

Strategy Program Components – General Education Content Classes

Explicit Vocabulary Instruction – The strength of explicit vocabulary instruction to increase a student’s understanding of words has been cited by numerous authors (Kamil, et al., 2008, Harrell, Rupley, & Simmons, 2011) and prompted Reed, Wexler, and Vaughn (2012 p. 44) to state, “vocabulary or concept instruction is a reasonable and effective entry point into content-area instruction.” Harrell, et al indicates that several effective methods of explicitly teaching vocabulary exist. This project will use the IPIC structure proposed by Dr. Archer (Archer & Hughes, 2011). The steps, following identification of critical words will be to (I) introduce the word, making sure students can pronounce the word, (P) provide a student-friendly explanation, (I) illustrate with examples, and (C) check for student understanding. Providing teachers with the skill and fluency around this strategy will be one of the initial training components of the program.

Building Background Knowledge – Commensurate with vocabulary instruction will be the training of teachers to present slices of background knowledge that will increase student’s understanding of the context, as well as promote interest in the topic. Cognitive scientist, Daniel Willingham (2009, p.28) surmises “Not only does background knowledge make you a better reader, but also is necessary to be a good thinker ... thinking critically and logically is not possible without background knowledge.”

Short Response Writing – Graham and Perin (2007) list writing for content learning as one of the effective elements to improve writing achievement of students in grades 4 through 12. Most specifically, this particular element’s effectiveness in supporting the learning of content material is the main purpose of its inclusion here. A

meta-analysis by Graham & Hebert (2011) found an effect size of 0.64 in favor of writing about reading by struggling readers/writers. Writing frames such as “The author states _____. Do you agree or disagree and why?” or “The causes of _____ are ...” will be used.

Rehearsal and Retrieval Practice – “It is virtually impossible to become proficient at a mental task without extended practice” (Willingham, 2009, p.81). The act of effortful retrieval of previously learned material is critical in the depth of sustainability of learning (Brown, P., Roediger, H., & McDaniel, M. 2014). “When the brain is retrieving studied text, names, formulas, skills, or anything else, it’s doing something different, and harder, than when it sees information again, or restudies. That extra effort deepens the resulting storage and retrieval strength” (Carey, 2014, p. 94). The project will provide teachers with strategies to increase the use of retrieval and rehearsal.

Discussion Techniques – Hattie and Yates (2014) state, “When children can make sense of what they are experiencing through conversations, they are able to attend more fully to the key features of an event, and so encode them more completely than would otherwise be the case.” This project will utilize the work of Kate Kinsella (2010), whereby; structured academic discussion frames are employed to generate thought and the use of appropriate vocabulary and academic language.

Strategy Program Components – Special Education Class

Organizational Skills – The transition from elementary school to middle school is daunting for all students, but especially for students with disabilities. Students must juggle six separate classes and teachers, multiple assignments across classes, and increased responsibility for managing materials, time, and assignments. To enhance

students success in special education and general education classes, students will be systematically introduced to organization skills including: managing materials, recording and tracking assignment completion, planning and completing short and long term assignments, and prioritizing independent work. These strategies will be explicitly taught, reviewed, reinforced, and checked over students' middle school career using the instructional procedures outlined by Archer and Gleason (2003). Explicit instruction in organization skills has been proven to increase students' academic performance in core content area classes. (Monahan, Ognibene, & Torrisi, 2000; Langberg, Epstein, Urbanowicz, Simon, & Graham, 2008).

The Six-Minute Solution (Adams & Brown) is a brief, peer-based, intervention program for grades K-12 that uses high interest reading passages to build fluency at the student's instructional level. In a "Shanahan on Literacy" posting (April 23, 2015), Dr. Shanahan states, "I would definitely have kids practicing oral reading in the middle school grades, at least if they were below the grade levels norms in fluency because I want them to get that comprehension pay off." He is referring to the fact that oral reading fluency still accounts for approximately 25% of the variance in comprehension of 8th grade students. The effectiveness of using a peer-tutoring model to build fluency, as is utilized in *The Six Minute Solution*, has been substantiated (DuFrene, et al., 2010). Further support for this program for learning disabled middle school students in particular is provided by Mercer et al. (2000) citing significant growth in reading rate and reading level.

REWARDS Secondary Third Edition (Archer, Gleason, & Vachon, 2014) is a 20-lesson, specialized reading program designed for secondary students to provide a

flexible strategy for decoding grade-level multisyllabic words. In addition to improving decoding skills, REWARDS also has evidence that it increases oral and silent reading fluency, expands knowledge of general academic and domain-specific vocabulary, and promotes reading confidence. The year long use of REWARDS with 7th grade struggling readers in New York City through the Striving Readers Grant, (Kundert, Newman, Gifford, Haase, & Clure, 2012) resulted in an effect size of 0.41 when comparing the multisyllabic word reading skills of students and an effect size of 0.42 for reading fluency.

Read to Achieve: Comprehending Content-Area Text (Marchand-Martella & Martella, 2010) is an explicit reading for understanding program for secondary students. Evidence-based components within this differentiated program include decoding of multisyllabic words, note taking, and comprehension strategies such as making connections with prior learning, determining text structure, using an SQ3R framework (Survey, Question, Read, Reflect, Review), and learning how to use metacognition. The components of this program strongly correlate with the conclusions presented by Kamil et al. (2008) in the IES Practice Guide. Although longitudinal evidence of effectiveness is not yet available, a recent study of 7th and 8th grade struggling readers (Benner, Marchand-Martella, Martella, & Cleanthous, in press) show an effect size of 0.7 over a non-participating control group in terms of reading comprehension following 22 weeks of intervention.

Science and Social Study Lesson Preview and Pre-teaching – Special education students are often handicapped by their lack of background knowledge and vocabulary, in addition to their difficulties in reading. Given the pace of the general

education classroom instruction, the special education student may disengage and thus never gain any advantage in their inclusion in the general education setting. By previewing upcoming lessons, identifying difficult vocabulary terms and concepts, and filling in missing background information, this pre-teaching segment of the intervention intends to not only provide an additional learning opportunity but also increase the likelihood of engagement in the general education instruction.

Small Group Differentiated Intensive Instruction of Skills – Based on student data and performance, additional intensive small group instruction will be provided in components identified as missing in current instruction. The previously identified strategies and evidence-based practices will be used to provide significant opportunities to respond, receive feedback, and practice purposefully.