

The Brain, Prosody, and Reading Fluency

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INTRODUCTION

The good news is that the brain is “plastic,” or changeable, throughout one’s entire life. Reading intervention is easier when students are younger, yet with proper interventions, even older struggling readers can become proficient readers. Several strategies help teachers accomplish reading intervention. “The Brain, Prosody, and Reading Fluency” author, Matthew J. Glavach, Ph.D., presents a reading fluency strategy.

The Reading Fluency Strategy

The reading fluency strategy includes two strategies: phrase-cued reading instruction for comprehension and phonological processing instruction for reading speed and comprehension. While both strategies interact, in this article they are presented as two strategies: (Strategy 1) phrase-cued reading for practicing prosody and (Strategy 2) repeated reading for fast phonological processing. For teachers with reading fluency experience, the author has added some features which have had positive results for students with reading difficulties, including certain auditory processing disorders. For teachers new to reading fluency the author has outlined instruction steps and provided instruction examples.

The Brain and Reading Fluency

Reading fluency is the ability of readers to read quickly, effortlessly, and efficiently with good meaningful expression.¹ Reading fluency is about how accuracy, rate, and prosody work together to comprise fluent reading. For most people the left side of the brain deals with language, while the right side handles rhythm, intonation, and patterns of language which make up prosody. The brain does its best work when both sides of the brain communicate harmoniously.

The Brain and Prosody

In studies, researchers have found that eighty percent of language-impaired students had auditory cortex neurons that were firing too slowly; therefore, they lost large amounts of language information. Also, these students could have problems hearing changes in pitch and not grasp speech inflections, the emotional part of speech, prosody.

Phrase-cued reading develops prosody. Although lack of word recognition abilities in students can lend itself to reading difficulties, poorly developed skills in prosody or phrasing can also prevent students from fluent reading comprehension. Phrase-cued

reading is an effective intervention strategy for improving students’ phrasing abilities, prosody, and comprehension.

Reading Fluency Strategy 1: Phrase-Cued Reading

Teachers develop phrase-cued text passages. A phrase-cued text is a written passage that is divided according to natural pauses that occur in and between sentences. The phrase pauses help students whose reading lacks prosody. Also, they help students who have difficulty grouping words that go together. Although phrase-cueing text can be done in different ways, teachers simply read the text and mark the natural phrases and pauses.

Teachers use authentic text with no more than 100 to 250 words. For younger students the text should be much shorter. Teachers make a copy of the text and prepare it with phrase marks, or slash marks. One slash mark, “/” can be used between phrases. Two slash marks, “//”, can be used between sentences.⁵ As teachers read the text they add the slash marks based on expression and phrasing they hear as they read. *Teachers refer to example 1.*

EXAMPLE 1

Diver attacked by great white Associated Press

Monterey, / California – / An experienced diver / who came face to face / with a great white shark / was bitten three times / but swam to his boat / and escaped. //

The diver was bitten / on the right shoulder, / thigh, and torso. / He was released from the hospital Saturday, / a day after the attack. //

“He’s a lucky guy,” / park ranger Jerry Loomis said, / “and brave, too.” //

Among other attacks, / in 1986, a man needed more than 600 stitches / after a shark attack / off the Monterey coast. // Four years later, / a woman was bitten / on the leg. // Both survived the attacks, / which were blamed on great whites. //

-Glavach and Associates, 2004

Before beginning Reading Fluency Strategy 1: Phrase-Cued Reading, teachers explain to students the importance of reading with expression. They tell them that a way to practice reading with expression is to read the text in parts, or chunks. By reading aloud with expression, teachers provide a model for students.

1. Teachers give each student a copy of the phrase-cued text.
2. Teachers read the text to the students with expression emphasizing the phrases. The first time teachers read the text at a slower pace (but not so slow as to lack expression) because many problem readers have slow auditory processing and auditory discrimination problems. According to Dr. Paula Tallal: Many, but not all, students who are struggling with both oral and written language are slow auditory processors.
3. Teachers have students follow the text by tracking under the text with their dominant hands. Tracking is important because it addresses auditory and visual pacing problems. (Students' vision and hearing are not synchronized.) Tracking trains the eye, hand, and ear and insures that students are actively processing the text.
4. Teachers read the text at a normal pace with expression and have students continue tracking under the text with their dominant hands.
5. Students read the text with partners or teachers.
6. Teachers discuss the meaning of the text with the students. Teachers assess the phrase-cued text reading by observing students' oral reading and their discussion and answers to questions about the text.

Reading Fluency Strategy 2: Rapid Reading for Fast Phonological Processing

Rapid reading and rereading of text is an excellent way to develop fluency. Phonological processing is a component of the brain's processing rate. Students who cannot quickly and accurately perform phonological processing will not be able to read fluently. As less attention is required for decoding, more becomes available for comprehension. Thus, repeated rereading builds fluency and enhances comprehension.

For the last session, teachers have students do a timed reading for speed and a final reading for expression. The timed reading for speed is highly motivational for students especially if they keep a graph of their scores. Teachers make a chart graph and have students fill in their reading scores.

1. Teachers provide each student with a copy of the original text without the phrase marks.
2. Teachers read the text at a normal pace with expression and have students continue tracking under the text with their dominant hands. (A technique to check that students are following the text is for teachers to stop at different times while reading and ask a student the next word.)

3. Students read the text with partners or teachers. Students read for one minute and count the number of words read. One point is subtracted for each misread word. *Teachers refer to example 2*

EXAMPLE 2

Diver attacked by great white

Associated Press

Monterey, California – An experienced diver who came face to face with a great white shark was bitten three times but swam to his boat and escaped.

The diver was bitten on the right shoulder, thigh, and torso. He was released from the hospital Saturday, a day after the attack.

“He’s a lucky guy,” park ranger Jerry Loomis said, “and brave, too.”

Among other attacks, in 1986, a man needed more than 600 stitches after a shark attack off the Monterey coast.

Four years later, a woman was bitten on the leg. Both survived the attacks, which were blamed on great whites.

TIME 1 _____ TIME 2 _____ TIME 3 _____

~Glavach and Associates, 2004

Some researchers suggest that students should read the text with ninety-five percent accuracy. The author of this article has found benefit for students when they have lower accuracy levels. (The students will be repeating many of the words in the next readings.)

The author has seen dramatic reading progress with students using the special techniques presented here, techniques not found in most research books but discovered while he was working with and observing students struggling to read and then finding success.

Research has shown that having students engage in repeated reading while simultaneously receiving the support of a fluent rendition results in improved performance, especially for struggling readers.⁸ The author has developed a reading fluency program with high interest news articles and audio support for students reading at second through fourth grade reading levels. The program is entitled Reading the News for Reading Fluency. Information about the program can be found at:

www.StrugglingReaders.com.

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