

# Multicomponent Reading Interventions for Students with Intellectual Disability

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The purpose of this literature review was to examine the characteristics, outcomes, and quality of multicomponent reading interventions for students with intellectual disability (ID). Findings indicate that students with ID who were exposed to multicomponent reading programmes significantly improved their reading skills compared to their peers with ID who received traditional sight word instruction and their previous reading performance.

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Reading instruction for students with ID has traditionally focused on single skill instruction such as sight word reading. The purpose of this literature review was to examine the characteristics, outcomes, and quality of multicomponent reading interventions for students with ID. Findings indicate that students with ID who were exposed to multicomponent reading programmes significantly improved their reading skills compared to their peers with ID who received traditional sight

word instruction and their previous reading performance. This literature review highlights effective strategies used to provide multicomponent reading instruction to students with ID.

- Compared to students receiving services in other disability categories and to their peers without disabilities, students with ID usually have less well-developed reading skills.
- Four out of five students with ID do not even achieve minimum levels of proficiency in reading, particularly in the areas of contextualised word recognition, narrative reading comprehension, phonemic awareness, and writing vocabulary.
- Only 9% of students with disabilities and 40% of students without disabilities perform at proficient (or above) levels in Grade 8 reading.
- Results from a meta-analysis (Edmonds et al. 2009) of 13 studies suggested that student comprehension skills significantly improved if they received the following: a) targeted reading instruction in comprehension, b) instruction in word reading strategies, or c) multicomponent reading instruction.
- The term multicomponent refers to a type of instruction that includes at least two of the five components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension.
- Students with ID educated in general education settings outperform students placed in self-contained classrooms in their use of literacy skills, independent living, and social and emotional skills.



## The study

The purpose of this review was to examine the characteristics, outcomes, and quality of multicomponent reading interventions for students with ID.

Research questions:

1. What are the characteristics of multicomponent reading interventions for student with ID, and what are the characteristics of the students who have participated in these studies?
2. What teaching strategies have been effective when implementing multicomponent reading interventions for students with ID?
3. What is the overall quality of multicomponent reading intervention studies?

Seven articles met the inclusion criteria, which were then reviewed and coded according to their descriptive characteristics and methodological soundness.

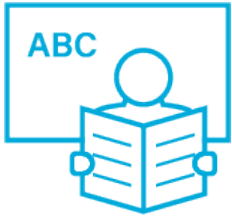


## Findings

- A total 375 students with ID (mean age range 7.5–9.4 years) participated in multicomponent reading interventions across the 7 studies.
- In all studies, teachers were the interventionists and the sessions lasted an average of 50.3 min within the range 30–90 min.
- Interventions took place in self-contained special education classrooms.
- The duration of interventions ranged from 12 weeks to 4

years.

- Even though each programme employed a somewhat different approach to reading instruction, there were some similarities among interventions across the studies.
- Researchers used a read-aloud strategy in all interventions.
- Five studies used repeated trials, five studies used prompting procedures, and five studies used time delay procedures.
- Although all studies demonstrated a multicomponent aspect, they utilised unique approaches to teach concepts of print, phonemic awareness, phonics, vocabulary, fluency, and comprehension skills to students with ID.
- The most common skills measured for concepts of print were pointing to the title, pointing to the author of the book, teaching students to track from left to right, and pointing to individual words.
- The most common skills measured for phonemic awareness were phoneme blending, phoneme segmenting, initial sound identification, and rhyme recognition.
- The most common skills measured for phonics were matching letter names and individual sounds, sight word recognition, and letter naming skills.
- For vocabulary, all studies measured the meaning of individual words while two studies measured picture-word matching skills.
- In three studies, fluency was measured when students were reading a passage they had not previously read.
- To measure comprehension, all studies used read aloud, three studies used prompting (such as asking questions while reading), and three studies used approaches that relied on pictures to predict.



## Implications

- Six of the seven studies demonstrated that multicomponent reading interventions were associated with improved reading skills for students with ID.
- Both the duration of interventions and student IQs affected literacy acquisition. If students had a lower IQ level, the multicomponent intervention needed to be delivered over a more extended period of time and with greater intensity.
- Different students may need different amounts of time to respond to multicomponent interventions.
- It is possible to integrate several evidence-based strategies such as direct instruction, time delay, repeated trials, and read aloud into a multicomponent programme.
- Providing phonemic awareness instruction in early grades is vital for the reading development of students with ID because they do not easily develop phonemic awareness skills.
- Research on multicomponent reading instruction should be extended to general education (inclusive) classrooms in which students with ID are taught alongside students without disabilities.