Reading Comprehension and Students with Learning Disabilities:

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Abstract

Elementary students with learning disabilities typically demonstrate difficulty in reading and reading comprehension. The purpose of this study is to explore the use of graphic organizers and their effects on improving students reading and reading comprehension.

Statement of the Problem

Elementary students who are labeled as learning disabled (LD) typically demonstrate difficulties in the area of reading (Fletcher, Lyon, Fuchs, & Barnes, 2007; Gersten, Fuchs, William, & Baker, 2001; Wade, Boon, & Spencer, 2010). Elementary school teachers spend much of their time implementing different interventions to remediate the gap in the students' reading achievement. Struggling readers are required to participant in high stakes tests alongside their peers who may be proficient readers. They are also expected to complete the same reading classwork and homework reading assignments. For struggling readers, this presents an obstacle that becomes increasingly difficult as reading content and vocabulary become more complex in upper elementary grades.

Purpose and Research Questions

Is it possible that graphic organizers improve a students' reading comprehension? Does the reliability of a graphic organizer differ on who is generating the graphic organizer? The studies reviewed have clearly indicated systematic approached to adhere to the deficiencies of struggling readers and the use of graphic organizers.

Students who are struggling readers may have difficulty applying metacognitive strategies while reading. Some areas of difficulty include: (a) making inferences, (b) combining

words with ideas, and (c) tracking of understanding of what is being read (Gambrell, 2004).

Gambrell (2004) suggests that these three areas (i.e. making inferences, combining words, and

tracking understanding) should be evaluated in order to better understand the struggle that young

readers endure during their growth. Many researchers argue that children's environment has an

influence on their ability to overcome reading difficulties. Reading comprehension is a key

component in a student's development. Perhaps, most importantly, for elementary aged students

as they begin to learn to read. The basic ability to retell a story to a classmate, to ask/use

questions related to a problem or even more an emphasis in learning how to generate information

from a text is fundamental in children's academic growth. The developmental growth described

by Woolley (2006) clearly defined the crucial aspect of students relating to other with an

exchange of verbal cognitive information. The study described struggling readers as poor

decoders with lack of conscious for others communication efforts. When a child is a poor reader,

studies shows that the he or she begins to struggle with self-esteem and suffer from lack of

motivation (Fletcher, Lyon, Fuchs, & Barnes, 2007)**.** Woolley (2006) also described struggling

readers as clustering readers.

Literature Review

In the history of education, many special needs educators have put forth maximum effort

to help students succeed in general education classrooms. Students with learning disabilities

experience major problems with reading (Catts, Hogan & Fey, 2003). Reading comprehension

derives form recalling details and comprehending printed material. Moreover, many studies

recommend the use of visual supports to help struggling readers (Stagliano & Boon, 2009).

A study conducted by Blachowicz, Fisher, and Ogle (2006) showed positive effects on

reading comprehension skills in elementary students when using explicit instruction in story

mapping. The study focused on 12 elementary students with learning and reading difficulties. This study demonstrated the effect of visual mapping and its educational gains. The study continued to outline the internal benefits that occur for a developing student, when reading is mastered. The 12 elementary student were also identified has having low self-esteem. This was measured by a psychological test given to all 12 students prior to the study beginning. Shortly after, 10 out of 12 students showed positive attitude towards reading. Importantly, all of these studies examined self-esteem and it seemed to be a recurring factor in all the students. In their study, Blachowicz et al. (2006) did not examine self -esteem as a concern but rather utilized visual mapping to teach the students important ideas, characters in the story and it even supported the action of the retelling of a story. This study highlighted the three areas of difficulties noted by that Gambrell (2004). Therefore, referencing the importance of identifying the struggling readers during the early years of elementary education is necessary.

In another study, Woolley (2010) investigated the effects of story map instruction with students with LD. This study showed overall gains in story retelling and reading test score when students used the story map instruction strategy. The study had five participants. Four out of five had 6 months gains on one or more standardized tests. The results of Woolley (2010) were similar to those by Blachowicz et al. (2006) in that both studies concluded that the use of graphic organizers affected metacognitive factors, therefore increasing the retention of comprehension (Blachowicz & Ogle, 2001). Swanson, Kehler, and Jerman (2010) also noted that good readers are normally not aware that they are using metacognitive strategies to make analogies in their reading. In other words, struggling readers need to be taught to metacognitive strategies that can be used during their reading. Swanson et al. (2010) and Wade, Boon, and Spencer (2010) agreed that struggling readers struggle with one main factor, working memory. Swanson (2010) even

indicated in his study the use of transferring knowledge as a strategy to teach metacognitive. The idea of transferring knowledge using visual support systems was mainly the key tool in the study. Wade, Boone, and Spencer (2010) proceeded to examine the difficulties exhibited by struggling readers by identifying the following: (a) inability to track their understanding, (b) failure to use the correct method for the task, (c) inability to make inferences based on the text presented, and (d) inability to connect ideas with text presented. In addition to the study by Wade et al. (2010), Roberts, Torgesen, Boardman, and Scammacca (2008) identified a clear difficulty. Struggling readers are unable to make a link, bridge or connection to prior knowledge when reading. Therefore, this link may cause decreased opportunities for reading comprehension. It could be said that technology has helped create opportunities for reading comprehension (Kenny & Deshler, 2010). Stull and Mayer (2007) described a computer- assisted instruction in their study. This concept became a computer-based story mapping system examined two years later by Wade et al. (2010). By using technology, the features of the story became real to the struggling reader. As describe by Stull and Mayer (2007) the story became alive for the reading. This highlighted the issue concerns outlined by Roberts et al. (2008) and Wade et al. (2010). Now the reader was able to make a link with the story present. The reader was able to use strategies that constituted for prior knowledge. Most importantly, the student comprehended the reading. The use of technology is viewed as a best practice in our classrooms today. The Individuals with Disabilities Education Opportunity Act of 2004 has created the use of accommodations for our struggling learners. Also, the Higher Education Opportunity Act of 2008 described technology as "scientifically valid framework for guiding educational practice" sec. 762 (G) (sec. 103 (C). Both pieces of legislation encourage the use assistive technology.

Stull and Mayer (2007) argued that inconsistency in how graphic organizers are used could contribute to inconclusive findings. For example, the operational criteria can vary due to text variables. In their study, Stull and Mayer investigated the effects of graphic organizers across 5 elementary classrooms. The idea was to identify the methodology used by teachers when presenting the graphic organizers to the students. The delivery method as well as the instructional method presented with the selected graphic organizer.

The studies by Roberts et al. (2008) and Wade et al. (2010) concluded that the use of visual mapping/graphing creates stimulation in the student's frontal lobe. Therefore, causing the child's reading comprehension to emerge. One important factor mentioned, is the use of the metacognitive process in Woolley (2010) and Stull and Mayer (2007). All three studies targeted reading comprehension gains through a method designed to ensure meta-cognitive gains. At the same time they had no mention of the students with learning disabilities. Unlike the study conducted by Swanson et al. (2010) and Wade et al. (2010) that did mention metacognitive approaches in children with learning disabilities.

Reynhout and Carter (2008) studied the effects of a social story intervention with reading and specific attention on reading comprehension difficulties. They used a single-subject, ABC design to evaluate the impact of the social story review. The results of their study confirmed previous research, which suggest that many students benefit from visual support.

Much of the literature in the field of reading indicated the importance of identifying struggling readers as early as possible. Early intervention is essential to avoid the decrease in student motivation (Roberts, Torgesen, Boardman, & Scammacca, 2008). It is clear that students who may suffer from self-esteem may experiences further decreases in self-esteem if they are left to struggle in school. Consequences may escalate as students develop self-esteem issues.

Many of the studies discussed in this current literature review supported the use of graphic organizers to increase reading comprehension. Authors suggested the use of metacognitive, systematic approach across subject areas. A study by Roberts et al. (2008) suggested that the use of metacognitive features helped struggling students. Moreover, the decrease of graphic organizers presented a decrease in reading comprehension when the reader was unable to make a real connection to the text. The studies in this literature review also support the use visual supports to enhance student learning in the area of reading.

Future research should focus on questions about graphic organizers that remain unanswered. Future research should focus on standardized reading tests, the use of graphic organizers with independent reading, and the use of varied graphic organizers. Future research should also focus on examining the use of specific types of graphic organizers versus simple graphic organizers. Future consideration should also be given to comparing specific reading strategies with a more structured overview of the material outlined.

In past studies such as Roberts et al. (2008) and Wade et al. (2010) where technology was briefly examined, they uncovered a very current component in today's classrooms. Technology has become a huge part of reading comprehension as has created opportunities for struggling readers to make reading gains in their classrooms. For future studies, examining the use of technology for the use of graphic organizers to accelerate reading comprehension in students with learning disabilities compared to typical developing students.

Research Methodology

The study will be conducted in an Elementary 3rd grade class Language Arts class. The 10 students who will be participating in the study have all been diagnosed as LD. There will be 5 male and 5 female students. 9 are Hispanic and 1 is African American. Other Participates include

20 students who are part of the 3rd grade general education class. The Special Needs teacher will

be responsible for implementing the strategies and collecting data.

Results

Research findings will be available in time for the conference and will be presented.

Implications

Lack of focus and decrease in cognitive levels has implicated this group in the past. Students

diagnosed with LD are targets for low self -esteem and over stimulation when faced with too

many task. In past studies, students respond rate during such strategies, have been low.

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