Interpreting the Data: How Can I Make an Instructional Impact with DIBELS Data

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http://dibels.uoregon.edu

Beginning Reading Core Components

#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.


Reading First:
Four Kinds/Purposes of Reading Assessment

An effective, comprehensive, reading program includes reading assessments to accomplish four purposes:
- **Outcome** - Assessments that provide a bottom-line evaluation of the effectiveness of the reading program.
- **Screening** - Assessments that are administered to determine which children are at risk for reading difficulty and who will need additional intervention.
- **Diagnosis** - Assessments that help teachers plan instruction by providing in-depth information about students’ skills and instructional needs.
- **Progress Monitoring** - Assessments that determine if students are making adequate progress or need more intervention to achieve grade level reading outcomes.

Source: Reading First Initiative; Secretary’s Leadership Academy

Secretary’s Leadership Academy Assessment Committee

Team Leader Edward J. Kame’enui, University of Oregon

- David Francis, University of Houston
- Lynn Fuchs, Vanderbilt University
- Roland Good, University of Oregon
- Rollanda O’Connor, University of Pittsburgh
- Deborah Simmons, University of Oregon
- Gerald Tindal, University of Oregon
- Joseph Torgesen, Florida State University

The Reading First legislation has five clearly stated purposes, two of which are:

1. To provide assistance to State educational agencies and local educational agencies and local educational agencies in establishing reading programs for students in kindergarten through grade 3 that are based on scientifically-based reading research, to ensure that every student can read at grade level or above not later than the end of grade 3.

2. To provide assistance to State educational agencies and local educational agencies and local educational agencies in selecting or administering screening, diagnostic, and classroom-based instructional reading assessments (See Part B- Student Reading Skills Improvement Grants, Subpart 1- Reading First, See 1301 Purposes, p.173).

The work and results represented in the Final Report are designed to provide State educational...
BIG IDEAS in Early Literacy Skills

- **Phonemic Awareness.** The awareness and understanding of the sound structure of our language, that “cat” is composed of the sounds /k/ /a/ /t/.

- **Phonics or Alphabetic Principle.** Based on two parts:
  - **Alphabetic Understanding.** Words are composed of letters that represent sounds, and
  - **Phonological Recoding.** Using systematic relationships between letters and phonemes (letter-sound correspondence) to retrieve the pronunciation of an unknown printed string or to spell.

- **Accuracy and Fluency with Connected Text.** Readers who are not fluent at decoding are not able to focus their attentional resources on comprehension.

- **Vocabulary Development**

- **Reading Comprehension**


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**Model of Big Ideas, Indicators, and Timeline**

**Big Ideas Drive the Train**

- Big ideas of early literacy should drive the curriculum and instruction. And,
- Big ideas should drive the measures we use.

<table>
<thead>
<tr>
<th>Big Idea of Literacy</th>
<th>DIBELS Measure</th>
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<tbody>
<tr>
<td><strong>Phonological Awareness</strong></td>
<td>Initial Sound Fluency, Phoneme Segmentation Fluency</td>
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<tr>
<td><strong>Alphabetic Principle</strong></td>
<td>Nonsense Word Fluency</td>
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<tr>
<td><strong>Accuracy and Fluency with Connected Text</strong></td>
<td>DIBELS Oral Reading Fluency</td>
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<tr>
<td><strong>Reading Comprehension</strong></td>
<td>At least through grade 3: DIBELS Oral Reading Fluency, Retell Fluency</td>
</tr>
<tr>
<td><strong>Vocabulary/Language Devel.</strong></td>
<td>Word Use Fluency</td>
</tr>
</tbody>
</table>

Adapted from Good, R. H., Simmons, D. C., & Kame’enui, E. J. (2001). The importance and decision-making utility of a continuum of fluency-based indicators of foundational reading skills for third-grade high-stakes outcomes. *Scientific Studies of Reading, 5*, 257-288.
Indicadores dinámicos del éxito en la lectura 6ta Edición (IDEL)
Good, Bank, & Watson (2003)

- A “reinvention” of the DIBELS
- Designed to be indicators of important early literacy skills in Spanish
- Directions and Assessment in Spanish
- Seven measures:

<table>
<thead>
<tr>
<th>DIBELS Measure (English)</th>
<th>IDEL Measure (Spanish)</th>
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<tbody>
<tr>
<td>Letter Naming Fluency (LNF)</td>
<td>Fluidez en el nombramiento de las letras (FNL)</td>
</tr>
<tr>
<td>Initial Sound Fluency (ISF)</td>
<td>Fluidez en los sonidos iniciales (FSI)</td>
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<tr>
<td>Phonemic Segmentation Fluency (PSF)</td>
<td>Fluidez en la segmentación de fonemas (FSF)</td>
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<tr>
<td>Nonsense-Word Fluency (NWF)</td>
<td>Fluidez en las palabras sin sentido (FPS)</td>
</tr>
<tr>
<td>DIBELS Oral Reading Fluency (DORF)</td>
<td>Fluidez en la lectura oral IDEL (FLO)</td>
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<tr>
<td>DIBELS Oral Retell</td>
<td>Fluidez en el recuerdo oral del cuento (ROC)</td>
</tr>
<tr>
<td>Word Use Fluency (WUF)</td>
<td>Fluidez en el uso de las palabras (FUP)</td>
</tr>
</tbody>
</table>

Two Pathways to Literacy

**Could Follow Both L1 and L2**

**Spanish – L1**
- Reading Comp. in Spanish
- Accuracy and Fluency in Spanish
- Alphabetic Principle in Spanish
- Phonemic Awareness in Spanish
- Vocabulary & Lang. in Spanish

**English – L2**
- Reading Comp. in English
- Accuracy and Fluency in English
- Alphabetic Principle in English
- Phonemic Awareness in English
- Vocabulary & Lang. in English

**Could Follow L1 and Transition to L2**

**Spanish – L1**
- Reading Comp. in Spanish
- Accuracy and Fluency in Spanish
- Alphabetic Principle in Spanish
- Phonemic Awareness in Spanish
- Vocabulary & Lang. in Spanish

**English – L2**
- Reading Comp. in English
- Accuracy and Fluency in English
- Alphabetic Principle in English
- Phonemic Awareness in Spanish
- Vocabulary & Lang. in English
Two Pathways to Literacy

Could Teach Skills in English (L2)

Spanish – L1

- Accuracy and Fluency in Spanish
- Alphabetic Principle in Spanish
- Phonemic Awareness in Spanish

- Reading Comp. in Spanish

Vocabulary & Lang. in Spanish

English – L2

- Accuracy and Fluency in English
- Alphabetic Principle in English
- Phonemic Awareness in English

- Reading Comp. in English

Vocabulary & Lang. in English

Not Achieving Literacy in Either is Unacceptable

Spanish – L1

- Accuracy and Fluency in Spanish
- Alphabetic Principle in Spanish
- Phonemic Awareness in Spanish

- Reading Comp. in Spanish

Vocabulary & Lang. in Spanish

English – L2

- Accuracy and Fluency in English
- Alphabetic Principle in English
- Phonemic Awareness in English

- Reading Comp. in English

Vocabulary & Lang. in English

Use DIBELS & IDEL, with instructional goals for both DIBELS & IDEL

Spanish – L1

- Accuracy and Fluency in Spanish
- Alphabetic Principle in Spanish
- Phonemic Awareness in Spanish

- Reading Comp. in Spanish

Vocabulary & Lang. in Spanish

English – L2

- Accuracy and Fluency in English
- Alphabetic Principle in English
- Phonemic Awareness in English

- Reading Comp. in English

Vocabulary & Lang. in English

Use IDEL until Transition to English, with Spanish instructional goals for IDEL

Spanish – L1

- Accuracy and Fluency in Spanish
- Alphabetic Principle in Spanish
- Phonemic Awareness in Spanish

- Reading Comp. in Spanish

Vocabulary & Lang. in Spanish

English – L2

- Accuracy and Fluency in English
- Alphabetic Principle in English
- Phonemic Awareness in English

- Reading Comp. in English

Vocabulary & Lang. in English
Two Pathways to Literacy

Use DIBELS with English instructional goals for DIBELS

Spanish – L1
- Reading Comp. in Spanish
  - Accuracy and Fluency in Spanish
  - Alphabetic Principle in Spanish
  - Phonemic Awareness in Spanish

English – L2
- Reading Comp. in English
  - Accuracy and Fluency in English
  - Alphabetic Principle in English
  - Phonemic Awareness in English

Vocabulary & Lang.
in Spanish

Vocabulary & Lang.
in English

DIBELS Initial Sound Fluency

This is a mouse, flowers, pillow, letters (point to each picture while saying its name).

Mouse begins with the sound /m/ (point to the mouse). Listen: /m/, mouse. Which one begins with the sounds /fl/?

http://DIBELS.uoregon.edu

Dynamic Indicators of Basic Early Literacy Skills
University of Oregon

Initial Sound Fluency -Sample

This is a mouse, flowers, pillow, letters (point to each picture while saying its name).

Mouse begins with the sound /m/ (point to the mouse). Listen: /m/, mouse. Which one begins with the sounds /fl/?

Fluidez en los sonidos iniciales

Mira: ratón, flores, almohada, cartas ( señale cada dibujo mientras lo está nombrando).

Ratón empieza con el sonido /r/ ( señale el ratón). Escucha: /r/, ratón. ¿Cuál empieza con los sonidos /fl/?
I am going to say a word. After I say it, you tell me all the sounds in the word. So, if I say, “sam,” you would say /s/ /a/ /m/. Let’s try one. (one second pause). Tell me the sounds in “mop” Ok. Here is your first word.
The Robin’s Nest

There was a robin’s nest outside our kitchen window. The nest was in a tall bush. The mother robin sat in the nest all day long. One day when I was watching, the mother bird flew away. I saw the eggs she was sitting on. There were four blue eggs.

I watched and watched. The eggs moved. I watched some more. The eggs started to crack. Finally, the eggs hatched. I saw four baby birds. The baby birds opened their beaks wide. I heard them peeping. Soon the mother bird came back. Then the mother robin put worms in their mouths.

Every day I watched the baby birds and their mother. Pretty soon the babies were so fat there was no room for the mother. Then one morning the nest was gone from the bush.

DIBELS Oral Reading Fluency

Please read this (point) out loud. If you get stuck, I will tell you the word so you can keep reading. When I say, “stop” I may ask you to tell me everything you can. Begin. Start your stopwatch after you say “begin”.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71
72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94

Indicador 2 – Pasaje 1 Primer grado

Fluidez en la lectura oral

Por favor lee esto (señale) en voz alta. Si te atasas, te digo la palabra para que puedas seguir leyendo. Cuando digo “para” te puedo preguntar sobre lo que leíste, así que trata de leer lo mejor que puedas. Empieza aquí (señale la primera palabra del pasaje). Empieza. Por favor cuéntame sobre todo lo que acaban de leer. Trata de contarle todo lo que puedas. Empieza.

Indicador 1 Kindergarten

Fluidez en el uso de las palabras

Fluidez en el nombramiento de las letras

Aquí hay algunas letras. Dime el nombre de todas las letras que puedas. Cuando yo digo ‘empieza’, comienza aquí (señale la primera letra a la cabeza de la página a mano izquierda) y continúa a través de la página (demuéstrelo con el dedo), señala cada letra y dime el nombre de la letra. Si llegas a una letra que no sabes cómo se llama, yo te la digo. Pon el dedo en la primera letra. ¿Estás listo/a? (pausa) Empieza.

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 local normative context or expected performance to evaluate need for additional instructional support.
  - **Local normative context**: First, choose a percentile cutoff. 20th percentile seems a good place to start, but a district could choose 15th percentile or 25th percentile or other cutoff depending on resources.
  - **Expected performance**: A deficit in a foundation skill is a strong indicator that instructional support will be needed to attain later benchmark goals.

Using an Outcomes Driven Model to Provide Decision Rules for Progress Monitoring

**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


Benchmark Assessment - First Grade

Benchmark assessment – screening all children to identify need for support to achieve goals in Core Components of literacy: phonemic awareness, alphabetic principle, accuracy and fluency with connected text, Vocabulary, and Reading Comprehension for all children.

- **Beginning**: September, October, or November
- **Middle**: December, January, or February
- **End**: March, April, May, or June
Recognize and support students who need additional instructional support to reach NEXT Benchmark Goal.

- In September of Kindergarten, Melissa has a deficit on initial sounds. She may need additional instructional support to achieve kindergarten benchmark goals in Phonemic Awareness.
- Tevin is on track with to achieve Phonemic Awareness goals with effective core curriculum and instruction.

Longitudinal Outcomes for DIBELS Benchmark Assessment

- Odds of achieving subsequent early literacy goals for DIBELS Benchmark Assessments at the beginning, middle, and end of kindergarten, first, second, and third grades (12 screening points across K - 3) are available at dibels.uoregon.edu/techreports decisión_rule_summary.pdf.
- Students are at risk if the odds are against achieving subsequent early literacy goals.
- The purpose of screening is to provide additional instructional support -- strategic or intensive -- sufficient to thwart the prediction of difficulty achieving reading outcomes.
## DIBELS Benchmark Goals and Indicators of Risk

### Kindergarten

<table>
<thead>
<tr>
<th>Measure</th>
<th>Beginning of Year</th>
<th>Middle of Year</th>
<th>End of Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIBELS Initial Sound Fluency</td>
<td>ISF &lt; 4</td>
<td>ISF = 10</td>
<td>ISF &gt; 10</td>
</tr>
<tr>
<td>Letter Naming Fluency</td>
<td>LNF &lt; 2</td>
<td>LNF = 15</td>
<td>LNF &gt; 15</td>
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<tr>
<td>Phoneme Segmentation Fluency</td>
<td>PSF &lt; 7</td>
<td>PSF = 10</td>
<td>PSF &gt; 10</td>
</tr>
<tr>
<td>Nonsense Word Fluency</td>
<td>NWF &lt; 5</td>
<td>NWF = 13</td>
<td>NWF &gt; 13</td>
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### Instructional Recommendations for Individual Patterns of Performance on Middle of Kindergarten DIBELS Benchmark Assessment

<table>
<thead>
<tr>
<th>Deficit</th>
<th>At Risk</th>
<th>Some Risk</th>
<th>At Risk</th>
<th>Some Risk</th>
<th>At Risk</th>
<th>Some Risk</th>
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<td>End K</td>
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Note: Percent meeting goal is the conditional percent of children who meet the end of first grade goal of 40 or more on DIBELS ORF.

For example, 69% of students with Established, Some Risk, Low Risk pattern in the middle of kindergarten achieved the end of first grade DIBELS Oral Reading Fluency goal of 40 or more words read correct per minute.
Decision Utility of DIBELS

- Pattern of performance on DIBELS measures determines overall risk status and instructional recommendation. In fall of first grade, for example,
- LNF >= 37, DIBELS PSF >= 35, DIBELS NWF >= 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%
  - Odds of reading less than 20 words correct per minute at the end of first grade: 2%
- 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)
  - Odds of reading less than 20 words correct per minute at the end of first grade: 48% (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?
  - Rule out easy reasons for poor performance: Bad day, confused on directions or task, ill, shy, or similar.
  - More reliable information is needed to validate need for support than for screening decisions.

Data used to inform the decision:
- Repeated assessments on different days under different conditions
- Compare individual student’s performance to local normative context or expected performance to evaluate discrepancy.

Validating Need for Support

- Verify need for instructional support by retesting with alternate forms until we are reasonably confident.

Aggregating multiple, brief assessments increases reliability

- When brief, 1-minute probes are used, it is important to consider error as one possible cause of poor performance. A pattern of low performance across 3 - 4 probes is much more reliable.
3. Planning and Implementing Instructional Support

Key Decisions for *Diagnostic Assessment*:
- What are the Goals of instruction?
  - Where are we? Where do we need to be? By when? What course do we need to follow to get there?
  - What skills should we teach to get there?
    - Focus on the *beginning reading core areas*: Phonological Awareness, Alphabetic Principle, Accuracy and Fluency with Connected Text
    - Specific skills based on error analysis or additional diagnostic assessment (e.g., CTOPP).
- How much instructional support is needed?
  - Intensive Instructional Support
  - Strategic Instructional Support
  - Benchmark Instruction

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### Instructional Goals for Core Components of Beginning Reading

**Benchmark Goals to be On Grade Level**

- **Step 1: Phonological Awareness** with 25 - 35 on DIBELS Initial Sound Fluency by *mid kindergarten* (and 18 on PSF)
- **Step 2: Phonemic Awareness** with 35 - 45 on DIBELS Phoneme Segmentation Fluency by end of kindergarten (and 25 on NWF)
- **Step 3: Alphabetic principle** 50 - 60 on DIBELS Nonsense Word Fluency by *mid first grade* (and 20 on DORF)
- **Step 4: Fluency** with 40 - 50 on DIBELS Oral reading fluency by end of first grade.
- **Step 5: Fluency** with 90 + on DIBELS Oral reading fluency by end of second grade
- **Step 6: Fluency** with 110 + on DIBELS Oral reading fluency by end of third grade

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### Planning Support - What Aimline?

The *aimline* connects where we are to where we need to be by when, and shows the course to follow to get there.
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](http://oregonreadingfirst.uoregon.edu/SIreport.php)

  - Phonemic Awareness
    - Early Reading Intervention 96%
    - Road to the Code 80%
    - Phonemic Awareness in Young Children 75%
  
  - Phonics or Alphabetic Principle
    - Early Reading Intervention 81%
    - Touchphonics 76%
    - Headsprout 72%
  
  - 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 consecutive assessments below the aimline* indicates a need to increase instructional support.
Evaluating Support - Is Instructional Support Sufficient Now?

Progress Monitoring: The Teacher’s Map
The GPS for Educators

Dynamic Interventions Build in an Assessment ↔ Intervention Feedback Loop

- Good interventions are identified by their outcomes - not our philosophy, or beliefs, or the quality of their packaging.
- Good interventions are individual – an effective intervention for one child may not be effective for another.
- Integrating assessment and intervention driven by outcomes is a key aspect of an effective intervention.
Step 1: Initial Sound Fluency in First Half of Kindergarten

- Mid year goal: 25 on ISF
- Beginning K
  - Low risk: >= 8
  - At risk: < 4
- Middle K
  - Low risk: >= 25
  - At risk: < 10
- Additional Goal PSF >= 18

Step 2: Phoneme Segmentation Fluency in Second Half of Kindergarten

- End K goal: 35 on PSF
- Middle K
  - Low risk: >= 18
  - At risk: < 7
- End K PSF
  - Established: PSF >= 35
  - Deficit: < 10
  - Additional Goal NWF >= 25

Step 3: Nonsense Word Fluency in First Half of First Grade

- Middle first goal: 50 on NWF
- Beginning first
  - Low risk: >= 24
  - At risk: < 13
- Mid first NWF:
  - Established: NWF >= 50
  - Deficit: < 30
- Additional Goal: ORF >= 20

Step 4: Oral Reading Fluency in Second Half of First Grade

- End first goal: 40 on ORF
- Middle first ORF:
  - Low risk: >= 20
  - At risk: < 8
- End first ORF:
  - Low risk: >= 40
  - At risk: < 20
- Additional Goal: Retell > ORF/4
Step 5: Oral Reading Fluency in Second Grade
- End second goal: 90 on ORF
- Beg second ORF:
  - Low Risk: >= 44
  - At risk: < 26
- End second ORF:
  - Low Risk: >= 90
  - At Risk: < 70
- Additional Goal: Retell > ORF/4

Step 6: Oral Reading Fluency in Third Grade
- End third goal: 110 on ORF
- Beg third ORF:
  - Low risk: >= 77
  - At risk: < 53
- End third ORF:
  - Low Risk: >= 110
  - At Risk: < 80
- Additional Goal: Retell > ORF/4

Progress Monitoring
- Repeated, formative assessment to evaluate progress toward important goals for the purpose of modifying instruction or intervention.

- Frequency of Progress Monitoring
  - 3 times per year for students at low risk (All Students)
    - Benchmark
  - 1 per month for students with some risk
    - Strategic
  - 1 per week for students at risk
    - Intensive

Research on Progress Monitoring
- Progress monitoring has been extensively researched in Special Education
- For example:
- With Reading First, progress monitoring is not just for special education any more.
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

- A student at the 50th percentile would be expected to move to the 82nd percentile (i.e., a score of 100 would move to a score of 114)

- Perhaps more important, a student at the 6th percentile would be expected to move to the average range (25th percentile) (i.e., a score of 76 would move to a score of 90)

Progress Monitoring Tools

- Meaningful and important goals, waypoints, or benchmarks representing reading health or wellness.
  - Meaningful and Important
  - Public and Measurable
  - Ambitious

- Brief, repeatable, formative assessment of progress toward benchmark goals that is sensitive to intervention.
  - Brief and Efficient
  - Repeatable - weekly or monthly
  - Reliable and Valid indication of risk and growth

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 core curriculum and instruction as well as a system of effective instructional support so their students achieve literacy outcomes?

Data used to inform the decision:

- Evaluate individual student’s performance with respect to benchmark goals that with the odds in favor of achieving subsequent literacy goals.
- Compare school/district outcomes to goals and outcomes from previous year.
- Evaluate core curriculum and system of additional support for each step to identify strengths and areas for improvement.

Heartland Early Literacy Project Across Year
First Grade Oral Reading Fluency Outcomes

- 2001-2002 Beginning: Middle: 4229, End: 4414
- 2000-2001 Beginning: Middle: 4037, End: 4152
Reviewing Outcomes: Effectiveness of Benchmark Instruction (Core Curriculum)

- For each step toward literacy outcomes, a school with an effective core curriculum and instruction supports students who are on track (i.e., low risk or benchmark) to achieve the goal.
- For students with the odds in favor of achieving literacy goals, it is the job of the core to teach the core components so that all students (100%) achieve the goals.

Reviewing Outcomes: Effectiveness of Strategic and Intensive Intervention

- For each step toward literacy outcomes, a school with an effective system of effective interventions supports students who are not on track (i.e., at some risk or at risk of difficulty achieving literacy goals) to achieve the goal.
- For students with the odds against achieving literacy goals unless we provide an effective intervention, it is the job of the system of additional support to augment the core curriculum so that all students (100%) achieve the same benchmark goals.

Instructional Steps from Kindergarten to Successful Reading Outcomes

The outcome of each step depends on (a) students beginning skills, (b) effectiveness of core curriculum and instruction, and (c) effectiveness of system of additional instructional support.

Evaluating the Effectiveness of the Core Curriculum and Instruction

1. Is the core curriculum and instruction getting at least 95% of Benchmark students to the next early literacy goal?
   - If children are on track, the core should keep them on track.
   - What would it take to achieve 100%?
2. Is the core curriculum and instruction as effective as other schools in getting Benchmark students to the goal?
   - If typical schools are not getting 95% of Benchmark students to the goal, then supplementing the core in this area can improve reading outcomes.
Step 1: Beginning K to Middle K

Middle kindergarten outcomes for students with benchmark, strategic, and intensive instructional recommendations at the beginning of kindergarten.

A typical (middle) school had 62% of children with a beginning kindergarten benchmark recommendation achieve the middle of kindergarten goal, and 2% of children with intensive support recommendation.

Outcomes Driven Model
Repeat for Each Step

Step by Step, Core and Intervention

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<tr>
<th>Step</th>
<th>Effectiveness of Core</th>
<th>Effectiveness of Strategic Support</th>
<th>Effectiveness of Intensive Support</th>
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Support – Effectiveness is less than a typical school and less than goal.
Typical – Effectiveness is less than goal, but typical of other schools.
Strength – Effectiveness is at goal or greater than typical of other schools.
Instructional Steps from Kindergarten to Successful Reading Outcomes

Step by step to important reading goals and outcomes. Implicit in this logic is a linkage to High Stakes Reading Outcomes.

Third Grade Oral Reading Fluency to Oregon Statewide Assessment Test

- Odds of “meets expectation” on OSAT given 3rd grade TORF of 110 : 90 or 91 or 99%.
- Odds of “meets expectation” on OSAT given 3rd grade TORF below 70: 4 of 23 or 17%.

Linkage of Third-Grade TORF to Illinois State Assessment Test (ISAT)

- Odds of “meets standards” on ISAT given Third-Grade TORF of 110 or above: 73 of 74 or 99%.
- Odds of “meets standards” on ISAT given Third-Grade TORF of 70 or below: 1 of 8 or 12%.


Linkage of Oral Reading Fluency to State Reading Outcome Assessments

Above 110, the odds are 91% the student will rank “adequate” on the FL State Assessment.

Below 80, the odds are 19% the student will rank “adequate” on the FL State Assessment.


Themes

- Don’t lose track of the bottom line. Are we getting closer to important and meaningful outcomes?
- Monitor Progress on -- and teach -- what is important: Phonemic Awareness, Alphabetic Principle, Accuracy and Fluency with Connected Text
- Use research based interventions to improve important outcomes in core component areas.
- Use progress monitoring to make decisions that change outcomes for children.
- Start early! Trajectories of reading progress are very difficult to change.