

Reading Profiles as a Basis for Assistive Technology Decision-Making

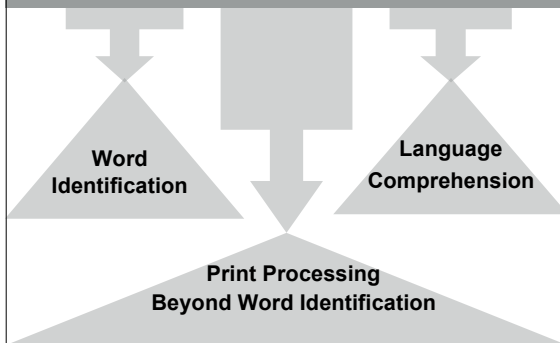
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2009 Bridges to Learning Pre-conference

Assistive Technology Decision-Making in Literacy

- SETT Framework (Zabala)
 - "A guideline for gathering data in order to make effective assistive technology decisions. The SETT Framework considers first, the STUDENT, the ENVIRONMENT(S) and the TASKS required for active participation in the activities of the environment, and finally, the system of TOOLS needed for the student to address the tasks."
- Favor tools that promote continued learning rather than merely supporting participation.

Silent Reading Comprehension



The Assessment Process

- Complete a Whole-to-Part Reading Assessment using an informal reading inventory
 - Students:
 - read words individually
 - read passages silently and respond to open-ended questions presented orally WITHOUT looking back at the passage.
 - listen while an adult reads a passage and respond to open-ended questions presented orally.

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Whole-to-Part Reading Assessment

- **Step 1:** Assess Word Identification
- **Step 2:** Assess Listening Comprehension
- **Step 3:** Assess Silent Reading Comprehension

Assessing Word Identification

- Automatic Word Identification (Flash):
 - Assessed using words from graded word lists printed on index cards.
 - Words are flashed for less than 1/3 of a second.
 - 1 point for each word read when flashed.
- Mediated Word Identification (Analysis):
 - Assessed using words that were not read accurately in the flash mode.
 - Students can look at word for 3-5 seconds.
 - 1/2 point for each word read with analysis.
- 17 point total to go on to next level.

Listening Comprehension

- Assess using graded passages from the Informal Reading Inventory.
- Read the passage aloud to the student.
 - Read it one time, beginning to end.
 - Do you best "teacher read aloud" - good prosody & speed
 - Do not allow the student to follow along or otherwise see the text.
- Ask the student questions orally and write down oral responses
- Go up and down levels until you reach the highest level at which student is 80% accurate with questions.

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Silent Reading Comprehension

- Assess using graded passages from the Informal Reading Inventory.
- Ask student to read the passage "to yourself."
- Take the passage away from the student when finished reading.
- Ask the student questions orally and write down oral responses.
- Go up and down levels until you reach the highest level at which student is 80% accurate with questions.

D'Maggio

What is preventing D'Maggio from reading silently with comprehension 1 grade level higher?

	Word Identification	Listening Comprehension	Silent Reading Comprehension
Fall	Primer	Pre-Primer	Pre-Primer

Solone

What is preventing Solone from reading silently with comprehension 1 grade level higher?

	Word Identification	Listening Comprehension	Silent Reading Comprehension
Fall	6	4	3

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Daniel

What is preventing Daniel from reading silently with comprehension 1 grade level higher?

	Word Identification	Listening Comprehension	Silent Reading Comprehension
Fall	Primer	1	1

Filiberto

What is preventing Filiberto from reading silently with comprehension 1 grade level higher?

	Word Identification	Listening Comprehension	Silent Reading Comprehension
Fall	1	7	2

Profile 1

- What is preventing students with this profile from reading silently with comprehension one level higher?

	Word Identification	Listening Comprehension	Silent Reading Comprehension
Fall	3	3	1

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Print Processing as an Area of Instructional Need

- What does the reading instruction need to address?
 - Fluent reading with prosody.
 - Improved control over eye-movements.
 - Wide silent reading of easy texts.

NAEP's Integrated Reading Performance Record Oral Reading Fluency Scale

Level 4 - Reads primarily in large, meaningful phrase groups. Although some regressions, repetitions, and deviations from text may be present, these do not appear to detract from the overall structure of the story. Preservation of the author's syntax is consistent. Some or most of the story is read with expressive interpretation.

Level 3 - Reads primarily in three- or four-word phrase groups. Some smaller groupings may be present. However, the majority of phrasing seems appropriate and preserves the syntax of the author. Little or no expressive interpretation is present.

Level 2 - Reads primarily in two-word phrases with some three- or four-word groupings. Some word-by-word reading may be present. Word groupings may seem awkward and unrelated to larger context of sentence or passage.

Level 1 - Reads primarily word-by-word. Occasional two- or three-word phrases may occur – but these are infrequent and/or they do not preserve meaningful syntax.

• Note. From Listening to Children Read Aloud (p. 15), by U.S. Department of Education, National Center for Education Statistics, 1995, Washington, DC; Author. Available at <http://nces.ed.gov/pubs95/web/95762.asp>

Typical Words Per Minute Criteria for 50th Percentile in Spring

- 1st grade (2nd half) - 53 wpm
- 2nd grade - 89 wpm
- 3rd grade - 107 wpm
- 4th grade - 123 wpm
- 5th grade - 139 wpm
- 6th grade and higher - 150 wpm

Hasbrouck, J. & Tindal, G. A. (2006). Oral reading fluency norms: A valuable tool for reading teachers. *The Reading Teacher*, 59(7), 636-644.

www.med.unc.edu/ahs/clds

May 7, 2009

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Strategies that Address Fluent Reading with Prosody: Independent Reading

- Wide access to easy to read texts
- Making **difficult books** more accessible
 - Let the children choose their books and interact
 - Read the difficult books aloud to them
 - Partner the children based on levels
 - Provide opportunities as difficult material gets easier each time it is read
 - Use easier books to build background knowledge

Strategies that Address Fluent Reading with Prosody: Independent Reading

- Make **easy books** more acceptable
 - Model the use of easy books
 - Have older children read these books to younger buddies
 - Allow children to make MP3 recordings of books for younger grades
 - Make nonfiction books readily available

Strategies that Address Fluent Reading with Prosody: Daily Writing

- Writing promotes fluency in reading
- Lots of writing helps children become better decoders and spellers
- Invented spelling is important but not for high frequency words
- Establish a daily writing time

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Strategies that Address Fluent Reading with Prosody: Echo and Choral Reading

- Echo Reading
 - Usually one sentence at a time
 - Short, easy text which has only one sentence on a page
 - Fun to do with different voices
 - Maybe do it with plays
- Choral Reading
 - Everyone reads together

Strategies that Address Fluent Reading with Prosody: Repeated Reading/Listening

- Reading along with an auditory version of a passage
- Allow the student to read and listen to the selection at school and/or home
- Find a selection that is not too long or difficult
- Practice until the student can read the passage fluently without the model

Strategies that Address Fluent Reading with Prosody: Readers' Theater

- The oral presentation of drama, prose, or poetry by two or more readers
- Lines are read NOT memorized
- Select an appropriate text or work with students to write one
- Students first read the entire text silently or via choral reading then choose their parts

(Vacca, Vacca, Gove, Burkey, Lenhart, McKeon, 2003)

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Strategies that Address Fluent Reading with Prosody: Two Voice Poems

Voice 1 (Little Brother)

I am the little brother.

Playing with toys is what I do
best.

Mom yells at you
much more than me!

When I am your age,

I will earn much better grades
than you.

Mom loves me more
than you!

Voice 2 (Big Sister)

I am the older sister.

Talking on the phone is what I
do best.

When I was your age,

School was so much harder
than it is now.

What materials will be most useful?

- Song lyrics: www.lyrics.com
- Short, easy texts
- Short stories and books that can be read multiple times
- Teacher made texts
- Texts made up of predominantly high frequency words
- <http://tarheelreader.org>

Assistive Technology Implications for Students who have Print Processing as a Relative Weakness

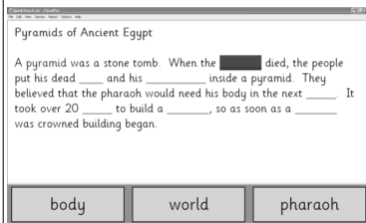
- High quality digitized reading models not synthesized.
- No word-by-word highlighting with talking word processors & screen readers.
- Large selection of easy-to-read texts for reading.

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ClozePro: A Proxy for Oral Reading Fluency



You select:

1. Number of choices
2. Frequency of blanks
3. Number of sentences to leave intact
4. Type of words for choices

Co:Writer to Support Daily Writing

- Use Predict Ahead
 - Support correct use of homophones
- Use Sentence Window
 - Encourage selecting words from list

High Quality Recorded Texts

- Need digitized speech to provide appropriate model of prosody.
 - Start-to-Finish® libraries
 - Record fluent readings texts

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Profile 2

- What is preventing students with this profile from reading silently with comprehension one level higher?

	Word Identification	Listening Comprehension	Silent Reading Comprehension
Fall	2	2	2

Language Comprehension as an Area of Instructional Need

- What do they need?
 - Improved vocabulary.
 - Improved receptive language/knowledge of the world.
 - Explicit instruction to help link new information to known.
 - Access to a broad range of texts and text types.
 - Explicit instruction to improve understanding of the relationship between questions and answers in reading.

Connections, not Definitions

wa·ter / 'wɒtər, 'wɒtər/ –noun

1. a transparent, odorless, tasteless liquid, a compound of hydrogen and oxygen, H₂O, freezing at 32°F or 0°C and boiling at 212°F or 100°C, that in a more or less impure state constitutes rain, oceans, lakes, rivers, etc.: it contains 11.188 percent hydrogen and 88.812 percent oxygen, by weight.
2. a special form or variety of this liquid, as rain.

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Before, During and After Comprehension Lessons

1. Before
 - a) Build or activate background knowledge (includes personal connection-making)
 - b) Set a clear purpose for Reading/Listening (can reflect text structure, task structure and/or content)
2. During
 - a) Reading/listening for bulk of allocated time
3. After
 - a) Complete a task directly related to the stated purpose
 - b) Follow-up and feedback

Reading or Listening Comprehension: Not in This House

- Before Reading
 - Teacher provides examples of some rules at home.
 - Finish dinner before dessert.
 - Make bed first thing in the morning.
 - Think, pair, share
 - Think: Students think about the rules in their own homes.
 - Pair: Students work with a partner about their rules.
 - Share: Teacher works with whole group to record the rules they describe on chart paper.

Purpose:

- The teacher tells the students:

“Listen while I read so that you can tell me which of the rules on our list are rules the boy in this story must follow.”

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After Reading

- Remember, you were listening while I read so that you can tell me which of the rules on our list are rules the boy in this story must follow.
- Read each rule on the list and decide which ones were rules the boy had to follow.
- Follow-up by going back to the book to check student responses on the list whether they were right or wrong.

Directed Reading-Thinking Activity (DR-TA) (Stauffer)

- Students look at title or pictures and PREDICT story
- Students READ to a predetermined stopping place
- Students PROVE the accuracy of their predictions and modify or make new predictions

Question-Answer-Relationships QAR (Raphael)

- Introduce the 2 categories: "In the Book" and "In My Head"
- Define 4 types of questions:
 - **In the Book QARS**
 - Right There: The answer is easy to find in the text.
 - Think and Search: The answer is in the text, but you have to put together different parts.
 - **In My Head QARS**
 - Author and You: The answer is not in story. Readers need to think about what they already know, what the author tells them, and how it fits together.
 - On My Own: The answer is not in story. Readers can answer without reading the story based on own experiences.

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Jack and Jill Example

Jack and Jill went up the hill to fetch a pail of water.
Jack fell down and broke his crown.
Jill came tumbling after.

- Who went up the hill? (Right There)
- What happened after Jack broke his crown? (Think and Search)
- Why do you think Jack fell down? (Author and You)
- Have you ever had to walk a long way to get something like water? (On Your Own)

Assistive Technology Implications for Students with Language Comprehension as a Relative Weakness

- Carefully selected texts for screen readers.
- Vocabulary supports beyond definitions.
- Anchored instruction (e.g., video & other multimedia sources) with release of responsibility over time.
- Graphic organizing and planning tools to support reading and writing.

Carefully selected texts for screen readers & digitized texts

- Readers & listeners must know at least 95% of the words they encounter in text in order for basic comprehension to occur (Hu & Nation, 2000; Laufer, 1989, 1997; Liu & Nation, 1985; Wixson & Lipson, 1991).

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Vocabulary supports beyond definitions

- Limited access to text for reading and listening has a negative impact on vocabulary development.
 - School-aged students learn ~3,000 new words each year (Miller & Gildea, 1987; Nagy & Herman, 1987; Nagy, Herman, & Anderson, 1985).
 - After 3rd grade, most of new words are acquired through reading Nagy, 1988; Nagy & Herman, 1987) .
 - Speech is not a substitute for reading/listening to text because speech does not have the lexical diversity of written language (Stanovich, West, Cunningham, Cipielewski, & Siddiqui, 1996).
 - Diversity of text types (breadth and depth) is required to maximize vocabulary development (Gardner, 2004).

Anchored instruction (e.g., video & other multimedia sources) with release of responsibility over time

- Read 180 (Scholastic)
- Incite Videos (Don Johnston)
- United Streaming

Graphic organizing and planning tools to support reading and writing

- Difficulty Generating or Understanding the Relationship Among Ideas:
 - Inspiration
 - Open-ended mapping software
- Difficulty Organizing Ideas:
 - Draft:Builder
 - Structured planning software
- Difficulty Identifying Important Ideas
 - Draft:Builder + Read:Outloud

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Profile 3

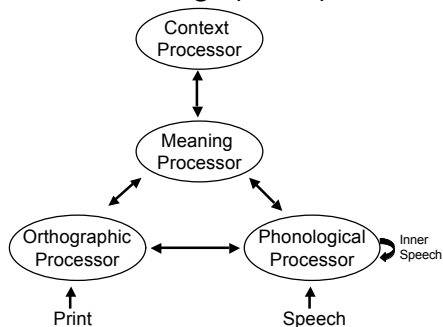
- What is preventing students with this profile from reading silently with comprehension one level higher?

	Word Identification	Listening Comprehension	Silent Reading Comprehension
Fall	1.0	6.0	2

Word Identification as an area of instructional need

- What do they need?
 - Continued access to grade level materials to keep building their relative strength in language comprehension.
 - Explicit word identification instruction - most likely not phoneme-by-phoneme, Direct Instruction approaches.
 - Wide access to easy-to-read text to build automaticity.

Adams' Model of Single Word Reading (1990)



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Visual Word Sorts

- Visual word sorts emphasize the orthographic processor.

at	pick
fat	lick
bat	sick
eat	

- Step 1:** Select two key words the student knows that have a common spelling pattern (at - pick)
- Step 2:** Make sure student can read the two key words.
- Step 3:** Show student a word that has the same spelling pattern as one of the key words.
- Step 4:** Ask the student to indicate which key word has the same spelling pattern as the new word. Compare/Contrast the two words.

Auditory Word Sorts

- Word sorts begin to engage the phonological processor when students begin to sort words based on the way they sound prior to checking the visual pattern.
- Step 1:** Select two key words the student knows that have a common spelling pattern (at - pick)
- Step 2:** Make sure student can read the two key words.
- Step 3:** Tell the student a word that has the same spelling pattern as one of the key words.
- Step 4:** Ask the student to indicate which key word has the same spelling pattern as the new word.
- Step 5:** Show the student the new word and compare/contrast it with the selected key word to check.

Spelling Word Sorts

- Guiding students to use the selected key word to try to spell the words prior to checking the response visually engages the phonological processor even more deeply.
- Step 1:** Select two key words the student knows that have a common spelling pattern (at - pick)
- Step 2:** Make sure student can read the two key words.
- Step 3:** Tell the student a word that has the same spelling pattern as one of the key words.
- Step 4:** Ask the student to indicate which key word has the same spelling pattern as the new word.
- Step 5:** Ask the student to try to use the key word to spell the new word.
- Step 6:** Show the student the new word and compare/contrast it with the student's spelling attempt correcting as necessary.

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37 Common Rimes

(Wylie & Durrell, 1970)

ack	ap	est	ing	ot
ail	ash	ice	ink	uck
ain	at	ick	ip	ug
ake	ate	ide	it	ump
ale	aw	ight	ock	unk
ame	ay	ill	oke	ank
an	eat	in	op	ell
ine	ore			

Aa after and*	Bb because	Cc can*	Dd did down	Ee eat	Ff friend	Gg good
Hh have	Ii in*	Jj jump	Kk kick	Ll like* little	Mm make* made	Nn nice*
Oo out	Pp play* people	Qq quick	Rr rain*	Ss said	Tt the they	Uu us
Vv	Ww	Xx	Yy	Zz teacher		

The Word Wall

- Typically 5 new words are added each week
 - Some teachers in self-contained may find that they can only add 3 each week given the complexity of their students' needs
 - For beginning readers, the words include the 37 key words, sight words that can't be decoded (e.g., was), and other words that are personally meaningful to the class (e.g., school mascot)
- Words are placed alphabetically by first letter and remain in the same place throughout the year
- Teach the meaning of the words and then spell the words by clapping, chanting and then writing
- Complete daily activities to teach the words and how they can be used to read and spell other words
- Refer to the wall throughout the day to encourage its use

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Some Word Wall Activities

1. Dictate sentences using only Word Wall Words
2. Spell word wall words that share a spelling pattern with the rhyming words
 - "I'm thinking of a word that starts with l and rhymes with hike."
3. Add Endings To Words
 - add the ending "s" to make rains, then "ed" to make rained, then "ing" to make raining.
4. Play I Spy
 - I am thinking of a word on the wall. It has 4 letters. It is on a yellow card. It rhymes with the word pain. The word is ...

Compare/Contrast

- Give students cards with three or four key words they can already read written on them (e.g., can, make, nice, play).
- Write a sentence on the board with an underlined word that shares an ending with one of the words the students have on cards.
- The task for the students is to identify which word they have would help them read the underlined word.

Making Words

1. Name Letters & Sounds

a d n s t

2. Making Words

a at an sat

3. Word Sort

sad sand and

4. Transfer

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Sorting and Transfer

- **Sorting**
 - Refocuses students on the words they've made.
 - Find all the words you made that: (1) have the same beginning sound (2) have # letters (3) share a spelling pattern
- **Transfer**
 - Gets students to use what they've learned to do something they haven't been taught directly.
 - Use the words you made to help you spell a new word that: (1) starts with the same sound (2) ends with the same sound (3) shares the spelling pattern

Guess the Covered Word (Cross-checking)

- Write a sentence on the board covering one word with two sticky notes.
- Read the sentence and students suggest words that could fill in the blank. Record each of the words suggested.
- Uncover the initial consonant and modify list accordingly. Add other possibilities.
- Take off the 2nd sticky note to see which is the correct word.

Assistive Technology Implications for Students with Word Identification as a Weakness

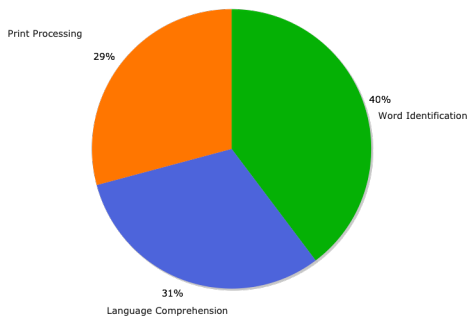
- Alternate access to grade-level text via screen readers.
- Single-word reading supports in ability-appropriate texts.
- Word prediction that supports spelling, builds upon relative strength with language, and can be programmed to address the discrepancy between spelling and language production.
- Instructional technologies that complement teacher-directed instruction.

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Instructional and AT Decisions
May Change Year-to-Year as
Students' Reading Profiles
Change

2007 - 2008 Area of Greatest Need



2008 - 2009 Area of Greatest Need

