The Effects of Reading Fluency Interventions on the Reading Fluency and Reading Comprehension Performance of Elementary Students with Learning Disabilities: A Synthesis of the Research from 2001 to 2014

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This synthesis covers 19 studies examining reading fluency and comprehension outcomes of reading fluency interventions for students with learning disabilities (LD) from kindergarten to 5th grade. Repeated reading (RR), multicomponent interventions, and assisted reading with audiobooks produced gains in reading fluency and comprehension. RR remains the most effective intervention for improving reading fluency.

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Fluent word reading is hypothesised to facilitate reading comprehension by improving automatic word reading. This synthesis covers 19 studies examining reading fluency and comprehension outcomes of reading fluency interventions for students with learning disabilities (LD) from kindergarten to 5th grade. Repeated reading (RR), multicomponent interventions, and assisted reading with audiobooks produced gains in reading fluency and comprehension. RR remains the most effective intervention for improving reading fluency.

- Fast and accurate word reading is hypothesised to facilitate reading comprehension because it releases a reader's cognitive resources to focus on meaning.
- Students with LD struggle to develop reading fluency.
- Reading can become a frustrating experience, which leads to an aversion to reading tasks.
- When students with LD spend less time with texts, this negatively affects vocabulary acquisition and comprehension development.
- Guided oral RR with teacher or peer feedback has been identified as an effective method for improving reading fluency and comprehension.
- Previous research has shown that RR with a model (teacher, computer, audio recording) is more effective than RR without a model, and modelling of fluent reading improves comprehension.



The purpose of this systematic review is to synthesise fluency intervention studies of elementary students with LD published since 2001.

Research question:

1. What fluency interventions are associated with positive outcomes in reading fluency and comprehension for students with LD from kindergarten to 5^{th} grade?

Method

A systematic review of literature was conducted. In total, 19 studies were included, which were organised into four tables based on features of the intervention (RR with or without a model, RR with multiple features, and interventions other than RR).



Findings

- Five studies examined the effects of repeatedly reading text (ranging 2-4 times) without modelling by a more proficient reader.
- Results showed medium-to-large effects in favour of RR compared to the no-treatment comparison on standardised measures of reading fluency, and RR outperformed continuous reading with small-to-medium effects in reading fluency and comprehension.
- Nine studies examined RR with a model: of these, four incorporated adult modelling of fluent reading.
- Three of these four studies found that adult modelling combined with RR improved reading rates.
- Three studies examined modelling by a more proficient

peer, which yielded favourable results for improving reading rate and comprehension (although this was ineffective for improving accuracy).



Conclusions and implications

In general, the results of this synthesis show that RR is associated with positive outcomes for reading rate, accuracy, and comprehension. One method for improving the effectiveness of RR is to provide a model of fluent reading prior to practice. If adult modelling is unavailable (due to limited resources or time constraints) a more proficient peer could provide a model prior to RR practice. Improving RR rate may also become disadvantageous as it may negatively affect reading comprehension due to an increased error rate. While results suggest RR as the most effective method for improving reading fluency and comprehension, assisted reading using audiobooks and multicomponent interventions also show promise for improving reading fluency and comprehension outcomes. Sustained silent reading is widely implemented as a mechanism for increasing reading fluency; however, it is not supported as an effective method for improving oral reading fluency. Teachers may consider using an easier level text and require students to read to a performance criterion to promote gains in fluency. Teacher modelling might be the best example of fluent reading. If this is not possible, practitioners might consider implementing peer RR routines. Students may also benefit from multicomponent interventions that combine RR with vocabulary or comprehension instruction.