

About Reading and Its Improvement: An Example of Evidence-based Practice

Sources

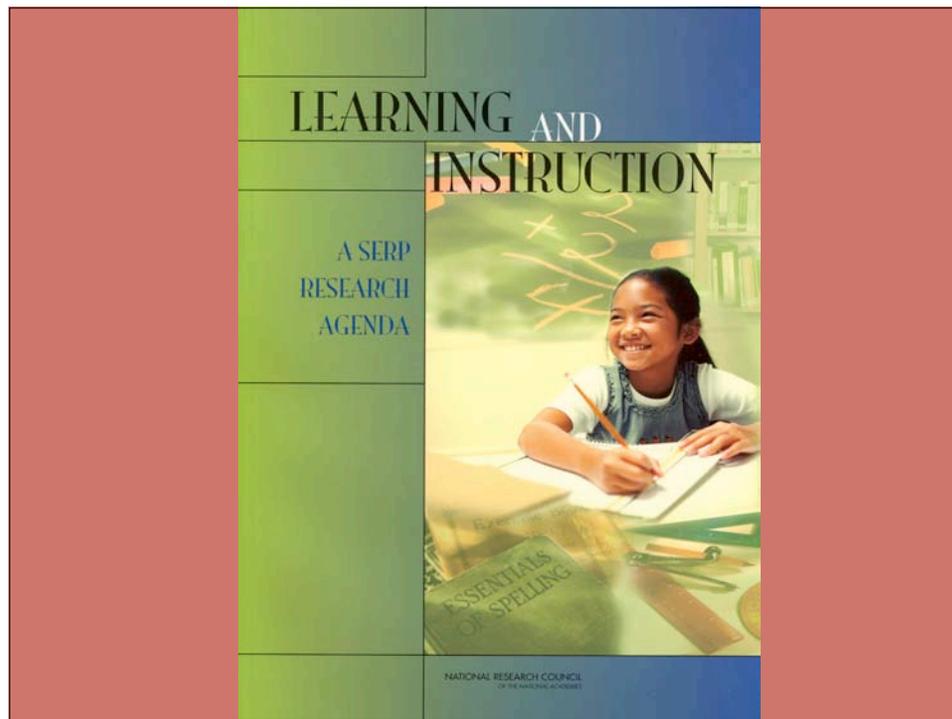
*Preventing Reading Difficulties in
Young Children*, NRC, 1998

Report of the National Reading Panel,
NIH, 2000

*Report of the Rand Reading Research
Group*, 2002

Overview

- The “useable” knowledge issue
- An example of what we know:
Decontextualized Language
- Curriculum components for reading: 1-3
- About phonics instruction
- What’s needed
- Understanding the components of text
comprehension



Does “Usable Knowledge” for teaching literacy exist?

- Positive results for 18-20 hours of phonological awareness teaching (NRP).
- Positive effects of systematic phonics teaching (NRP).
- Positive effects of rich vocabulary instruction (NRP, Beck, Carlo et al.).
- Positive effects of exposure to rich array of high-quality reading materials
- Positive effects of explicit comprehension instruction

Why is this “Usable Knowledge” not being generally used?

- ❏ Coordinating and integrating attention to all those elements is not easy
- ❏ Curricula are produced under pressure to emphasize one or another, not all elements.
- ❏ Teacher preparation and support are inadequate.
- ❏ Organizational structures to support sustained and integrated literacy instruction are not in place.
- ❏ Accountability systems sometimes emphasize inappropriate goals.
- ❏ Instructionally useful assessments and information about their interpretation are not widely in use. 

Decontextualized Language Instruction in the Early Years

- ❏ Links between decontextualized language and literacy have been made by Dickinson and his colleagues in a longitudinal study of 85 children from low-income families started in 1987 (Dickinson and Tabors, 2001; Dickinson and Sprague, 2001).
- ❏ Significant *prekindergarten* variables that influenced literacy development were quality of teachers' talk, and curriculum quality.
 - ❏ Quality of teacher talk was measured in rare word usage, ability to listen to children and to extend their comments, and tendency to engage children in cognitively challenging conversations (i.e., conversations about nonpresent topics).

Decontextualized Language (cont)

- █ Prekindergarten variables of quality of teacher talk, vocabulary environment, and curriculum quality predicted kindergarten outcomes above and beyond home variables, thereby emphasizing the importance of instruction in literate language and a quality emergent literacy curriculum in preschool classrooms for children from low-income homes.
- ⌘ Composite variables that significantly influenced *kindergarten* literacy and vocabulary scores were: home variables of literacy support, density of rare words used, and extended discourse.
- ⌘ Kindergarten outcomes in turn, predicted vocabulary and reading comprehension scores in middle school (Dickinson and Sprague, 2001). 

Curriculum Components for Reading Instruction: Grades 1-3

- █ Beginning readers need explicit instruction and practice that lead to an appreciation that spoken words are made up of smaller units of sounds, familiarity with spelling-sound correspondences and common spelling conventions and their use in identifying printed words, “sight” recognition of frequent words, and independent reading, including reading aloud.
- ⌘ Fluency should be promoted through practice with a wide variety and well-written and engaging texts at the child’s own comfortable reading level.

Curriculum Components (cont)

Children who have started to read independently, typically second graders and above, should be encouraged to sound out and confirm the identities of visually unfamiliar words they encounter in the course of reading meaningful texts, recognizing words primarily through attention to their letter-sound relationships.

- Although context and pictures can be used as a tool to monitor word recognition, children should not be taught to use them to substitute for information provided by the letters in the word.

Curriculum Components (cont)

Because the ability to obtain meaning from print depends so strongly on the development of word recognition accuracy and reading fluency, both of the latter should be regularly assessed in the classroom, permitting timely and effective instructional response when difficulty or delay is apparent.

Curriculum Components (cont)

- Beginning in the earliest grades, instruction should promote comprehension by actively building linguistic and conceptual knowledge in a rich variety of domains, as well as through direct instruction about comprehension strategies such as summarizing the main idea, predicting events and outcomes of upcoming text, drawing inferences, and monitoring for coherence and misunderstandings.
 - This instruction can take place while adults read to students or when students read themselves.

Curriculum Components (cont)

- Once children learn some letters, they should be encouraged to write them, to use them to begin writing words or parts of words, and to use words to begin writing sentences.
- Instruction should be designed with the understanding that the use of invented spelling is not in conflict with teaching correct spelling.
 - Beginning writing with invented spelling can be helpful for developing understanding of the identity and segmentation of speech sounds and sound-spelling relationships.

Curriculum Components (cont)

- Conventionally correct spelling should be developed through focused instruction and practice.
 - Primary-grade children should be expected to spell previously studied words and spelling patterns correctly in their final writing products.
 - Writing should take place regularly and frequently to encourage children to become more comfortable and familiar with it.

Curriculum Components (cont)

- Throughout the early grades, time, materials, and resources should be provided with two goals:
 1. to support daily independent reading of texts selected to be of particular interest for the individual student, and beneath the individual student's frustration level, in order to consolidate the student's capacity for independent reading and
 2. to support daily assisted or supported reading and rereading of texts that are slightly more difficult in wording or in linguistic, rhetorical, or conceptual structure in order to promote advances in the student's capabilities.

Curriculum Components (cont)

- Throughout the early grades, schools should promote independent reading outside school by such means as daily at-home reading assignments and expectations, summer reading lists, encouraging parent involvement, and by working with community groups, including public librarians, who share this goal.



Approaches to Phonics

- Analogy Phonics** – Teaching students unfamiliar words by analogy to known words (e.g., recognizing that the rime segment of an unfamiliar words is identical to that of a familiar word, and then blending the known rime with the new word onset, such as reading brick by recognizing that -ick is contained in the known word kick, or reading stump by analogy to jump).
- Analytic Phonics** – Teaching students to analyze letter-sound relations in previously learned words to avoid pronouncing sounds in isolation.

More on Phonics

- **Embedded Phonics** – Teaching students phonics skills by embedding phonics instruction in text reading, a more implicit approach that relies to some extent on incidental learning.
- **Phonics through Spelling** – Teaching students to segment words into phonemes and to select letters for those phonemes (i.e., teaching students to spell words phonemically).
- **Synthetic Phonics** – Teaching students to explicitly convert letters into sounds (phonemes) and then blend the sounds to form recognizable words.



An adequate literacy curriculum provides...

- Motivation to read, understanding of purposes of literacy
- Grasp and mastery of the alphabetic principle
 - Phonological awareness
 - Letter-sound mapping
 - Strategies for dealing with deep orthography
- Knowledge of vocabulary and linguistic structures
- Background knowledge
- Full array of procedures to support comprehension



Comprehension: Multiple Levels of Processing

- First, there is the linguistic level, the *text* itself. The reader must decode the graphic symbols on a page. Perceptual processes are involved, as well as word recognition and parsing (the assignment of words to their roles in sentences and phrases).

Beyond the Linguistic Level

- Semantic analysis determines the *meaning of the text*. Word meanings must be combined in ways stipulated by the text, forming idea units or propositions. However, there is more to the meaning of a text than word meanings and propositions. The global structure of a text is often crucial for comprehension.
 - Psychologically, these processes involve the determination of the coherence relations among the propositions expressed in a text (which are often, but not always, signaled by linguistic markers). Inferences, such as simple bridging inferences or pronoun identification, are often necessary.

The Macrostructure

- Macrostructures require the recognition of global topics and their interrelationships, which are frequently conventionalized according to familiar rhetorical schemata

Situation Models

- But if a reader only comprehends what is explicitly expressed in a text, comprehension will be shallow, sufficient perhaps to reproduce the text, but not for deeper understanding. For that, the text must be used to construct a ***situation model***, i.e. a mental model of the situation described by the text.
 - Generally, this requires the integration of information provided by the text with relevant prior knowledge as well as the goals of the reader.
 - One important fact to note about the process of constructing situation models is that it is not restricted to the verbal domain. It frequently involves imagery and emotions, as well as personal experiences.

Measuring Recall Alone Does Not Measure Comprehension

- In a study by Mannes and Kintsch (1987) students either read two versions of a chapter: One was well organized and explicit; the other was slightly disorganized and left some things unsaid. When asked to recall the chapter, the well-organized version produced 25 percent more recall.
- However, when understanding was tested by inference questions, the less explicit version was better by 75 percent!
- Making readers draw their own inferences when studying had its benefits, but if measured by a test that merely required them to reproduce the text the reverse would appear true.

Assessment of Comprehension

- Dinosaurs have such a powerful grip on the public consciousness that it is easy to forget just how recently scientists became aware of them. A 2-year-old child today may be able to rattle off three dinosaur names, but in 1824, there was only one known dinosaur. Period. The word “dinosaur” didn’t even exist in 1841. Indeed, in those early years, the world was baffled by the discovery of these absurdly enormous reptiles.
- The statement “Period” in the middle of the paragraph primarily serves to emphasize the:
 - (A) authoritative nature of a finding
 - (B) lack of flexibility in a popular theory
 - (C) stubborn nature of a group of researchers
 - (D) limited knowledge about a subject
 - (E) refusal of the public to accept new discoveries

(example comes from the SAT)

