The Purpose of Assessment is to Change Life Trajectories for Children

This presentation will address the role of assessment in a prevention/early-intervention oriented approach to children’s difficulties learning to read:

- The Outcomes Driven Model incorporates screening, progress monitoring, diagnostic, and outcome assessment in an integrated educational decision-making model.
- The Outcomes Driven Model builds on the established Problem Solving Model, but is a prevention/early-intervention oriented model designed to prevent academic problems.

Beginning Reading Core Areas

#1. Phonemic Awareness: The ability to hear and manipulate sound in words.

#2. Alphabetic Principle: The ability to associate sounds with letters and use these sounds to read words.

#3. Accuracy and Fluency with Connected Text: 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.

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.
Alphabetic Principle Goal

Instructional Goal: To have a powerful strategy to encounter an unknown word and confidently obtain a reasonable pronunciation of the word.

NWF Indicator: 50 correct letter sounds with 15 words recoded by middle of first grade.

• Two reasons for students to have the alphabetic principle:
  1. Beginning readers encounter a lot of new words. A powerful strategy to attack them is valuable.
  2. The alphabetic principle establishes the pathways and mechanisms by which a skilled, mature, fluent, confident reader accesses words and word meanings. Automaticity with the code is based on phonics/phonological awareness processes.

DIBELS Nonsense Word Fluency (NWF)

Here are some more make-believe words (point to the student probe). Start here (point to the first word) and go across the page (point across the page). When I say, “begin”, read the words the best you can. Point to each letter and tell me the sound or read the whole word. Read the words the best you can. Put your finger on the first word. Ready, begin.

kik woj sig faj yis
kaj fek av zin zez
lan nul zem og nom
yuf pos vok viv feg
bub dij sij vus tos
wuv nij pik nok mot
nif vec al boj nen
suv yig dit tum joj
yaj zof um vim vel
tig mak sog wot sav

DIBELS are Indicators

• DIBELS is a toothpick
• DIBELS are not designed to provide an exhaustive assessment

• DIBELS provides an efficient indicator of essential literacy skills acquisition like a toothpick provides an efficient way to tell if the cake is baked.
• If the toothpick has dough on it, what should we do?

Bake the Whole Cake, Don’t Just Cook One Place!

• Using a torch to cook only the place we checked with the toothpick would not produce a very satisfying cake!
Alphabetic Principle: Bake the Whole Cake

Teaching the alphabetic principle skill builds better readers
• Teach letter-sounds (some think this is all phonics refers to)
• Teach a decoding strategy: left to right, say it slowly sound by sound, say it fast, say the word.
• Instruction on scaffolded recoding: sound out and read word
• Instruction on fading the scaffold: teach to internalize the sounding out step and just read the word
• Fluency building instruction: practice putting the whole piece together quickly and confidently.

Alphabetic Principle: Torching the cake

Artificial ways to raise the NWF score without actually teaching the skill are like torching the cake— they don’t lead to better reading outcomes.
• Memorizing and practicing the nonsense words on the next DIBELS assessment. Knowing to dos et tuj kej does not help children learn to read better.
• Telling children not to recode (read the words as a word) but instead just to say the letter sounds as fast as they can. (Recoding is the point of NWF)
• Giving extra time or assistance.

Accuracy and Fluency with Connected Text: Torching the cake

Artificial ways to raise the ORF score without actually teaching the skill are like torching the cake— they don’t lead to better reading outcomes.
• Practicing the next DIBELS probe so they can read it fast does not help children learn to read better.
• Encouraging children to read only the words they know: The and a an ....
• Telling children to read as fast as they can.
• Sending the passage home to practice.
• Start reading the passage at the third sentence.
• Giving extra time or assistance.

Bake the Whole Cake Squad

Official Member of the DIBELS Bake the Whole Cake Squad

I understand the importance of teaching the whole early literacy skill and not just the DIBELS measure. I will try to help others who are confused to focus instruction on the skills and not the probes to make a genuine difference in children’s reading outcomes.

(Signature)
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

Outcomes Driven Model in a Picture
Implement a Research-Based Intervention
- Increase intensity of Intervention:
  1) Increase intervention fidelity
  2) Increase time
  3) Smaller Group Size

Outcomes Driven Model Requirements:
1. Evidence that the initial indicator of risk is really risky.
2. Evidence that the goal is healthy, meaningful, important—that is, that risk is reduced if you achieve the goal. Goals are best if they are meaningful, ambitious, achievable.
3. Evidence that adequate progress toward the goal is associated with important outcomes.
4. Evidence is best if it is persuasive, robust, replicated, and immediate (that is, you can see for yourself). Scientific evidence means it worked for someone somewhere with some students under controlled conditions. More important is evidence that it works for our students, now, under our conditions.

Initial Indicator of Risk: Oregon Reading First 2004-2005:
- Odds of achieving ORF reading goal in May of First Grade when low risk on NWF in the beginning of First Grade are 83%.
- Odds of achieving ORF reading goal in May of First Grade when at risk on NWF in the beginning of First Grade are 14%.
**Initial First Grade Skills are Important**

- Most *Low Risk* students achieve adequate first grade reading outcomes.

<table>
<thead>
<tr>
<th>Month</th>
<th>NWF Goal</th>
<th>ORF Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept.</td>
<td>20739</td>
<td>15937</td>
</tr>
<tr>
<td>Oct.</td>
<td>20606</td>
<td>1485</td>
</tr>
<tr>
<td>Nov.</td>
<td>20739</td>
<td>167</td>
</tr>
<tr>
<td>Dec.</td>
<td>38082</td>
<td>6390</td>
</tr>
<tr>
<td>Jan.</td>
<td>12288</td>
<td>4375</td>
</tr>
<tr>
<td>Feb.</td>
<td>12288</td>
<td>2547</td>
</tr>
</tbody>
</table>

**Nonsense Word Fluency**

- M = 27, odds 22%  
- M = 43, odds 47%  
- M = 62, odds 76%  
- M = 102, odds 97%

**Outcomes Driven Model Requirements:**

1. Evidence that the initial indicator of risk is really risky.
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**Overall Odds of Reading Outcomes**

- r = .75

**Relation between percent at benchmark in winter of first grade (NWF Goal) and percent achieving 40 on ORF in spring of first grade (Fien, 2004). Each dot is a school.**

- r = .85
Outcomes Driven Model Requirements:

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Role of Mid First Alphabetic Principle

School A:
- Odds of achieving ORF reading goal in March of First Grade when Established with NWF in December of First Grade are 11 out of 11, or 100%.
- Odds of achieving ORF reading goal in March of First Grade when Deficit with NWF in December of First Grade are 0 out of 32, or 0%.

School B:
- Odds of achieving ORF reading goal in May of First Grade when Established with NWF in January of First Grade are 39 out of 43, or 90%.
- Odds of achieving ORF reading goal in May of First Grade when Deficit with NWF in January of First Grade are 0 out of 4, or 0%.

Middle of First Grade is also Important


Middle-year cutoff low risk

End First ORF
M = 78, odds 87%
N = 40510

End First ORF
M = 43, odds 49%
N = 32698

End First ORF
M = 24, odds 18%
N = 17615
Outcomes Driven Model Requirements:

1. Evidence that the initial indicator of risk is really risky.
2. Evidence that the goal is healthy, meaningful, important – that is, that risk is reduced if you achieve the goal. Goals are best if they are meaningful, ambitious, achievable.
3. Evidence that adequate progress toward the goal is associated with important outcomes.
4. Evidence is best if it is persuasive, robust, replicated, and immediate (that is, you can see for yourself). Scientific evidence means it worked for someone somewhere with some students under controlled conditions. More important is evidence that it works for our students, now, under our conditions.

Amanda’s Progress In First Semester of First Grade

Based only on initial NWF skills and NWF slope in the first semester of first grade, Amanda’s predicted end of first ORF is: 9
Amanda’s actual end of first ORF was: 8

- Amanda is making progress on alphabetic principle skills (phonics), but not enough progress to change her risk status.
- Amanda is not making adequate progress.

Belinda’s Progress In First Semester of First Grade

Based only on initial NWF skills and NWF slope in the first semester of first grade, Belinda’s predicted end of first ORF is: 20
Belinda’s actual end of first ORF was: 26

- Belinda is making progress on alphabetic principle skills (phonics), and reducing her risk level (moving from at risk to some risk).
- Belinda is making adequate progress.

Calvin’s Progress In First Semester of First Grade

Based only on initial NWF skills and NWF slope in the first semester of first grade, Calvin’s predicted end of first ORF is: 32
Calvin’s actual end of first ORF was: 38

- Calvin is making progress on alphabetic principle skills (phonics), and achieving the middle of first grade goal. (We want 3 consecutive points above the goal to be sure.)
- Calvin is making exceptional progress.
Adequate Progress is Essential - Initial risk provides a powerful prediction, but adequate progress can ruin the prediction!

Nonsense Word Fluency

Mid-year cutoff low risk

End First ORF
N = 217
M = 70, Odds 83%

End First ORF
N = 7349
M = 31, Odds 25%

End First ORF
N = 10382
M = 18, Odds 9%

Big Ideas in Beginning Reading

Dynamic Indicators of Basic Early Literacy Skills

Benchmark Goal Timeline for Assessing Big Ideas K-3

NWF

Alphabetic Principle Goal. To have a powerful strategy to encounter an unknown word and confidently obtain a reasonable pronunciation of the word. Phonics and alphabetic principle skills should be so well developed they score at least 50 on DIBELS NWF with at least 15 words recoded.

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.

DIBELS and Student Retention

• DIBELS should never be used for student retention decisions.

• Retention in kindergarten, retention in first grade, delayed entry into kindergarten, a planned second year in kindergarten (e.g., special K), and a planned second year in first grade (e.g., transitional first) all have the same effect.

• Effects of a second year in K and 1 are summarized in http://www.nasponline.org/information/postpaper_graderetent.html http://www.education.ucsb.edu/jimerson/retention/

• DIBELS should be used to identify targets of opportunity and to provide support.

The purpose of DIBELS is to improve Outcomes

Effect of Retention on Student Outcomes

No evidence of positive effects of retention on long-term achievement, self esteem, or adjustment

Negative effects of Retention: Retention increases the odds of
• Increased odds of academic difficulty, especially in reading.
• Increased odds of socio-emotional adjustment difficulties.
• Increased likelihood of behavior problems especially in adolescence.
• Increased risk of school drop out. Retention is one of the most powerful predictors of not completing high school.
• Increased risk of being retained a second time. Students retained more than once have very low likelihood of completing high school.
• Increased risk of “emotional distress, cigarette use, alcohol use, drug abuse, driving while drinking, use of alcohol during sexual activity, early onset of sexual activity, suicidal intentions, and violent behaviors” (NASP, 2003).
• More likely to be unemployed, underemployed, or on public assistance.
• More likely to be in prison.
Select Research-Based Intervention

- Oregon Reading First reviewed 106 supplemental and intervention programs for the percent of criteria met. [http://oregonreadingfirst.uoregon.edu/SIreport.php](http://oregonreadingfirst.uoregon.edu/SIreport.php)

  - **Phonics or Alphabetic Principle**
    - Reading Master 82% to 96%
    - Corrective Reading 92% to 100%
    - Read Well 92% to 94%
    - Voyager Passport 92%
    - Early Reading Intervention 81%
    - Horizons Fast Track 88%
    - Saxon Phonics 84% to 96%
    - Systematic Instruction in Phonemic Awareness, Phonics, and
      - Sight Words (Level 1) 91%
    - Voyager Passport K and 1 90% to 92%
  - Or choose from many others rated below 88%

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**Alphabetic Principle: Kindergarten Curriculum Map**

Mapping of Instruction To Achieve Instructional Priorities

<table>
<thead>
<tr>
<th>Instructional Priority: Alphabetic Principle</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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</thead>
<tbody>
<tr>
<td>Focus 1: Letter-Sound Correspondence</td>
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<tr>
<td>1a: Identifies letter matched to a sound</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>* 1b: Sings the most common sound associated with individual letters</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Focus 2: Decoding (Sound Out Words)</td>
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<td>2a: Blends letter sounds in 1-syllable words</td>
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<td>Focus 3: Sight-Word Reading</td>
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<td>3a: Recognizes some words by sight</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>

* high-priority skill
a. sounds per minute
b. 4 correct sounds in words
c. see attached list

**Alphabetic Principle: First Grade Curriculum Map**

Mapping of Instruction To Achieve Instructional Priorities

<table>
<thead>
<tr>
<th>Grade 1</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Instructional Priority: Alphabetic Principle</th>
<th>1</th>
<th>2</th>
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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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</thead>
<tbody>
<tr>
<td>Focus 1: Letter &amp; Letter Combinations</td>
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<tr>
<td>* 1a: Produces L-G correspondences (3sec)</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>* 1b: Produces sounds to common letter combinations</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Focus 2: Decoding (Sound Out)</td>
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<tr>
<td>* 2a: Decodes words with consonant blends</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>* 2b: Decodes words with letter combinations</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>* 2c: Reads regular 1-syllable words fluently</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>* 2d: Reads words with common word parts</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Focus 3: Sight-Word Reading</td>
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<tr>
<td>* 3a: Reads common sight words automatically</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Focus 4: Reading Connected Text</td>
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<tr>
<td>* 4a: Reads accurately (1 error in 25 words)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>* 4b: Reads fluently (1 word per 3-sec min; 1 word per sec and 6th grade)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>* 4c: Phrasing attending to ending punctuation</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>4d: Reads and rereads to increase familiarity</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
</tr>
</tbody>
</table>

* high-priority skill

At least 13 on DIBELS NWF

50 on DIBELS NWF with 15 words recoded correctly

25 on DIBELS NWF

40 - 60 on DIBELS ORF
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

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, Vocabulary Development, and Comprehension.
- 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.

What if?

- What if the National Reading Panel is right and the alphabetic principle is an essential core component for students to make adequate progress in early literacy?
- What if DIBELS is right and the amount of instruction and level of skill needed for adequate progress is both greater and earlier than is currently in place?
- What if Scientifically Based Reading Research is right and we have powerful instruction to teach the alphabetic principle to almost all children?
- What if monitoring progress toward important instructional goals increases the effectiveness of interventions?
What if?

• What if we could prevent reading failure? Prevent learning disabilities? Prevent illiteracy?
• What if we could prevent the behavior problems, conduct disorders, an mental health toll associated with poor reading outcomes?
• What if we could ensure for all children the right to read?
• What if we could provide all children with choices for their future?

We have the knowledge, the tools, the technology to teach the alphabetic principle to all of our children.

Do we have the will?