What Works Clearinghouse

ies INSTITUTE OF EDUCATION SCIENCES

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Odyssey Reading

No studies of *Odyssey Reading* 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 *Odyssey Reading* on adolescent learners. Additional research is needed to determine the effectiveness or ineffectiveness of this intervention.

Program Description[1]

Odyssey Reading,[2] published by CompassLearning®, is a web-based K–12 reading/language arts program designed to allow for instructional differentiation and data-driven decision making.[3] The online program includes electronic curricula and materials for individual or small-group work, assessments aligned with state curriculum standards, and a data management system that allows teachers to develop individualized instruction and assessment tools to track individual student and classroom performance. *Odyssey Reading* can be used as a stand-alone curriculum or as a supplement to other reading and language arts curricula. This report focuses on *Odyssey Reading* programs in grades 4 and higher.[4] *Odyssey Reading* for students in grades 4–8 provides instruction in phonics, context, decoding, and comprehension. In later grades (9–12), the curriculum features a number of fiction and nonfiction texts that students read and analyze. The curriculum uses technology to create a "person" who simulates a conversation between the user and the software program. Younger students (grades K–2) also have decodable readers to assist with understanding the text and writing tools, a place where they can write, read, tell stories, and illustrate their thoughts. These activities aim to allow students to build upon prior knowledge and apply the tools and strategies that they are learning as part of the program.

Research[5]

The WWC identified 27 studies of *Odyssey Reading* for adolescent learners that were published or released between 1989 and 2011.

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

- Four studies do not establish that the comparison group was comparable to the treatment group prior to the start of the intervention.
- One study has a confounding factor: Only one classroom was assigned to the treatment group, which makes it impossible to attribute the observed effect solely to *Odyssey Reading*.[6]

Twenty-two studies are out of the scope of the Adolescent Literacy review protocol.

- Eight of these have an ineligible study design: a case study or a single group pre-post design.
- Seven studies are literature reviews or meta-analyses.
- Two studies do not examine the effectiveness of an intervention.
- The remaining five studies either do not report an eligible literacy outcome or feature students who are not in grades 4–12.

References

Studies that do not meet WWC evidence standards

Clouse, R. W. (1991–92). Teaching and learning with computers: A classroom analysis. *Journal of Educational Technology Systems, 20*(4), 281. 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.

CompassLearning®. (2005). *School effectiveness report: Boone County school district, Florence, Kentucky*. Austin, TX: Author. 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.

Hunter, C. T. L. (1994). A study of the effect of instructional method on the reading and mathematics achievement of Chapter One students in rural Georgia. *Dissertation Abstracts International, 58*(08A), 130. 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.

Sinkis, D. M. (1993). A comparison of Chapter One student achievement with and without computer-assisted instruction. *Dissertation Abstracts International, 54*(02A), 278-422. 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.

Urdegar, S. M. (1998). *Evaluation of the Success For All program, 1997–98*. Miami, FL: Miami-Dade Public Schools, Office of Evaluation Research. 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.

Additional sources:

Urdegar, S. M. (2000). *Evaluation of the Success For All program, 1998–99*. Miami, FL: Miami-Dade Public Schools, Office of Evaluation Research.

Urdegar, S. M. (2001). *Evaluation of the Success For All program, 1999–2000*. Miami, FL: Miami-Dade Public Schools, Office of Evaluation Research.

Studies that are ineligible for review using the Adolescent Literacy Evidence Review Protocol

Barley, Z., Lauer, P. A., Arens, S. A., Apthorp, H. S., Englert, K. S., Snow, A., & Akiba, M. (2002). *Helping at-risk students meet standards: A synthesis of evidence-based classroom practices*. Denver, CO: Mid-continent Research for Education and Learning. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Becker, H. J. (1990). *Computer-based integrated learning systems in the elementary and middle grades: A critical review and synthesis of evaluation reports*. Baltimore, MD: Johns Hopkins University, Center for Social Organization of Schools. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Brandt, W. C., & Hutchinson, C. R. (2006). *Romulus Community Schools comprehensive school reform evaluation*. Chicago, IL: Learning Point Associates. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Clariana, R. (2007). *School effectiveness report: Pemberton Township school district, Pemberton, New Jersey*. Austin, TX: CompassLearning®. The study is ineligible for review because it does not use a comparison group design or a single-case design.

Clariana, R. B. (1994). *The effects of an integrated learning system on third graders' mathematics and reading achievement* (Report No. ED409181). ERIC Document Reproduction Services. 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.

CompassLearning®. (2005). *School effectiveness report: Daniel Boone area school district, Birdsboro, Pennsylvania*. Austin, TX: Author. The study is ineligible for review because it does not use a comparison group design or a single-case design.

CompassLearning®. (2005). *School effectiveness report: Lillie Burney Elementary School, Hattiesburg public school district, Hattiesburg, Mississippi*. Austin, TX: Author. The study is ineligible for review because it does not use a comparison group design or a single-case design.

CompassLearning®. (2006). *School effectiveness report: Maple Leaf Intermediate School, Garfield Heights city schools, Ohio*. Austin, TX: Author. The study is ineligible for review because it does not examine the effectiveness of an intervention.

CompassLearning®. (2007). *Impact of CompassLearning® Odyssey Reading/Language Arts & Mathematics on NWEA RIT scores and lexile range*. Austin, TX: Author. The study is ineligible for review because it does not use a comparison group design or a single-case design.

CompassLearning®. (2007). *School effectiveness report: Scotch Elementary School, West Bloomfield, Michigan (West Bloomfield school district)*. Austin, TX: Author. The study is ineligible for review because it does not include an outcome within a domain specified in the protocol.

CompassLearning®. (2007). *School effectiveness report: Tulsa Independent School District, Tulsa, Oklahoma*. Austin, TX: Author. 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.

Howell, C. A. (1996). A comparison of Chapter One middle school students who received Jostens Integrated Learning instruction and those who received Chapter One services only. *Dissertation Abstracts International, 58*(03A), 156-670. The study is ineligible for review because it does not include an outcome within a domain specified in the protocol.

Kulik, J. A. (2003). *Effects of using instructional technology in elementary and secondary schools: What controlled evaluation studies say: Final report*. Arlington, VA: SRI International. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

May, C. S. (1991, April). *Integrated learning systems: A school-based evaluation*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL. The study is ineligible for review because it does not use a comparison group design or a single-case design.

Moody, E. C. (1994). Implementation and integration of a computer-based integrated learning system in an elementary school. *Dissertation Abstracts International, 55*(01A), 170. The study is ineligible for review because it does not use a comparison group design or a single-case design.

Rose, G. H. (1997). Gender and socioeconomic status as predictors of reading gain scores on the Stanford Achievement Test for fifth grade students who participated in computer-assisted instruction. *Dissertation Abstracts International 54*(10A), 56. 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 a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Slavin, R. E., Lake, C., Chambers, B., Cheung, A., & Davis, S. (2009). Effective reading programs for the elementary grades: A best-evidence synthesis. *Review of Educational Research, 79*(4), 1391–1466. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Slavin, R. E., Lake, C., Davis, S., & Madden, N. A. (2009). *Effective programs for struggling readers: A best-evidence synthesis*. Baltimore, MD: Johns Hopkins University, Center for Data-Driven Reform in Education. The study is ineligible for review because it is a secondary analysis of the effectiveness of an intervention, such as a meta-analysis or research literature review.

Standish, D. (1995). The effects on reading comprehension of Jostens' "Integrated Language Arts" for second-grade students along with Jostens' "Basic Learning System" for second-grade Chapter I students. *Dissertation Abstracts International, 57*(03A), 180. 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.

Taylor, D. M. (1990). *Computer based integrated learning systems in rural Alaska: An evaluation of the Jostens learning system*. Anchorage, AK: Alaska Association for Computers in Education. The study is ineligible for review because it does not examine the effectiveness of an intervention.

The Learning Point. (2005). *Romulus community schools, 2002–2005: Summary research and evaluation report*. Austin, TX: CompassLearning®. The study is ineligible for review because it does not use a comparison group design or a single-case design.

Endnotes

[1] The descriptive information for this program was obtained from a publicly available source: the program's website (http://www.compasslearning.com, downloaded June 2011). The WWC requests developers to review the program description sections for accuracy from their perspective. The program description was provided to the developer in July 2011. 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 2011.

[2] The web-based *Odyssey Reading* program was initially delivered under the Jostens' brand. Both programs, *Odyssey Reading* and *Jostens Integrated Learning instruction*, are included in this report.

[3] CompassLearning® offers three *Odyssey Reading* programs as a continuous sequence from kindergarten through high school: *Odyssey Reading/Language Arts Grades K–2*, *Odyssey Reading/Language Arts Grades 3–8*, and *Odyssey High School*. *Odyssey High School* is the name used for the intervention in grades 9–12.

[4] Studies of *Odyssey Reading* conducted in kindergarten through third grade are outside of the scope of the Adolescent Literacy review protocol.

[5] The studies in this report were reviewed using WWC Evidence Standards, Version 2.1, as described in the review protocol for Adolescent Literacy topic area, Version 2.0. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.

[6] Please see the WWC Procedures and Standards Handbook, Chapter III for additional details on confounding factors.

Recommended Citation

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Glossary of Terms

Attrition Attrition occurs when an outcome variable is not available for all participants initially assigned to the intervention and comparison groups. The WWC considers the total attrition rate and the difference in attrition rates across groups within a study.

Clustering adjustment If treatment assignment is made at a cluster level and the analysis is conducted at the student level, the WWC will adjust the statistical significance to account for this mismatch, if necessary.

Confounding factor A confounding factor is a component of a study that is completely aligned with one of the study conditions, making it impossible to separate how much of the observed effect was due to the intervention and how much was due to the factor.

Design The design of a study is the method by which intervention and comparison groups were assigned.

Domain A domain is a group of closely related outcomes.

Effect size The effect size is a measure of the magnitude of an effect. The WWC uses a standardized measure to facilitate comparisons between outcomes and studies.

Eligibility A study is eligible for review and inclusions in this report if it falls within the scope of the review protocol and uses either an experimental or matched comparison group design.

Equivalence A demonstration that the analysis sample groups are similar on observed characteristics defined in the review area protocol.

Extent of evidence An indication of how much evidence supports the findings. The criteria for the extent of evidence levels are given in the WWC Procedures and Standards Handbook (version 2.1).

Improvement index Along a percentile distribution of students, the improvement index represents the gain or loss of the average student due to the intervention. As the average student starts at the 50th percentile, the measure ranges from –50 to +50.

Multiple comparison adjustment When a study includes multiple outcomes or comparison groups, the WWC will adjust the statistical significance to account for the multiple comparisons, if necessary.

Quasi-experimental design (QED) A quasi-experimental design (QED) is a research design in which subjects are assigned to treatment and comparison groups through a process that is not random.

Randomized controlled trial (RCT) A randomized controlled trial (RCT) is an experiment in which investigators randomly assign eligible participants into treatment and comparison groups.

Rating of effectiveness The WWC rates the effects of an intervention in each domain based on the quality of the research design and the magnitude, statistical significance, and consistency in findings. The criteria for the ratings of effectiveness are given in the WWC Procedures and Standards Handbook (version 2.1).

Single-case design A research approach in which an outcome variable is measured repeatedly within and across different conditions that are defined by the presence or absence of an intervention.

Standard deviation The standard deviation of a measure shows how much variation exists from the average. A low standard deviation indicates that the data points tend to be very close to the mean; a high standard deviation indicates that the data points are spread out over a large range of values.

Statistical significance Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups. The WWC labels a finding statistically significant if the likelihood that the difference is due to chance is less than 5% ($p < 0.05$).

Substantively important A substantively important finding is one that has an effect size of 0.25 or greater, regardless of statistical significance.

Please see the WWC Procedures and Standards Handbook (version 2.1) for additional details.