The RAVE-O Curriculum

RAVE-O is the first comprehensive research and evidence-based approach to building reading fluency. The program goes beyond repeated reading to help students develop their automaticity in all aspects of word knowledge. Each lesson targets skill building in the sounds structure of words, recognizing common letter patterns, developing vocabulary knowledge, practicing parts of speech, discussing roots and suffixes, and finally connecting all the skills to passage reading.

This motivating small-group, evidence-based literacy intervention curriculum empowers students to read text deeply in order to build new knowledge, develop new ideas, and reach new levels of reading achievement.

RAVE-O mirrors what the brain does when it reads- literally rearranging the brain for sustained reading success. By connecting phonics, spelling, vocabulary, grammar and morphology, RAVE-O deepens students' ability to read with fluency and for deep comprehension.

Why is RAVE-O different from other fluency programs?

One prevalent approach to building fluency is repeated reading instruction. Repeated reading is based on the premise that rehearsal of text—in which students re-read phrases, sentences and selections of passages—will bolster automaticity and prosody with written language. Although repeated reading provides a useful platform for practice, it does not explicitly develop *automaticity within and across the multiple linguistic processes* that contribute to automatic word recognition.

Recent evidence demonstrates that in order to achieve fluency, students must become automatic not only in their retrieval of letter patterns (orthographic knowledge) and their corresponding sounds (phonological knowledge), but also in their access to the meanings of words (semantic knowledge), roots and affixes (morphological knowledge), and the jobs words play in a larger sentence structure (syntactic knowledge)

When students simultaneously access all aspects of their word knowledge, the outcome is reading fluency. Once fluency is achieved, students read and comprehend automatically, and can allocate their attention to the ultimate purpose of reading – analysis and novel thought.

Why is RAVE-O ideal for students with naming-speed deficits?

Building automaticity in word knowledge is particularly important for students who have been identified as having a naming speed deficit. Naming-speed is related to the rate and accuracy with which students can retrieval a verbal label when presented with a visual symbol—for example, rapidly naming a letter, number, color, or object. A deficit in this area is conceptualized as both a problem in retrieval, and a deficiency in connecting *visual* and *linguistic knowledge*.

As fluent students encounter text, there is a near simultaneous activation of visual and linguistic processes. Once the brain recognizes symbols it instantaneously works to match to existing knowledge corresponding sounds and word meaning. When students struggle with naming-speed deficits they are inefficient at connecting visual and linguistic processes, and therefore struggle to access the multiple levels of word knowledge (e.g. phonological, orthographic, semantic, syntactic and morphology). If we are to remediate the early appearing fluency-related deficits, it is essential that the underlying components that contribute to fluency are addressed, not just the speed of reading a text.

Who else is RAVE-O appropriate for?

RAVE-O is designed for students in 2nd – 5th grade who are reading below grade-level and/or have been identified as struggling with fluency or a naming-speed deficit. In light of explicit instruction in all aspects of word knowledge RAVE-O may also be beneficial as an ELA curriculum for English Language Learners.

How do you know RAVE-O works?

The efficacy of the RAVE-O program is documented in three previous large-scale, U.S. federally-funded, randomized treatment-control studies (through the National Institute for Child Health and Human Development and the Institute for Educational Studies; see summary in Wolf, Barzillai et al, 2009). In our first 5-year randomized treatment-control study, 279 severely impaired readers in the second and third grades received 70 hours of treatment in one of two control conditions, or in one of two multi-component programs, each combined with half an hour of the phonology program (Morris et al, in press; Wolf, Barzillai, et al., 2009). The two multi-component programs included RAVE-O and the PHAST word identification program by Lovett and her colleagues (Lovett et al., 2000), which directly targeted phonological, orthographic, and morphological components, along with metacognitive strategies for word identification and comprehension. The effects of these four conditions were compared across an extensive battery of tests covering all aspects of reading and many oral language measures. Significant differences in every reading and language measure at every level were found between children who received the two multi-component programs and both the classroom control and the phonological control condition. Very important to the targeted population in this proposal, these differences were sustained for children across every level of IQ and socio-economic status.

Further differences were found for children in the RAVE-O group, who outperformed all other groups on measures of vocabulary and most importantly on oral reading fluency and comprehension as measured on the Gray Oral Reading Quotient. The latter area has been the hardest area to change in all previous research (Morris, et al., in press; Wolf, Gottwald, et al, 2009; Wolf Barzillai, et al., 2009). These additional areas of growth for the children in the RAVE-O treatment were attributed to the distinctive semantic component that emphasizes not only vocabulary, but also semantic depth, breadth, and flexibility. Further, these differences in the children's set towards words were maintained over time, as indexed by sustained significant differences one year post-intervention. Indeed, almost all the differences for both RAVE-O and PHAST were maintained in one- year, follow-up testing,

showing the enduring power of multi-component methods. Although the efficacy of the multi-component approach has been demonstrated for the severely impaired readers in these studies, its efficacy has not been examined with the broad groups of struggling readers that make up the 35% of dysfluent readers found in many American classrooms. There is, however, more data available with these groups for the more implicit fluency approach within the repeated reading method programs.