



# Using the Science of Reading to Improve Literacy Instruction for English Learners

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# Meet Your Presenter



## **Dr. Claude Goldenberg**

*Nomellini & Olivier Professor of  
Education, emeritus  
Stanford University*

# What We Will Cover Today

- What is known about promoting development in two distinct but related and complex domains: oral language and reading
- How the science of reading can be applied to teaching ELs to read and write in English
- The importance of English language support and English Language Development instruction to optimize ELs' literacy development



# English learners learning to read in English face a more complicated challenge than students who already speak English

- They must learn to read (and write) in English
- While learning to speak and understand it





But there is some good news!

## A word (or 2) about bilingual education

- The single most controversial issue
- Bilingual education is desirable for many reasons
- The vast majority of ELs don't have the benefit
- Reality on the ground: Most ELs must become literate in a language they are simultaneously learning to speak and understand



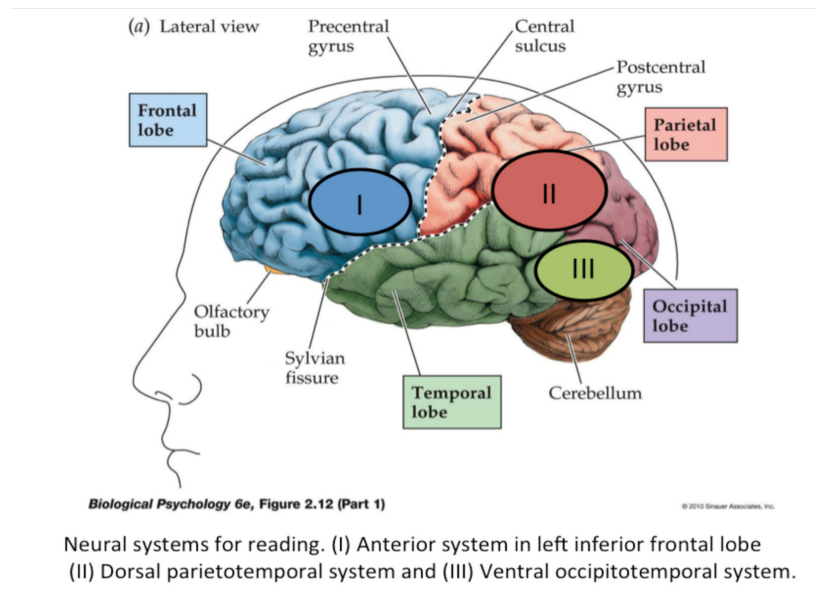


So here's the good news ...



# Learning to read in L2 is basically the same as learning to read in L1.

L2 reading and L1 reading involve similar  
“networks of brain activation”\*



\* *Journal of Neurolinguistics* 2019

# Learning to read in L2 and L1 involves similar “networks of brain activation” ..... **to do what?**

- link print and speech
- support
  - phonological awareness
  - letter-sound “mapping”
  - other foundational reading processes\*

*\* Journal of Neurolinguistics 2019*

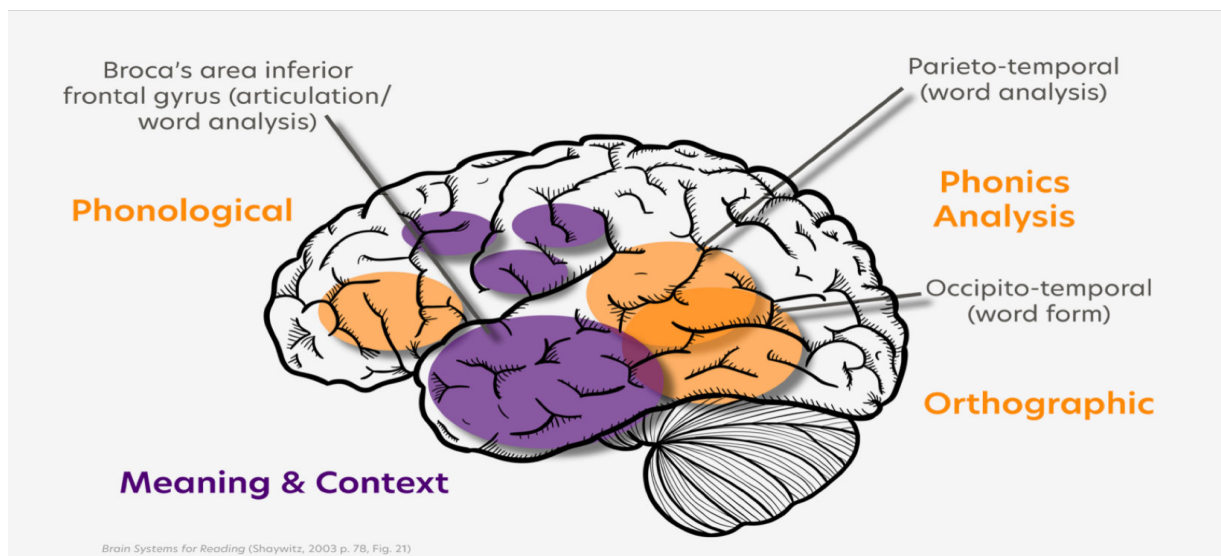
## The foundations are identical for L1 and L2 reading.

- Letters represent speech sounds
  - Letters and sounds combine to represent comprehensible words (spoken and written)
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- *But what is “comprehensible” is **precisely** where the differences in learning to read in your L1 and L2 exist.*

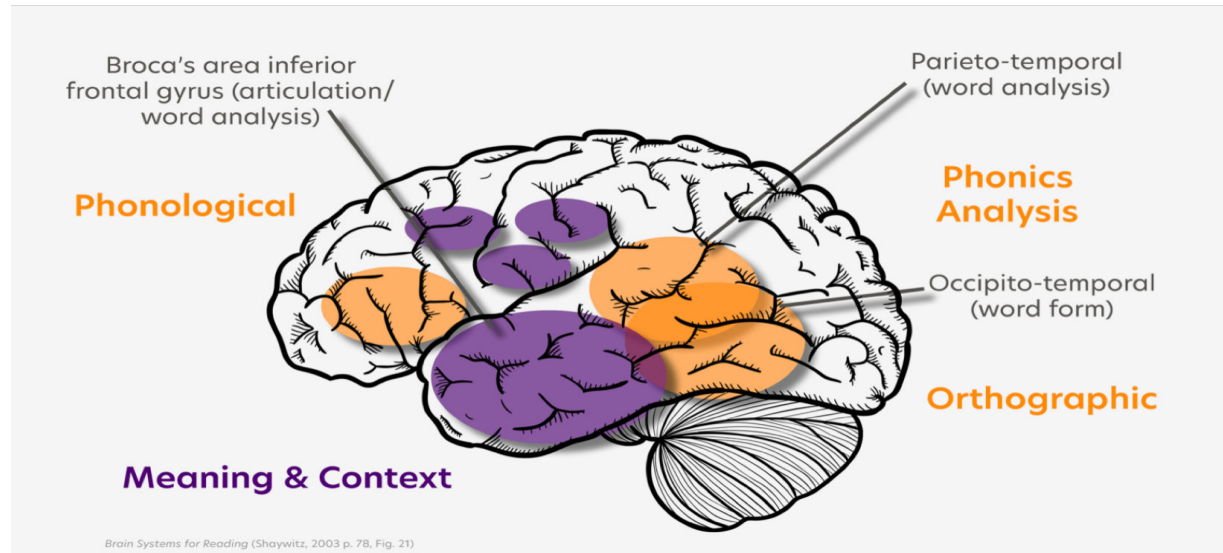


## As a result....

- Learning to read in L1 and L2 are not ***exactly*** the same.
- Brain science again provides insights.



L1 readers “rely on a large network of brain regions, as they try to **bind** orthography [the spelling system] to an already-present knowledge of **phonology** [sounds of the language] and **semantics** [meaning carried by language].”



L2 readers “*require additional supporting brain regions* during learning” because they have no “already-present knowledge of phonology and semantics.”



# It's not just brain science.

Classroom and intervention studies support these conclusions:

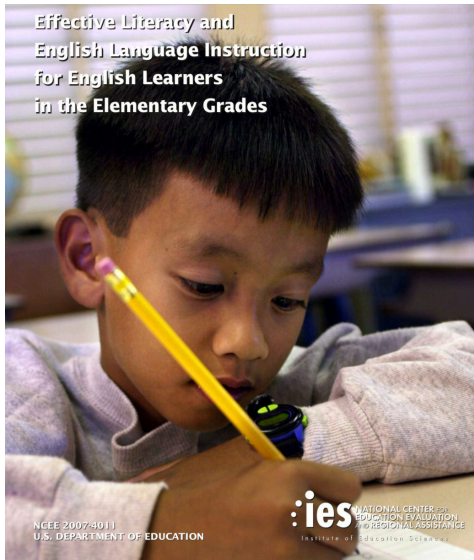
- The foundation for learning to read is **the same** in L1 and L2.
- But they're **not identical**: ELs require additional *language* supports in order to help “**bind orthography** *[the spelling system]* **to phonology** *[sounds]* **and semantics** *[meaning]*.”

# What support will ELs need at beginning and early stages?

Examples:

1. General guidance from U.S. Dept of Education “Practice Guide”
2. An effective early intervention for first-graders at risk for reading problems

# U.S. Dept of Education “Practice Guide” Recommendations

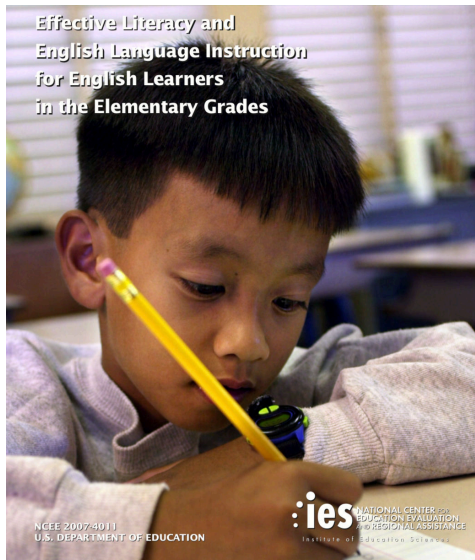


## Most apply to ELs and non-ELs:

- Use the same formative assessments, measures, and standards for ELs and English speakers
- Make adjustments to instruction as indicated by formative assessments
- Provide small-group interventions in small homogeneous groups
- Provide vocabulary instruction; teach key words in depth
- Teach the five core reading elements using explicit instruction
- Teach academic English



# U.S. Dept of Education “Practice Guide” Recommendations



## A subset are EL-specific:

- Emphasize meanings of everyday words native speakers already know
- Make sure ELs understand tasks
- Familiarize ELs with the sounds of English
- Group ELs with peers at different English proficiency levels
- Provide intensive English language development instruction, **not so much for beginning/early reading, but for long-term English proficiency needs.**

# How much English language support is necessary for beginning and early literacy?

- The “Practice Guide” underemphasized English language support
- The most effective early intervention emphasized more

# An effective small-group intervention

## Effectiveness of an English Intervention for First-Grade English Language Learners at Risk for Reading Problems

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The Elementary School Journal  
Volume 107, Number 2  
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0013-5984/2006/10702-0003\$05.00

### Abstract

A first-grade reading and language development intervention for English language learners (Spanish/English) at risk for reading difficulties was examined. The intervention was conducted in the same language as students' core reading instruction (English). Two hundred sixteen first-grade students from 14 classrooms in 4 schools from 2 districts were screened in both English and Spanish. Forty-eight students (22%) did not pass the screening in both languages and were randomly assigned within schools to an intervention or contrast group; after 7 months, 41 students remained in the study. Intervention groups of 3 to 5 students met daily (50 minutes) and were provided systematic and explicit instruction in oral language and reading by trained bilingual reading intervention teachers. Students assigned to the contrast condition received their school's existing intervention for struggling readers. Intervention students significantly outperformed contrast students on multiple measures of English letter naming, phonological awareness and other language skills, and reading and academic achievement. Differences were less significant for Spanish measures of these domains, though the strongest effects favoring the intervention students were in the areas of phonological awareness and related reading skills.

Though the understanding of beginning reading instruction for students at risk for reading problems is incomplete, there is little question that researchers and educators have made great strides in designing effective interventions for monolingual English students at risk for reading problems (O'Connor, 2000; Torgesen, Mathes, & Grek, 2002). Syntheses of interventions (Ehri, Nunes, Stahl, & Willows, 2001; Kuhn & Stahl, 2003; National Reading Panel, 2000; Snow, Burns, & Griffin, 1998) report findings that improve confidence about many elements of reading instruction, and these find-

## Effective intervention for English monolingual struggling readers:

- Direct instruction approach
- Goal: Fluent meaningful reading
- Phonemic awareness, letter knowledge, word recognition, text fluency, comprehension strategies
- Activities include: writing letters, sounding out and reading words, dictation spelling, reading and re-reading decodable text, using comprehension strategies.

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## EL language supports comprised 3-8 activities/lesson, e.g.:

- Clarify words, content with visuals, gestures, expressions
- Words in the directions defined (e.g., *trace, copy*)
- 2-3 key vocabulary words/day highlighted and illustrated
- Instruction in English language use; student responses
- Teachers guided students' story retelling and discussion



Vaughn et al. study was the only one that  
“demonstrated a statistically significant  
effect in reading”

Later study by Ehri et al. also  
emphasized language support and also  
got moderate to strong effects on  
reading. (Not receiving EL services)

“One purpose was to develop oral language by encouraging students to talk about the books and by explaining the meanings of new vocabulary words. These words were written in students’ personal books, and the meanings were reviewed each time the book was read. ... Students were encouraged to decode unknown words by relying on their letter–sound knowledge and then cross-checking with meaning and pictures to confirm the identities of the words.” (Ehri et al., 2007, p. 424)

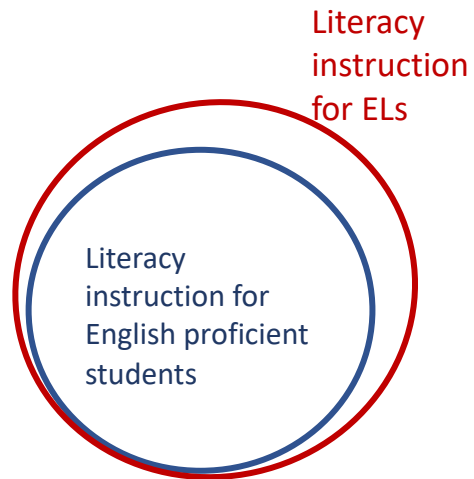
# What's the bottom line for beginning and early reading?

- Teach “The Big 5” explicitly: phonemic awareness, letter-sounds, decoding, fluency, comprehension
- Make the content and the instructions comprehensible (strategic use of L1 is OK!)
- Provide English language development instruction and opportunities that **directly supports the reading instruction**
- Questions:
  - What is necessary support?
  - What is sufficient?

After beginning and early reading, differences increase as readers progress and English language proficiency becomes more critical

- ELs face additional challenges.
- Language demands of school become exponentially more difficult.
- Literacy becomes increasingly dependent on higher levels of English proficiency.
- Knowledge of the world becomes increasingly important.

Beginning and early  
literacy: **Focus on  
foundational skills**



PLUS  
comprehensive English Language  
Development instruction  
AND  
content knowledge



Helping ELs meet the academic challenges in the middle and higher grades is one of the most serious challenges we as educators face.

*Maybe a topic for a future discussion.*





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## Learn the Science of Reading

- 7-10-week online course that teaches foundational skills and instructional practices based on the science of reading
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