

Student Assessment and Research-Informed Practice

Student Reading Profiles

The best way to help students make significant improvements in a limited amount of time is to target instruction to the specific areas or skill sets most responsible for their literacy problems. In order to do that, the sub skills must be assessed separately. It can't be stressed enough how important it is to diagnose and get an accurate picture of the underlying factors that contribute to students' literacy challenges, as well as their relative strengths.

A student's **reading profile** combines information from tests of the four different strands or components of reading. A reading profile creates a picture of an individual student's relative strengths and needs. It can be used diagnostically to drive instructional emphasis and design.

The National Institute for Literacy recommends assessing, at a minimum, the following five literacy sub skills to create a student's reading profile:

1. Word recognition (**Alphabetics**)
2. Spelling (**Alphabetics**)
3. Oral reading rate (**Fluency**)
4. Word meaning (oral expressive **Vocabulary**)
5. Silent Reading **Comprehension**

As an instructor, you are urged to gather assessment data on these same sub skills for your students. Test scores coupled with information on such factors as language background, educational history, and present literacy activities will allow you to create their personal reading profiles. These reading profiles should be the driving force behind instruction, rather than "shot in the dark" or "one size fits all" approaches.

The National Institute for Literacy provides information on how to obtain scores for all of the above mentioned reading components, as well as other reading sub skills. The Institute also provides a useful student background questionnaire. Follow this link for more information on conducting specific reading component assessments:

www.nifl.gov/readingprofiles

11 Sample Profiles

In order to assist adult literacy instructors, the National Institute for Literacy has also created 11 "sample profiles" of adult learners. The 11 sample profiles are based on a very large sampling of adult students' relative scores on the literacy components tests and their responses on background questionnaires. **Instructors can enter assessment data for their own students on the Institute's website, and match them to one of these 11 existing profiles.** Information is then given for each profile suggesting instructional emphasis and strategies. The profiles vividly and graphically illustrate the wide variety in skill sets of students in adult basic education programs.

For starters, silent reading comprehension grade equivalents (GE) place students in one of four **general** categories, with which most people will already be familiar:

- GE 0-2 Beginning Readers
- GE 3-5 Low Intermediate
- GE 6-8 Intermediate
- GE 9-12 GED

It's what distinguishes the students WITHIN these general categories that really matters, and has powerful implications for instruction.

A revealing illustration on the National Institute for Literacy's website allows you to compare and contrast the reading profiles of 3 different adult learners, all of whom have the same silent reading comprehension score (approx. 8th grade equivalent). In other words they all fall squarely in the upper Intermediate level category. What you will see are markedly different scores on the tests of the *other* literacy components: word identification, spelling, vocabulary and fluency.

Comparing and contrasting these three profiles illustrates the relative importance to certain students (especially dyslexic students) of focusing on decoding and alphabetic principles, while for others vocabulary and comprehension strategies are paramount.

It will take a little time to examine these profiles and to read the background information on the students, but doing so is well worth the effort. To view the comparison of three students' reading profiles follow this link:

http://www.nifl.gov/readingprofiles/MC_Compare_Profiles.htm

Pre- and Post Health Literacy Knowledge Assessment

For adult literacy instructors who plan to use the Health Literacy Materials in their entirety, it is strongly advisable to conduct pre- and post- assessments on students' knowledge, behaviors and attitudes related to health literacy. Even if you do not plan to use all of the material, you are still encouraged to conduct a pre-instruction assessment.

On our website you will find a link to view and print the **Health Literacy Assessment, Answer Key, and Administration Instructions**. This instrument was designed and validated through a lengthy process during the pilot phase of the Testing the Impact of Health Literacy in Adult Literacy and Integrated Family Approach Programs Research Project. The instrument contains health knowledge questions that are specific to these Health Literacy Materials, as well as health intention and self-efficacy questions.

Feedback from literacy instructors in the field indicates that the Health Literacy Assessment, in addition to providing pre- and post-instruction data, is also a valuable pre-instruction tool. Students who complete the pre-assessment say it raised their awareness of how much they didn't know about health topics. Instructors report that conducting the pre-assessment serves as a motivational tool because it generates discussion and focuses students on topics they hope to learn about or realize that they need to learn about.

Research-Informed Practice In the Health Literacy Materials

Seminal work by Susan McShane and John Kruidenier on scientifically-based reading research (SBRR) in teaching adults to read supports the strategies used in the Health Literacy Materials. For more detail, please see McShane’s (2005) *Applying Research in Reading Instruction for Adults: First Steps for Teachers*.

The basic components of the reading process are:

1. Alphabeticity (phonemic awareness and phonological decoding)
2. Fluency
3. Vocabulary
4. Comprehension.¹

A brief description of these four components, including some examples of instructional strategies is provided.

PRINT-BASED COMPONENTS

1. Alphabeticity—This term refers to the skills required to use letters to represent the sounds of language. Alphabeticity skills include both phonemic awareness and phonological decoding.

Phonemic Awareness – the ability to detect and manipulate phonemes (the smallest units of language sounds)

Instructional strategies include:

- Phoneme isolation— Helping students “pull off” the first sound they hear in a word. For example, “What is the first sound in Wednesday?” /w/
- Phoneme sequencing—Helping students recognize and sequence the individual sounds in words. For example, “chill” has 3 phonemes: /ch/ /i/ /l/
- Phoneme blending—Helping students combine a sequence of separately spoken sounds to make a recognizable word. For example, “What is this word: /k/ /o/ /f/?” (cough)

Phonological Decoding (Phonics)- the ability to use letter-sound correspondence to recognize words in print. Phonics is an instructional approach that helps readers decode or pronounce words independently. For beginning level (and many intermediate level) learners, SBRR underscores the effectiveness of combining phonemic awareness and systematic phonics instruction when deficits in these areas are identified.

¹ McShane, S. (2005). *Applying research in reading instruction for adults: First steps for teachers*. National Institute for Literacy, the Partnership for Reading (Washington, DC). Developed for The National Center for Family Literacy and Kruidenier, J. (2002). *Research-based principles for adult basic education: Reading instruction*. National Institute for Literacy, U.S. Department of Education and National Institute of Child Health and Human Development, U.S. Department of Health and Human Services. Washington, DC.

Instructional strategies include:

- Direct, explicit instruction in letter-sound relationships, particularly consonants ('m' says /m/; 'p' says /p/) and digraphs ('sh' says /sh/).
- Practice orally breaking words down into their syllables or beats, to make tackling multi-syllable words easier. For example: pre-scrip-tion (three beats).
- Direct, explicit instruction in common syllable patterns or types, for example consonant-vowel-consonant (leg, hip, neck); vowel-consonant-e (ate, time, nose); r-controlled vowels (arm, hurt); vowel teams ("ai" in nail; "oa" in throat).
- Direct, explicit instruction in common spelling patterns. For example, a lesson might focus on hard vs. soft "c": calendar /k/ vs. city /s/, or on dropping the final 'e' to add 'ing': take, taking
- Direct, explicit instruction in the structural analysis of words: plurals (s, es), verb endings (s, ing, ed), common prefixes (re, un, anti, pre, ex, non)
- Memorization of common, high frequency sight words which don't "play fair" phonetically. For example: the, of, to, was, there, blood, weight.

The Beginning Level Health Literacy Materials <http://healthliteracynetwork.org/materials/> provide opportunities for students to practice phonemic awareness and phonics skills in the context of health-related information. In most sections there are activities in which students practice chunking syllables from 2-syllable (symptom, urgent), 3-syllable (infection, examine), 4-syllable (practitioner, temperature), and 5-syllable words (antibiotics, postoperative). In related phonics activities, students are asked to supply the missing syllable (either orally or in writing) from such words.

Instructors are advised to analyze selected words on the board with students, in order to review and reinforce their phonemic, phonologic and syllabic properties.

Accompanying instructor video clips demonstrate a multi-sensory technique for highlighting vowels by printing them in a different color to assist students in recognizing syllable types and patterns. The video clips also demonstrate how students are encouraged to decode longer words one syllable at a time by underlining syllables in a scooping motion from left to right. (Note: Many of the phonics exercises are based upon knowledge of the Six Syllable Types found in English, as seen in Orton-Gillingham-based explicit language learning programs. The Health Literacy materials are not intended in any way to be a substitute for explicit, systematic language programs; rather it provides activities and exercises for learners and instructors which support such programs.)

Each of the Beginning Level sections also contains a list of sight words. An accompanying video clip demonstrates a multi-sensory technique which students can learn to use to master sight words for reading and spelling. "On sight" or instant recognition of these high frequency words is an essential building block for fluent reading.

2. Fluency—This term refers to the ease, accuracy, and expression of reading. Fluent readers are skilled at identifying words and can read with appropriate phrasing and intonation.

Instructional strategies include:

- Reading to the instructor—learner reads aloud; instructor provides help as needed.
- Echo reading—instructor reads a sentence and the learner repeats it, imitating phrasing.
- Dyad and choral reading—instructor and learner read same passage aloud at same time. Instructor provides a model for fluent and expressive reading.
- Paired or partner reading—pairs of learners take turns reading and re-reading the same passage.
- Tape-assisted reading—learners can work independently, reading along while listening to a page on tape.

The Health Literacy Materials provide short health-related reading passages in each section. Using the strategies above with these texts will assist readers to become more fluent, which will in turn assist with comprehension.

MEANING-BASED COMPONENTS

3. Vocabulary—This term refers to knowledge of word meanings—including oral vocabulary and reading vocabulary. Levels of vocabulary differ-- from not knowing a word, to recognizing a word, to knowing something about the word and relating it to a situation, to knowing the word well enough to explain and use it. Knowing the meaning of words and concepts is critical to understanding the writer’s message.

Instructional strategies include:

- Pre-teach words. Find unfamiliar words and introduce them to the learners.
- Ensure multiple exposures. Use words that are relevant.
- Teach word analysis, for example: common prefixes, suffixes and roots.
- Model how to use context clues (using nearby words to help identify or define the word).
- Teach “Signal words,” for example: therefore, but, however;
- Teach idioms, for example: couch potato, gung-ho, cold turkey, run down
- Teach subject-matter words specific to the material, for example: x-ray, paramedics, vomiting, hepatitis, vaccine, glucose, insulin, immunizations.

The Health Literacy materials include Core Vocabulary words directly related to health issues in each section. Basic illustrations are provided for all of the Core Vocabulary words and

terms. The illustrations are grouped thematically. These visual cues are designed to strengthen students' vocabulary development and comprehension.

Many students may already be familiar with the meanings of these words, but may not necessarily be able to read them. Therefore, instructors are encouraged to make a quick oral check of students' knowledge and only teach terms that are not already in their students' oral vocabularies. Ample opportunities are provided for students to practice Core Vocabulary words and see them in use in the texts and cloze exercises. Flashcards showing graphics of all Core Vocabulary terms, both with and without the corresponding labels, are provided for ESL students.

The materials also include Supplemental Vocabulary Words. These are words which appear in the Supplemental Activities, and may include both medical terms (e.g. colonoscopy, lipid, hypertension), and words which are not necessarily health related (e.g. hype, consumers, bombarded). Definitions are provided for the medical terms to assist instructors who may be asked to explain them.

4. Comprehension—This term refers to accurately understanding what you read. Good readers are active and intentional, constructing meaning from the text and their own prior knowledge. Comprehension involves interacting with the text. Comprehension depends on the other components—alphabeticity, fluency and vocabulary.

Instructional strategies include:

- Comprehension Monitoring—help learners monitor their understanding and identify areas when comprehension breaks down, such as when they don't know a word. Instructors can ask learners to restate, ask questions, and take notes.
- Graphic Organizers—diagrams or charts that visually represent the relationship of ideas and information. For example, family trees, time lines, cause and effect relationships.
- Discussing Story Structure—the who, what, where, when, how; characters, setting, problem.
- Question and Answering—Teachers ask questions during and/or after reading. Questions can be factual, inferential, or drawing conclusions. Post-reading questions can ask learners to relate. *For example, "Can you relate to her experience? Do you read medicine labels? What would you do if you didn't fully understand them?"*
- Question Generating—Learners ask and answer questions about their own learning. Teachers can prompt this. For example, prior to the section on Preventive Care, ask "Why might someone (including you or your family members) go to a health professional when they **aren't sick?**" or prior to the section on Emergencies, "Have you or anyone you know ever had a health emergency? What was the emergency? What did people do to help the patient?"

- Summarization—contains the essential ideas of a longer passage. The intent is to help the learner identify the main idea of a paragraph or section. There are numerous strategies for summarization. Discussion after reading allows learners to identify the main ideas. Modeling think-aloud is a good way to help learners identify the main idea.

The Health Literacy Materials provide many opportunities for learners to improve their comprehension skills. Reading passages begin with questions that serve as advanced organizers. Numerous examples of guided reading strategies are provided in the Instruction Guide to make sure students are actively involved in the reading process. Each section provides questions for discussion that invite the learner to relate to personal experience and involve higher level thinking skills.

References and Resources

The National Institute for Literacy has recently published two publications on research-based adult reading instruction:

Teaching Adults to Read: A Summary of Scientifically Based Research Principles
(link: http://www.nifl.gov/publications/pdf/teach_adults.pdf)

The summary focuses on findings from the scientific literature on teaching adults to read. References to research in the Health Literacy Instruction Guide are primarily taken from this publication.

Applying Research in Reading Instruction for Adults: First Steps for Teachers
(link: <http://www.nifl.gov/publications/pdf/applyingresearch.pdf>)

Designed for teachers and tutors, First Steps provides ideas and examples of how to use research-based instructional approaches in the adult education classroom.

Also of interest are the National Institute for Literacy archived webcasts -
“From Assessment to Practice: Research-Based Approaches to Teaching Reading to Adults”
– Part 1: Alphabets and Comprehension” (September 28, 2007)

<http://www.nifl.gov/nifl/webcasts/assesspractice/webcast0928.html>

and

– Part 2: Fluency and Vocabulary” (January 11, 2008)

<http://www.nifl.gov/nifl/webcasts/assesspractice2/webcast0111.html>