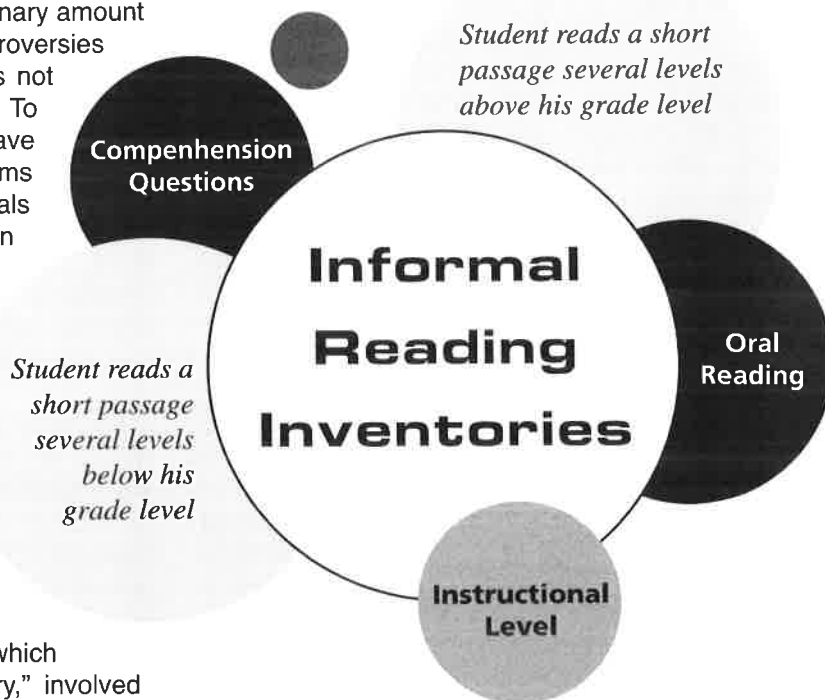# Teachers Use IRIs to Help Struggling Readers

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Abstract

During the past few decades, an extraordinary amount of public attention has been given to controversies regarding how reading is being taught, is not being taught, or how it should be taught. To address reading concerns, publishers have developed commercial reading programs which provide teachers with materials on a variety of reading levels for use in the classroom. These materials allow teachers to match the reading levels of students with the appropriate reading books. Within a typical classroom, the reading ability of the students will range from below grade level to above grade level. In order to accurately select books that are on a student's reading level, a teacher must assess the student's reading skills. Betts (1950) developed a simple technique for using graded reading books to evaluate children's reading levels. The technique, which he called an "Informal Reading Inventory," involved selecting a short passage from grade level readers several grade levels below and above the student's grade level. Next, several comprehension questions were written for each passage. The student was to read the passages aloud and to answer the questions. Results of the oral reading and the comprehension questions are analyzed to determine the student's reading level. Betts (1950) used the term "instructional level" to refer to the grade level at which a student reads with 95 percent or better oral reading accuracy and a comprehension score of 75 percent or higher. The child's independent level is the grade level passage at which oral reading accuracy is 99 percent or higher and comprehension is 90 percent or higher. The frustration level refers to a graded passage that is read with less than 90 percent oral reading accuracy and the student's comprehension drops below 50 percent.

Informal reading inventories (IRIs) are an effective and accurate assessment tool for teachers. These assessments can help a teacher determine a student's reading strengths and needs and guide teachers as they plan instruction and intervention strategies. IRIs contain graded word lists and graded passages. They help teachers determine a student's independent, instructional, and frustration reading levels. Some informal reading inventories can also be used to assess a student's retelling skill and listening comprehension level. The graded word lists and graded passages start at the pre-primer level and can go up to the high school level depending on which IRI is used (Gunning, 2012).

Introduction

Reading is a very active and personal relationship between a reader and an author. Thought processes are involved as one reads because the reader begins to think of related factors. Thorndike (1917) suggested that reading was a form of reasoning. Specifically, reading comprehension was viewed as a process similar to that occurring during problem-solving activities. Clark (as cited in Long and Baddeley, 1981) also viewed reading as a problem-solving process in which the reader uses various strategies to relate the author's message to information in memory.

Graves, Juel, and Graves (as cited in Gillett, Temple, Temple, & Crawford, 2012) explain that if students are to become good readers they need to become proficient decoders by using their knowledge of letter-sound correspondences and spelling patterns to decode or work on unfamiliar words in a process that is automatic. Students must be able to understand the

text and remember what they have read. Students not only need large vocabularies, but they must also know the meanings of words. "Knowing word meanings is a major part of verbal intelligence because word knowledge is a measure of how much a student has already learned" (Gillett, Juel, & Gillett, 2012, p. 3).

Reading Comprehension
Green and Way, (1975) reported that "Reading is still an essential means of acquiring knowledge, understanding, ideas, feelings, attitudes, expectations, and values" (p. 304). "Since most of the knowledge acquired in schools is gained via written prose, an important educational goal is to help students more efficiently acquire information from their reading" (Meyer, Brandt, & Bluth, 1980, p. 73). Students will have difficulty gaining meaning from a text that is not on their reading level.

Informal Reading Inventories
Cramer (1980) has noted that "since Betts first outlined the procedure and devised the criteria for functional levels of reading in the 1940s, many teachers have used informal reading inventories for a variety of purposes" (p. 424). The administration of an informal reading inventory, which is a strategy for making a structured observation of reading behavior, provides a plethora of information to aid teachers in determining the following: independent, instructional, and frustration levels of reading; specific reading strengths and weaknesses; knowledge of sight word vocabulary; oral reading accuracy, fluency, rate; reading progress both for the teachers' and students' information; and oral and silent comprehension abilities. The literature review addresses the use of IRIs as a strategy for making structured observations of reading behavior to guide instruction.

Review of the Literature
Informal reading inventories are administered individually and provide a comprehensive assessment of a student's reading ability. IRIs contain word lists and passages on a variety of reading levels ranging from preprimer to twelfth grade (Refer to the Appendix for a list of IRIs.). An informal reading inventory assesses a child's level of competence in a particular area without comparing the student's performance to that of others. It is designed to determine how well an individual can read a passage on a given readability level. A student's oral reading accuracy is recorded in a running record by the examiner. The running record includes monitoring a student's oral reading performance recording errors while the student is reading aloud. An IRI is composed of materials of known reading levels which an individual may be asked to read orally and/or silently, beginning with easier word lists and passages and progressing to successively higher levels until the

student is unable to perform adequately. The student then responds to questions designed to measure his or her understanding of the passage that the student has just read. Students may also be asked to retell the story in order for the examiner to assess the student's retelling accuracy. Simply stated, an informal reading inventory provides the opportunity to evaluate an individual's actual reading performance while reading materials at varying levels of difficulty. The careful administration of an informal reading inventory assists the teacher or examiner in determining the level at which the student is ready to function independently (independent level- students can read and comprehend without assistance), the point at which the student will profit from instruction (instructional level-students can read adequately read with teacher or parent support), the level at which the reader experiences frustration (frustration level-comprehension is lost) with the reading material, and the student's level of listening comprehension (Johnson & Kress, 1965).

McCormick and Zutell (2010) explain that "reading fluency is a significant component of reading behavior that deserves attention in both assessment and instruction" (p. 142). Reading fluency is necessary because it has an impact on both reading achievement and comprehension. Students need to have quick and accurate word recognition skills and the ability to organize the words into units that are meaningful and support the reader's ability to focus on ideas which results in comprehension of the reading material. Mc Cormic and Zutell point out that being able to read with ease and effectiveness will lead to understanding, comprehension, increased background knowledge, more enjoyment, and greater learning.

According to Powell (1978), the informal reading inventory can be used to measure oral reading performance by providing a record of a reader's behavior in a succession of short (125 – 175 words) reading passages of increasing difficulty. Steuver (1967) has shown that it takes a passage length in this range for the quantitative errors to stabilize so a subsequent qualitative analysis may be done, if desired. The record is obtained by having a student read each passage aloud while the teacher monitors the oral reading performance. The teacher maintains a record of the oral reading errors by taking a running record and by assessing responses to the comprehension questions.

Clymer, former President of the International Reading Association, stated (as cited in Johnson & Kress, 1965), that "teaching is essentially a diagnostic enterprise and that all teaching provides an opportunity for informal diagnosis and evaluation.... the informal reading inventory may be viewed as

one way of applying this diagnostic philosophy to the teaching of reading" (Johnson & Kress, 1965, p. iii). "When considering whether to perform any sort of reading assessment, the teacher should ask, 'Will this procedure help me make important instructional decisions regarding my students' reading needs?' The procedure should yield rich insights as to materials and ways of offering instruction (skills to be learned next, grouping based on student needs, etc.) that can positively affect students' reading growth" (Reutzel & Cooter, 2012, p. 425).

"The IRI is one of the best tools for observing and analyzing reading performance and for gathering information about how a student uses a wide range of reading strategies" (Jennings et al., 2006 as reported in Reutzel & Cooter, 2012, p. 441). "IRIs provide authentic assessments of the reading act (i.e., an IRI more closely resembles real reading than other reading tests). Students are better able to 'put it all together' by reading whole stories or passages. Another advantage of IRIs is that they usually offer a systematic procedure for studying student miscues or reading errors" (Reutzel & Cooter, 2012, p. 441). A list of frequently used IRIs is provided in the Appendix.

Methodology
Participants and Context
The participants in this case study were two male students from two local elementary schools. One participant, Ned (not his real name), was recommended for reading assessment by his mother. She felt that he was not motivated to read and that when he did read, he did not take the time to sound out the words or think about what he was reading. Lee (not his real name) was recommended by his mother because he was on Tier 3 of Response to Intervention (RTI) which raised some serious concerns about his reading progress. RTI was the initiative highlighted in IDEIA, 2004 and Common Core Standards, 2010. This case study took place in 2014 at Columbus State University in Columbus, GA.

Data Collection
As part of a reading endorsement course at Columbus State University, two graduate students, who co-authored this article with their professor, administered several assessments including the *Qualitative Reading Inventory-5* (*QRI-5*) by Leslie and Caldwell (2011). The examiners were also required to complete a reading diagnostic report and to recommend reading intervention strategies, based on the *QRI-5* results, to the parents of the two participants. Prior to the *QRI-5*, the examiners also administered other assessments including an interest inventory, reading attitude survey, and visual and auditory assessments.

TABLE 1
Student Background Information Provided by the Parents of Ned and Lee
(The names of the two students have been changed.)

	Ned	Lee
Grade Level:	3rd	4th
Age:	9 years old	10 years old
Parent's Reading Concerns:		
Attitude Regarding School:	Positive	Positive
Worst Subject in School:	Reading/Spelling	Science
Reading Difficulties First Noticed:	Kdg./1st Grade	Kdg.
Voluntary Reading:	Yes	No
Help with Reading at Home:	Yes	Yes
Information Provided by Student	**Ned**	**Lee**
Attitude about Reading with a Friend:	Neutral	Positive
Attitude about Reading with Someone at Home:	Positive	Positive
Reading Preferences:	Realistic Fiction	Mystery & Adventure

TABLE 2
Results of the *Qualitative Reading Inventory-5* (*QRI-5*) and Other Assessments
Graded Word Lists Results for: Ned & Lee

Participants	1st	2nd	3rd	4th	5th
Ned	100%	90%	70%	85%	50%
Lee	100%	80%	75%	40%	N/A

TABLE 3
QRI-5 Oral Reading Accuracy Results for: Ned & Lee

Students	Number of Total Miscues	Independent Reading Level	Instructional Reading Level
Ned			
2nd	1	X	
3rd	4	X	
Lee			
3rd	12		
4th	22		X

TABLE 4
Grade Level Comprehension Results
for Ned & Lee

Students	Re-telling	Number Correct Explicit	Number Corect Explicit	Total	Inde-pendent	Instruc-tional
Ned						
2nd	32%	4	3	7		X
3rd	56%	4	4	8	X	
Lee						
3rd	16%	4	2	6		X
4th	50%	3	3	6		X

Brief Summary of Related Assessments
Auditory Discrimination of Word Pairs.
The purpose of this assessment was to determine the student's difficulty in hearing fine/slight sound differences.

Visual Discrimination.
The purpose of this assessment was to determine the student's ability to visually identify letters and words.

Vision Screenings.
The purpose of these assessments was to track the student's eye movements while reading and to determine if the student's vision was within an acceptable range.

Results
Results for Ned.
Auditory: 100 percent accuracy
Visual Discrimination: 100 percent accuracy
Vision Screenings: Acceptable range of 125 words per minute (wpm) which was below the grade level norm of 138 wpm on Level 3

Results for Lee.
Auditory: 70 percent accuracy
Visual Discrimination: 71 percent correct
Vision Screenings: Results indicated an unacceptable range of 68 wpm which was below the grade level norm of 158 wpm on Level 3.

Assessment Report for Ned and Lee
After administering these assessments, a positive attitude towards reading was determined to be a strength for both participants. The area of need for improvement for both students was reading fluency. However, QRI-5 assessment results indicated that Lee also needed to improve in retelling. Therefore, intervention strategies were planned to meet these needs.

Suggested Instructional Activities Relative to Assessment Results
Instructional Activities for Fluency.
Pacing Technique. Use a pencil, index card, sentence strip, or finger to help track the text as the examinee reads. The tracking will help the student focus on words and phrases. The purpose of the pacing activity was to improve fluency.

Shared Reading. Two readers take turns reading pages of the same story with the student. Parents were encouraged to model fluent reading and to provide their student with positive feedback in order to help build self-confidence.

Reader's Theater. Choose a text that can be divided into different parts and/or characters. Have the student who is developing fluency read one part or parts of the text and have another student, who is a fluent reader, to read another part or parts. Have the student who is working on and practicing fluency read a part several times aloud using expression. Then, have the student read to an audience. This strategy promotes fluency, learning to read with expression, and builds confidence.

Repeated Reading. Have the student to read selected texts more than once. Each time the student rereads the text, the reading will become more fluent and confidence will be increased. Reading the same passage or book more than once has been shown to increase comprehension, fluency, confidence, vocabulary, and word recognition.

Daily Reading. Students need to read for at least thirty minutes every day. Books that are selected should be on the student's current instructional level if the reader has an adult providing support. The student should read on his/her independent level if support is not available. Reading daily increases comprehension, fluency, confidence, vocabulary, and word recognition.

Instructional Activities for Retelling.
Story Retelling. After the child has read a story, passage, text, or when a good stopping point is reached: ask the student to retell the story as if the teacher or adult listener had not heard it before.
Self-Monitoring. Have the student monitor his or her comprehension by encouraging the student to think about the text while reading. The teacher or parent needs to make sure that the student understands the events in the story.

High Five. Have the student trace his or her hand onto a sheet of paper. When the student has finished reading, the student can fill in each of the five fingers with a detail from the story. For non-fiction texts, the

student can write five facts from the story.

Reader's Response Journal. Have the student keep a journal for recording responds to stories or texts. Once the student has finished reading, he or she can write about the following topics in the journal: what took place in the story, a summary of the story, questions he or she had while reading, predictions, how the book made him or her feel, or any connections the student made with the text.

Venn Diagram. Have the student read two different texts. Encourage the student to read these texts more than once in order to improve recall of important facts and details. Next, the student will complete the Venn diagram comparing and contrasting these two texts, two or three characters, or two or three topics.
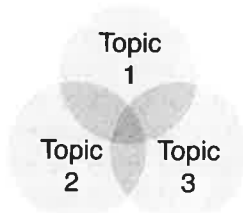
Suggested 3rd and 4th Grade Level Reading Books for Ned and Lee

1. *Mr. Popper's Penguins* by Richard Atwater
2. *Freckle Juice* by Judy Blume
3. *Tales of the Fourth Grade Nothing* by Judy Blume
4. *Chicken Sunday* by Patricia Polacco
5. *Sideways Stories from Wayside School* by Louis Sachar
6. *Frindle* by Andrew Clements
7. *Ramona the Pest* by Beverly Cleary
8. *Henry Higgins* by Beverly Cleary
9. *Amber Brown is Not a Crayon* by Paula Danziger
10. *Because of Winn-Dixie* by Kate DiCamillo
11. *Horrible Harry in Room 2B* by Suzy Kline
12. *Tree House* by Mary Osborne
13. *Amelia Bedelia Series* by Peggy Parish
14. *How to Eat Fried Worms* by Rockwell Thomas

Suggested Reading Websites for the parents of Ned and Lee

1. http://www.readingrockets.org
2. http://mrsdell.org/reading/fluency.html
3. http://www.readingaz.com
4. http://www.scholastic.com
5. http://www.readworks.org

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