

Academy of READING®

No studies of *Academy of READING*® that fall within the scope of the Adolescent Literacy review protocol meet What Works Clearinghouse (WWC) group design standards. Because no studies meet WWC group design standards at this time, the WWC is unable to draw any conclusions based on research about the effectiveness or ineffectiveness of *Academy of READING*® on adolescent readers. Additional research is needed to determine the effectiveness or ineffectiveness of this intervention.

Program Description¹

Academy of READING® is an online program, originally developed by AutoSkill International, that aims to improve students' reading skills using a structured and sequential approach to learning. The program breaks the task of reading into manageable pieces and provides multiple opportunities for practice in five core areas—phonemic awareness, phonics, fluency, vocabulary, and comprehension.

The program's short, intensive training sessions are designed to fit into class schedules. The initial level of difficulty of the material is determined based on a placement test that measures each student's reading abilities relative to his or her grade. The content automatically adjusts based on students' responses, accelerating training when mastery is demonstrated or reviewing concepts when needed. Positive feedback and motivational "buddy" characters aim to keep students engaged.

Academy of READING® also measures processing speed, accuracy, and pace of reading. Detailed views of student progress allow teachers to track students as they work through the program, alerting them to trouble spots, and how much time is being spent on each task.

Academy of READING® was originally a DOS-based program called the *AutoSkill Component Reading Subskills Program*, and was rebranded in 1995 when it became a Windows-based program. *Academy of READING*® was released in its current form as a web-based program (Version 5.0) in 2004. *Academy of READING*® is different from the *Autoskill Component Reading Subskills Program* because these programs are branded differently, use different technologies and platforms, and have fundamentally different user experiences. AutoSkill International was acquired by EPS Literacy and Intervention in 2009.

Research²

The WWC identified 38 studies of *Academy of READING*® for adolescent readers that were published or released between 1989 and 2013.

One study is within the scope of the Adolescent Literacy review protocol but does not meet WWC group design standards. This study does not meet WWC group design standards because the measures of effectiveness cannot be attributed solely to the intervention. The study has one unit assigned to both intervention and comparison conditions.

Thirty-three studies are out of the scope of the Adolescent Literacy review protocol because they have an ineligible study design.

- Twenty studies did not use a comparison group design or a single-case design.
- Thirteen studies were literature reviews or meta-analyses.

Four studies are out of the scope of the Adolescent Literacy review protocol for reasons other than study design.

- Two studies did not use a sample aligned with the protocol.
- Two studies did not implement the intervention in a way that falls within the scope of the review because they bundled the intervention with other components.

References

Study that does not meet WWC group design standards

Greenlee, N. B. (2001). *An analysis of the effectiveness of the “Academy of Reading” training on the reading achievement of elementary students in a suburban, midwestern school district* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3000668) The study does not meet WWC group design standards because the measures of effectiveness cannot be attributed solely to the intervention—there was only one unit assigned to one or both conditions.

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

- AutoSkill International. (2006). *Brownsville area makes unprecedented gains with a progressive intervention solution that strategically targets at-risk students*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2006). *California learning center: Innovative strategies for reading intervention*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2006). *Intervention solution helps “at-risk” middle school students achieve measurable gains in reading*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2006). *Nash-Rocky Mount School District: Improving student scores across the curriculum*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2006). *Sheboygan Falls selects its intervention solution with confidence*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2006). *Shilohview Elementary expands a proven intervention solution for at-risk students*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2006). *Washington Middle School prescribes a proven intervention solution*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2007). *AutoSkill a helping hand for literacy (Version 5.5 ed.)*. Retrieved from <http://64.26.138.47/about/index.php> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2007). *AutoSkill’s literacy and math intervention solutions deliver gains in first year of use*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2007). *Charter school sees significant gains in math and reading*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2007). *Edgewater High School achieves gains well above the state average for its bottom 25% students*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- AutoSkill International. (2007). *Individualized instruction prepares struggling middle school students for dramatic success in high school*. Retrieved from <http://eps.schoolspecialty.com> 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.

- AutoSkill International. (2007). *Third-party assessments confirm strong gains in reading and math for Wisconsin school district*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Baker, D. R. (2003). *Someone has to care: Computer-assisted instruction and struggling readers* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. MQ82387) The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Bell, N. (2007). *Visualizing and verbalizing for language comprehension and thinking (2nd ed.)*. San Luis Obispo, CA: Gander Publishing. The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Bender, W. N., & Larkin, M. J. (2009). *Reading strategies for elementary students with learning difficulties: Strategies for RTI*. Thousand Oaks, CA: Corwin Press. 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.
- Cheung, A., & Slavin, R. E. (2011). *The effectiveness of education technology for enhancing reading achievement*. Retrieved from <http://www.bestevidence.org> 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.
- Cheung, A., & Slavin, R. E. (2012). *Effects of educational technology applications on reading outcomes for struggling readers: A best-evidence synthesis*. Retrieved from <http://www.bestevidence.org> 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.
- Deshler, D. D., Palincsar, A. S., Biancarosa, G., & Nair, M. (2007). *Informed choices for struggling adolescent readers: A research-based guide to instructional programs and practices*. New York: Carnegie Corporation of New York. 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.
- Dunn, C. A. (2002). *An investigation of the effects of computer assisted reading instruction versus traditional reading instruction on selected high school freshmen* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3027824) The study is ineligible for review because it does not implement the intervention in a way that falls within the scope of the review—the intervention is bundled with other components.
- Dynarski, M., Agodini, R., Heaviside, S., Novak, T., Carey, N., Campuzano, L., ... Sussex, W. (2007). *Effectiveness of reading and mathematics software products: Findings from the first student cohort*. Washington, DC: Institute of Education Sciences, U.S. Department of Education. <http://files.eric.ed.gov/fulltext/ED496015.pdf>. The study is ineligible for review because it does not implement the intervention in a way that falls within the scope of the review—the intervention is bundled with other components.
- Kubinec, S., Pepper, K., & Loh, E. (2005). *Review of student gains in reading proficiency based on training with the AutoSkill® Academy of READING®: Independence Middle School, Bethel Park School District, PA 2004-2005 school year*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Loh, E. (2004). *Evaluation of the effectiveness of the AutoSkill® Academy of READING®: W.B. Goodwin Elementary School, Charleston County School District, North Charleston, SC*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Loh, E. (2007). *Efficacy study: Review of students' progress in summer school based on the Academy of READING, D.C. public schools*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Michael, E., & Strunk, C. (2004). *Examination of gains in reading proficiency by students training on the AutoSkill Academy of READING® software intervention program in the Chambersburg Area School District 2001-2002 school year*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.

- Patton, C. (2005). AutoSkill International Inc. literacy intervention suite. *District Administration*, 41(12), 86. 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.
- Penner-Wilger, M. (2008). *Efficacy study: Evergreen Elementary School, Holmen, WI, preliminary research report for period of January-June 2007*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Shanahan, C. (2005). *Adolescent literacy intervention programs: Chart and program review guide*. Washington, DC: Learning Point Associates/North Central Regional Educational Laboratory (NCREL). <http://files.eric.ed.gov/fulltext/ED490970.pdf>. 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., 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 beginning reading programs: A best-evidence synthesis*. Baltimore, MD: Johns Hopkins University. 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), 1391–1465. 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., Cheung, A., & Davis, S. (2009). *Beyond the basics: Effective reading programs for the upper elementary grades*. Baltimore, MD: Success for All Foundation. 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. 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.
- Snowling, M. J., & Hulme, C. (2011). Evidence-based interventions for reading and language difficulties: Creating a virtuous circle. *British Journal of Educational Psychology*, 81(1), 1–23. 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.
- Torlakovic, E. (2011). *Academy of Reading efficacy study*. Cambridge, MA: EPS School Specialty. The study is ineligible for review because it does not use a sample aligned with the protocol.
- Tucker, B., MacGregor, D., & Loh, E. (2002). *Improvements on reading scores effects of Academy of READING® intervention program in Sweetwater Elementary School, Sweetwater, TN*. Retrieved from <http://eps.schoolspecialty.com> The study is ineligible for review because it does not use a comparison group design or a single-case design.
- Wilkinson, T. B. (2008). *The impact of a computer-based reading intervention program, "Academy of Reading" on the reading achievement of second and third graders* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3297470) The study is ineligible for review because it does not use a sample within the age or grade range specified in the protocol.

Endnotes

¹ The descriptive information for this program was obtained from a publicly available source: the program's website (<http://eps.schoolspecialty.com>, downloaded February 2014). The WWC requests that developers review the program description sections for accuracy from their perspective. The program description was provided to the developer in February 2014, and the WWC incorporated feedback from the developer. Further verification of the accuracy of the descriptive information for this program is beyond the scope of this review.

² The literature search reflects documents publicly available by December 2013. The studies in this report were reviewed using the Standards from the WWC Procedures and Standards Handbook (version 3.0), along with those described in the Adolescent Literacy review protocol (version 2.1). The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.

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 intervention 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 across studies and outcomes.
Eligibility	A study is eligible for review and inclusion 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 3.0).
Improvement index	Along a percentile distribution of individuals, the improvement index represents the gain or loss of the average individual due to the intervention. As the average individual 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 study participants are assigned to intervention and comparison groups through a process that is not random.
Randomized controlled trial (RCT)	A randomized controlled trial (RCT) is an experiment in which eligible study participants are randomly assigned to intervention 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 3.0).
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 across observations in the sample. A low standard deviation indicates that the observations in the sample tend to be very close to the mean; a high standard deviation indicates that the observations in the sample tend to be 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% ($p < .05$).
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 \(version 3.0\)](#) for additional details.