Implementing a Comprehensive Reading First Assessment Plan

Content Prepared
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http://darkwing.uoregon.edu/~rhgood/implementing_assessment.ppt

The Purpose of Assessment is to Change Life Trajectories for Children

In this presentation, the purpose will be to address the following issues and questions about Reading First Assessment:

- A comprehensive Reading First assessment plan incorporates screening, progress monitoring, diagnostic, and outcome assessment in an integrated educational decision-making model.
- A comprehensive assessment plan is needed to blend these purposes together in a way that can be maintained over time with the resources available, and in a way that is not so time-consuming that it compromises the instructional mission of the school.

Beginning Reading Core Areas

1. **Phonemic Awareness**: The ability to hear and manipulate sound in words.
2. **Phonics**: The ability to associate sounds with letters and use these sounds to read words.
3. **Fluency**: The effortless, automatic ability to read words in isolation (orthographic reading) and connected text.
4. **Vocabulary Development**: The ability to understand (receptive) and use (expressive) words to acquire and convey meaning.
5. **Reading Comprehension**: The complex cognitive process involving the intentional interaction between reader and text to extract meaning.
Model of Big Ideas, Indicators, and Timeline


Four Kinds of Reading Assessments

An effective, comprehensive, reading program includes reading assessments to accomplish four purposes:

- **Screening Measure**: Brief assessment that focuses on critical reading skills strongly predictive of future reading growth and development, and conducted at the beginning of the school year with all children in grades K, 1, 2, and 3 to identify children likely to need extra or alternative forms of instruction.

- **Diagnostic Measure**: Assessment conducted at any time during the school year only when more in-depth analysis of a student’s strengths and weaknesses is needed to guide instruction.

- **Progress Monitoring Measure**: Assessment conducted a minimum of three times a year or on a routine basis (i.e., weekly, monthly, or quarterly) using comparable and multiple test forms to (a) estimate rates of reading improvement, (b) identify children who are not demonstrating adequate progress and therefore require additional or different forms of instruction, and/or (c) compare the efficacy of different forms of instruction for struggling readers and thereby design more effective, individualized instructional programs for those at-risk learners.

- **Outcome Measure**: Assessment for the purpose of classifying students in terms of whether they achieved grade-level performance or improved.
Efficient and Purposeful Assessment

- Goal: Assessment maintained over time with the resources available, and in a way that is not so time-consuming that it compromises the instructional mission of the school.
- One way to achieve efficient assessment is to have one measure accomplish both screening and progress monitoring purposes.
- The initial screening can also serve as the first progress monitoring assessment.
- Example: CTOPP, TOWRE, TPRI, CBM, and DIBELS have sufficient evidence for both progress monitoring and screening decisions in selected areas (among others).
Outcomes Driven Model Provides a Decision Structure for Assessment

Outcomes Driven Model for Instructional Decisions
1. Identify Need for Support
2. Validate Need for Instructional Support
3. Plan and Implement Instructional Support
4. Evaluate and Modify Instructional Support
5. Review Outcomes for Individuals and Systems

Using an Outcomes Driven Model to inform Instructional Decisions

**Outcomes Driven Model:** Decision making steps
1. Identifying Need for Support
2. Validating Need for Instructional Support
3. Planning and Implementing Instructional Support
4. Evaluating and Modifying Instructional Support
5. Reviewing Outcomes for Individuals and Systems

1. Identifying Need for Support

**Key Decision for Screening Assessment:**
- Which children may need additional instructional support to attain important reading outcomes?

**Data used to inform the decision:**
- Compare individual student’s performance to normative context or expected performance to evaluate need for additional instructional support.
  - **Normative context:** First, choose a percentile cutoff. 20th percentile is a common cutoff for “at risk” status, and the 40th percentile is a common cutoff for “low risk” status.
  - **Longitudinal research:** “At risk” odds are against achieving subsequent literacy goals – unless an intensive intervention is implemented.
Beginning of First Grade

Decision Utility of DIBELS Fall of 1st

- LNF $\geq$ 37, DIBELS PSF $\geq$ 35, DIBELS NWF $\geq$ 24
  Instructional Recommendation: Benchmark - At grade level. Effective core curriculum and instruction recommended,
  - Odds of reading 40 or more words correct per minute at the end of first grade: 84%
- LNF $<$ 25, DIBELS PSF $<$ 10, DIBELS NWF $<$ 13
  Instructional Rec: Intensive - Needs substantial intervention:
  - Odds of reading 40 or more words correct per minute at the end of first grade: 18% (unless given intensive intervention)

Value of knowing the instructional recommendation and the goal early enough to change the outcome: Priceless.

2. Validate Need for Support

Key Decision:
- Are we reasonably confident the student needs instructional support?
  - More reliable and valid information is needed to validate need for support than for screening decisions.
  - Rule out easy reasons for poor performance: Bad day, confused on directions or task, ill, shy...

Data used to inform the decision:
- Repeated assessments on different days under different conditions using progress monitoring assessments to examine a pattern of performance
- Or, more extensive and intensive diagnostic assessment.
Validating Need for Support

Option 1: Verify need for instructional support by retesting with progress monitoring until we are reasonably confident.

Option 2: Use the pattern of performance over time obtained from the student’s continued involvement in the Reading First screening, progress monitoring, and outcome assessment to be reasonably confident that the student needs continued intervention.

Option 3 (avoid): Use time-consuming and resource intensive diagnostic assessment to be reasonably confident of need for intervention.

Note: with progress monitoring assessment integrated with instruction and intervention, educational decisions are self-correcting so we do not need to be completely confident, just reasonably confident.

3. Planning and Implementing Instructional Support

Key Decisions for Diagnostic Assessment:

- What are the Goals of instruction?
  - Where are we? Where do we want to be? By when? What course do we need to follow to get there?
- What skills should we teach?
  - Focus on the beginning reading core areas: Phonological Awareness, Alphabetic Principle, Accuracy and Fluency with Connected Text
  - Level of skills based on error analysis.
- How much instructional support may be needed?
  - Intensive Instructional Support
  - Strategic Instructional Support
  - Benchmark Instruction
Purposes of Diagnostic Assessment

- Provide increased confidence of need for educational support.
- Target core components for intervention focus.
  - Deficit on PA → Intervention targeting PA
  - Established PA, Deficit on AP → Intervention targeting AP
  - Established PA and AP, Deficit on fluency with connected text → Intervention targeting connected text reading and fluency building.
- Identify level of support and intensity of intervention
- Identify specific skill deficits or other instructionally relevant characteristics (e.g., RAN, general word knowledge, background knowledge) to directly inform instruction.

Efficiency of Diagnostic Assessment

- “Because they are expensive and time-consuming to administer, diagnostic tests should not be given routinely to every struggling reader in a class or grade.” (Torgesen, 2004)
- Use screening, progress monitoring, and outcome assessments, and specific program placement tests to obtain initial information to guide instruction whenever possible.
- “Diagnostic measures should be used only in cases where there is a high probability they will provide new information to help plan more effective instruction.” (Torgesen, 2004)

Diagnostic Intervention

- Using screening and progress monitoring assessment, target core component for intervention.
- Implement research based intervention targeting the core component
- Evaluate the adequacy of the intervention using progress monitoring assessment.
  - If adequate progress → maintain
  - Increase intensity of intervention or change to more explicit and systematic if lack of adequate progress
  - If adequate progress → maintain
  - Only if serious, sustained lack of progress with intensive intervention would additional diagnostic assessment be indicated.
Instructional Goals for Core Components of Beginning Reading

Benchmark Goals to be On Grade Level:

- **Middle K:** Phonological Awareness with 25 - 35 on DIBELS
- **Initial Sound Fluency by mid kindergarten (and 18 on PSF)**
- **End K:** Phonemic Awareness with 35 - 45 on DIBELS
- **Phoneme Segmentation Fluency by end of kindergarten (and 25 on NWF)**
- **Middle 1st:** Alphabetic principle 50 - 60 on DIBELS
- **Nonsense Word Fluency by mid first grade (and 20 on DORF)**
- **End 1st:** Fluency with 40 - 50 on DIBELS
- **Oral reading fluency by end of first grade (and RTF 25% or more).**
- **End 2nd:** Fluency with 90 + on DIBELS
- **Oral reading fluency by end of second grade (and RTF 25% or more).**
- **End 3rd:** Fluency with 110 + on DIBELS
- **Oral reading fluency by end of third grade (and RTF 25% or more).**

Instructional Goals

- Establish an Instructional Goal for Alphabetic Principle that will change odds of being a reader.
Oregon Reading First Review of Supplemental and Intervention Programs

- OR Reading First developed review criteria for supplemental and intervention programs and reviewed 106 programs for the percent of criteria met.
  - http://oregonreadingfirst.uoregon.edu/SIreport.php

- Phonemic Awareness
  - Early Reading Intervention 96%
  - Read to the Code 80%
  - Phonemic Awareness in Young Children 75%

- Phonics or Alphabetic Principle
  - Reading Master Fast Cycle 96%
  - Read Well 94%
  - Voyager Passport 92%
  - Early Reading Intervention 81%

- Fluency with Connected Text
  - Read Naturally 92%
  - Great Leaps 66%
  - Headsprout 61%

4. Evaluating and Modifying Instructional Support

Key Decision for Progress Monitoring Assessment:

- Is the intervention effective in improving the child’s early literacy skills?
- How much instructional support is needed?
  - Enough to get the child on trajectory for Benchmark Goal.
- When is increased support needed?
  - Monitor child’s progress during intervention by comparing their performance and progress to past performance and their aimline. Three assessments in a row below the aimline indicates a need to increase instructional support.

Evaluating Support – Modify Intervention?

- Progress on Alphabetic Principle is not adequate to achieve the goal with current intervention – Change.
Modify Intervention – Increase Intensity

- Increase intensity of *Alphabetic Principle* intervention and evaluate progress – maintain adequate progress with modifications.

Nonsense Word Fluency

Mid-year cutoff at risk

Mid-year cutoff low risk

Efficient Progress Monitoring

- Repeated, formative assessment to evaluate progress toward important goals for the purpose of modifying instruction or intervention.
- Increase frequency of progress monitoring based on risk:
  - *Benchmark:* 3 times per year for students at low risk (All Students)
  - *Strategic:* 1 per month for students with some risk
  - *Intensive:* 2 – 4 per month for students at risk

Effects of Progress Monitoring


- Fuchs and Fuchs (1986) found the average effect size associated with progress monitoring was:
  - +0.70 for monitoring progress
  - +0.80 when graphing of progress was added
  - +0.90 when decision rules were added
Considering Initial Skills, Does Slope Add to Predictions of Outcomes?

- Students with complete data from 2002-2003 in the DIBELS Data System were examined for level of risk, slope of progress, and reading outcomes.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
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<tr>
<td>At Risk</td>
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<td>4.23</td>
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<td>26066</td>
<td>18.08</td>
<td>3.33</td>
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<td>1.47</td>
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<td>7.09</td>
<td>38082</td>
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<td>1.16</td>
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<td>70.32</td>
<td>22.55</td>
<td>12288</td>
<td>1.24</td>
<td>1.73</td>
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<tr>
<td>Hi AP</td>
<td>91715</td>
<td>29.09</td>
<td>22.12</td>
<td>91715</td>
<td>1.36</td>
<td>1.19</td>
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<td>29.09</td>
<td>22.12</td>
<td>91715</td>
<td>1.36</td>
<td>1.19</td>
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Utility of Initial NWF Risk Categories

- Beginning first grade skills on NWF are a very strong predictor of first grade reading outcomes.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Odds of Achieving Benchmark Goal</th>
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<tbody>
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<td>At Risk</td>
<td>20739</td>
<td>26.52</td>
<td>21.13</td>
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<td>Beg NWF 0 to 12</td>
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<td>42.81</td>
<td>24.47</td>
<td>47%</td>
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<td>62.07</td>
<td>28.74</td>
<td>76%</td>
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<tr>
<td>Low Risk</td>
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<td>102.19</td>
<td>34.44</td>
<td>97%</td>
</tr>
<tr>
<td>Hi AP</td>
<td>91715</td>
<td>55.08</td>
<td>35.68</td>
<td>60%</td>
</tr>
<tr>
<td>Total</td>
<td>91715</td>
<td>55.08</td>
<td>35.68</td>
<td>60%</td>
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</table>

Variance Explained by Slope for Each Risk Category

- A separate analysis was conducted for each risk category.

<table>
<thead>
<tr>
<th>Group</th>
<th>NWF Initial Skills</th>
<th>NWF Slope Given Initial Skills</th>
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</thead>
<tbody>
<tr>
<td>At Risk</td>
<td>8%</td>
<td>28%</td>
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<tr>
<td>Beg NWF 0 to 12</td>
<td>2%</td>
<td>25%</td>
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<tr>
<td>Some Risk</td>
<td>0%</td>
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<tr>
<td>Low Risk</td>
<td>0%</td>
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<tr>
<td>Hi AP</td>
<td>25%</td>
<td>11%</td>
</tr>
<tr>
<td>Beg NWF 50 to 255</td>
<td>15%</td>
<td>11%</td>
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</table>

But, is the variance explained by slope (given risk and initial skills) educationally important?

Rate of progress in alphabetic principle is especially important for students who are at risk for low reading outcomes.
**Variability in Slope for **At Risk** Students**

- About 68% of At Risk student’s trajectories are between the low slope and the high slope.

**Are Differences in Slope Educationally Meaningful for At Risk Students?**

- Yes. Predicted reading outcomes are substantially different for students with high slope on NWF.

**Conclusions:**

**Validity of DIBELS NWF Slope**

- Initial risk status and initial skills on DIBELS Nonsense Word Fluency are very important in predicting reading outcomes in first grade, explaining 48% of variance in outcomes.
- An increasing pattern of scores through the first semester of first grade on DIBELS Nonsense Word Fluency appears to be a very important predictor of reading outcomes for students who are at risk, and indeed for each risk category.
- We can be confident that increases in DIBELS Nonsense Word Fluency reflect improved performance on alphabetic principle skills that contribute to important end-of-year reading outcomes.
5. Reviewing Outcomes

Key Decisions for Outcome/Accountability Assessment:

- Does the child have the early literacy skills predictive of successful reading outcomes?
- Does the school have a system of core instruction and additional instructional support sufficient for their students to achieve literacy outcomes?

Data used to inform the decision:

- Compare individual student’s performance to literacy goals for successful reading outcomes.
- Compare school/district outcomes to goals and previous year outcomes.
- Evaluate Linkages to identify strengths and areas for improvement in system of curriculum and instruction.

Reviewing Student Outcomes: “Rick”

With intervention, Rick is making adequate progress and achieving the phonics goal by the middle of first grade.

Review School Outcomes: Middle 1st Histogram Report

Our school needs to increase the effectiveness of our phonics instruction. We need: more systematic, more explicit, more emphasis, more time, more practice – MORE.
Kindergarten Benchmark Scores: Phoneme Segmentation Fluency

Our efforts to increase the effectiveness of our phonemic awareness instruction are having substantial impact.

1st Grade Benchmark Scores: Nonsense Word Fluency

Our efforts to increase the effectiveness of our phonics instruction are not having discernable impact.

Themes

- Don’t lose track of the bottom line. Are we getting closer to important and meaningful outcomes?
- Assess -- and teach -- what is important: Phonemic Awareness, Alphabetic Principle, Accuracy and Fluency with Connected Text
- Use assessment information to make decisions that change outcomes for children.
- Assessment should be efficient and purposeful.
- Start early! Trajectories of reading progress are very difficult to change.