

What Works Clearinghouse



Concept-Oriented Reading Instruction (CORI)

Effectiveness¹

No studies of *Concept-Oriented Reading Instruction* that fall within the scope of the Adolescent Literacy review protocol meet What Works Clearinghouse (WWC) evidence standards. The lack of studies meeting WWC evidence standards means that, at this time, the WWC is unable to draw any conclusions based on research about the effectiveness or ineffectiveness of *Concept-Oriented Reading Instruction* on adolescent learners.

Program Description²

Concept-Oriented Reading Instruction is a reading comprehension instructional program for grades 3–9 that integrates reading and science through activities and the use of science books during reading instruction.^{3,4} The program supplements a school's standard science and reading curricula and offers instruction in reading strategies, scientific concepts, and inquiry skills. *Concept-Oriented Reading Instruction* intends to improve reading comprehension and increase reading engagement. The program aims to improve comprehension by teaching students the following strategies that they can use to better understand text they

are reading (documented in the National Reading Panel Report, 2000⁵): (1) activating background knowledge, (2) questioning, (3) searching for information, (4) summarizing, (5) organizing graphically, and (6) identifying story structure. The program aims to increase student engagement in reading through five practices: (1) using content-area goals for a conceptual theme during reading instruction, (2) giving students choices and control over their reading topics, (3) providing hands-on activities, (4) using interesting texts for instruction, and (5) organizing opportunities for students to collaborate and learn from text. *Concept-Oriented*

1. The studies in this report were reviewed using WWC Evidence Standards, Version 2.0 (see the WWC Procedures and Standards Handbook, Chapter III), as described in protocol Version 2.0.
2. The descriptive information for this program was obtained from a publicly available source: the developer's website (<http://www.cori.umd.edu>, downloaded January 2010). The WWC requests developers to review the program description sections for accuracy from their perspective. Further verification of the accuracy of the descriptive information for this program is beyond the scope of this review. The literature search reflects documents publicly available by August 2009.
3. *Concept-Oriented Reading Instruction* can also be used with social studies and other content areas.
4. Teachers using *Concept-Oriented Reading Instruction* identify a set of science books that are appropriate for use with the intervention and with the reading levels of students in their classrooms.
5. 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* (NIH Publication No. 00-4769). Jessup, MD: National Institute for Literacy.

Program Description *(continued)*

Reading Instruction is based on the rationale that when readers are fully engaged in reading, they comprehend better, use reading strategies effectively, and are motivated to read. The devel-

opers of this intervention integrated science inquiry with reading, as this has been shown to increase both reading and science comprehension (Romance & Vitale, 1992).⁶

The WWC identified 48 studies of *Concept-Oriented Reading Instruction* for adolescent learners that were published or released between 1989 and 2009.

Five quasi-experimental design studies are within the scope of the Adolescent Literacy review protocol but do not meet WWC evidence standards:

- Two studies do not establish that the comparison group was comparable to the treatment group prior to the start of the intervention.
- The three remaining studies have confounding factors: one study combined *Concept-Oriented Reading Instruction* with other interventions, while two studies had only one unit assigned to either the intervention or comparison group or both. In all three studies, it is impossible to attribute the observed effect solely to *Concept-Oriented Reading Instruction*.

Forty-three studies fall outside the Adolescent Literacy review protocol:

- Thirty-eight studies have an ineligible study design.
 - Eleven studies do not have a comparison group.
 - Twenty-seven studies are meta-analyses or literature reviews.
- Five studies are out of the scope of the Adolescent Literacy review protocol for reasons other than study design.
 - Three studies feature a sample that does not include students in grades 4–12.
 - Two studies do not evaluate the impact of *Concept-Oriented Reading Instruction* on literacy outcomes.

References

Studies that fall outside the Adolescent Literacy review protocol or do not meet evidence standards

Anderson, E., & Guthrie, J. T. (1996). Teaching with *CORI*: Taking the big jump. *NRRC News: A newsletter of the National Reading Research Center* (pp. 2–4). Athens, GA: National Reading Research Center. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Barbosa, P., & Alexander, L. (2004). Science inquiry in the *CORI* framework. In J. T. Guthrie, A. Wigfield, & K. C. Perencevich (Eds.), *Motivating reading comprehension: Concept-Oriented Reading Instruction* (pp. 113–141). Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it does not include an outcome within a domain specified in the protocol.

Cain, K. (2004). Book reviews. *Journal of Research in Reading*, 27(4), 426–428. The study is ineligible for review because it is

6. Romance, N. R., & Vitale, M. R. (1992). A curriculum strategy that expands time for in-depth elementary science instruction by using science-based reading strategies: Effects of a year-long study in grade four. *Journal of Research in Science Teaching*, 29(6), 545–554.

References *(continued)*

- not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Crawford, E. C., & Arndt, E. J. (November 2007). *Current reading research and practical treatment ideas for Monday morning*. Presented at the annual meeting of the American Speech-Language-Hearing Association, Boston, MA. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Douglas, K. (2008). Motivation and comprehension. *Reading Today*, 25(5), 38. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Grant, R., Guthrie, J. T., Bennett, L., Rice, M. E., & McGough, K. (1993). Developing engaged readers through concept-oriented instruction. *The Reading Teacher*, 47(4), 338–340. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Guthrie, J. T. (1996). *Growth of literacy engagement: Changes in motivation and strategies during Concept-Oriented Reading Instruction* (Reading research report no. 53). Athens, GA: National Reading Research Center. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Guthrie, J. T. (2003). *Concept-Oriented Reading Instruction: Practices of teaching reading for understanding*. In A. P. Sweet & C. E. Snow (Eds.), *Rethinking reading comprehension* (pp. 115–140). New York, NY: Guilford Press. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Guthrie, J. T. (2004). Classroom contexts for engaged reading: An overview. In J. T. Guthrie, A. Wigfield, & K. C. Perencevich (Eds.), *Motivating reading comprehension: Concept-Oriented Reading Instruction* (pp. 1–24). Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Guthrie, J. T. (2004). Differentiating instruction for struggling readers within the *CORI* classroom. In J. T. Guthrie, A. Wigfield, & K. C. Perencevich (Eds.), *Motivating reading comprehension: Concept-Oriented Reading Instruction* (pp. 173–193). Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample is not within the specified age or grade range.
- Guthrie, J. T. (2004). Teaching for literacy engagement. *Journal of Literacy Research*, 36(1), 1–30. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Guthrie, J. T., & Alao, S. (1997). Engagement in reading for young adolescents. *Journal of Adolescent & Adult Literacy*, 40(6), 438–446. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Guthrie, J. T., Anderson, E., Alao, S., & Rinehart, J. (1999). Influences of *Concept-Oriented Reading Instruction* on strategy use and conceptual learning from text. *The Elementary School Journal*, 99(4), 343–366. The study does not meet WWC evidence standards because it uses a quasi-experimental design in which the analytic intervention and comparison groups are not shown to be equivalent.
- Guthrie, J. T., & Cox, K. E. (1998). Portrait of an engaging classroom: Principles of *Concept-Oriented Reading Instruction* for diverse students. In K. R. Harris, S. Graham, & D. Deshler (Eds.), *Teaching every child every day: Learning in diverse schools and classrooms* (pp. 77–130). Cambridge, MA: Brookline Books. The study is ineligible for review

References *(continued)*

- because it does not use a comparison group design or a single-case design.
- Guthrie, J. T., & Cox, K. E. (2001). Classroom conditions for motivation and engagement in reading. *Educational Psychology Review, 13*(3), 283–302. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Guthrie, J. T., Cox, K. E., Anderson, E., Harris, K., Mazzone, S., & Rach, L. (1998). Principles of integrated instruction for engagement in reading. *Educational Psychology Review, 10*(2), 177–199. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Guthrie, J. T., McGough, K., Bennett, L., & Rice, M. E. (1996). *Concept-Oriented Reading Instruction: An integrated curriculum to develop motivations and strategies for reading*. In L. Baker, P. Afflerbach, & D. Reinking (Eds.), *Developing engaged readers in school and home communities* (pp. 165–190). Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Additional source:**
- Guthrie, J. T., Bennett, L., & McGough, K. (1994). *Concept-Oriented Reading Instruction: An integrated curriculum to develop motivations and strategies for reading*. Athens, GA: National Reading Research Center.
- Guthrie, J. T., McRae, A., Coddington, C. S., Lutz Klauda, S., Wigfield, A., & Barbosa, P. (2009). Impacts of comprehensive reading instruction on diverse outcomes of low- and high-achieving readers. *Journal of Learning Disabilities, 42*(3), 195–214. The study does not meet WWC evidence standards because the measures of effectiveness cannot be attributed solely to the intervention—there was only one unit assigned to one or both conditions.
- Guthrie, J. T., McRae, A., & Klauda, S. L. (2007). Contributions of *Concept-Oriented Reading Instruction* to knowledge about interventions for motivations in reading. *Educational Psychologist, 42*(4), 237–250. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Guthrie, J. T., & Scaffidi, N. T. (2004). Reading comprehension for information text: Theoretical meanings, developmental patterns, and benchmarks for instruction. In J. T. Guthrie, A. Wigfield, & K. C. Perencevich (Eds.), *Motivating reading comprehension: Concept-Oriented Reading Instruction* (pp. 225–248). Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Guthrie, J. T., Taboada, A., & Coddington, C. S. (2007). Engagement practices for strategy learning in *Concept-Oriented Reading Instruction*. In D. S. McNamara (Ed.), *Reading comprehension strategies: Theories, interventions, and technologies* (pp. 241–266). Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Guthrie, J. T., Van Meter, P., Hancock, G. R., Alao, S., Anderson, E., & McCann, A. (1998). Does *Concept-Oriented Reading Instruction* increase strategy use and conceptual learning from text? *Journal of Educational Psychology, 90*(2), 261–278. The study does not meet WWC evidence standards because it uses a quasi-experimental design in which the analytic intervention and comparison groups are not shown to be equivalent.
- Guthrie, J. T., Van Meter, P., McCann, A., Anderson, E., & Alao, S. (1996). *Does Concept-Oriented Reading Instruction increase motivation, strategies, and conceptual learning?* (Reading research report no. 66). Athens, GA: National Reading Research Center. The study does not meet WWC evidence standards because the measures of effectiveness cannot be

References (continued)

- attributed solely to the intervention—there was only one unit assigned to one or both conditions.
- Guthrie, J. T., Van Meter, P., McCann, A. D., & Wigfield, A. (1996). Growth of literacy engagement: Changes in motivations and strategies during *Concept-Oriented Reading Instruction*. *Reading Research Quarterly*, 31(3), 306–332. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Guthrie, J. T., Wigfield, A., & Perencevich, K. C. (2004). *Motivating reading comprehension: Concept-Oriented Reading Instruction*. Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Guthrie, J. T., Wigfield, A., & Perencevich, K. C. (2004). Scaffolding for motivation and engagement in reading. In J. T. Guthrie, A. Wigfield, & K. C. Perencevich (Eds.), *Motivating reading comprehension: Concept-Oriented Reading Instruction* (pp. 55–86). Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Guthrie, J. T., Wigfield, A., & VonSecker, C. (2000). Effects of integrated instruction on motivation and strategy use in reading. *Journal of Educational Psychology*, 92(2), 331–341. The study is ineligible for review because it does not include an outcome within a domain specified in the protocol.
- Guthrie, J. T., Wigfield, A., Barbosa, P., Perencevich, K. C., Taboada, A., Davis, M. H., Scaffiddi, N. T., & Tonks, S. (2004). Increasing reading comprehension and engagement through *Concept-Oriented Reading Instruction*. *Journal of Educational Psychology*, 96(3), 403–423. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample is not within the specified age or grade range.
- Guthrie, J. T., Wigfield, A., Humenick, N. M., Perencevich, K. C., Taboada, A., & Barbosa, P. (2006). Influences of stimulating tasks on reading motivation and comprehension. *Journal of Educational Research*, 99, 232–345. The study is ineligible for review because it does not use a sample aligned with the protocol—the sample is not within the specified age or grade range.
- Jetton, T. L., & Dole, J. A. (2004). *Adolescent literacy research and practice*. New York, NY: Guilford Publications. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Kortering, L., & Braziel, P. (2008). Engaging youth in school and learning: The emerging key to school success and completion. *Psychology in the Schools*, 45(5), 461–465. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Lehr, F., & Osborn, J. (2005). *Research-based practices in early reading series: A focus on comprehension*. Honolulu, HI: Pacific Resources for Education and Learning. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Lewis, K., McColskey, W., Anderson, K., Bowling, T., Dufford-Melendez, K., & Wynn, L. (2007). *Evidence-based decision-making: Assessing reading across the curriculum interventions* (Issues & Answers Report, REL 2007–No. 003). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Laboratory Southeast. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- McNamara, D. S. (2007). *Reading comprehension strategies: Theories, interventions, and technologies*. Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it is not a primary analysis of the

References *(continued)*

- effectiveness of an intervention, such as a meta-analysis or research literature review.
- McRae, A., & Guthrie, J. T. (2009). Promoting reasons for reading: Teacher practices that impact motivation. In E. H. Hiebert (Ed.), *Reading more, reading better* (pp. 55–76). New York, NY: Guilford Press. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- O'Hara, J. D. (2007). The influence of supplemental instructional approaches upon the comprehension, metacognitive awareness, and motivation of struggling third- and fourth-grade readers (Doctoral dissertation, University of Maryland, 2007). *Dissertation Abstracts International*, 68(4-A), 1309. The study does not meet WWC evidence standards because the measures of effectiveness cannot be attributed solely to the intervention—the intervention was combined with another intervention.
- Perencevich, K. C. (2004). How the CORI framework looks in the classroom. In J. T. Guthrie, A. Wigfield, & K. C. Perencevich (Eds.), *Motivating reading comprehension: Concept-Oriented Reading Instruction* (pp. 25–53). Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Sikorski, M. P. (2004). Inside Mrs. O'Hara's CORI classroom. In J. T. Guthrie, A. Wigfield, & K. C. Perencevich (Eds.), *Motivating reading comprehension: Concept-Oriented Reading Instruction* (pp. 195–223). Mahwah, NJ: Lawrence Erlbaum Associates. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Slavin, R. E., Cheung, A., Groff, C., & Lake, C. (2008). Effective reading programs for middle and high schools: A best-evidence synthesis. *Reading Research Quarterly*, 43(3), 290–322. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Snow, C., & Biancarosa, G. (2003). *Adolescent literacy and the achievement gap: What we know and where do we go from here?* New York, NY: Carnegie Corporation of New York. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Spooner, A. (2004). Review of motivating reading comprehension: *Concept-Oriented Reading Instruction*. *Journal of Research in Reading*, 27(4), 425–426. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Stoller, F. L. (2004). Content-based instruction: Perspectives on curriculum planning. In M. McGroarty (Ed.), *Annual review of applied linguistics* (pp. 261–283). New York, NY: Cambridge University Press. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Swafford, J., & Bryan, J. K. (2000). Instructional strategies for promoting conceptual change: Supporting middle school students. *Reading & Writing Quarterly*, 16(2), 139–161. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Swan, E. A. (2002). *Concept-Oriented Reading Instruction: Engaging classrooms, lifelong learners*. New York, NY: Guilford Press. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.
- Taboada, A., & Guthrie, J. T. (2006). Contributions of student questioning and prior knowledge to construction of knowledge from reading information text. *Journal of Literacy Research*, 38(1), 1–35. The study is ineligible for review because it does not use a comparison group design or a single-case design.

References *(continued)*

Torgesen, J. K. (January 2007). *Research related to strengthening instruction in reading comprehension: Part 2*. Presented at Reading First Comprehension Conference, Atlanta, GA.

The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Torgesen, J. K., Houston, D. D., Rissman, L. M., Decker, S. M., Roberts, G., Vaughn, S., Wexler, J., Francis, D. J., Rivera, M. O., & Lesaux, N. (2007). *Academic literacy instruction for adolescents: A guidance document from the Center on Instruc-*

tion. Portsmouth, NH: RMC Research Corporation, Center on Instruction. The study is ineligible for review because it is not a primary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Wallen, M. H. (2008). Examining student responses to *Concept-Oriented Reading Instruction* in nutrition education (Doctoral dissertation, The University of North Carolina at Greensboro, 2008). *Dissertation Abstracts International*, 69(12A), 229–4692. The study is ineligible for review because it does not use a comparison group design or a single-case design.