Fostering Independent Self-Regulation of Reading Comprehension Strategies by Students with Learning Disabilities: Insights from 30 Years of Intervention Research

Rationale

More than 80% of students with learning disabilities (LD) experience reading problems, and these problems are more severe than those experienced by poor readers that are not identified as having LD (Fuchs, Fuchs, Mathes, & Lippsey, 2000). Research has shown that students with LD can be taught strategies that help them understand more of what they read, but that these students fail to continue using these strategies independently after instruction ends (Gersten, Fuchs, & Chard, 2000). For this reason, more work is needed to determine the type and intensity of instruction needed to “promote transfer and routine use of strategies”—either through students’ continued conscious use of strategies or by student’s internalizing their use” (Gersten, Fuchs, Williams, & Baker, 2001, p. 312). Explicit instruction that teaches students to independently use strategies after instruction ends (Vaughn, Gersten, & Chard, 2000). For this reason, more work is needed to determine the type and intensity of instruction needed to “promote transfer and routine use of strategies”—either through students’ continued conscious use of strategies or by student’s internalizing their use” (Gersten, Fuchs, Williams, & Baker, 2001, p. 312). Explicit instruction that teaches students to independently use strategies after instruction ends (Vaughn, Gersten, & Chard, 2000).

Methods

A systematic search was conducted to locate reading comprehension studies for students with LD published over the last 30 years (1985 to 2015). The PsychINFO, ERIC, Social Sciences Citation Index, Academic Search Complete, and Education Research Complete data bases were used to locate relevant literature in addition to ancestry, descendant, and hand searches. Studies were systematically screened to determine whether inclusion/exclusion criteria were met. Studies were then double coded by two trained researchers with discrepancies reconciled to 100% agreement.

For each study, an effect size was calculated to represent reading comprehension outcomes for immediate treatment effects and a second effect size was calculated to represent maintenance of learning performance was also large (ES=.92, T2 =.61, 1.23), suggesting that instruction in reading comprehension strategies that contain self-regulation elements may have a long lasting impact on student performance. This finding also implies that strategy use may have been internalized and sustained by study. While this finding should be taken with caution as only a small subset of articles (n = 8) evaluated maintenance effects, this finding is promising.

Results

A total of 17 studies published in nine research journals were found that met the inclusion criteria. Studies included students in 4th through 5th grades. Across studies, there was a total of 663 participants with sample sizes ranging from 14 to 75. The large table presents findings for each study including: self-regulated learning components of the intervention, self-regulation constructs (measured, a description of the comparison condition, and respective effect sizes and confidence intervals). Additionally, ten quality indicators for group experimental research in special education identified by Gersten et al., 2005 were used to evaluate each study. The table at the right shows the number of studies that met, or partially met, each quality indicator criteria.

Discussion

The current analysis resulted in overall effect size for immediate measures of comprehension (ES=.78, T2 =.25) that would be considered large (Cohen, 1988), which is not surprising considering that it has been well established that students with LD can be taught reading comprehension strategies that help them understand more of what they read (Edmonds et al., 2009, Roderick, & Smith, 1997). However, there is a need for more consistency in reporting information about both the intervention(s) [Q1] and the fidelity of treatment procedures [Q5]. Although all studies included measures closely aligned to the intervention [Q8], information about the reliability and validity of the instruments was rarely reported.

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