

**A REVIEW OF THE RESEARCH
ON THE INSTRUCTIONAL EFFECTIVENESS OF
ACEREADER
BY STEPWARE, INC.
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Review of the Research on the Instructional Effectiveness of *AceReader* by StepWare, Inc.

This report reviews and summarizes the results of four independent studies of the instructional effectiveness of the AceReader series by StepWare, Inc.

Background Information

StepWare, Inc., an educational software development company located in Grand Junction, Colorado and the developer of the AceReader series of programs (Basic, Pro, Pro Deluxe, and Pro Deluxe Plus), contracted with the Educational Research Institute of America (ERIA) to conduct a review of four U.S. studies, all of which sought to determine if AceReader is an instructionally effective program.

This report provides a brief summary of each of the studies, including the major findings of each, then provides a synthesis of the findings across all four studies.

Overview of the AceReader Program

The description below provides a brief overview of the AceReader program. It can also be found, along with additional information about the reading process on the Web site: (www.acereader.com).

*AceReader is referred to as: **Reading Improvement Software; Reading Assessment Software; Productivity Reading Tool; Self-Improvement Educational Reading Tool; Reading Fluency Software; Vision Training Software; Speed Reading Software.***

It can be used to: (1) assess your current reading level; (2) improve your reading speed and comprehension, both online and offline; and (3) help you read faster while on the computer, by utilizing special display modes.

In today's fast-paced information age, it is more important than ever to be a proficient reader. Everyone from high-powered executives to children just learning to read in grade school can benefit from AceReader.

Our goal is to help you read faster, while maintaining or even improving your comprehension. When you accomplish this, reading becomes like watching a movie. It becomes fun to read because you're able to absorb more material in a shorter amount of time. In short, it leads to more success and a better overall quality of life.

*Like anything, it takes practice. AceReader is not designed to teach you **how** to read, but instead it focuses on helping you be more **proficient** at your reading both on and off the computer.*

Review Procedures

Each of the four studies was critically reviewed by three ERIA researchers. Each of the reviewers is well qualified, having conducted major studies of their own, and, together, they have over 50 years of experience conducting, teaching, editing, and publishing educational and psychological research reviews. One of the reviewers has served as the editor of the Reading Research Quarterly and another has been a reviewer for the Journal

of Educational Measurement. All have presented research papers at the American Educational Research Association and other national professional meetings.

The three reviewers read each of the studies to determine if the results appeared to be valid and reliable. They reviewed the studies from the perspective that not all were conducted under identical or ideal conditions, and they approached the material according to how the authors portrayed their studies (i.e. a survey, a quasi-experimental study, or a traditional research study).

The three reviewers met to discuss their summaries of each study and to compare their conclusions across the four studies. The remainder of this paper summarizes the consensus of the reviewers. The four studies that comprised the database included the following:

1. *Research Results for AceReader Study At CFS Elementary School.*
Bob Snead, National Association of Street Schools, Denver, CO, USA.
2. *AceReader Pro: Using Technology to Improve Silent Reading Performance.*
JoEllen Waddell, Program Support Teacher CESA 5, Baraboo, WI, USA.
3. *I Like to Read Again! Using AceReader to Improve the Skills of Intermediate Adult Readers.*
Wendy Quiñones, Community Learning Center, Cambridge, MA, USA.
4. *A White Paper on the Impact of Project Semiotics: Implementing AceReader Software and E-books to Raise Standardized Reading Scores.*
Craig Luchsinger, PhD, Chicago Public Schools, USA.

Results of the Analyses

The four reviewed studies are described in Table 1 below. Three of the four studies are described as quasi-experimental. This term is applied to studies that either do not include control groups at all, or that do not employ a random assignment of subjects to the control groups. Since such random assignment and use of control groups is often impossible to achieve in typical classroom settings, quasi-experimental studies are more-typically conducted. When such studies provide comparable findings across multiple settings and with a variety of students, these quasi-experimental studies can produce significant findings.

Table 1
Studies Conducted to Determine the Effectiveness of the AceReader Program

	<i>Type of Study</i>	<i>Grade or Age Levels</i>	<i>Length of the Study</i>	<i>Outcome Assessment</i>
<i>Research Results for AceReader Study At CFS Elementary School</i>	Experimental Control Group Study	Grade 3 to 5 students	15 days	Rate of Reading
<i>AceReader Pro: Using Technology to Improve Silent Reading Performance</i>	Quasi-Experimental : Pretest-Posttest Study	Grade 5	3 Months	Rate of Reading, and Reading Comprehension
<i>I Like to Read Again! Using AceReader to Improve the Skills of Intermediate Adult Readers</i>	Quasi-Experimental : Pretest-Posttest Study	Adult Learners	Various Time Periods	Reading and Reading Rate Measures, and Attitude Questionnaires
<i>A White Paper on the Impact of Project Semiotics: Implementing AceReader Software and E-books to Raise Standardized Reading Scores.</i>	Quasi-Experimental: Pretest/Posttest Study	Elementary Grade Students	One Academic Year	Iowa Tests of Basic Skills: Reading

A summary of each of the four studies follows.

Research Results for AceReader Study at CFS Elementary School

Bob Snead, National Association of Street Schools, Denver, CO, USA.

This research was conducted over a 2- to 3-week period in the 2004-2005 school year, using 23 Grades 3-5 students in the experimental group and a matched number of students from the same school in the control group. During the period of study, the students used the AceReader program regularly, though not daily. Pre-post results indicate that the students using the *AceReader* program showed a significantly increased reading rate. Despite the short experimental period, these students increased their reading rate by an average of 83 words (median of 72 words). This increase significantly exceeded even the experimental hypothesis of a 40% increase in rate. During the same time period, the students in the control group showed no statistically significant change in their reading rate. Given both the short experimental period and the fact that the typical experimental student used the program fewer than 15 times, these results provide very positive and encouraging evidence of the effectiveness of the AceReader program.

AceReader Pro: Using Technology to Improve Silent Reading Performance.

JoEllen Waddell, Program Support Teacher CESA 5, Baraboo, WI, USA.

This report summarizes the results of a three-month implementation in 2005 of AceReader Pro in two Grade 5 classrooms (36 students). All students were exposed to the materials, as there was no control group. The study was designed to assess the effect of the program on the reading rate and comprehension of the students. Students had up to 19 opportunities of 30 minutes each to use the program. Prior to and immediately after the study, all students were administered the DIBELS instrument. The results indicated that all but four students showed an increased reading rate during the study, with an average increase of approximately 13 words per minute. In addition, the median student improved approximately 8% in comprehension during the study. Student reactions to the program, summarized and reported on an individual level in the report, were very positive. The study report provides reading-rate “trend lines” over the multiple sessions of program use, showing the typical significant variability in student daily reading rates. The author concludes that she is “confident AceReader Pro will have a positive influence on students’ performance in reading. The practice of comprehension tests and drills is positive and helps make reading better.”

I Like to Read Again! Using AceReader to Improve the Skills of Intermediate Adult Readers.

Wendy Quiñones, Community Learning Center, Cambridge, MA, USA.

This report summarizes several sets of data collected in 2004 using AceReader in an adult education center who were primarily English-language learners/ESL students, and it provides additional student-level anecdotal reactions of the teachers. . . Most of the “treatments” addressed in this report are of short duration and/or limited sample sizes. However, on the whole, all of the studies provide positive or, at a minimum, “encouraging” data concerning the effectiveness of AceReader on this population. Standardized test data, reported on the basis of either the nationally standardized TABE or ABLE assessments, were generally positive: students who had used the AceReader program for as little as several sessions over a month’s time showed improved engagement with the tests (answered more questions) as well as improved test performance. In addition, –AceReader-based reading rate data generally showed an increased level of fluency in students with increased reading rates. Again, these data are based on limited samples and limited implementation periods. Nevertheless, the author concludes, “. . . *AceReader* has proven itself . . . to be a valuable accelerator of adult student progress. We have seen many of our student users progress more according to the TABE in a given time than would be expected . . . and continue to gain thereafter.” She further states, “. . . we feel extremely positive about using *AceReader* with our students. We have seen some who have struggled for years finally move up from a plateau; we have seen others improve their attitudes toward both themselves and education, leading to faster progress; and even where progress has continued to be slow, we have seen students with improved attitudes toward reading, which is one of the most powerful predictors of future progress.” It is necessary to read the various data presented in this report holistically, since the results are based on several groups of students using the program in different ways over a variety of (generally short) time periods. However, the author reports both data based and anecdotal information indicating positive effects on both reading rate and comprehension and improved attitudes toward reading.

A White Paper on the Impact of Project Semiotics: Implementing AceReader Software and E-books to Raise Standardized Reading Scores.

Craig Luchsinger, PhD, Chicago Public Schools, USA.

This yearlong study involved introduction of an innovative reading program in the 2000/2001 academic year into the curriculum of 20 elementary schools in the Chicago Public Schools System. The program involved providing increasingly independent reading opportunities to students via the Internet, using public-domain literature for content. The AceReader software was used as an adjunct to this program in an effort to increase the students' reading rate and, therefore, the amount of reading they could accomplish. According to the program developer and author of the research report, "[T]here is a limitless potential in the appropriate application of . . . *AceReader Pro* in conjunction with leveled e-books." Using *Iowa Tests of Basic Skills* data as the criterion, participants in this project showed average growth in reading achievement of almost twice that of Chicago students system wide. The author interprets these data as providing strong support for AceReader Pro and its reading-rate instructional approach.

Conclusions

The review of the four independent studies of the AceReader program sought to determine if the results provided valid evidence of its instructional effectiveness. Each of these studies used different age groups over various time periods, as well as a variety of outcome measures and a different methodological approach. This would seem to make it difficult to reach a conclusion about the program's effectiveness; however the opposite appears to be true.

The reviewed studies all provide evidence not only that the AceReader program **does** increase reading rate and comprehension, but that students respond positively to the program, and that teachers find the program easy to implement and effective in reaching instructional goals, as well..

After thorough analysis of the four studies, the reviewers concluded that taken as a group, these studies provide strong evidence for the positive effect of the AceReader program on student achievement, on program assessments, on reading rate measures, and on standardized achievement tests. The results were enhanced by a variety of questionnaires and interviews with teacher and students, all of which provided positive reactions to the program. Improvements were seen with students at the elementary through the adult levels, as well as at varying ability levels. Perhaps most impressive are that the studies showed both student gain scores that exceeded expected gains in the experimental groups, and gains for the general school populations in which the studies were conducted.