highlight the complexity of primary literacy instruction & support the conclusion that effective primary-level literacy instruction is a balanced integration of high-quality reading & writing experiences & explicit instruction of basic literacy skills.

Organizations:

- International Reading Association: <http://www.reading.org>
- Reading is Fundamental: <http://www.rif.org>
- The Meadows Center for Preventing Educational Risk: <http://www.meadowscenter.org>
- The IRIS Center: <http://iris.peabody.vanderbilt.edu>
- Florida Center for Reading Research: <http://www.fcrr.org>
- Center on Instruction: <http://www.centeroninstruction.org/>
- Reading Rockets: <http://www.pbs.org/launchingreaders/>
- National Association for Education of Young Children: <http://www.naeyc.org>
- National Center on Response to Intervention: <http://www.rti4success.org>

- **Institute of Education Sciences (IES), public search engine available at:**
<http://ies.ed.gov/pubsearch/>
- **What Works Clearinghouse:** <http://ies.ed.gov/ncee/wwc/>

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