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Professional Article

Repeated Reading: Research Into Practice

By Sarah L. Dowhower

It is reading time and several children take their books and stop watches to the reading table. Stop watches for reading? These children are taking time to read their material, not once but several times, and they are recording how fast they read each time they practice. In this primary classroom, it is not just reading time, it is rereading time.

In the last few years, researchers have compiled an impressive list of studies investigating repeated reading (or multiple readings of connected text) as a technique for improving reading ability. Although there is still much to be learned about the rather simple rehearsal strategy involved, we have evidence to show it is a viable instructional tool not only for disabled or remedial readers in special classes but also for developmental readers in regular classrooms, and for not only very young children but also mature adults.

Four lines of research have added substantially to our knowledge about the value of rereading procedures: (a) investigations of repeated reading (RR) as a study skill strategy, (b) studies of processing changes employed in a proofreading paradigm, (c) studies of the effects of repetitive listening, and (d) studies investigating effects of RR on oral reading comprehension and fluency—specifically reading rate, accuracy, and prosodic reading (reading in meaningful phrases).

In this article I will summarize the pertinent findings of these four lines of repeated reading investigations, with emphasis on the last because of its direct relevance to elementary school instruction; and then translate those findings into practical suggestions for classroom teachers.

Benefits of RR

The findings in the first three lines of research support the age-old benefits of practice and rehearsal for both young and old. The evidence suggests that rereading is a valuable study tool, is helpful for both high and low ability students, encourages more efficient processing, and is especially important for young children.

Researchers have learned that:

1) As a study strategy, rereading is equal to or better than other more complicated strategies such as notetaking, outlining, or summarization when readers are asked to recall information.

In a review of study skill strategies, Anderson (1980) found only one study that reported notetaking superior to rereading. Three other studies showed rereading was as powerful as RR. In several studies of underlining, five showed no difference between underlining and repetitive reading and only one favored underlining; however, the students in this last study were only allowed to reread one page at a time and never did a complete rereading of the text.

Anderson's reanalysis of Arnold's 1942 study suggests that RR is superior to summarizing, underlining, and outlining.

Howe and Singer (1975) reported that college freshmen when rereading short passages of unfamiliar content outperformed those who copied the passage word-for-word and those who summarized each paragraph. In a second experiment reported, they found some evidence that rereading was equal to repeated listening (at a normal speaking rate) as a study strategy.

2) For both high and low ability students, RR as a study strategy increases factual retention; however, only high ability seems to benefit by increased application of those facts to new materials (transfer). If a passage is read twice as opposed to once, both good and poor readers benefit quantitatively by remembering more facts (Barnett and Seefeldt, 1987). Good readers benefit by being able to focus more on higher

levels of information and more important information.

3) Rereading leads to faster reprocessing of text. When readers are asked to detect misspellings and embedded nonwords, "reading speed gains are at no cost to the thorough processing of the printed text" (Levy et al., 1986, p. 478). Readers were better able to find errors as they gained in speed and familiarity with the text.

4) On technical and unfamiliar materials, the first reread is likely to involve more rote learning, whereas additional rereadings help the students remember more meaningful structures and idea units. Bromage and Mayer (1986) and Mayer (1983) found that the amount of recalled information increased, that more important structural information (like main ideas) was remembered, and that more important terms were remembered as the number of repetitions increased. Problem solving also improved with repetition.

5) Repeated read-alouds (in which young children listen over and over to a story) help children's story comprehension and encourage deeper questioning and insights. Martinez and Roser (1985) reported that repetitive read-alouds both at school and at home resulted in more talk about the familiar story and that the children's responses indicated greater understanding.

In a case study, Yaden (1988) found that his 5 year old son's comprehension increased with rereading. Comprehension takes time, and to expect complete understanding after one oral reading is not appropriate.

These findings indirectly support the results of the fourth line of RR research —investigations on its effects on oral reading fluency and comprehension. This research has been especially fruitful with respect to classroom application for elementary teachers. (See Dowhower, 1986, Appendix A for a review of the RR studies).

Basically, research studies have fallen into two categories: *read-along* in which a live or audiotaped model of the passage was used and *independent practice* in which no model or prototype was used. Those procedures falling under the first category are called "assisted repeated reading"; and the latter are "unassisted repeated reading." In either case, students reread a meaningful passage until oral production is fluid, flowing, and facile.

Reading researchers have provided impressive evidence that for the slow, halting reader:

1) Rereading the same passage using either the assisted or unassisted RR procedure significantly increases reading rate (number of words per minute) and accuracy (number of words read correctly) (Carver and Hoffman, 1981; Chomsky, 1976; Dahl, 1974; Dowhower, 1987; Herman, 1985; Neill, 1980; Rashotte and Torgesen, 1985; Samuels, 1979).

2) Practicing one passage to a set rate of reading speed leads to increases of speed and accuracy in new unpracticed passages (Carver and Hoffman, 1981; Dowhower, 1987; Herman, 1985; Samuels, 1979). Assisted and unassisted RR procedures seem equally effective for speed and accuracy (Dowhower, 1987).

3) Rereading a passage, either assisted or unassisted, significantly increases its comprehension (Dowhower, 1987; Herman, 1985; O'Shea, Sindelar, and O'Shea, 1985). O'Shea et al. found when students are encouraged to attend to the meaning instead of speed as they practice, comprehension increases even more.

4) Using either the assisted or unassisted procedures, comprehension gains on practiced text seem to carry over to new unpracticed text when the stories are at the same reading level and accuracy and speed have also increased.

- Dowhower (1987) found that after doing a series of five practice stories written at the 2nd grade level, students had a comprehension increase of 66% to 88% on pretest and posttest unpracticed passages.
- Morgan and Lyon (1979) found that junior high poor readers averaged 11.5 months progress in 6.25 months on a standardized comprehension test after 12-13 weeks of practice. Herman

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(1985) reported a significant drop in miscues from the initial reading of the first practice passage to the initial reading of the fifth for nonfluent intermediate grade students.

5) Rereading passages enhances children's ability to segment text into more meaningful phrases. Dowhower (1987) reported that word-by-word readers began to read in longer phrases and with more expression. The assisted procedure seemed to have the more positive effects in that the read-along group segmented text into more appropriate phrases with fewer pausal intrusions and more voice inflection than the independent practice group.

6) Practicing a series of passages seems to be more effective than just one passage. Dowhower (1987) found that in the short term (from one new story to another or from the first half to the second half of the same story) there was only a slight gain in accuracy and comprehension. However, the longer effect of practicing a number of stories at the same reading level is more dramatic.

In sum, the evidence indicates strongly that repeated reading works—in studying, listening, and oral reading—for mature and beginning readers! RR helps students remember and understand more, increases their oral reading speed and accuracy, and seems to improve students' oral reading expression. There are many reasons why students should be rereading.

Guidelines from research

There are several procedural tips and steps that can be gleaned from the research studies when considering the implementation of RR in the classroom.

1) Keep passages short—50 to 300 words is a good length. Passages may be taken from many different kinds of reading materials—basals, trade books, language experience texts, newspaper articles, student writing.

2) Monitor the word recognition level of the passages. On the first reading, the child should read with 85% accuracy or better before starting to practice; otherwise, the passage is too hard.

3) Keep the practice passages at the same level of difficulty until an acceptable rate of speed and accuracy is reached on the first or second reading. Then move the child to harder passages.

4) Don't be concerned day-to-day with providing stories with a high degree of shared words. There seems to be a cumulative vocabulary effect with RR in which the practice of a series of stories is more effective than just one story in the long run (Dowhower, 1987). As learners practice stories with few shared words, their reading ability increases partially because RR helps them build a bank of quickly identified words. This, coupled with the redundancy of language, helps the reader become more and more successful.

5) Use the read-along approach (assisted) when the children are reading with few errors but below 45 words per minute (WPM). The model gives the children support and a sense of the proper phrasing and speed of fluent reading.

6) As soon as the children reach a rate of over 60 WPM on their first reading of a practice passage, use the independent RR procedure (unassisted) where they reread without a model or tape—these students need more practice than support.

7) Predetermining the mastery level for speed seems to be particularly appropriate for very slow word-by-word readers and remedial students. The students move to a new passage once they reach the goal (a set rate of speed) on the passage they have been practicing.

Dowhower (1987) found that a 100 WPM criterion was effective with regular 2nd graders who were reading below 50 WPM. Samuels (1979) and Herman (1985) used 85 WPM with older remedial students. Although O'Shea et al. (1985) did not use a criterion with 3rd graders reading at or above grade level, they found that with RR the children's rate rapidly surpassed 120 WPM.

It should be noted that the greatest improvement in speed across passages seems to happen over the first several stories. The greatest decrease in number of rereadings needed to meet a 100 WPM

criterion comes in the first three of five practice stories (Dowhower, 1987).

8) Setting a specific number of rereadings rather than a criterion seems appropriate for children who are reading at relatively high rates of speed and accuracy. Three to five rereadings for each passage is a good goal for mastery according to several researchers. O'Shea et al. (1985) found that 83% of the fluency increase (speed) took place by the fourth reading. Spring, Blunden, and Gatheral (1981) found that students reached optimal fluency between three and five readings.

Classroom suggestions

There are many easy ways repeated reading can be incorporated into the regular classroom reading program. Three examples are through direct instruction, use of learning centers, and application of cooperative learning strategies.

Direct instruction:

Hoffman (1987a, 1987b) has had success with low reading groups in several primary grade classes using a "recitation" approach with basal stories. The teacher first reads the story to the group and then constructs a story map and summary of the content together with the children.

Next, the teacher uses choral reading and echo reading to develop oral reading fluency. Finally, the children independently practice a segment of the text and meet a criterion of 75 WPM and 98% word accuracy with good expression before moving on to the next story.

Center approach:

Many teachers have had success with a RR center approach, setting up a special area either in the classroom or in the library where children can go to practice stories.

If an assisted procedure is preferred, a tape recorder, book, and tape are provided in the center. The children keep a record of how many times they listen to the book.

If an unassisted procedure is preferred, a timing device (hour glass, stop watch, etc.) a reading record chart, and the books are provided. The children can keep a record of how fast they read each time they practice the passage.

Several elementary schools in Madison, Wisconsin, use a system patterned after Chomsky's (1976) assisted procedure. They call it Automatic Reading. Children are sent to the library to choose a book (with an audiotape) that is not too easy or too hard.

Each child tests into a book by reading a list of 20 words from the story. If the child knows more than 15 words, the book is probably too easy; 8 or fewer words, the book is too hard.

In an area of the library set aside especially for Automatic Reading, the children read along with a tape several times daily until they can read the story smoothly by themselves (about 15-20 readings in total). When the child is ready, s/he either reads the whole book to an adult or, if the book is too long, prepares several pages to read aloud. S/he also takes the word test s/he took before entering the book.

If the child can read the book easily and knows all the words on the word list, s/he receives a HappyGram and chooses another book to start practicing.

The books on tape have been carefully chosen against special criteria including high interest, appropriate pacing, good language patterns, appropriate sound effects, clear page turning cues, and lack of cultural biases.

Cooperative learning:

Other teachers have found a cooperative learning strategy called Paired Repeated Reading to be effective and easy to manage in the regular classroom (Koskinen and Blum, 1984, 1986). A typical activity is done with a partner from the reading group during independent follow up to reading instruction. Students read a short passage

aloud three times and then evaluate their own and their partner's reading. This takes 10-15 minutes. "Many types of reading material can be used, such as passages from basal readers, student produced stories, or trade books" (Koskinen and Blum, 1986, p. 71).

Four steps are involved in cooperative repeated reading: (1) students select and read silently a 50 word passage from the story they are working with in direct instruction, (2) they choose a partner and decide who will read first, (3) the reader reads his/her passage three times and evaluates how well s/he reads after each time (the listener tells the reader how his/her reading has improved after the second and third readings), and (4) the students switch roles and repeat step 3 (Koskinen and Blum, 1986, p. 71).

Fluency and comprehension are surely our goals for all readers. Anderson (1981) suggests that fluency training may be the "missing ingredient" in classroom reading instruction. Likewise, Allington (1983) believes that oral reading fluency is a neglected reading goal for both good and poor readers.

We have the research evidence to show that repeated reading procedures produce gains in speed and accuracy, result in better phrasing and expression, and enhance recall and understanding for both good and poor readers. Now the challenge is to turn what we know into what we do—research into practice—Johnny and Jane rereading!

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