



Asian: 3.2%

Pacific Islander: 0.0%

American Indian/Alaskan Native: 0.1%

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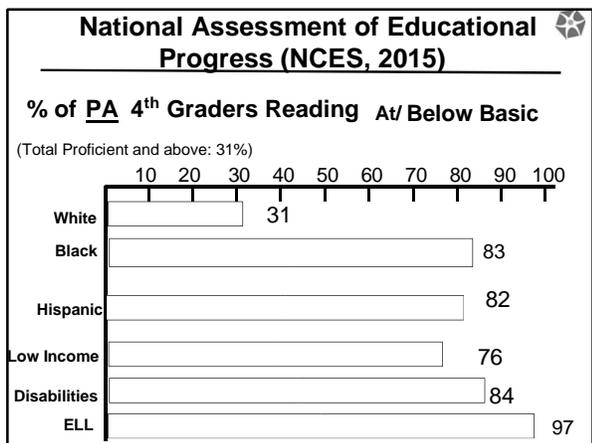
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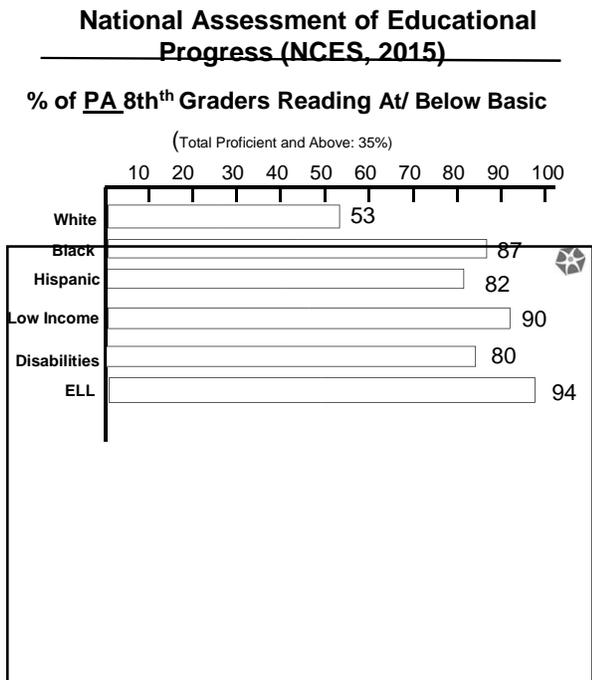
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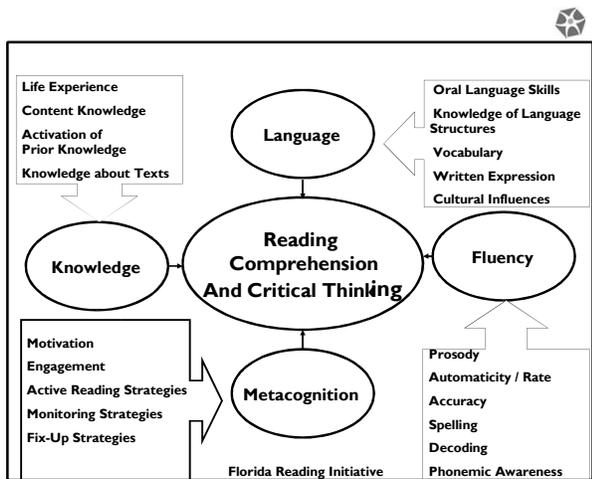
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**What is Dyslexia ?**

All disabilities have biological and social realities that vary with “disorder” and “person”

Dyslexia is a dimensional disability a- It is a variation on normal development

Model is obesity or hypertension, not measles and mumps

Essential aspect of construct is “unexpected underachievement”

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The poorest Readers:

1. **Cannot decode novel words accurately because they are weak in phonemic awareness and phonics skills, and cannot read fluently because their “sight vocabulary” is restricted.**
2. **Frequently have relatively weak vocabularies because of limited language environments or have not been able to read widely at home and in school.**
3. Have not practiced comprehension strategies because of limited reading experience, and because of their struggle with words
4. Frequently have given up on the idea of ever becoming a good reader

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### Reading Comprehension Disabilities

- Most children with word level disorders have comprehension problems
- Subset with intact word recognition and deficient comprehension estimated as high as 5-10%
- More apparent in older children

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### Reading Comprehension

- A student must be able to read approximately 95 percent of the words accurately in text to comprehend what is read.
- **MOREOVER**, to comprehend, a student must know the meanings of 90 to 95 percent of the words being read.

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### What Is Effective Reading Instruction?

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“Reading instruction effectiveness lies not with a

single program or method but, rather, with a teacher who thoughtfully and analytically integrates various program, materials, and methods as the situation demands and a leader that understands the critical importance of implementation fidelity.”

Duffy & Hoffman; Lyon & Weiser, 2009)

- Direct teaching of decoding, comprehension, and literature appreciation; - Phoneme awareness instruction;

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- Systematic and explicit instruction in the code system of written English;
- Daily exposure to a variety of texts, as well as incentives for children to read independently and with others; -

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- Vocabulary instruction that includes a variety of complementary methods designed to explore the relationships among words and the relationships among word structure, origin, and meaning;
- Comprehension strategies that include prediction of outcomes, summarizing, clarification, questioning, and visualization; and
- Frequent writing of prose to enable a deeper understanding of what is read.

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Interventions are more effective when they:

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Provide systematic, INTEGRATED, and explicit instruction on component skills that are deficient

Provide a significant increase in intensity (quantity) of instruction (90 min per day)

Provide ample opportunities for guided practice of new skills

Provide appropriate levels of scaffolding as children learn to apply new skills

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**WHY EARLEY IDENTIFICATION AND PREVENTION?**

-88% Of Students Reading Poorly at the End of the 1st Gr. Will Read Poorly At the End of the 4th Gr. (Juel, 1988)

-Unless Effective Reading Instruction Is Provided, Students Reading Poorly at the End of the 4th Grade Will Have Reading Difficulties For the Rest of Their Lives (Shaywitz et al; 1992; Lyon et al., 2005)

-Preventing Reading Failure Dramatically Increases a Student's Potential to have some Quality of Life, Occupational Opportunities, Economic Status, and Healthy Outcomes.

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**Early Intervention is Possible & EFFECTIVE**



- Risk characteristics present in Kindergarten and G1
- Letter sound knowledge, phonological awareness, oral language development
- Assess all children and INTERVENE- first in the classroom and then through supplemental instruction

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**The Critical Need for Early Intervention**

The research suggests that if intervention is delayed until 9 years of age, approximately 75 percent of children will continue to have difficulties learning to read throughout high school.

Illiteracy or significant reading problems is a consistent factor among school dropouts, incarcerated individuals, and the unemployed & underemployed.

**The Critical Need for Early Intervention  
The Economy:**

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The cost of illiteracy to U.S. businesses and taxpayers is estimated at \$20 billion annually. *(Illiteracy: A National Crisis, United Way of America)*

**Taxes:**  
Nationally, \$5 billion a year in taxes goes to support people receiving public assistance who are unemployable due to illiteracy. *(Laubach Literacy Action)*

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**The Critical Need for Early Intervention** 

**Poverty:**  
75% of food stamp recipients perform at the lowest literacy levels and 90% of welfare recipients are high school dropouts. *(John Corcoran Foundation)*

**Crime:**  
Crime: 66% of students who cannot read proficiently by the end of 4th grade will end up in jail. Prisons cost over \$68 billion a year; 60% of all prison inmates are functionally illiterate. *(Cohen, Piquero, and Jennings)*

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**The Critical Need for Early Intervention**

**Teen Pregnancy:**

- 16 to 19 year old girls at the poverty level and with below-average reading skills are 12 times more likely to have out-of-wedlock children. *(American Public Health Association)*

**Unemployment:**

- Approximately 50% of our nation's unemployed youth, ages 16-19 are functionally illiterate with no prospects of obtaining skilled good jobs with adequate pay. *(Reading is Fundamental)*

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**Bottom Line**

Success in early reading instruction may be schooling's most important goal because reading



failure is prohibitively expensive to both the individual and society.

Reading failure annually generates what amounts to a hidden surtax on the adult population--one that cumulates with each graduating class. The dollar amounts are shocking.

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### Response to Instruction



Universal screening and serial curriculum- based assessments of learning in relation to instruction

As one criterion, student may be LD if they do not respond to instruction that works with most students (i.e., unexpected underachievement)

May identify a unique subgroup of underachievers that reflects an underlying classification that can be validated  
(Al- Otaiba & Fuchs, 2002; Vellutino et al., 2003)

School-wide change- not just enhanced pre-referral services and an identification method by itself

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RF State Reports: 4 States: PA, MI, UT, FL  
Published: Journal of Literacy Research (2010, 42, vol. 1).

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- A common assessment and instructional language
- Teachers have time to collaborate



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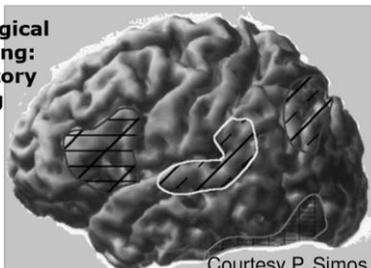


### A Model for the Brain Circuit for Dyslexia

#### (Component Processes)

Phonological processing:  
correspondence between  
letter and sound

Phonological  
processing:  
articulatory  
mapping



Relay  
station;  
Cross-  
modal  
integration

Graphemic  
analysis;  
word  
forms/  
orthograp  
patterns

Courtesy P. Simos

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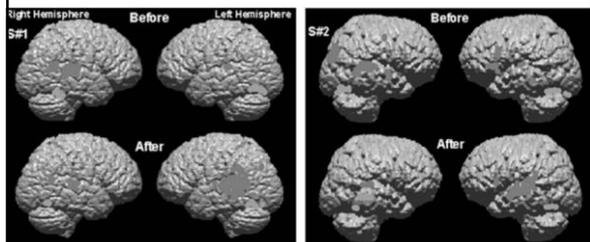
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Neural response to intervention;  
(Pseudoword Task; Simos et al., 2002)



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Orison Swett Marden

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