
Thank you for your request to our REL Reference Desk regarding evidence-based information about literacy instructional practices for students in grades 4-8. 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: *What research is available to guide schools in selecting and implementing effective literacy instructional practices for students in grades 4-8?*

Search Process

Key words and search strings used in the search: *middle school AND effective reading instruction; adolescent literacy AND best practice instruction*

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:

Alvermann, D. E. (2002). Effective literacy instruction for adolescents. *Journal of Literacy Research, 34*, 189-208. doi: 10.1207/s15548430jlr3402_4

Abstract/Summary: Discusses the importance of keeping adolescents' interests and needs foremost in mind when designing literacy instruction at the middle and high school level. Argues that effective adolescent literacy instruction must address issues of self-efficacy and student engagement with a variety of texts in diverse settings. Contends it must also attend to literacy demands of subject area classes, struggling readers, issues of critical literacy, and to participatory instructional approaches.

Applebee, A. N., Langer, J. A., Nystrand, M., & Gamoran, A. (2003). Discussion-based approaches to developing understanding: Classroom instruction and student performance in middle and high school English. *American Educational Research Journal*, 40, 685-730. doi: 10.3102/00028312040003685

Abstract/Summary: This study examines the relationships between student literacy performance and discussion-based approaches to the development of understanding in 64 middle and high school English classrooms. A series of hierarchical linear models indicated that discussion-based approaches were significantly related to spring performance, controlling for fall performance and other background variables. These approaches were effective across a range of situations and for low-achieving as well as high-achieving students, although interpretations are complicated because instruction is unequally distributed across tracks. Overall, the results suggest that students whose classroom literacy experiences emphasize discussion-based approaches in the context of high academic demands internalize the knowledge and skills necessary to engage in challenging literacy tasks on their own.

Diliberto, J. A., Beattie, J. R., Flowers, C. P., & Algozzine, R. F. (2009). Effects of teaching syllable skills instruction on reading achievement in struggling middle school readers. *Literacy Research and Instruction*, 48(1), 14-27. doi: 10.1080/19388070802226253

Abstract/Summary: Direct, explicit, and systematic instruction of critical skills has been a hallmark of effective teaching for many years. In this study, we implemented a quasi experimental pre-/post-test design with nonequivalent groups to determine the effectiveness of syllable skills instruction on reading achievement. Classes were randomly assigned to control or treatment groups. Participants included middle-school students with high incidence disabilities, including attention deficit hyperactivity disorder (ADHD) and their peers at risk for reading failure. The syllable skills intervention included instruction in syllable patterns, syllabication steps and rules, and accenting patterns. Students practiced skills by decoding and encoding nonsense and low-frequency mono- and multisyllabic words. Statistically significant differences were evident between pre-test and post-test scores for three dependent measures: (a) word identification, (b) word attack, and (c) reading comprehension. The treatment group demonstrated greater increase from pre-test to post-test on word identification, word attack, and reading comprehension; and the gap in fluency performance between the groups decreased. We discuss these outcomes with regard to their implications for practice and future research.

Flanigan, K., & Greenwood, S. C. (2007). Effective content vocabulary instruction in the middle: Matching students, purposes, words, and strategies. *Journal of Adolescent & Adult Literacy*, 51, 226-238. doi: 10.1598/JAAL.51.3.3

Abstract/Summary: Despite what we have learned about effective vocabulary instruction, and despite the fact that many teachers know vocabulary is important, teachers do not always incorporate best practices with their own instruction. These authors argue that part of the reason may be that the "general" instructional recommendations of vocabulary research don't always help teachers, particularly content teachers, bridge theory and practice. The issues in teaching vocabulary are often "specific" to the content, the students, and the instructional purposes. To help teachers address questions of which words to teach, which strategies to use, and how long to spend on teaching them, the authors propose a "four-level" instructional framework tailored to content area vocabulary. Using this framework, the authors show content teachers how to choose words and methods that match their students and their purposes.

Fang, Z., & Schleppegrell, M. J. (2010). Disciplinary literacies across content areas: Supporting secondary reading through functional language analysis. *Journal of Adolescent & Adult Literacy*, 53, 587-597. doi: 10.1598/JAAL.53.7.6

Abstract/Summary: As the knowledge that students have to learn becomes more specialized and complex in secondary schools, the language that constructs such knowledge also becomes more technical, dense, abstract, and complex, patterning in ways that enable content experts to engage in specialized social and semiotic practices. In order to effectively engage with the texts of disciplinary learning at the secondary level, adolescents need to develop new literacy skills and strategies in each subject area. This paper illuminates some of the ways language is used in secondary science, history, and mathematics and describes an approach to secondary reading, functional language analysis, that offers teachers strategies for focusing on language itself as a way to help students comprehend and critique the advanced texts of secondary schooling.

Fang, Z., & Wei, Y. (2010). Improving middle school students' science literacy through reading infusion. *The Journal of Educational Research*, 103, 262-273. doi: 10.1598/JAAL.53.7.6

Abstract/Summary: Despite recent calls for border crossing between reading and science, few studies have examined the impact of reading infusion in the science curriculum on students' science literacy. In this quasi-experimental study, the authors investigated the effects of an inquiry-based science curriculum that integrated explicit reading strategy instruction and quality science trade books on the development of science literacy among middle school students. Students in 10 sixth-grade science classes from 1 public middle school in the United States were randomly assigned to 2 conditions: inquiry-based science only (IS) and inquiry-based science

plus reading (ISR). Results from the analyses of covariance showed that the ISR students significantly outperformed their IS peers on all measures of science literacy. It was suggested that even a modest amount of reading infusion could have a positive impact on middle school students' science literacy. The limitations and implications of the study were also discussed.

Houge, T. T., Geier, C., & Peyton, D. (2008). Targeting adolescents' literacy skills using one-to-one instruction with research-based practices. *Journal of Adolescent & Adult Literacy*, 51, 640-650. doi: 10.1598/JAAL.51.8.3

Abstract/Summary: Although there is evidence that literacy deficiencies in adolescents can be remedied with one-to-one tutoring using research-based instructional strategies, a review of current literature provides only limited information on transferring effective instructional strategies to learning environments outside of one-to-one tutoring centers. The authors of this article identify three components of successful one-to-one literacy tutoring programs, discuss what research reveals regarding one-to-one literacy instruction with adolescents, and provide commentary on how the instruction used in their reading clinic can be replicated for those attempting to apply one-to-one literacy instruction inside a tutoring center, resource room, or traditional classroom setting.

Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., and Torgesen, J. (2008). *Improving adolescent literacy: Effective classroom and intervention practices: A Practice Guide* (NCEE #2008-4027). 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>.

Abstract/Summary: This guide presents strategies that classroom teachers and specialists can use to increase the reading ability of adolescent students. The recommendations aim to help students gain more from their reading tasks, improve their motivation for and engagement in the learning process, and assist struggling readers who may need intensive and individualized attention.

Kosanovich, M. L., Reed, D. K., & Miller, D. H. (2010). *Bringing literacy strategies into content instruction: Professional learning for secondary-level teachers*. Portsmouth, NH: RMC Research Corporation, Center on Instruction. Retrieved from <http://www.centeroninstruction.org/files/Bringing%20Literacy%20Strategies%20into%20Content%20Instruction%2Epdf>

Abstract/Summary: This document provides research-based guidance on academic literacy

instruction in the content areas, specifically focusing on the effective use of text in content areas. It reviews the research evidence about content-area literacy instruction for adolescents and suggests ways teachers can use content-area texts to enable students to understand the vocabulary and concepts they contain. This document also provides a brief synopsis of working with adult learners and the most promising professional development practices identified in research. Intended for use by literacy specialists and other technical assistance providers in their work with states to improve educational policy and practice in adolescent literacy, it describes ways to assist states, districts, and schools in helping teachers develop the kinds of pedagogical skills needed to implement instructional practices that have been shown to improve student literacy outcomes.

Manset-Williamson, G., & Nelson, J. M. (2005). Balanced, strategic reading instruction for upper-elementary and middle school students with reading disabilities: A comparative study of two approaches. *Learning Disability Quarterly, 28*, 59-59. doi: 10.2307/4126973

Abstract/Summary: This study compared the use of two supplemental balanced and strategic reading interventions that targeted the decoding, fluency, and reading comprehension of upper-elementary and middle school students with reading disabilities (RD). All students had significant delays in decoding, fluency, comprehension, and language processing. Two comparable, intensive tutorial treatments differed only in the degree of explicitness of the comprehension strategy instruction. Overall, there was meaningful progress in students' reading decoding, fluency, and comprehension. Gains in formal measures of word attack and reading fluency after five weeks of intervention translated into grade-equivalent gains of approximately half a school year. Analysis of the trends in the daily informal fluency probes translated into a weekly gain of 1.28 correct words per minute. The more explicit comprehension strategy instruction was more effective than the less explicit treatment. Findings are discussed in light of the question of how to maximize the effects of reading interventions for older children with RD.

Reed, D. K. (2012). Clearly communicating the learning objective matters! *Middle School Journal, 43*, 16-24.

Abstract/Summary: Explicitly communicating objectives is a tenet of effective instruction for students with learning difficulties, yet the practice is often overlooked in research. This case study of a novice middle school geography teacher illustrates how the qualitative and quantitative differences in the ways a teacher communicates the learner expectation can influence both student learning and behavior. Contrary to concerns that objective-led lessons result in student passivity and superficial learning, lessons that maintained a focus on a well-crafted objective actually increased student engagement and fostered opportunities for deeper thinking. Examples of the three steps in clearly communicating objectives are provided in

connection with teacher-student dialogue, highlighting what happens when the steps are and are not present in the instruction.

Reed, D. K., & Vaughn, S. (2012). Comprehension instruction for students with reading disabilities in grades 4 through 12. *Learning Disabilities: A Contemporary Journal*, 10, 17-33.

Abstract/Summary: Many students with reading difficulties in grades 4 through 12 experience challenges in understanding and learning from text. Some of these learners have demonstrated reading challenges from the early grades and have not acquired successful reading skills. Others were adequate readers in the early grades when word reading was the focus and when text complexity was minimal. Improving reading outcomes for both persistently poor readers and relatively newly challenged readers requires school-wide instructional practices integrated into content area instruction in math, science, and social studies. This article describes these practices and provides examples of how to teach reading comprehension within the content area.

Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review*, 78, 40-59.

Abstract/Summary: In this article, Timothy and Cynthia Shanahan argue that "disciplinary literacy"--advanced literacy instruction embedded within content- area classes such as math, science, and social studies--should be a focus of middle and secondary school settings. Moving beyond the oft-cited "every teacher a teacher of reading" philosophy that has historically frustrated secondary content- area teachers, the Shanahans present data collected during the first two years of a study on disciplinary literacy that reveal how content experts and secondary content teachers read disciplinary texts, make use of comprehension strategies, and subsequently teach those strategies to adolescent readers. Preliminary findings suggest that experts from math, chemistry, and history read their respective texts quite differently; consequently, both the content- area experts and secondary teachers in this study recommend different comprehension strategies for work with adolescents. This study not only has implications for which comprehension strategies might best fit particular disciplinary reading tasks, but also suggests how students may be best prepared for the reading, writing, and thinking required by advanced disciplinary coursework.

Sporer, N., Brunstein, J. C., & Kieschke, U. (2009). Improving students' reading comprehension skills: Effects of strategy instruction and reciprocal teaching. *Learning and Instruction*, 19, 272-286. doi: 10.1016/j.learninstruc.2008.05.003

Abstract/Summary: The aim of this study was to investigate the effects of three different forms of strategy instruction on 210 students' (grades 3-6) reading comprehension. Students were assigned to any one of three intervention conditions or to a traditional instruction condition (control condition). Training students were taught four reading strategies (summarizing, questioning, clarifying, predicting) and practiced these strategies in small groups (reciprocal teaching), pairs, or instructor-guided small groups. At both the post- and follow-up test the intervention students attained higher scores on an experimenter-developed task of reading comprehension and strategy use than the control students who received traditional instruction. Furthermore, students who practiced reciprocal teaching in small groups outperformed students in instructor-guided and traditional instruction groups on a standardized reading comprehension test.

Organizations:

- International Reading Association: <http://www.reading.org>
- Reading is Fundamental: <http://www.rif.org>
- All About Adolescent Literacy: <http://www.adlit.org>
- The Meadows Center for Preventing Educational Risk: <http://www.meadowscenter.org>
- Adolescent Literacy Collaboratory at Brown: http://www.alliance.brown.edu/collaboratory/collab_admin.php
- The IRIS Center: <http://iris.peabody.vanderbilt.edu>
- Florida Center for Reading Research: <http://www.fcrr.org>
- Center on Instruction: <http://www.centeroninstruction.org/>
- Council of Chief State School Officers: http://www.ccsso.org/resources/digital_resources/adolescent_literacy_toolkit.html

Federally Funded Resources:

- Institute of Education Sciences (IES), public search engine available at: <http://ies.ed.gov/pubsearch/>
- What Works Clearinghouse: <http://ies.ed.gov/ncee/wwc/>
- National Center on Response to Intervention: <http://www.rti4success.org>

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