



Repeated versus wide reading: A randomized control design study examining the impact of fluency interventions on underlying reading behavior



Scott P. Ardoin^{a,*}, Katherine S. Binder^b, Tori E. Foster^a, & Andrea M. Zawoyski^a

^a University of Georgia, United States

^b Mount Holyoke College, United States

ARTICLE INFO

Article history:

Received 9 June 2015

Received in revised form 13 May 2016

Accepted 6 September 2016

Available online xxx

Keywords:

Repeated reading

Wide reading

Reading fluency

Prosody

Eye movements

ABSTRACT

Repeated readings (RR) has garnered much attention as an evidence based intervention designed to improve all components of reading fluency (rate, accuracy, prosody, and comprehension). Despite this attention, there is not an abundance of research comparing its effectiveness to other potential interventions. The current study presents the findings from a randomized control trial study involving the assignment of 168 second grade students to a RR, wide reading (WR), or business as usual condition. Intervention students were provided with 9–10 weeks of intervention with sessions occurring four times per week. Pre- and post-testing were conducted using Woodcock-Johnson III reading achievement measures (Woodcock, McGrew, & Mather, 2001, curriculum-based measurement (CBM) probes, measures of prosody, and measures of students' eye movements when reading. Changes in fluency were also monitored using weekly CBM progress monitoring procedures. Data were collected on the amount of time students spent reading and the number of words read by students during each intervention session. Results indicate substantial gains made by students across conditions, with some measures indicating greater gains by students in the two intervention conditions. Analyses do not indicate that RR was superior to WR. In addition to expanding the RR literature, this study greatly expands research evaluating changes in reading behaviors that occur with improvements in reading fluency. Implications regarding whether schools should provide more opportunities to repeatedly practice the same text (i.e., RR) or practice a wide range of text (i.e., WR) are provided.

© 2016 Society for the Study of School Psychology. Published by Elsevier Ltd. All rights reserved.

1. Introduction

In order to comprehend text, students must develop proficiency in reading fluency. Fluent reading occurs when one reads text accurately with appropriate speed and expression (National Institute of Child Health and Human Development, [NICHD], 2000). LaBerge and Samuels (1974) bridged the relationship between comprehension and fluency with the theory of automatic information processing. The theory suggests that although the effort to read draws upon the brain's limited capacity for processing information, the effort requirement decreases with practice, allowing the brain to take on additional tasks such as comprehension.

* Corresponding author.

E-mail address: spardoin@uga.edu (S.P. Ardoin).

Action Editor: Stephen Patrick Kilgus

Consequently, non-fluent readers must devote a substantial amount of attention to decoding text, which depletes the resources they have available to attend to the meaning of text. In contrast, fluent readers are able to decode words automatically, allowing them to devote sufficient attention to comprehension (Tannenbaum, Torgesen, & Wagner, 2006).

One highly recommended procedure for improving students' reading fluency is repeated readings (RR). Although there is abundant research suggesting that RR improves students' reading rate and accuracy on practiced passages (NICHD, 2000), there are few studies that examine the extent to which it results in generalized improvements in students' reading accuracy, rate, prosody, and comprehension. Likewise, despite evidence in regards to the importance of reading fluency (Therrien, 2004), there is a dearth of research examining how reading behavior changes as students become more fluent readers. Unique assessment techniques, such as eye movement monitoring and spectrographic analysis of prosodic characteristics, may allow for a more sophisticated understanding of how interventions improve reading fluency and what features of instruction will yield the fastest progress. Fortunately, improvements in technology increase the feasibility with which such instruments can be employed within schools (Rayner, Ardoin, Binder et al, 2013). The current study extends the existing body of research examining fluency based interventions by employing randomized control design procedures and evaluating the effects of intervention across multiple measures: rate, comprehension, prosody, and eye-movements.

1.1. Repeated reading (RR)

Samuels (1979, 1997) developed the method of repeated readings (RR), which was largely influenced by the theory of automatic information processing (LaBerge & Samuels, 1974). Typically, RR requires students to reread a story a pre-established number of times, to a pre-established level of fluency, or to a pre-established percent above their baseline fluency level (Ardoin, McCall, & Klubnik, 2007; Samuels, 2006). The goals for RR are to increase students' reading speed, transfer learning to new passages, and improve comprehension (Samuels, 2006). According to the National Reading Panel (NICHD, 2000), RR is an effective instructional practice for improving the fluency of all students through fourth grade and struggling readers through high school.

In a meta-analysis of the RR literature, Therrien (2004) reported that RR resulted in large increases in fluency (effect size $[ES] = 0.83$) and moderate increases in comprehension ($ES = 0.67$) on practiced passages. Observed improvements in accuracy and rate are suggested to be a result of multiple opportunities to practice reading the same words correctly (Haring & Eaton, 1978). With repeated exposure, the student receives more practice and recognizes the letters that make up the words more efficiently (Ehri, 1992; Leslie & Calhoun, 1995; Share & Stanovich, 1995).

1.2. RR: Promoting generalization

In addition to evidence supporting the use of RR for improving students' fluency on practiced passages, there is evidence suggesting that gains transfer to untrained passages (Chard, Vaughn, & Tyler, 2002; Meyer & Felton, 1999; Therrien, 2004). Transfer effects can be explained by Haring and Eaton's (1978) instructional hierarchy, which implies that once students develop sufficient fluency, they can effectively generalize their skills to new contexts. Ardoin et al. (2007) applied the instructional hierarchy in an examination of procedures for promoting generalization of skills learned during reading instruction. Students participated in a Multiple Exemplars (ME) condition, which involved reading multiple passages with high word overlap, as well as an RR condition. Practice opportunities between conditions were equivalent. Transfer effects were evaluated on high-word-overlap generalization passages. Half of the students in the RR condition achieved greater or equivalent gains in reading fluency compared to students in the ME condition. Results were inconclusive for the other half of participants. Ardoin et al. hypothesized that because students in the ME condition did not have the opportunity to develop sufficient fluency, intervention gains did not generalize to the high-word-overlap assessment.

1.3. Limitations of RR

One notable limitation of RR is that the many claims for its utility in improving reading fluency and comprehension are based on reviews that combine studies with varying populations and intervention procedures. Therefore, it is difficult to determine which components have the largest impact on improvements in reading skills. For example, some studies incorporated experimenter-developed passages (e.g., O'Shea, Sindelar, & O'Shea, 1987; Rashotte & Torgesen, 1985) or single-case design procedures that failed to control for carry-over effects (e.g., Daly, Martens, Hamler, Dool, & Eckert, 1999; Eckert, Ardoin, Daly, & Martens, 2002). Other studies involved partner reading, incorporated instructional components beyond RR, or failed to control for the number of readings completed by students (e.g., Fuchs, Fuchs, & Kazdan, 1999; Vaughn et al., 2000; Wexler, Vaughn, Roberts, & Denton, 2010). Furthermore, claims are made regarding the beneficial effects of RR on prosody, a component of reading fluency rarely studied within the RR literature (Ardoin, Morena, Binder, & Foster, 2013). Without clear standards for implementation, RR is subject to distortion and misuse in educational settings.

Another limitation was identified in a recent What Works Clearinghouse (WWC; "What works clearinghouse", 2014) intervention report on RR for students with learning disabilities. Surprisingly, findings indicated that RR does *not* significantly impact alphabets, general reading achievement, or reading fluency for students in this population. The report included only one pilot study using a single-case design (i.e., Steventon, 2004) and two group design studies (i.e., Ellis & Graves, 1990; Wexler et al., 2010) conducted with participants in upper elementary and secondary grades. Closer examination of methodology reveals that Ellis and Graves (1990) did not evaluate students' reading fluency despite the primary goal of RR being to improve reading fluency. Further, Wexler et al. (2010) utilized a peer-mediated intervention involving students with severe reading disabilities as

Download English Version:

<https://daneshyari.com/en/article/4939811>

Download Persian Version:

<https://daneshyari.com/article/4939811>

[Daneshyari.com](https://daneshyari.com)