Florida Assessments for Instruction in Reading, Aligned to the Florida Standards in English/Language Arts

FAIR–FS
Grades 3 – 12
Outline

- Setting the context for assessment and differentiating screening assessment from other types of assessment
- Development of FAIR-FS
- How to administer the FAIR-FS screening and diagnostic assessments
- Interpreting results
- Instructional implications
- Case study – putting it all together
Teacher: Are my students making progress? How do I differentiate instruction?

Parent: Is this the best school for my child?

Student: Am I accomplishing what my teacher expects? How am I doing compared to other students?

Administrator: Are a majority of our students succeeding with our curriculum?
Questions Addressed by FAIR-FS

- Which important reading skills are strengths and weaknesses for Stanley?
- What skills should be targeted for instruction in order to improve Stanley’s reading comprehension?
- What is the likelihood that Stanley will pass the end of year test?
- Has Stanley made progress since the beginning of the school year?

End of year outcome assessment:
- Is Stanley meeting grade level expectations?
The FAIR-FS is a comprehensive system designed to:

- Predict students’ literacy success and, for those found to be at risk:
- To diagnose weaknesses, and
- Set instructional objectives.

Because FAIR-FS is administered 3 times per year, it can be used to monitor growth in literacy skills for the purpose of revising instructional objectives.
### Grades 3 – CCR Alignment of FAIR-FS Tasks with Language Arts Florida Standards (LAFS)

<table>
<thead>
<tr>
<th>LAFS strand</th>
<th>LAFS Clusters</th>
<th>Screen</th>
<th>Diagnostic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundational Skills</td>
<td>Phonics &amp; Word Recognition</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fluency</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reading Standards for Literature</td>
<td>Key Ideas &amp; Details</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Craft &amp; Structure</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Integration of Knowledge &amp; Ideas</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Range of Reading</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Reading Standards for Informational Text</td>
<td>Key Ideas &amp; Details</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td></td>
<td>Craft &amp; Structure</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td></td>
<td>Range of Reading</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Writing</td>
<td>Text Types &amp; Purposes</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Production &amp; Distribution of Writing</td>
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<td>✓</td>
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<tr>
<td></td>
<td>Research to Build &amp; Present Knowledge</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Range of Writing</td>
<td>✓</td>
<td></td>
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<tr>
<td>Speaking &amp; Listening</td>
<td>Comprehension &amp; Collaboration</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td></td>
<td>Presentation of Knowledge &amp; Ideas</td>
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<td></td>
</tr>
<tr>
<td>Language</td>
<td>Conventions</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Knowledge of Language</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Vocabulary Acquisition and Use</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Reliability & Validity

- First 2 questions asked about measurement:
  - Does it actually measure what they say it measures?  
    - validity –
  - Does it measure the same thing every time? 
    - reliability –

- Computer-adaptive format of FAIR-FS increases reliability (and efficiency) by tailoring the task to the student

- Average reliability on FAIR-FS is .9 (very high)
Integrated Assessment

- Screening Assessments (FAIR-FS)
- Diagnostic Assessments (FAIR-FS)
- Formative Assessments (classroom-based)
- Outcome Assessments (SAT-10, AIR)
Conclusions

- Different types of assessments are required to meet different purposes:
  - What decisions will be made from the assessment data?
  - Who will make those decisions?
- Standardized tests are validated for specific purposes
  - Based on the types of analyses conducted
Development of the FAIR-FS for grades 3 through 12
Components of Reading Comprehension

- Word Recognition
- Language Comprehension (vocabulary knowledge; syntactic knowledge)
- World Knowledge
- Motivation
- Cognitive Abilities (e.g., working memory, executive functions)
Purposes of FAIR-FS

- To provide reliable estimate of student’s ability in skills that contribute to reading comprehension
- To provide probability of success on specified end-of-year outcome measures
- To identify those students who may be at risk so that their strengths and weaknesses can be diagnosed and instructional objectives can be set
FAIR-FS Grades 3 – 12
(10th grade level of competency)
Administration
How often is FAIR-FS administered?

- FAIR-FS was designed to be administered 3 times per year
  - Assessment period 1 (AP1) Fall
  - Assessment period 2 (AP2) Winter
  - Assessment period 3 (AP3) Spring
Flow of Tasks

- **Word Recognition** (about 2 min.)
- **Vocabulary Knowledge** (about 3 min.)
- **Reading Comprehension** (about 15 min.)

**Compute Probability of Literacy Success (PLS)**

- **Is PLS < .85?**
  - **Yes**
  - **No**

- **Syntactic Knowledge** (about 5 min.)

**Optional Tasks**
- Take optional tasks?
  - **Yes**
  - **No**

**Written Response**
**Oral Response**
**Oral Reading Fluency**

**Administration Methods**
- **Paper/pencil administration**
- **Computer administration**
The student hears a word pronounced by the computer.

The student selects the word pronounced by the computer.
The student reads the sentence on the screen.

The student completes the sentence with 1 of 3 morphologically related words.
1: What is the strongest evidence that studying the human genome contributed to the use of technology in the private sector?

A: ELSI factors were against them.
B: The federal government kept all of the technology.
C: Grants were given for innovative research in biotechnology.
D: There was plenty of press coverage of cloning and genetic engineering.

2: According to the article, the Human Genome Project was the first “large scientific undertaking to address potential ELSI implications arising from project data.” From this statement the reader can

The student reads the passage, then clicks to show the questions. Questions & passage can be viewed simultaneously.

The student selects the correct response to the question.
The student hears the sentence read by the computer.

The student selects the word that best completes the sentence.
Optional Diagnostic Tasks

- Teacher has the option to administer these tasks to students after they have completed the Syntactic Knowledge Task.
- Open response items allow teacher to analyze individual students’ approach to answering questions.
- Tasks are mostly teacher-administered and teacher-scored.
- These scores are not entered in the PMRN.
14 – 16 passages for each grade
Some Literary, some Informational
Text complexity (quantitative & qualitative) fit the CCSS grade bands
The teacher will choose the passage with associated questions to administer (print from online system)
Each passage has three (3) oral response comprehension questions and one (1) written response comprehension question
Optional Diagnostic: Oral Reading Fluency (ORF)

- Directly aligned to Reading Foundation strand
- Student reads passage aloud while the teacher
  - Marks miscues and
  - Scores Oral Reading Fluency
    - Rate (total words read correctly in 1 minute)
    - Accuracy (WRC/total words read)
    - Expression (rating on the NAEP rubric)
Administering and scoring oral response comprehension questions

- Directly aligned to RI, RL, and L strands of the LAFS
- The teacher reads each question to the student (while the student follows along)
- There is space for the teacher to record the student’s oral response
- A 4-point rubric and sample answers for each category are provided
Administering Written Response Comprehension Question

- The student will respond to one (1) written question related to the passage s/he just read (typed response)
- Question will target one of the following types of writing:
  - Opinion/argumentative
  - Informative/explanatory
  - Narrative
- Student will log back into the web application & instructions will be provided
- Make sure the student also has:
  - Hard copy of the passage
  - Scrap paper & pencil for planning purposes
  - Headphones
Scoring the Written Response

Comprehension Question

- Teachers will be able to print out 2 documents from the written response to score:
  - The sample at 5 minutes for scoring writing fluency:
    - Total number of words written (TWW) will be counted and provided by the computer
    - Number of correct writing sequences minus incorrect writing sequences (CIWS) needs to be hand scored
  - The complete sample that is collected at 10 minutes:
    - Scored utilizing the FAIR-FS checklist for the written response
## Adaptive tasks vs. open-response

<table>
<thead>
<tr>
<th>Computer-adaptive</th>
<th>Open-response</th>
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</thead>
<tbody>
<tr>
<td>- Selected response (e.g., multiple choice)</td>
<td>- Students’ responses can vary greatly</td>
</tr>
<tr>
<td>- Scores are consistent (reliable) &amp; accurate (valid) measure of student’s skill in the identified domain</td>
<td>- Does NOT accurately quantify a student’s skill, but DOES guide instructional feedback for teachers</td>
</tr>
<tr>
<td>Task name</td>
<td>Reliable &amp; Valid Score provided</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td><strong>Screening</strong></td>
<td></td>
</tr>
<tr>
<td>Word Recognition Task</td>
<td>Ability score/Percentile Rank</td>
</tr>
<tr>
<td>Vocabulary Knowledge Task</td>
<td>Ability score/Percentile Rank</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>Ability score/Percentile Rank</td>
</tr>
<tr>
<td>Probability of Literacy Success</td>
<td></td>
</tr>
<tr>
<td>(based on a weighted formula of above tasks)</td>
<td>Green zone ≥ 85%</td>
</tr>
<tr>
<td>Syntactic Knowledge Task</td>
<td>Ability score/Percentile Rank</td>
</tr>
<tr>
<td><strong>Diagnostics</strong></td>
<td></td>
</tr>
<tr>
<td>Oral Reading Fluency</td>
<td></td>
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<tr>
<td>Oral Response Questions</td>
<td></td>
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<tr>
<td>Written Response (writing fluency)</td>
<td></td>
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<tr>
<td>Written Response (holistic scoring)</td>
<td></td>
</tr>
</tbody>
</table>
Important note:

Reports from FAIR-FS were designed to facilitate instructional decision making including systems level problem-solving and data-based decision making.

FAIR-FS scores are not intended to be the sole data point in determining retention or special education determination.
Score Reports will be available online

- Detailed reports for teachers and parents
  - Includes profile of student scores
- Graphs to show ability scores in relation to average scores for that grade level
- Computer adaptive tasks:
  - Ability scores
  - Percentile ranks
- Probability of Literacy Success
Ability Scores

- Scores represent an estimate of ability in a specific skill and reflects true change over time as ability increases or decreases
  - Covers a range of ability from 3rd grade to 12th
  - Scores range from 150 – 1000 (mean of 500 and standard deviation of 100)
- Indicates degree of growth for each student

A 3rd grade student with an ability score of 500 is performing exactly the same as a 7th grader with an ability score of 500
Percentile Ranks

• Score is used to rank one student’s performance in relation to a particular group of other students
  – Ranges from 1 – 99 (25th through 75th percentile represents the expected scoring range)
  – Based on a representative sample of Florida students

3rd grade student with a percentile rank of 55 performed better than 55% of other 3rd graders in Florida
Probability of Literacy Success (PLS)

- Score represents the likelihood that a student will score at the 40th percentile on the end-of-year outcome measure (i.e., SAT-10, AIR)
- PLS is based on aggregate of WRT, VKT, and RCT

PLS of .50 predicts that student has 50/50 chance of achieving the passing score on the outcome measure.
# Score Types for Computer-Adaptive Tasks

<table>
<thead>
<tr>
<th>Score Type</th>
<th>What it reflects</th>
<th>What it does NOT reflect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ability score</strong></td>
<td>• Quantifies a student’s level of skill and reflects changes</td>
<td>• Performance compared to other students</td>
</tr>
<tr>
<td></td>
<td>• Scale ranges from a minimal amount of skill to expert</td>
<td>• Grade-level performance</td>
</tr>
<tr>
<td><strong>Percentile rank</strong></td>
<td>• Student’s ability compared to other students in the same grade</td>
<td>• Percentage of correct responses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Level of expected performance</td>
</tr>
<tr>
<td><strong>Probability of Literacy Success</strong></td>
<td>• Likelihood the student will receive a passing score on end-of-year test</td>
<td>• Growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Previous year’s end-of-year test score</td>
</tr>
</tbody>
</table>
Examples

- **Probability of Literacy Success:** A PLS of .50 predicts that the student has a 50/50 chance of achieving the passing score or higher on the outcome test.

- **Ability Score:** If a student receives a score of 400 at AP1 and 520 at AP2, s/he made significant growth (i.e., grown more than 1 standard deviation).

- **Percentile Rank:** A fifth grade student with a percentile rank of 55 performed better than 55% of other fifth grade students in Florida.
Considerations for Growth

- Ability scores are on an equal interval scale whereas percentile rank is not.
- Percentile rank is relative to other student’s performance & PLS is relative to another assessment. Ability score does not involve a comparison.
- Generally, a skill should be targeted for instruction when scoring below the 30th percentile
- The lower bars represent skills that are relative weaknesses for a student and higher bars indicate relative strengths

WR = Word Recognition
VK = Vocabulary Knowledge
RC = Reading Comprehension
SK = Syntactic Knowledge
Scores by Grade Level

Developmental Ability Scores

F = Fall Score
W = Winter Score
S = Spring score

Mean
Communicating with Parents

- Computer-generated parent resource letters will be available
- Letters will contain information on strength and weaknesses, progress over the school year, and skills targeted for instruction
- Letters will also include resources on strengthening reading skills assessed in FAIR-FS
Instructional Implications
Informing Instruction

- Use the student’s score profile and the classroom report to identify students and skills for supplemental instruction/intervention
  - Identify lower performing students from the classroom report
  - Target skills that are relative weaknesses for the individual student through:
    - Supplemental curriculum
    - Added time and emphasis on particular skills
    - Targeted activities during center time*
69% of 8th grade students fall below the proficient level in their ability to comprehend the meaning of text. Reading ability is a key predictor of achievement in mathematics and science. Many adolescents need to improve their reading comprehension skills before they can take full advantage of instruction in the content areas. Students who are reading one to two levels below their grade level require intervention from a reading specialist.

Intensive Intervention
- Use reliable screening assessments
- Match instructional intensity to student needs
- Extend intervention strategies to content-area instruction
- Use reading specialists to provide interventions

Comprehension Strategies
- Teach a range of comprehension strategies
- Carefully select a variety of texts
- Provide for guided and independent practice

Engaging Text Discussion
- Select engaging and relevant materials
- Extend discussions with follow-up questions
- Facilitate and guide small-group discussions

Vocabulary Instruction
- Use explicit instruction in regular lessons
- Teach strategies for independent learning
- Provide exposure and practice in multiple contexts
### Effective Practices for Literacy Instruction

1. Provide explicit vocabulary instruction.

2. Provide direct and explicit comprehension strategy instruction.

3. Provide opportunities for extended discussion of text meaning and interpretation.

4. Increase student motivation and engagement in literacy learning.

5. Make available intensive and individualized interventions for struggling readers that can be provided by trained specialists.
1. Explicit Vocabulary Instruction

- Dedicated time for explicit vocabulary instruction
- Teach new words:
  - Multiple contexts
  - Sufficient practice
  - Opportunities to use the new vocabulary (writing, discussion, & extended reading)
- Teach strategies for independent vocabulary learning
1. Vocabulary Strategies

- Morphological Analysis – ex. audience, audible, auditory
- Word Origin Tracing – ex. Greek/Latin roots
- Semantic Mapping – visual displays of words
- Synonyms & Antonyms
- Context Clues
2. Explicit Comprehension Instruction

- Select text for each strategy
  - Select appropriate reading level
- Generalize strategies to different texts
- Provide guided practice
- Demonstrate your own use of comprehension strategies (think aloud)
2. Comprehension Strategies

- Summarizing
- Finding the main idea
- Self-questioning
- Paraphrasing
- Drawing inferences
- Graphic Organizers
3. Extended Discussion of Text

- Extended discussions of text enable the student to increase their ability to comprehend complex text.
- Discussions could occur in small groups or whole class in various content areas.
- Students are asked to defend their answers with textual evidence.
- Teachers need to carefully prepare for these discussions with engaging selections and stimulating questions.
4. Increase Student Motivation & Engagement

- When fostering motivation in students, research supports:
  - Frequent feedback
  - Supportive positive learning environment/personal connections
  - Provide frequent choices

- Teachers’ emphasis (e.g., encouragement) of mastery of skills (e.g., reading comprehension strategies) over performance on tests (e.g., FCAT level 4) leads to better performance on outcome tests.

- Example: Simply telling a student that they scored at the 50th percentile will NOT be helpful for that student to improve performance.

- Connecting specific instructional content with explicit feedback to test scores is critical.
5. Intensive and Individualized Interventions

- Provide supplemental, intensive and individual interventions for struggling readers provided by trained specialists.
- Intensive instruction by specialists will ONLY be effective if it is in addition to, not in place of, intensive content-area instruction.
- The purpose of intensive interventions is to accelerate literacy development.
- Two-step process:
  - Initial screening to identify those students who need extra help
  - Diagnostic tests to provide a profile of literacy strengths and weaknesses
5. Intensive and Individualized Interventions

- Addressing Word Recognition skills
  - Relative weakness on the WRT
  - May also have lower performance on all tasks

- Explicit instruction in decoding, including:
  - Supplemental curricular programs for decoding identified by your school district
  - Evidence-based supplemental activities
Increasing Syntactic Knowledge Strategies

- Syntactic Knowledge is an awareness of the structure of text that provides the reader “keys” to “unlock” the meaning.
- Teach connectives (conjunctions) – words or phrases that link clauses and sentences together to create more complex text.
- Teach pronoun reference.
- Teach subject/verb agreement.
Case Study
Ms. Dunphy, a grade 6 Language Arts teacher, takes her 2nd period class to the computer lab to take the FAIR-FS during AP1.

- They log in to the PMRN
- And respond to 3 tasks:
  - Word Recognition Task (~ 2 minutes)
  - Vocabulary Knowledge Task (~ 3 minutes)
  - Reading Comprehension (1-3 passages with questions)
Ms. Dunphy’s 2nd period class

25 students took FAIR-FS screening

5 students identified as “at-risk” and take Syntax task

Ms. Dunphy administers Open Response tasks to 3 students
Ms. D. Administers Open Response Tasks

- Oral Reading Fluency
  - Reading Foundational Skills Strand
- Oral Response
  - Reading for Information Strand; Reading Literary Text Strand; Language Strand
- Written Response
  - Writing Strand; Language Strand
1. Stanley reads story aloud while Ms. Dunphy scores for accuracy, rate, & expression.

<table>
<thead>
<tr>
<th>Oral Reading Fluency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. D. Administers Open Response Tasks</td>
</tr>
<tr>
<td>Marks Miscues</td>
</tr>
<tr>
<td>Marks end of 1 minute</td>
</tr>
</tbody>
</table>

Calculates accuracy and rate.

Uses a rubric to rate expression.

Sea Turtles

Florida has a special sea turtle license plate. Have you seen it? People buy that plate to save turtles. It is a great cause. Sea turtles are amazing creatures. They have been here for a very long time.

Did you know sea turtles lived with dinosaurs? The earliest known sea turtles lived during the Late Jurassic period. That is 208 to 144 million years ago! Several species of sea turtles have evolved since then. Most researchers say there are seven species of sea turtles today. The most common species is the olive ridley. The biggest is the leatherback. It averages six feet. That's taller than the average man! The largest leatherback was almost nine feet in length. It weighed over 2,100 pounds!

Sea turtles spend their days swimming. They live mostly in coastal waters. They prefer shallow water. Sometimes they swim in the open sea. They are graceful swimmers. They have big flippers to move through water. They act like paddles. Their shell is streamlined for fast swimming. Green sea turtles can swim 35 miles per hour!

Sea turtles love to eat. They graze on sea grass. They keep sea grass trimmed.

Some species also eat meat. Do you eat crab? How about shrimp? Maybe you eat jellyfish. Well, so do some sea turtles. Yum!

<table>
<thead>
<tr>
<th>Total Words Read</th>
<th>Rate and accuracy in the first minute only</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td>Oral Reading Fluency</td>
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</tbody>
</table>

N/A

<table>
<thead>
<tr>
<th>Expression (National Assessment of Educational Progress; NAEP; 2002)</th>
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<tr>
<td>Heads primarily in larger, meaningful phrase groups. Although some regressions, repetitions, and deviations from text may be present, these do not appear to detract from the overall structure of the story. Preservation of the author's syntax is consistent. Some or most of the story is read with expressive interpretation.</td>
</tr>
<tr>
<td>Heads primarily in three- or four-word phrase groups. Some small groupings may be present. However, the majority of phrasing seems appropriate and preserves the syntax of the author. Little or no expressive interpretation is present.</td>
</tr>
<tr>
<td>Heads primarily in two-word phrases with occasional three- or four-word groupings. Some word-by-word reading may be present. Word groupings may seem awkward and unrelated to larger context of sentence or passage.</td>
</tr>
<tr>
<td>Heads primarily word-by-word. Occasional two-word or three-word phrases may occur—but these are infrequent and/or they do not preserve meaningful syntax.</td>
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| Heads primarily in larger, meaningful phrase groups. Although some regressions, repetitions, and deviations from text may be present, these do not appear to detract from the overall structure of the story. Preservation of the author's syntax is consistent. Some or most of the story is read with expressive interpretation. |
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| Heads primarily in two-word phrases with occasional three- or four-word groupings. Some word-by-word reading may be present. Word groupings may seem awkward and unrelated to larger context of sentence or passage. |
| Heads primarily word-by-word. Occasional two-word or three-word phrases may occur—but these are infrequent and/or they do not preserve meaningful syntax. |
2. Ms. Dunphy asks Stanley 3 questions about the story and records Stanley’s oral response. (Stanley also has a copy of the passage and questions).
3. Ms. Dunphy makes sure Stanley has his packet, a pencil, & headphones and directs him to log in to the PMRN

This task will take approximately 20 minutes.
Scoring Stanley’s Written Response

- Obtain Stanley’s written response from the PMRN
  - Writing at 5 minutes
  - Completed writing (10 minutes)
- Score the 5-minute sample using Appendix B of the administration manual
- Score the 10-minute sample using the holistic writing checklist
For More Information

• Curriculum questions: contact your district reading office

• Technical questions:
  • See the FAIR-FS/PMRN Course (Coming Soon!)
  • Call or email the PMRN help desk
    http://www.fcrr.org/pmrn/pmrn.asp

• Content questions: contact Just Read, Florida! at 850-245-0503
  http://www.fldoe.org/