

Florida Center for Reading Research

Accelerated Reader

What is Accelerated Reader?

Accelerated Reader (AR) is a computer based, reading management and motivational system designed to complement existing classroom literacy programs for grades K-12. *AR*'s goal is to motivate students to read using an individualized goal/point system. Student's individual goals are based on their reading grade equivalent (GE) score from a standardized test, such as STAR Reading, coupled with the amount of time the student is able to devote to reading. *AR* translates GE scores into a zone of proximal development (ZPD) range that is used to determine the level of books from which the student can select.

Students choose books or short stories to read from the school's selected collection of books for which they have *AR* tests. *AR* provides extensive lists with tens of thousands of book titles and their corresponding grade levels and point values. Books are assigned a point value based on the number of words contained and its reading difficulty, as derived from a formula (ATOS: Advantage-TASA Open Standard readability formula) based on the Flesch-Kincaid readability index (Chall & Dale, 1995; Flesch, 1968, 1974). This formula takes into consideration the number of syllables in words and sentence complexity. Point values are calculated in the following manner: $AR \text{ points} = (10 + \text{reading level}) \times (\text{words in book}/100,000)$. Students read at their own pace and document when and how much they read using the "Student Reading Log."

AR software provides comprehension tests featuring five to 20 multiple-choice questions. The technology presents test scores, points earned, and keeps records in order to help teachers and parents manage and track a student's attempt to reach his or her goal. The test gives immediate feedback in terms of the number of points earned based on the point value assigned the book and the number of correct answers on the test. For example, for a book worth 10 *AR* points, the student would receive 10 points for a score of 100 percent, 9 points for 90 percent, and so on. However, the student must score at least 60 percent to earn any points.

The program automatically generates several types of reports: individual student, class, grade level, and school reports. Included in the individual student report is information concerning the quantity and GE level of the books read, testing dates, scores and total number of points earned. Another teacher generated report is the "at risk report" which identifies students who are at risk of not reaching their individual goals. Students may be identified at risk for not taking quizzes or not achieving their goal in terms of percentages or points earned.



How is Accelerated Reader Aligned with Current Reading Research?

The purpose of *AR* is not to provide reading instruction. Rather, its purpose is to help motivate students to read more books at an appropriate level of difficulty by using a point system tied to individual goals. *AR* seeks to motivate students to read advanced leveled books and to increase their personal reading time. Though many studies find that the best readers read the most and that poor readers read the least (Donahue et al., 1999), these studies provide correlational, not causal evidence. This means that if you read more, you could become a better reader, but it could also be true that better readers choose to read more. The National Reading Panel's analysis of programs that encourage students to read more could find no gains in reading as a result of such programs (2000). This does not mean that programs that encourage students to read more do not cause gains in student reading achievement – future studies should examine this possibility – but it would be unwarranted to conclude that encouraging reading has a positive effect on reading achievement (NRP, 2000).

Professional development for *AR* focuses primarily on the use of the program through technical support and does not include opportunities for teachers to increase their knowledge of reading instruction. However, *AR* provides instructional opportunities for teachers and schools to use the reports generated by *AR* to help realize the importance of reading practice

Research Support for Accelerated Reader

Accelerated Reader was introduced in 1986, and its effectiveness as a tool to help teachers manage and monitor their students' reading practice depends on its implementation. The feedback generated by *AR* and provided for the students, teachers, parents, and administrators is useful only when the program is implemented as a motivational program with guidance from trainers and consultants. Several studies seem to suggest that *AR* is helpful to K-12 students.

According to Peak and Dewalt (1993), an increase in the levels of reading time correlated with a higher level of achievement in reading. They investigated the impact of *AR* on 50 ninth graders in North Carolina who had used the system for five years; these students made greater gains in reading than comparison students who received the same basic language arts programs but had no exposure to *AR*. Over the 5 years, experimental students went from a mean of 716 (scale score) on the California Achievement Test (CAT) at grade 3 to a mean of 788 at grade 8, an average gain of 14.4 points per year, while comparison students went from 724 to 766 (8.4 points per year). However, the retrospective nature of this study and the absence of random assignment or of well-matched controls limits one's ability to conclude that *AR* was responsible for the students' reported gains.

Samuels and Wu (2004) conducted a more tightly controlled study comparing *AR* to a contrast condition in which children had the same amount of time each day (15 minutes) to engage in silent reading during six months of the school year. Whereas the *AR* students completed the comprehension quizzes after reading each book, contrast students were asked instead to complete a book report when they finished each book. Initially, children were randomly assigned to one of four classrooms in which the same reading curriculum was taught, and then these classrooms were randomly assigned to either *AR* or the contrast condition. There were 28 and 39 participants across two classrooms in the *AR* and contrast groups, respectively. All students were pre- and post-tested on the GRADE, a norm-referenced assessment of vocabulary, sentence comprehension, and passage comprehension, and

on a measure of oral reading speed. Pre-testing on the STAR reading test also was used to determine the children's reading level at the beginning of the study so that children could be directed to appropriate books. Results indicated that the *AR* participants gained significantly more on the passage comprehension and total comprehension (i.e., passage and sentence combined) measures. On passage comprehension, the *AR* participants gained almost three times as much as did contrast groups, whereas on the composite measure the *AR* students gained more than twice as much as the contrast participants. On the other measures (e.g., vocabulary, sentence comprehension, reading speed) the *AR* group's advantage did not reach significance. Results from this study, given that it involved random assignment to condition and employed several measures of reading outcome, provide strong support for the efficacy of the *AR* program in supporting reading growth.

Strengths & Weaknesses

Strengths of *Accelerated Reader*:

- It can be motivating for many students.
- Students independently choose material to read at their own pace.
- Students are provided with immediate results.
- *AR* Reports are generated for students, teachers, parents, and school administrators.
- Teachers can monitor students' reading habits and progress in the program.
- Lists of leveled and coded books are provided to match students' reading levels to appropriate books.

Weaknesses of *Accelerated Reader*:

- While an extensive list of book titles and quizzes is provided, students are limited to the books available in their school.
- Test items do not assess inferential or critical thinking skills.

Which Florida districts have schools that implement *Accelerated Reader*?

Alachua	352-955-7880	Gadsden	850-627-0401
Bay	850-872-7700	Gilchrist	352-463-3200
Bradford	904-966-6800	Glades	863-946-2083
Brevard	321-633-1000	Gulf	850-229-8256
Broward	754-321-2701	Gulliver Schools	305-665-3593
Calhoun	850-674-5927	Hendry	863-674-4642
Charlotte	941-255-7571	Hernando	352-797-7001
Citrus	352-726-1931	Highlands	863-471-5564
Clay	904-284-6510	Hillsborough	813-272-4510
Collier	239-377-0212	Holmes	850-547-9341
Columbia	386-755-8000	Indian River	772-564-3150
Diocese of Orlando Schools	407-246-4900	Jackson	850-482-1200
Dixie	352-498-6131	Jefferson	850-342-0100
Duval	904-390-2115	Lake	352-253-6510
Escambia	850-469-6130	Lee	239-337-8301
Flagler	386-437-7526	Leon	850-487-7147
Franklin	850-653-8831	Levy	352-486-5231

Madison	850-973-5022	Pinellas	727-588-6011
Manatee	941-708-8770	Putnam	386-329-0510
Marion	352-671-7702	St. Johns	904-819-7502
Martin	772-219-1200	St. Lucie	772-429-3925
Miami-Dade	305-995-1428	Santa Rosa	850-983-5010
Monroe	305-293-1400	Sarasota	941-927-9000
Nassau	904-321-5881	Seminole	407-320-0006
Okaloosa	850-833-3109	Sumter	352-793-2315
Okeechobee	863-462-5000	Suwannee	386-364-2604
Orange	407-317-3202	Taylor	850-838-2500
Osceola	407-870-4008	Union	386-496-2045
Palm Beach	561-434-8200	Walton	850-892-8331
Pasco	813-794-2648	Washington	850-638-6222

For More Information

www.renlearn.com/ar/

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Important Note: FCRR Reports are prepared in response to requests from Florida school districts for review of specific reading programs. The reports are intended to be a source of information about programs that will help teachers, principals, and district personnel in their choice of materials that can be used by skilled teachers to provide effective instruction. Whether or not a program has been reviewed does **not** constitute endorsement or lack of endorsement by the FCRR. The programs for which reports are available do not constitute an "approved" or "required" list, since many potentially useful programs have not yet been reviewed.

For more information about FCRR go to: www.fcrr.org