

Is Accelerated Reader Better than Free Voluntary Reading? We Still Don't Know.

by Stephen Krashen

In discussing the effectiveness of Accelerated Reading (AR) and other reading management programs, the issue is not whether children improve their reading; we expect that they will. There is no question that children who participate in AR and similar programs read, and more reading invariably leads to more literacy development (Krashen, 1993).

In fact, one would expect that AR would be more effective than traditional language arts instruction for literacy development; students in traditional language arts classes typically do little reading, and what reading they do is often of little interest to them. Also, in traditional classes, reading assignments are often accompanied by book reports and reading comprehension tests. Thus, showing that AR is better than traditional language arts may simply be showing that one inferior approach is better than another inferior approach. The real issue is whether AR or similar programs are superior, in the long run, to approaches in which children do a lot of self-selected interesting reading. At present, no studies answer this question.

In this note I examine one of the few studies in which it is claimed that the comparison group engaged in substantial amounts of reading. As we will see, it is not at all clear that the comparison children really did more free voluntary reading, sample sizes are small, and results are inconsistent.

The report appears in two versions: Vollands, Topping and Evans (1996) is an ERIC report, while Vollands, Topping and Evans (1999) is a slightly abbreviated version appearing in [The Reading and Writing Quarterly](#). The report included two independent studies, each lasting six months.

Project A

This study involved very few children, especially in the comparison group ($n = 12$; there were 27 in the experimental group). All were 11 years old. Comparisons had 30 minutes per day of "reading time" (Vollands et. al., 1999, p. 203), but had to give "written feedback on book completion to the teacher on what they read." The fuller description in Vollands et. al. (1996, p. 53) strongly suggests that this was not merely a record of what was read but was a full "book report"; students were free to read what others had written about a book before selecting it. This means that the "written feedback" provided by students included content and most likely opinion.

In contrast, sustained silent reading does not require any form of student accountability: no book reports are required. In "extensive reading" programs, however, students write very short summaries, but nothing approaching a full book report. The results of extensive reading programs have been very positive, with students consistently out-performing those in comparison groups in traditional programs (Mason and Krashen, 1997). It appears to be the case, however, that requiring writing does not increase the effectiveness of free reading programs. It may, in fact, make them less efficient: Mason and Krashen (in press) found that requiring students of English as a foreign language to write summaries of what they read in free reading classes did not increase gains. In fact, their group that did no writing in addition to reading made the same gains as those who wrote summaries, but devoted far less total time to English instruction.

The AR group in Project A ($n = 27$) had 15 minutes of reading time per day for the first five weeks of the project, which was then increased to 30 minutes per day for the rest of the duration of the treatment. Students were also read to for 30 minutes per day, and were allowed to take AR tests on books read to them. Since it is firmly established that readalouds have a positive effect on literacy development (Blok, H. 1999; Bus, van IJzendoorn, M., and Pellegrini, 1995), it can easily be argued that this read aloud time

counts as exposure to reading. A factor that certainly depressed performance of the AR group was the fact that there was a severe shortage of books that the children could read and be tested on.

This study thus suffers from several problems. The comparison group sample size was small, and the comparison group had to write book reports on what they read (which may have negatively affected their gains in literacy). Also, the AR group combined reading and read alouds: if read aloud time counts, the comparisons had less total exposure to comprehensible text.

The results are not especially clear. The AR group made better gains on one measure of reading comprehension (the Edinburgh, see table 1) as well as on a test of reading accuracy, but both groups declined on another test of reading comprehension, given only to a random subsample of the AR group. The AR group appeared to decline less, however.

Vollands et. al (1996, pp. 148-9) contains a very brief report of follow-up testing done three months after the project ended. As noted in table 1, the AR group gained 12.6 months over their previous score, and the comparisons gained 15.2 months, a substantial recovery over their decline during the treatment period. These are spectacular gains for both groups, more than four times expected growth. Vollands et. al. provide no explanation for this. On the Neale reading accuracy test, controls also gained more, nearly 7 months as compared to the AR group's 3 month gain.

Table 1: Volland et. al., Project A

Edinburgh reading comprehension

	Accelerated Reader		Comparison	
	n	mean	n	mean
pretest	27	90.0 (11.4)	12	87.4 (11.3)
posttest	25	98.2 (11.5)	12	90.8 (10.2)

Neale reading comprehension

	Accelerated Reader		Comparison	
	n	mean	n	mean
pre	12	105.3 (16.3)	12	96.4 (11.2)
post	12	104.6 (13.5)	12	84.6 (14.0)
follow-up	9	118	12	100.8

Standard deviations in parentheses

Project B

The comparison group

The comparison group engaged in two kinds of activities. They had 15 minutes per day of sustained silent reading time during which they could read whatever (novel) they wanted to. Vollands et. al. (1999) noted that "children would write their name on a publicly displayed chart when they had finished their book" (p. 54). The comparison group was thus also involved in a kind of incentive program. Comparison children also spent 20 to 60 minutes per week, depending on their reading level, reading from a selection of ten novels, with all reading done aloud by students, and answering comprehension questions in class or at home. This is hardly free voluntary reading. If we count only the genuine sustained silent reading time, comparison children spent a total of 30 hours in actual free reading (15 minutes per day * 120 sessions (six months) = 1800 minutes = 30 hours).

The AR group

AR students in this study took the tests but received no rewards, bringing their treatment somewhat closer to genuine free voluntary reading. Points were, however, displayed in public. This study, thus, compared two versions of incentives: Points gained in AR tests displayed in public (the AR group) versus titles of books read displayed in public (comparison group).

As was the case in project A, the AR group suffered from a lack of access to books they could read and get credit for, which certainly affected their progress negatively. On the positive side, they were also read to, as were the AR readers in Project A, which most likely boosted their performance; the readaloud time, however, was counted as part of reading time (Vollands et. al., 1996, p. 78).

The AR group read for 15 minutes four times per week for the first three months of the project, and 20-30 minutes for the last three months. This amounts to 1920 minutes or 32 hours (for the first three months, or 12 weeks: 48 sessions * 15 minutes = 720 minutes; for the second three months, or 12 weeks, 48 sessions * 25 minutes = 1200 minutes, or a total of 1920 minutes).

Thus, the AR children read slightly more (two hours) than the comparison children. This is contrary to the claim made by Vollands et. al. (1999) that the comparisons read more. (All this is highly speculative. The detailed report, Vollands et. al., 1996, contains a number of diary entries. An entry for the last month of the project, March 1995, contains the following: "No information was available in terms of the average amount of time spent reading by the children in the class as the (AR) teacher did not keep a running note of this (although she had been asked to do this)." (p. 79). It is not clear whether this observation applied only to that month.)

The Results

Adding to the confusion, the AR students were sixth graders (11 year olds), while the comparisons were fifth graders (10 year olds), even though comparisons had higher pretest reading scores. Also, in the detailed report (Vollands et. al., 1996), it was noted that a thunderstorm occurred during the pretest for the AR students, which was distracting: students "were more interesting in looking out the window than taking a reading test" (p. 98). Moreover, "cheating was witnessed" during the comparison group post-test!

The actual results are inconsistent. Comparison students made larger gains on one test of reading comprehension (Edinburgh) but AR students made larger gains on another (Neale), with comparisons making no gains at all on the Neale (table 2), a mysterious result for a group of good readers. This inconsistency may be due to the fact that all 26 comparison students and nearly all AR students took the Edinburgh test but only a random sample of 11 AR students and 12 comparison students took the Neale comprehension test. There was no difference in gains on a test of reading accuracy, given to the random subsample of both groups. If one considers the Edinburgh to be the valid measure, comparisons doing less reading outperformed AR students who did more.

Thus, this study could be interpreted as showing the failure of AR. The comparisons gained more, despite reading slightly less, on the test taken by the full sample. The small sample size, and inconsistency of the results makes it difficult, however, to conclude much of anything from this study. If the thunderstorm seriously affected pretest reading scores for the AR group, they actually did worse than the results indicate. But if cheating on the posttest was widespread for the comparison groups, their gains would be exaggerated.

Table 2: Volland et. al., Project B

Edinburgh (silent reading comprehension)

		Accelerated Reader		comparison	
		n	mean	n	mean
pretest		25	89.5 (19.1)	26	93.7 (13.8)
posttest		22	92.6 (15.8)	26	100 (15)

Neale reading comprehension

		n	mean	n	mean
pretest		11	96.5 (20.8)	12	103.3 (21.9)
posttest		11	107.6 (26.9)	12	102.7 (26.2)

standard deviations in parentheses

Intrinsic or extrinsic?

In the detailed report, Volland et. al. (1996; p. 80) provide some evidence suggesting that children were more motivated by the actual books than by the rewards. When asked, “What do you like about Accelerated Reader?” the replies included:

“You get to read all kinds of books. Some of the books are really exciting.”

“I like it because it helps you on the reading. You get to choose your own books as well.”

“It gives me a chance to read different kinds of books. I like having quiet time just to read books to myself.”

No child mentioned the tests or the rewards in response to this question. (Recall, however, that AR children in group B did not receive rewards; Volland et. al., did not distinguish comments made by children in groups A and B.) When asked specifically about the tests, “What do you think about taking tests on the computer?” one child responded “It’s okay but I like it when you just read a book” (Another child, however, said “I like going to the computer to take a test.”).

When teachers were asked if the children enjoyed using AR, responses clearly focused on the use of the computer, taking the tests, and the benefits of competition. This is an interesting difference between teachers and students.

Summary and Conclusions

Both project A and B suffered from small sample sizes and a lack of reading material for the AR groups. In project A, the comparisons had to write book reports, and had less exposure to comprehensible text than the AR students. AR children had better gains on one test of reading comprehension and one test of reading accuracy, but both groups declined on another test of reading comprehension. Both groups inexplicably made gigantic gains after the treatment ended, with the comparison group gaining more.

In project B, the AR group was distracted by a thunderstorm on the pretest, and there was evidence of cheating by the comparisons on the posttest. The AR group did slightly more reading than the comparisons did. Both groups had incentives (publicly displayed points or a list of books read). Comparisons made better gains on one reading comprehension test, while AR students made better gains on another.

It is difficult to draw any real conclusions from this study, other than that it should not be used to support or discredit the use of accelerated reader. We still await a genuine comparison of a reading management program and free voluntary reading.

References

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