Literacy Instruction for Students with Intellectual Disability: Recent Advances and Assessment Issues

Dr. Jill H. Allor
February, 2017
Today’s Presentation

• Overview of research on teaching students with ID to read
• Research-based tips for literacy instruction for students with ID
• Using assessment for instructional recommendations and ongoing instructional decisions
ADD VIDEO HERE? Not sure who
Introduction: Guiding Questions

1. What are reasonable expectations for literacy outcomes for students with ID?

2. What considerations should be made when assessing literacy for students with ID?
Literature Review: Research on Reading and ID

• Students with intellectual disability (ID) demonstrate lower levels of reading achievement than students with other disabilities (Caffrey & Fuchs, 2007; Wei, Blackorby, & Schiller, 2011).

• Limited research on effective teaching of reading to students with ID (Polloway, et al., 2010)

• Some research on isolated phonics skills; emphasis on sight word instruction (reviews by Browder, et al., 2006; Browder & Xin, 1998; Joseph & Seery, 2004)
A w-score of 500 is the average score for a 10 year old.
Passage Comprehension
(Wei, Blackorby, & Schiller, 2011)

A w-score of 500 is the average score for a 10 year old
Literature Review: Recent research on comprehensive programs

- More recently research has shown students with ID respond favorably to more comprehensive programs of reading instruction (e.g., Allor, et al., 2014; Browder, Mims, Spooner, Ahlgrim-Delzell, & Lee 2008; Connor, Alberto, Compton, & O’Connor, 2014; Lemons, et al., 2015).

- Two of our studies (led us to our current new curriculum, *Sam and Friends*)
Evidence for struggling readers that...
Good intervention (i.e. instruction) normalizes brain patterns...

Before Intervention (at risk)

After
Allor, et al. (2014): Overview of Study

- RQ: Determine if a comprehensive, phonics-based, direct instruction reading program would be effective in teaching early reading and language skills to students with IQs ranging from 40-79
- Longitudinal (up to 4 years); RCT
- Students in Grades 1-4 when they began the study
- Daily small group instruction (45 min) using Early Interventions in Reading (Allor & Mathes; Mathes & Torgesen – SRA McGraw-Hill)
Allor, et al. (2014): Intervention

- Early Interventions in Reading (EIR)
  - Explicit, systematic and comprehensive
  - Level K, Level 1, Level 2
  - published by SRA/McGraw-Hill
- Supplemental language instruction
- Supplemental home-school connection materials to increase intensity
Allor, et al. (2014): Findings

- Students who received intervention outperformed students in contrast group on all language and literacy measures (except listening comprehension and sight words)

- Support for use of scientifically-based reading instruction for students with low IQs (IQ 40-80, including ID range)
  - IF Individualized and with high degrees of fidelity
  - IF provided intensive, comprehensive instruction over an extended period of time

- But, even with intervention, it can take 4 years for students with moderate intellectual disabilities to master first grade reading skills
## Data Analysis Summary  (*posttest only*)

<table>
<thead>
<tr>
<th>Reading Skill</th>
<th>Measure ((N = 141))</th>
<th>Statistical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonemic Awareness</td>
<td>CTOPP Blending Words</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>CTOPP Blending Nonwords</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>CTOPP Segmenting Words</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>DIBELS Phoneme Segmentation Fluency</td>
<td>Yes</td>
</tr>
<tr>
<td>Language</td>
<td>Expressive Vocabulary Test</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Peabody Picture Vocabulary Test</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>WIAT Listening Comprehension ((n=95))</td>
<td></td>
</tr>
<tr>
<td>Phonemic Decoding</td>
<td>DIBELS Nonsense Word Fluency</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>TOWRE Phonemic Decoding Efficiency</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Woodcock Word Attack</td>
<td>Yes</td>
</tr>
<tr>
<td>Word Identification</td>
<td>DIBELS Oral Reading Fluency</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>TOWRE Sight Word Efficiency</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Woodcock Letter-Word Identification</td>
<td>No</td>
</tr>
<tr>
<td>Comprehension</td>
<td>WIAT Reading Comprehension ((n=95))</td>
<td>Yes*</td>
</tr>
</tbody>
</table>
What research shows could be...
(low IQ including students with ID, Allor, 2014)

Oral Reading Fluency (First Grade DIBELS)
Predicted Scores by IQ and Condition

Week of Instruction (up to 130 weeks -- 4 academic years)
ID# (IQ/Age)

Contrast Group ORF

ID# (IQ/Age)

Weeks of Instruction
A Closer Look

Treatment Group ORF
Assessment Observations

- Challenges with DIBELS Initial Sound Fluency because “language heavy”
- Some challenges with measures that include nonsense words 
  Extreme variability between and within student
- After first year, no significant differences on any measures 
  between treatment and control -- took a long time
- We observed evidence of learning that was not documented by 
  annual or progress monitoring measures
- We observed the importance of a familiar examiner
- Need to streamline and intensify instruction and more 
  sensitively measure progress (align with instruction and small 
  sets of skills)

• Published in *Remedial and Special Education*

• A few students from longitudinal study still struggling with sounding out simple words even though they knew letter sounds

• Wrote new “multicriteria” text for students to practice
  – Increased repetition of high-frequency decodable and irregular words
  – Familiar topics with natural language

• Created lessons specifically to teach the words in new text
UP AT BAT

By Joanna Guinther
Illustrated by Dick Smolinski
Adapted by Jill Allor

Crack! The bat hits the ball.

"I did it! I did it!" said Sam. "I hit the ball."

"Look at the ball!" said Tom. "Look at the ball go up, up, up!"

Where will the ball go?
hit with will
Sam land fun
look do said
can hits bat
do I want
not fast bam
looks want
to

Will Sam hit the ball?

Bam! Sam hits the ball.
Figure 1. Words read correct on proximal measure during baseline and intervention

- Justin
- Grace
- Kristen
Developing Sam and Friends Curriculum: Addressing Specific Needs

• **Intensive Repetition**
  - multiple texts and materials
  - some materials designed for use by paraprofessionals/tutors
  - within texts, extensive repetition of high utility words (sight words and high frequency decodable words)

• **Low Language**
  - texts with familiar, high utility vocabulary
  - familiar topics
  - picture support as needed (pictures of non-decodable words, e.g. ball)
  - short sentences, gradually increasing in length
  - sentences similar to spoken language (i.e. more natural)
Developing Sam and Friends Curriculum: Capitalizing on Relative Strengths

- **Sight Words**
  - faster introduction of sight words
  - early text focused on sight words, while developing phonics skills (particularly blending)

- **Letter-Sound Correspondence**
  - faster introduction of consonant letter-sounds
## Key Characteristics of Sam and Friends Curriculum

<table>
<thead>
<tr>
<th></th>
<th>Books</th>
<th>Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supports Word Recognition</strong></td>
<td>• Gradually introduce small sets of words (unit words)</td>
<td>• Explicit practice of phonemic awareness, sight word, and decoding skills</td>
</tr>
<tr>
<td></td>
<td>• Varied sentence structure (to minimize guessing)</td>
<td>• Engaging activities that support complete processing of letters within words and words within sentences</td>
</tr>
<tr>
<td><strong>Supports Comprehension</strong></td>
<td>• Helper text</td>
<td>• Shared reading experience</td>
</tr>
<tr>
<td></td>
<td>• “I am….” syntax</td>
<td>• Dialogic reading questions</td>
</tr>
<tr>
<td></td>
<td>• Picture support for key content words</td>
<td>• Graphic organizers</td>
</tr>
<tr>
<td><strong>Provides Intensive Practice</strong></td>
<td>• Cumulative review</td>
<td>• Word building activities in context</td>
</tr>
<tr>
<td></td>
<td>• Repetition of unit words</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Multiple books in each unit</td>
<td></td>
</tr>
</tbody>
</table>

### Text-Centered

**Key Characteristics of Sam and Friends Curriculum**

- **Supports Word Recognition**
  - Gradually introduce small sets of words (unit words)
  - Varied sentence structure (to minimize guessing)
- **Supports Comprehension**
  - Helper text
  - “I am…” syntax
  - Picture support for key content words
- **Provides Intensive Practice**
  - Cumulative review
  - Repetition of unit words
  - Multiple books in each unit

### Text-Centered

**Key Characteristics of Sam and Friends Curriculum**

- **Supports Word Recognition**
  - Gradually introduce small sets of words (unit words)
  - Varied sentence structure (to minimize guessing)
- **Supports Comprehension**
  - Helper text
  - “I am…” syntax
  - Picture support for key content words
- **Provides Intensive Practice**
  - Cumulative review
  - Repetition of unit words
  - Multiple books in each unit
# Key Characteristics of Sam and Friends Curriculum

<table>
<thead>
<tr>
<th>Books</th>
<th>Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supports Word Recognition</strong></td>
<td><strong>Supports Comprehension</strong></td>
</tr>
<tr>
<td>- Gradually introduce small sets of words (unit words)</td>
<td>- Helper text</td>
</tr>
<tr>
<td>- Varied sentence structure (to minimize guessing)</td>
<td>- “Natural” syntax</td>
</tr>
<tr>
<td>- Explicit practice of phonemic awareness, sight word, and decoding skills</td>
<td>- Picture support for key content words</td>
</tr>
<tr>
<td>- Engaging activities that support complete processing of letters within words and words within sentences</td>
<td>- Shared reading experience</td>
</tr>
<tr>
<td><strong>Provides Intensive Practice</strong></td>
<td><strong>Graphic organizers</strong></td>
</tr>
<tr>
<td>- Cumulative review</td>
<td>- Word building activities in context</td>
</tr>
<tr>
<td>- Repetition of unit words</td>
<td>- Multiple activities for each unit</td>
</tr>
<tr>
<td>- Multiple books in each unit</td>
<td>- Teacher sessions 3-4 times/week, tutor sessions 2-3 times/week (20 minutes each)</td>
</tr>
</tbody>
</table>

Books and lesson activities support word recognition and comprehension, with intensive practice.
## Key Characteristics of Sam and Friends Curriculum

<table>
<thead>
<tr>
<th>Supports Word Recognition</th>
<th>Books</th>
<th>Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gradually introduce small sets of words (unit words)</td>
<td>• Gradually introduce small sets of words (unit words) • Varied sentence structure (to minimize guessing)</td>
<td>• Explicit practice of phonemic awareness, sight word, and decoding skills • Engaging activities that support complete processing of letters within words and words within sentences</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supports Comprehension</th>
<th>Books</th>
<th>Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helper text</td>
<td>• Helper text • “Natural” syntax • Picture support for key content words</td>
<td>• Shared reading experience • Dialogic reading questions • Graphic organizers • Word building activities in context</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Provides Intensive Practice</th>
<th>Books</th>
<th>Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative review</td>
<td>• Cumulative review • Repetition of unit words • Multiple books in each unit</td>
<td>• Cumulative review • Multiple activities for each unit • Teacher sessions 3-4 times/week, tutor sessions 2-3 times/week (20 minutes each)</td>
</tr>
</tbody>
</table>
## Sample Pages from Level 1 Book

### Let's Make Lunch

Written by Jill Alter, Stephanie Al Otaiba, and Jennifer Cheatham
Illustrated by Jennifer Cheatham

<table>
<thead>
<tr>
<th>New Look and Say Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>a do I like not want</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Picture Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>cheese chips cookies</td>
</tr>
<tr>
<td>ham pickle sandwich</td>
</tr>
</tbody>
</table>

### Story Starter

This is a story about making lunch.

"It's time for lunch," said Mom. "I want a sandwich. Sam, what do you want to eat?"

"I want a sandwich."

"This is a nice lunch. For dessert we can eat some cookies, cake, or ice cream! What do you like best?"

"I like cookies!"

---

**Teacher or tutor reads “helper text” (gray box)**

**Child reads text in conversation bubbles**
Sample Pages from Level 7 Book

New Look and Say Words

<table>
<thead>
<tr>
<th>because</th>
<th>care</th>
<th>come</th>
<th>could</th>
<th>feel</th>
</tr>
</thead>
<tbody>
<tr>
<td>first</td>
<td>how</td>
<td>of</td>
<td>next</td>
<td>said</td>
</tr>
<tr>
<td>should</td>
<td>take</td>
<td>took</td>
<td>why</td>
<td>would</td>
</tr>
</tbody>
</table>

New Sound and Say Words

<table>
<thead>
<tr>
<th>big</th>
<th>did</th>
<th>got</th>
<th>him</th>
<th>if</th>
</tr>
</thead>
<tbody>
<tr>
<td>in</td>
<td>it</td>
<td>mom</td>
<td>not</td>
<td>on</td>
</tr>
<tr>
<td>sit</td>
<td>stop</td>
<td>this</td>
<td>will</td>
<td>with</td>
</tr>
</tbody>
</table>

Picture Words

<table>
<thead>
<tr>
<th>New York</th>
<th>picture</th>
<th>shirts</th>
<th>shoes</th>
</tr>
</thead>
<tbody>
<tr>
<td>three</td>
<td>tie</td>
<td>two</td>
<td>yellow</td>
</tr>
</tbody>
</table>

Story Starter
This is a story about how Ana and Zoe help their Dad pack for a trip.

Teacher or tutor reads “helper text” in gray boxes and child reads text.

Dad got his big suitcase out of the closet and put it on the bed. Dad told Zoe to start writing a list of things he should take with him. As he got the things on the list, put them on the bed.

Zoe looked on the list. She said, “Dad, the first things on the list are shirts and pants.”

“I should take three shirts,” said Dad. So, Dad got three shirts.
Sam and Friends Lessons:

- provide explicit and systematic instruction, specifically linking skills to target words for each book level

- are practical and feasible
  - 20 minute teacher lessons combined with 20 minute tutor activities
  - Can be implemented individually or in small groups
The Many Strands that are Woven into Skilled Reading (Scarborough, 2001)

**LANGUAGE COMPREHENSION**
- BACKGROUND KNOWLEDGE
- VOCABULARY KNOWLEDGE
- LANGUAGE STRUCTURES
- VERBAL REASONING
- LITERACY KNOWLEDGE

**WORD RECOGNITION**
- PHON. AWARENESS
- DECODING (and SPELLING)
- SIGHT RECOGNITION

Skilled Reading- fluent coordination of word reading and comprehension processes

Reading is a multifaceted skill, gradually acquired over years of instruction and practice.
JG

- Age 10
- Down Syndrome
- IQ 56
- PPVT 48 SS, 3.2 AE

Scores WRMT (pre/post raw scores)
- Letter ID 16/16
- Word ID 3/3
- Blending 3/1
- First Sound 3/3

Target Words (sight words)
WB

- Age 13
- Down Syndrome
- IQ 40
- PPVT 73 SS, 4.7 AE

Scores WRMT (pre/post raw scores)
- Letter ID 12/15
- Word ID 0/2
- Blending 5/7
- First Sound 0/3  Target Words  (sight words)

Note: never reached mastery on Level 1
EM

- Age 6
- Smith-Lemli-Opitz
- IQ 59
- PPVT 26 SS 2.4 AE

Scores WRMT (pre/post raw scores)
- Letter ID 2/15
- Word ID 0/2
- Blending 4/4
- First Sound 0/5
CH

- Age: 10
- Intellectual Disability, Speech Impairment
- IQ: 43
- PPVT 57 raw

WJ IV (pre/post raw scores)
- Word ID 14/17
- Passage Comp 9/9
- Word Attack 6/6
DIBELS PSF Scores

- kc
- ss
- am
- em
- jg
- sm
- wb
- cf

Legend:
- PSF pre
- PSF post
Results—Single-Case (decodable words)
Allor et al., in review: Findings

• Employed Tau-U analysis, which provides an estimate of non-overlapping data after adjusting for trend (Parker, et al., 2011)

• Functional relation demonstrated by statistically significant differences (between baseline and intervention phases) found for at least some phases for all students

• More replications for sight words than decodable words
AIMS Web Letter Sound Scores

CH

KD

LD

NW

Nov. 2016  May 2016  As of Nov. 2016
DIBELS Phoneme Segmentation Fluency

- CH
- KD
- LD
- NW

The primary purpose of this study was to explore accommodations related to measurement administration format. We compared our paper and pencil format to the same stimuli presented on flashcards or on PowerPoint slide presentation formats.
Dependent Variables

- Items attempted
- The number of prompts or redirections
- The percentage correct (number correct/number attempted)
## Participants

<table>
<thead>
<tr>
<th>Students</th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Age</th>
<th>Diagnoses</th>
<th>IQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jacob*</td>
<td>Male</td>
<td>Caucasian</td>
<td>9</td>
<td>Down syndrome</td>
<td>47</td>
</tr>
<tr>
<td>Stephen*</td>
<td>Male</td>
<td>Caucasian</td>
<td>11</td>
<td>Down syndrome</td>
<td>53</td>
</tr>
<tr>
<td>Susie*</td>
<td>Female</td>
<td>Hispanic</td>
<td>11</td>
<td>Down syndrome</td>
<td>46</td>
</tr>
<tr>
<td>Elliot**</td>
<td>Male</td>
<td>Hispanic</td>
<td>8</td>
<td>Autism</td>
<td>71</td>
</tr>
<tr>
<td>Greg**</td>
<td>Male</td>
<td>Caucasian</td>
<td>8</td>
<td>Autism</td>
<td>78</td>
</tr>
<tr>
<td>Milton**</td>
<td>Male</td>
<td>Caucasian</td>
<td>5</td>
<td>Autism</td>
<td>70</td>
</tr>
</tbody>
</table>
Results

• No single format was predictive of improved performance
• Different students did better under different conditions
• Some students performed more reliably under certain accommodations even if it was not more accurate
Take Home

• CBM is critical for progress monitoring
• Accommodating CBM is an important consideration
• BUT there is no “one size fits all” accommodation that works for every student
Summary of Assessment Recommendations and Possible Accommodations

- Examiner judgment is key
- Expect variability, so test frequently
- Keep assessment sessions as short as possible
- Consider extra time or conducting a timed-test as an untimed test
- Model test behaviors, especially for phonemic awareness
- Select/create progress monitoring measures that align with the content and procedures of the curriculum
- Consider alternate formats
- Consider tangible reinforcers
- Consider providing more feedback about performance
10 Research-Based Tips for Enhancing Literacy Instruction for Students with ID
(Lemons, Allor, Al Otaiba, and Lejeune, 2016, TEC)

1. Keep big picture goals in mind.
2. **Ensure you have a clear picture of the student’s current level of functioning and set meaningful, measurable goals.**
3. Provide explicit, systematic reading instruction.
4. Provide instruction with sufficient intensity to accomplish goals.
5. Seek out professional development opportunities to deepen understanding of the complex process of learning to read.
6. Remember that language abilities are the underlying foundation for reading skills.
7. Scaffold working memory with images, objects, letters, and words.
8. **Target specific parts of a scope-and-sequence to focus instruction.**
9. **Use data to guide instruction and adaptation.**
10. Involve **service providers** and family members.
Tip #2 Ensure you have a clear picture of the student’s current level of functioning and set meaningful, measurable goals.

- phonemic awareness and decoding/encoding skills
- sight word skills
- fluency
- listening and/or reading comprehension skills
- behavioral or learning challenges
## Overview of Instructional Strands

(Allor & Chard, 2011)

<table>
<thead>
<tr>
<th>Overview of Instructional Strands</th>
<th>K</th>
<th>1</th>
<th>2</th>
<th>3 and up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phonological Awareness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segmenting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Word Recognition/Phonics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letters, Sounds &amp; Combinations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sounding Out Strategy (sound &amp; blend)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simple Spelling (segment &amp; spell)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More Complex Spelling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irregular, High-Frequency Words</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multisyllabic Words</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fluency</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumulative Review of Word Recognition Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passage Fluency</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vocabulary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comprehension</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tip #8 Target specific parts of a scope and sequence to focus instruction

- phonemic awareness and decoding/encoding skills
  - e.g. specific letter sound correspondences (a, t, m, s, f), decoding and spelling words made up of those sounds (sat, fat)

- sight word skills
  - small set of targeted sight word
  - cumulative review

- listening and/or reading comprehension skills
  - Sorting words related to stories based on meaning
Focus on Key Skills: Phonemic Awareness

Applying Research

• Focus on Blending and Segmenting
  – Blending -- teacher says sounds one at a time and child says word
  – Segmenting – teacher says word and child says sounds one at a time
  – TIP: Stretch and Connect

• Link PA and Letter-sound knowledge to Decoding and Encoding
  – When teaching letter-sounds, stretch continuous sounds
  – When teaching PA Blending, model stretch and connect
  – Model and teach explicit transfer of these skills when sounding out words and spelling
NRP Findings: Phonemic awareness

- 52 experimental studies
- Teaching PA is **highly effective** with learners across a range of grade and age levels.
- **Systematic** PA instruction improves children’s reading and spelling skills.
- About 18 hours of phonemic awareness instruction was enough for most children.
- Phonemic awareness instruction was most effective when it was **kept simple** (not too many different skills) and when it **included letters**.
- Key skills are blending and segmenting.
Tip #9 Use data to guide instruction

- phonemic awareness and decoding/encoding skills
  - e.g. specific letter sound correspondences (a, t, m, s, f), decoding and spelling words made up of those sounds (sat, fat)
- sight word skills
  - small set of targeted sight word
  - cumulative review
- listening and/or reading comprehension skills
  - Sorting words related to stories based on meaning
Progress Monitoring

• Example Measures
  – Dynamic Indicators of Basic Early Literacy Skills
  – EasyCBM
  – AimsWeb

• IRIS Resource for learning more about CBM:

• National Center on Intensive Interventions
  – http://www.intensiveintervention.org/

• The ABCs of CBM (Hosp et al., 2007)
## Research on CBM

http://iris.peabody.vanderbilt.edu/module/gpm/

<table>
<thead>
<tr>
<th>Authors</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuchs, Butterworth, &amp; Fuchs (1989)</td>
<td>The students of teachers who use CBM to guide their instruction achieve higher grades than do students whose teachers do not.</td>
</tr>
<tr>
<td>Marston, Diment, Allen &amp; Allen (1992)</td>
<td>Parents who received CBM data reported better communication with the teacher.</td>
</tr>
<tr>
<td>Fuchs, Fuchs, &amp; Hamlett (1993)</td>
<td>Teachers who use CBM plan more effective instruction than those who do not.</td>
</tr>
<tr>
<td>Davis, Fuchs, Fuchs &amp; Whinnery (1995)</td>
<td>Students are more aware of their performance and view themselves as more responsible for their learning than students not exposed to CBM.</td>
</tr>
<tr>
<td>Good, Simmons, &amp; Kameenui (2001)</td>
<td>CBM can be used to predict success in traditional high-stakes assessment.</td>
</tr>
</tbody>
</table>
Republication of “Curriculum-Based Measurement: A Standardized, Long-Term Goal Approach to Monitoring Student Progress”

Lynn S. Fuchs, Douglas Fuchs, and Carol L. Hamlett

Intervention in School and Clinic 2015, Vol. 50(3) 185–192
© Hammill Institute on Disabilities 2014
Reprints and permissions: sagepub.com/journalsPermissions.nav
DOI: 10.1177/1053451214531736
isc.sagepub.com
Data-based Decision Making Approach

• Most recent issue of Teaching Exceptional Children highlights an approach called “data-based decision making”

• See Lemons et al. 2014 for example in reading.

• Additional resources on www.intensiveintervention.org

• Approach is aligned with the idea that special educators are expert, clinical teachers.
Questions and Discussion
Resources
Possible Programs

- **Early Interventions in Reading**
  - Struggling 1st grade readers
  - English Language Learners
  - Low IQ/intellectual disability

- **Early Literacy Skills Builder**
  - Students with ID, including students who are nonverbal (Browder et al., 2012)

- **Road to Reading**
  - Struggling readers
  - Students with Down Syndrome (Lemons et al., 2012)

- **Sam and Friends** (Allor et al., in review)
• For students with ID
  – may want to begin with sight word program, but integrate letter-sound and phonics instruction into these programs as early as possible.
  – Excellent overviews of literacy interventions for students with moderate to severe disabilities are Teaching Students with Moderate and Severe Disabilities, Browder & Spooner (2011) and More Language Arts, Math, and Science…. (2014) [Available on Amazon]
More on Feedback and Support

- **Time delay prompting** includes the use of a prompt, or cue, after allowing the student a pre-determined amount of time to pronounce a word correctly. (prevents random guessing and practice of incorrect answer)

- **Tangible reinforcers** are desired objects given to the learner following a desired response (i.e., sounding out a word quickly, recognizing a word by sight, improving their rate of reading).

http://www.pbis.org/
http://iris.peabody.vanderbilt.edu/resources.html
Using Academic Progress Monitoring for Individualized Instructional Planning

This webinar was presented by Dr. Rebecca Zumeta, Coordinator of Technical Assistance and Product Development for the National Center on Intensive Intervention (NCII), on March 28, 2013. During the webinar, Dr. Zumeta discussed various approaches to progress monitoring, focusing on the value and implications of using progress monitoring to track the growth of students with intensive academic needs. The webinar provides a step by step walk through of the process for using progress monitoring data to make instructional decisions for individual students and provides student level examples.

Developed By: National Center on Intensive Intervention

- PowerPoint Slides
- Question and Answer Document
- Transcript