

Comparison of a Reading Fluency Intervention with and without Passage Repetition on Reading Achievement

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The purpose of this study was to compare the effect of a repeated reading and question generation intervention entitled *Re-read-Adapt and Answer-Comprehend* (RAAC) with a modified RAAC intervention without the repeated reading component. All students made gains in oral reading fluency on independent passages. The modified RAAC programme without passage repetition appeared to be as effective at increasing reading fluency when compared to the RAAC programme with passage repetition.

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The purpose of this study was to compare the effect of a repeated reading and question generation intervention entitled *Re-read-Adapt and Answer-Comprehend* (RAAC) with a modified

RAAC intervention without the repeated reading component. Participants were 30 students in grades 3–5. Students were randomly assigned to either the nonrepetitive condition or the control repeated reading condition and participated in 50 sessions over a 4-month period. All students made gains in oral reading fluency on independent passages. The modified RAAC programme without passage repetition appeared to be as effective at increasing reading fluency when compared to the RAAC programme with passage repetition.

- Reading is a challenge for many children, with 20% of students having significant difficulties with reading acquisition.
- Reading fluency (defined as the ability to read with speed, accuracy, and proper expression) has been identified as an essential reading skill factor.
- The ability to read a passage fluently is often a stronger predictor of comprehension than direct measures of reading comprehension.
- Repeated reading, 'a supplemental reading programme that consists of re-reading a short and meaningful passage until a satisfactory level of fluency is reached' (Samuels, 1979, p. 404) is an extensively researched fluency intervention that has been found to improve reading fluency of students with and without disabilities.
- Repeated reading also has an impact on students' reading comprehension.
- Addressing the need or lack of rereading is critical.
- If rereading is not necessary to improve reading fluency, nonrepetitive interventions are preferable because reading numerous passages instead of rereading a few passages increases students' exposure to vocabulary words, topics, and genre.

Theory of automatic word processing

- This presents a reasoned explanation for the

effectiveness of repeated reading.

- Repeated reading provides students with multiple opportunities to master words, sentences, and paragraphs in a passage.

Re-read-Adapt and Answer-Comprehend (RAAC)

- This combines repeated reading and question generation into a supplemental reading programme.
- Students reread until a performance criterion is reached. They then receive formative feedback from a competent tutor on speed, accuracy, and prosody.
- Students read each passage purposefully to adapt and answer question generation prompts.



The study

The purpose of this study was to examine the necessity of passage repetition within the RAAC programme on the reading achievement of students receiving special education.

Research questions:

- 1. What is the effect of the repeated reading version of the RAAC on student reading fluency outcomes and on overall reading achievement?*
- 2. What is the effect of the nonrepetitive reading version of the RAAC on student reading fluency and on overall reading achievement?*
- 3. How do the effects on students' reading fluency outcomes and overall reading achievement compare for each version of the RAAC?*

Participants were 30 students (grades 3–5) receiving tiered services or special education services in reading. Students were randomly assigned to the groups; two students were placed in the nonrepetitive condition for every one student placed in the repeated reading condition. All students were involved in 50 intervention sessions over a 4-month period. The pre-tests were administered during a 2-week period before programme implementation and the post-tests were administered during a 2-week period after programme completion.

Intervention procedure

- Interventions were implemented until a total of 50 sessions each lasting 15 min were completed.
- Students averaged 3 sessions per week and engaged in a total of 12.5 hr of instruction over a 4-month period.
- The interventions consisted of two versions of the RAAC programme: one with repeated and one with nonrepetitive reading.
- The RAAC intervention with repeated reading consists of the following nine instructional steps:
 1. The teacher cued the student with the following statement: *'Read this story the best you can and as quickly as you can. Pay attention to what you are reading as you will need to answer these questions'* (the teacher pointed to the cue card questions).
 2. A cue card containing generic story structure questions was presented and the teacher prompted the students to read the questions aloud.
 3. The student reread the passage aloud until they reached a preestablished number of correct words per minute (cwpm) at least two and no more than four times.
 4. The teacher provided corrective feedback on word errors. If the student hesitated on a word for 3 s or omitted a word(s), error correction was

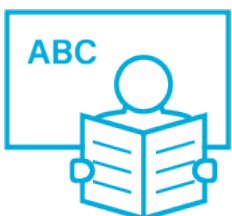
provided immediately. Otherwise, error correction was provided after the passage had been read but prior to rereading the passage.

5. After each reading, the teacher provided feedback to the student on the fluency of their performance using the 'How Did I Read' rubric.
 6. After reading the terminal passage, the teacher prompted the student to adapt and answer the cue card questions orally. If the student answered the question(s) incorrectly or gave no answer(s), a prompt to look for the information in the passage was given. If the student answered the question(s) incorrectly or no answer(s) was provided after a second try, the answer(s) was provided and the teacher explicitly pointed out where the information could be found to answer the question(s).
 7. The teacher asked four factual and four inferential comprehension questions about the passage.
 8. The session ended and steps 1–7 were repeated in the following session.
 9. The teacher adjusted the difficulty of the reading material for use in the subsequent session.
- The instructional steps in the RAAC intervention nonrepetitive condition consisted of the same steps with the following three exceptions:
 1. Instead of rereading passages to set criteria, each passage was only read once.
 2. Each instructional session consisted of two novel passage readings and related steps. Therefore, students read twice as many novel passages as students in the repeated reading condition.
 3. The teacher adjusted the difficulty of the reading material for use in the subsequent sessions.



Findings

- On average, students in the repeated reading condition increased 15.73 cwpm from pre-test (76.83 cwpm) to post-test (92.55 cwpm) when measured using the DIBELS Oral Reading Fluency (DORF) test.
- On average, students in the nonrepetitive condition increased 26.89 cwpm from pre-test (81.42 cwpm) to post-test (108.32 cwpm).
- The difference in the pre- to post-test gain scores for students in different conditions was not statistically significant.
- On average, students in the repeated reading condition standard score increased 3.36 cwpm from pre-test (92.27 cwpm) to post-test (95.64 cwpm) when reading achievement was measured on the WJ-III Broad Reading test.
- On average, students in the nonrepetitive reading condition standard score increased 5.0 cwpm from pre-test (90.42 cwpm) to post-test (95.42 cwpm).
- Again, the difference in these scores for students in different conditions was not statistically significant.



Conclusions and implications

Students in the RAAC condition with rereading made significant gains in reading fluency from pre- to post-testing. Moreover,

students in the RAAC condition without rereading made significant gain in reading fluency from pre- to post-test. Students in both conditions also made significant gains in general reading achievement between pre- and post-testing. There was no significant difference between conditions on pre- to post-test gains in reading fluency and general reading achievement. Despite the lack of statistical significance, the mean difference in reading fluency and reading achievement in favour of the nonrepetitive condition was surprising. Plausible explanations for this difference in favour of the nonrepetitive intervention may involve student characteristics and/or reading material. It may be concluded that reading practice with feedback is the essential component needed to improve reading fluency, and not rereading.