

Developing Reading Fluency With Repeated Reading

WILLIAM J. THERRIEN AND
RICHARD M. KUBINA, JR.

Repeated reading has gained popularity as a technique for helping students achieve reading fluency. It is widely implemented and can be used for students with and without disabilities. Repeated reading has several components that make it more efficient. This article shares those components and provides a framework for setting up and using repeated reading in the classroom.



Reading, a complex process some have likened to rocket science (Moats, 1999), has become less of a mystery in recent years. Reports, such as that from the National Reading Panel (NRP, 2000), have highlighted extensive research that details how to best teach beginning reading. Topics in the NRP report include phonemic awareness, phonics instruction, comprehension, computer technology, and reading fluency. Fluency, in particular, has received an increasing amount of attention.

Kuhn and Stahl (2003) reviewed the literature for fluency used during developmental and remedial instruction and concluded that teachers should use fluency instruction more often because of the benefits to reading. Fluency serves as a bridge between decoding words and comprehension (Carnine, Silbert, Kame'enui, & Tarver, 2004). Moreover, oral reading fluency has been shown to predict comprehension better than such direct measures of reading comprehension as questioning, retelling, and cloze (Fuchs, Fuchs, & Hosp, 2001).

How can teachers best provide fluency instruction for their students? One answer lies in a technique called *repeated reading*. Repeated reading represents an educational strategy for building reading fluency in which a student rereads a passage until meeting a criterion level (Dahl, 1977; Samuels, 1979). Research shows that repeated reading can facilitate growth in reading fluency and other aspects of reading achievement (Adams, 1990; NRP, 2000; Therrien, 2004). We present four elements to consider when deciding whether and how to implement repeated reading.

Determine If Students Have the Necessary Prerequisite Skills

Regardless of present grade level, repeated reading appears beneficial for students who read between a first- and third-grade instructional level. The intervention may also be useful for students who, although able to de-

code words above a third-grade level, read in a slow, halting manner. Repeated reading is not recommended for students who read below a first-grade level, as they have yet to acquire foundational reading skills (e.g., letter-sound correspondences, blending words).

The research base for repeated reading covers non-disabled students (Bryant et al., 2000; O'Shea Sindelar, & O'Shea, 1985; Rasinski, Padak, Linek, & Sturtevant, 1994), students with learning disabilities (Bryant et al., 2000; Freeland, Skinner, Jackson, McDaniel, & Smith, 2000; Gilbert, Williams, & McLaughlin, 1996; Mathes & Fuchs, 1993; Mercer, Campbell, Miller, Mercer, & Lane, 2000; O'Shea, Sindelar, & O'Shea, 1987; Rashotte & Torgesen, 1985; Sindelar, Monda, & O'Shea, 1990; Vaughn, Chard, Bryant, Coleman, & Kouzekanani, 2000), high-functioning students with autism (Kamps, Barbetta, Leonard, & Delquadri, 1994), and students with low vision (Koenig & Layton, 1998). The intervention has also been used successfully with students in second (Dowhower, 1987) through eighth (Mercer et al., 2000) grades who have an instructional reading level between first (Weinstein & Cooke, 1992) and fifth grade (Homan, Klesius, & Hite, 1993).

It is instructive to think of repeated reading within the context of stages of learning. Mercer and Mercer (2001) described stages of learning as levels through which a student progresses. As the student advances through the stages of learning, the skill or behavior becomes increasingly more functional. The stages of learning progress as follows:

1. entry level,
2. acquisition,
3. proficiency,
4. maintenance,
5. generalization, and
6. adaptation.

Teachers provide instruction in the acquisition stage and help foster an accurate performance of a skill. At the pro-

iciency stage, the aim is to develop fluency or a behavior that can be performed with both accuracy and speed (Mercer & Mercer, 2001). Thus, repeated reading can be thought of as a well-organized practice strategy resulting in sharpened decoding skills.

Choose an Appropriate Format for the Intervention

Repeated reading has been effectively implemented in a variety of formats. Interventions have been successfully conducted by teachers (Dowhower, 1987; O'Shea et al., 1987), paraprofessionals (Mercer et al., 2000), and peer tutors (Rasinski et al., 1994; Stoddard, Valcante, Sindelar, O'Shea, & Algozzine, 1993). Repeated reading has also been conducted as both a whole-class activity (Homan et al., 1993; Simmons, Fuchs, Fuchs, Mathes, & Hodge, 1995) and a pull-out program (O'Shea et al., 1985; Sindelar et al., 1990). Whole class administration can be accomplished with a peer-tutoring format. Peer-tutoring has been demonstrated to be both flexible and empirically sound (Miller, Barbetta, & Heron, 1994). Intervention sessions should be conducted with sufficient frequency ranging from 3 to 5 times a week. Administration of repeated reading requires a time commitment between 10 to 20 min per session.

Implement Essential Instructional Components

Figure 1 shows that there are three essential instructional components to include in a repeated reading intervention (Therrien, 2004). First, passages should be read aloud to a competent tutor. Carefully selecting and preparing competent tutors is imperative because monitoring students' oral reading and providing feedback is directly tied to program success. A recent meta-analysis (Therrien,

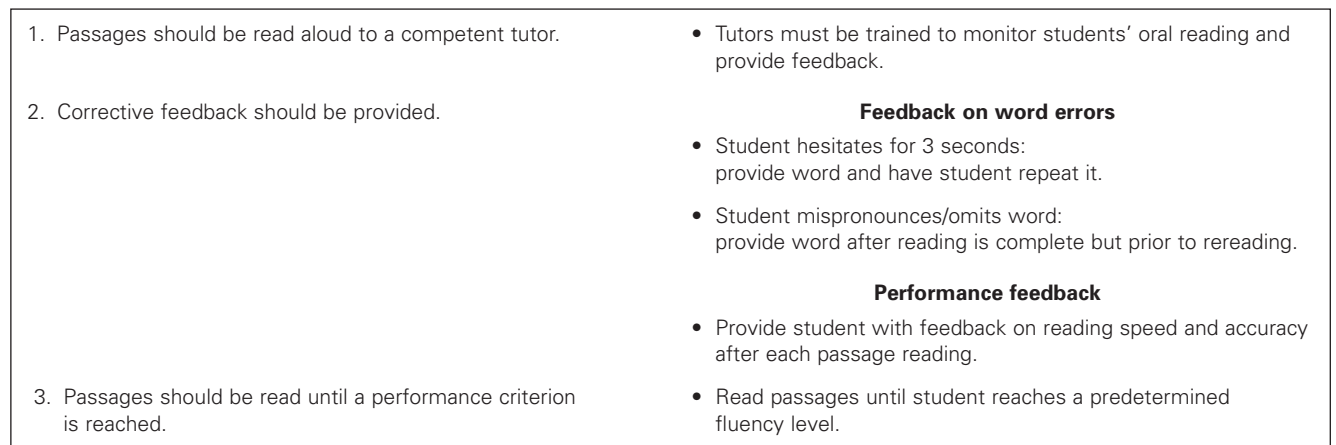


Figure 1. Repeated reading essential instructional components.

2004) found that repeated reading interventions conducted by adults or well-trained peer tutors were, on average, three times more effective. Teachers must, therefore, ensure that all tutors are taught the skills needed to monitor tutees' oral reading and provide effective and timely feedback. Additionally, teachers should closely monitor peer groups during repeated reading sessions. If students have difficulty monitoring peers' oral reading and providing feedback, additional instruction should be given or adjustments made to the peer groupings.

The second instructional component is providing corrective feedback. Feedback on word errors and reading speed needs to be communicated to students. Depending on the type of word error, tutors should either give immediate or delayed corrective feedback. If the student hesitates on a word for 3 s or omits a word, error correction should be given immediately. Otherwise, error correction should be provided after the passage has been read but prior to having the tutee reread the passage. Error correction in both cases can be as simple as providing the word and asking the student to repeat it. After each passage reading, tutors should provide performance feedback to tutees on their reading speed and accuracy. For example, upon reaching the goal on the fourth reading, the tutor could say, "Great job, Sarah, You made the goal! You read 118 words and only made 1 mistake. That was 11 more words and 3 fewer errors than the last time you read it!" Providing performance feedback often motivates students as it allows them to explicitly see their progress.

The third instructional component is to reread passages until a performance criterion is reached. To ensure that students receive sufficient practice to become fluent, each passage should be reread until the student attains a

performance criterion goal. Appropriate performance criterion should be selected based on the student's instructional reading level. Here are examples of performance criteria based on grade levels: second grade, 94 correct words per minute; third grade, 114 correct words per minute (Hasbrouck & Tindal, 1992). Although the use of a performance criterion is recommended, passages should, in general, be at a difficulty level where the student can achieve the goal in a reasonable amount of time. If a student consistently needs to reread passages for extended periods of time to meet the criterion, easier passages should be used. Similarly, if a tutee is consistently able to reach criterion in a few readings, more challenging passages should be used.

Select Appropriate Reading Material and Obtain Additional Supplies

Three items are necessary to conduct a repeated reading intervention: instructional-level reading passages, a timer, and data-tracking sheets. Passages within students' instructional level (i.e., passages read with 85% to 95% word accuracy) that can be read by students in 1 to 2 min are preferable. Many teachers may find that their schools already have suitable reading materials. If materials are not available, teachers may purchase commercially prepared passages. A digital countdown timer or stopwatch is needed for tutors to be able to track the reading rate of the tutee. If unavailable, tutors can be taught to time readings using the classroom clock. A tracking sheet should be designed and used to record progress through the intervention (see Figure 2 for an example).

Tutee's name: **Sarah A.**

Tutor's name: **Tasha S.**

Date	Goal	Passage #	Re-reading #	Words read	Errors	Correct words	Goal met?
5-4	114	12	1	74	10	64	no
5-4	114	12	2	87	7	80	no
5-4	114	12	3	98	4	94	no
5-4	114	12	4	118	1	117	yes

Figure 2. Sample repeated reading tracking sheet.

Follow Repeated Reading Instructional Sequence

Repeated reading can become a routine for students each day during reading instruction. Steps involved with repeated reading may occur with a teacher or paraprofessional assuming the permanent role of tutor or following in the peer-tutor format procedure:

1. Students pair up and gather their reading material. Materials consist of the reading passage (100- to 200-word passages) at the instructional level, a copy of the passage or a transparency and dry-erase marker, and a data sheet.
2. One student begins as the reader and the other student acts as the counter. The student who is the counter may also be the timer, depending on whether the teacher starts the timing for the group or has the students time each other.
3. When the timer begins, the reader reads and the counter marks incorrect or missed words on the reading passage. Should a reader hesitate on a word for 3 s or more, the counter should provide the word and have the reader repeat it and continue reading. If using a transparency, the reader puts the transparency over her copy of the passage and places an X on missed words with the dry-erase pen.
4. After the timer or teacher indicates the 1-min interval has ended, the counter provides feedback and has the reader repeat the correct pronunciation for words she missed.
5. The counter records the number of words read, errors, and correct words per minute on the data tracking sheet.
6. The student engages in another repeated reading by rereading the passage and receiving feedback. Students can reread a passage up to 4 times per session (Rashotte & Torgesen, 1985).
7. Students switch roles, and Steps 2 through 5 are repeated.
8. The teacher and students end the repeated reading procedure on a positive note.

Conclusion

A call has been made for incorporating techniques to develop reading fluency in the classroom (Kuhn & Stahl, 2003; NRP, 2000; Rasinski, 2000). Repeated reading directly targets oral reading fluency and can easily be integrated in an existing reading program. Previous research has shown that repeated reading is effective with a variety of students, including students with disabilities. Using essential instructional components and selecting appropriate materials maximizes the effectiveness of repeated



reading. Following the guidelines suggested in this article, teachers can easily incorporate repeated reading into their existing classroom routines.

ABOUT THE AUTHORS

William J. Therrien, PhD, is an assistant professor at Miami University. His current research interests include effective reading instruction for students with special needs and classroom management. **Richard M. Kubina, Jr.**, PhD, is an assistant professor at The Pennsylvania State University. His current research interests include measurably effective technologies, such as precision teaching and direct instruction. Address: William J. Therrien, Miami University, Department of Educational Psychology, McGuffey Hall, Oxford, OH 45056.

REFERENCES

- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Bryant, D. P., Vaughn, S., Linan-Thompson, S., Ugel, N., Hamff, A., & Hougen, M. (2000). Reading outcomes for students with and without reading disabilities in general education middle-school content area classes. *Learning Disability Quarterly*, 23, 238-252.
- Carnine, D. W., Silbert, J., Kame'enui, E. J., & Tarver, S. G. (2004). *Direct instruction reading* (4th ed.). Upper Saddle River, NJ: Prentice Hall/Merrill.
- Dahl, P. R. (1977). An experimental program for teaching high speed word recognition and comprehension skills. In J. E. Burton, T. Lovitt, & T. Rowland (Eds.), *Communications research in learning disabilities and mental retardation* (pp. 33-65). Baltimore: University Park Press.
- Dowhower, S. L. (1987). Effects of repeated reading on second-grade transitional readers' fluency and comprehension. *Reading Research Quarterly*, 22(4), 389-406.

- Freeland, J. T., Skinner, C. H., Jackson, B., McDaniel, C. E., & Smith, S. (2000). Measuring and increasing silent reading comprehension rates: Empirically validating a repeated reading intervention. *Psychology in the Schools, 37*(5), 415–429.
- Fuchs, L. S., Fuchs, D., & Hosp, M. K. (2001). Oral reading fluency as an indicator of reading competence: A theoretical, empirical, and historical analysis. *Scientific Studies of Reading, 5*(3), 239–256.
- Gilbert, L. M., Williams, R. L., & McLaughlin, T. F. (1996). Use of assisted reading to increase correct reading rates and decrease error rates of students with learning disabilities. *Journal of Applied Behavior Analysis, 29*(2), 255–257.
- Hasbrouck, J. E., & Tindal, G. (1992). Curriculum-based oral reading fluency norms for students in grades 2 through 5. *Teaching Exceptional Children, 24*(3), 41–44.
- Homan, S. P., Klesius, J. P., & Hite, C. (1993). Effects of repeated readings and nonrepetitive strategies on students' fluency and comprehension. *The Journal of Educational Research, 87*(2), 94–99.
- Kamps, D. M., Barbetta, P. M., Leonard, B. R., & Delquadri, J. (1994). Classwide peer tutoring: An integration strategy to improve reading skills and promote peer interactions among students with autism and general education peers. *Journal of Applied Behavior Analysis, 27*(1), 49–61.
- Koenig, A. J., & Layton, C. A. (1998). Increasing reading fluency in elementary students with low vision through repeated reading. *Journal of Visual Impairment and Blindness, 92*(5), 276–292.
- Kuhn, M. R., & Stahl, S. A. (2003). Fluency: A review of developmental and remedial practices. *Journal of Educational Psychology, 95*(1), 3–21.
- Mathes, P. G., & Fuchs, L. S. (1993). Peer-mediated reading instruction in special education resource rooms. *Learning Disability Research and Practice, 8*(4), 233–243.
- Mercer, C. D., Campbell, K. U., Miller, M. D., Mercer, K. D., & Lane, H. B. (2000). Effects of a reading fluency intervention for middle schoolers with specific learning disabilities. *Learning Disability Research and Practice, 15*(4), 179–189.
- Mercer, C. D., & Mercer, A. R. (2001). *Teaching students with learning problems* (6th ed.). Upper Saddle River, NJ: Prentice Hall/Merrill.
- Miller, A. D., Barbetta, P. M., & Heron, T. A. (1994). START tutoring: Designing, training, implementing, adapting, and evaluating tutoring programs for school and home settings. In R. Gardner, D. Sainato, J. Cooper, T. Heron, W. Heward, J. Eshleman, & T. Grossi (Eds.), *Behavior analysis in education: Focus on measurably superior instruction* (pp. 265–282). Belmont, CA: Brooks-Cole.
- Moats, L. C. (1999). *Teaching reading is rocket science: What expert teachers of reading should know and be able to do*. Washington, DC: American Federation of Teachers.
- National Reading Panel. (2000). *Report of the National Reading Panel: Teaching children to read* [Online]. Available: <http://www.nichd.nih.gov/publications/nrp-pubskey.cfm> [2000, November, 10].
- O'Shea, L. J., Sindelar, P. T., & O'Shea, D. J. (1985). The effects of repeated readings and attentional cues on reading fluency and comprehension. *Journal of Reading Behavior, 17*(2), 129–141.
- O'Shea, L. J., Sindelar, P. T., & O'Shea, D. J. (1987). The effects of repeated reading and attentional cues on the reading fluency and comprehension of learning disabled readers. *Learning Disabilities Research, 2*(2), 103–109.
- Rashotte, C. A., & Torgesen, J. K. (1985). Repeated reading and reading fluency in learning disabled children. *Reading Research Quarterly, 20*, 180–188.
- Rasinski, T. V. (2000). Speed does matter in reading. *The Reading Teacher, 54*(2), 146–151.
- Rasinski, T., Padak, N., Linek, W., & Sturtevant, E. (1994). Effects of fluency development on urban second-grade readers. *The Journal of Educational Research, 87*(3), 158–165.
- Samuels, S. J. (1979). The method of repeated readings. *The Reading Teacher, 41*, 756–760.
- Simmons, D. C., Fuchs, L. S., Fuchs, D., Mathes, P., & Hodge, J. P. (1995). Effects of explicit teaching and peer tutoring on the reading achievement of learning-disabled and low-performing students in regular classrooms. *The Elementary School Journal, 95*(5), 387–408.
- Sindelar, P. T., Monda, L. E., & O'Shea, L. J. (1990). Effects of repeated readings on instructional- and mastery-level readers. *The Journal of Educational Research, 83*(4), 220–226.
- Stoddard, K., Valcante, G., Sindelar, P. T., O'Shea, L., & Algozzine, B. (1993). Increasing reading rate and comprehension: The effects of repeated readings, sentence segmentation, and intonation training. *Reading Research and Instruction, 32*(4), 53–65.
- Therrien, W. J. (2004). Fluency and comprehension gains as a result of repeated reading: A meta-analysis. *Remedial and Special Education, 25*(4), 252–261.
- Vaughn, S., Chard, D. J., Bryant, D. P., Coleman, M., & Kouzekanani, K. (2000). Fluency and comprehension interventions for third-grade students. *Remedial and Special Education, 21*(6), 325–335.
- Weinstein, G., & Cooke, N. L. (1992). The effects of two repeated reading interventions on generalization of fluency. *Learning Disability Quarterly, 15*, 21–28.