

Elementary Principal Knowledge and Beliefs Matter for Dyslexia Intervention

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Speaker Disclosure

- *Missy Schraeder is employed as director, DuBard School for Language Disorders; course development and presentations are included in job responsibilities. She is also a co-author of DuBard Association Method® therapy materials and receives royalty payments. There are no other non-financial relationships.*

Session Overview

- Background Information
- Definition and characteristics of dyslexia
- Components of appropriate intervention for dyslexia
- Research Design
- Findings of the Study
- Implications for Practice

What is Language?

- The American Speech-Language-Hearing Association defines language as the comprehension and/or use of spoken (listening and speaking), written (reading and writing) and/or other communication symbol system (e.g., ASL).

<http://www.asha.org/Practice-Portal/Clinical-Topics/Spoken-Language-Disorders/Language-In-Brief/>

What is Language?

- Language includes receptive and expressive components.
- **Receptive**—listening, understanding nonverbal communication, reading.
- **Expressive**—speaking, using nonverbal communication, writing.

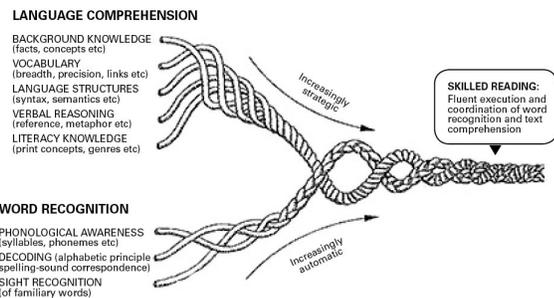


What is Reading?

Reading is described as the product of word recognition and language comprehension (Gough & Tunmer, 1986; Hoover & Gough, 1990; Scarborough, 2001). This is known as the Simple View of Reading.

The ultimate goal of reading is comprehension of the written text (Carreker, 2011; Scarborough, 2001).

The Many Strands that are Woven into Skilled Reading (Scarborough 2001)



Relationship Between Oral and Written Language

- Reading is a language-based skill.
- The relationship between oral language and written language is reciprocal.
- Although related, oral language and written language are not the same.
- Learning to read and write (written language) is part of learning to speak and comprehend (oral language).

Solfer, L. H. (2018). Oral language development and its relationship to literacy. In J. Bish & S. Carreker (eds.), *Multisensory teaching of basic language skills*—Third edition (pp. 49-91). Baltimore, MD: Paul H. Brookes Publishing Co.

Relationship Between Oral and Written Language

- The integration of word recognition, vocabulary, and oral language comprehension are important for the development of adequate reading comprehension skills.

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- “...if print cannot be translated into language, then it cannot be understood.”

Gough, P. B. & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education*, 7(1), 6-10.

Relationship Between Oral and Written Language

- In using both oral and written language, one must recognize word patterns, word structure, and sentence forms. One must know word meanings and how words relate to one another. One must be able to use context to interpret intent.
- Listening and speaking are part of typical development.
- Reading and writing generally must be taught.

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Why do we need to know this?

- Approximately 30% of American kindergarteners are at risk for reading failure. (Lyon, 1998; Walsh et al., 2006)
- 24% of fourth graders and 31% of eighth graders scored below Basic on the National Assessment of Educational Progress (NAEP) in reading (National Center for Educational Statistics, 2015)

Why do we need to know this?

- In the National Assessment of Adult Literacy (Kutner et al., 2007)
 - 3% of adults were nonliterate
 - 13% of adults scored below Basic
 - 28% of adults demonstrated Basic literacy skills
 - 43% of adults had Intermediate skills
 - 13% of adults demonstrated Proficient literacy skills

Why do we need to know this?

- *As many as 20% of students are diagnosed with dyslexia.*

dysLexia

Hurford, D. P., Hurford, J. D., Head, K. L., Keiper, M. M., Nitcher, S. P., & Renner, L. P. (2016b). The dyslexia dilemma: A history of ignorance, complacency and resistance in colleges of education. *Journal of Childhood & Developmental Disorders*, 21(36), 1-16. doi: 10.4172/2472-1786.100034

What is Dyslexia?

- Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities.



www.eida.org

Adopted by the IDA Board of Directors, Nov. 12, 2002

What is Dyslexia?

- These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction.



www.eida.org

Adopted by the IDA Board of Directors, Nov. 12, 2002

What is Dyslexia?

- *Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.*

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How Do We Help?



National Reading Panel

• NICHHD (2000) published a report that included five areas to be included in effective reading programs:

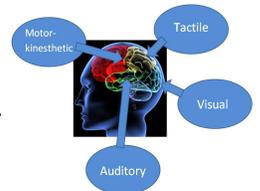
- Phonemic awareness
- Phonics
- Fluency
- Vocabulary
- Text comprehension

What else is needed?

- In addition to including these five areas, effective intervention includes ***phonic-based multisensory instruction***.
- Includes explicit phonics to directly teach the phoneme-grapheme relationships used in written English
- Includes instruction in phonology, spelling, and morphology
- Uses input from all sensory modalities to increase memory and learning
 - visual, auditory, tactile, and motorkinesthetic

Multisensory Instruction

“**Multisensory**” refers to the auditory, visual, tactile, and motor-kinesthetic cues of the speech sounds of the language.

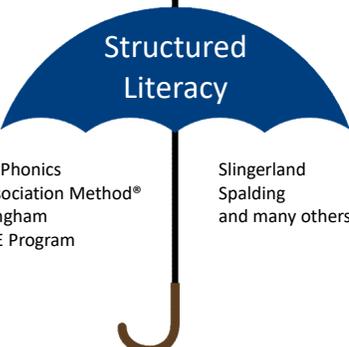


International Multisensory Structured Language Education Council (IMSLEC)

- More than 30 courses in over 90 locations nationwide
- Alphabetic Phonics
- DuBard Association Method®
- Orton-Gillingham
- Slingerland
- Spalding
- And many others



Content: Structure of the English Language	Principles of Instruction				
	Simultaneous Multisensory VAKT	Systematic & Cumulative	Direct Instruction	Diagnostic Teaching to Automaticity	Synthetic/ Analytic Instruction
Phonology & phonological awareness	*	*	*	*	*
Sound/symbol association: visual to auditory, auditory to visual, blending and segmenting	*	*	*	*	*
Syllables: types and patterns for division	*	*	*	*	*
Morphology: basewords, roots, affixes	*	*	*	*	*
Syntax: grammar, sentence variation, mechanics of language.	*	*	*	*	*
Semantics: meaning					



Structured Literacy

Alphabetic Phonics
DuBard Association Method®
Orton-Gillingham
Shelton SEE Program

Slingerland
Spalding
and many others

www.eida.org

So What is the Problem?

- As many as 92% of teachers indicated that they lack the specific knowledge necessary to implement this type of specialized instruction (Moreau, 2014; Shetty & Rai, 2014)
- Fewer than 20% preservice programs provide information on the five components of reading deemed essential by the NRP (Moats, 1999; Moreau, 2014; Walsh et al., 2006)
- Professional development teachers receive lacks instruction in strategies that would be effective for students with dyslexia (Bell, 2013; Chambers & Hausman, 2014; Moats & Foorman, 2003)

So What is the Problem?

- “one of the strongest pieces of evidence for ineffective teaching is children who don’t have basic skills after three years of instruction”

(Buckingham et al., 2013, p. 24)



So What is the Problem?

- Good News—School leadership has been found to have a positive influence on student reading skills (Heck & Hallinger, 2014)
- Only teaching has a greater influence on student learning (Leithwood, Louis, Anderson, & Wahlstrom, 2004)
- School principals may lack knowledge of appropriate intervention for students with dyslexia (DuFour & Mattos, 2013; Fletcher et al., 2013)
- Many principals are unable to identify appropriate strategies to use for students with dyslexia (Christensen et al., 2013; Fletcher et al., 2013)

Current Study

- Is there a relationship between the level of principal knowledge and beliefs about dyslexia and the school-based level of appropriate intervention for students with dyslexia?
 - Survey research was used
 - Principal knowledge and beliefs about dyslexia
 - Intervention services provided in elementary schools for students with dyslexia

Methodology

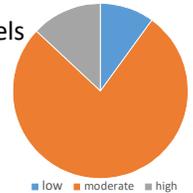
- Regression analysis was used to determine if there is a relationship between principal’s knowledge and beliefs about dyslexia and school-based level of appropriate intervention for students with dyslexia.

Principal Knowledge and Beliefs

- *Knowledge and Beliefs about Developmental Dyslexia Scale* (Soriano-Ferrer & Echegaray-Bengoa, 2014)
 - 36 items answered *true, false, or I don't know*
 - One-point given for correct answer, zero points given for incorrect answer or *I don't know*
 - Total possible score was 36
 - Scores ranged from 1-33 items correct
 - Mean score was 22.69, standard deviation was 5.95
 - Total scores converted to standard scores (z)

Principal Knowledge and Beliefs

- Results
 - 10% of principals demonstrated low levels of knowledge of dyslexia
 - 77% demonstrated moderate levels
 - 13% demonstrated high levels



Principal Knowledge and Beliefs

Items with highest percentage correct answers

- I think dyslexia is a myth, a problem that does not exist. (False) 96%
- A child can have dyslexia and be gifted. (True) 95%
- All poor readers have dyslexia. (False) 94%
- People with dyslexia have below average intelligence. (False) 93%
- People with dyslexia are not stupid or lazy. Knowing about the term helps children. (True) 91%

Principal Knowledge and Beliefs

Items with highest percentage incorrect answers

- Seeing letters and words backwards is a basic characteristic of dyslexia. (False) 26%
- Dyslexia is caused by visual-perception deficits, producing the reversal of letters and words. (False) 25%
- Children with dyslexia can be helped by using colored lenses/colored overlays. (False) 17%
- Intelligence tests are useful in identifying dyslexia. (True) 11%
- Students who have reading disabilities without an apparent cause have dyslexia. (True) 6%

School-Based Level of Appropriate Intervention for Dyslexia

- Measured five practices
 - Grade level of identification
 - Personnel providing intervention
 - Days per week intervention is provided
 - Length of intervention sessions
 - Number of students in each intervention group
- Appropriate practices (IMSLEC, 1995; IDA 2010) were given higher points on a scale of zero to four
- A possible high score for intervention practices is 20.

School-Based Level of Appropriate Intervention for Dyslexia

	0 points	1 point	2 points	3 points	4 points
When students are identified	Students not identified	3 rd grade or later	2 nd grade	1 st grade	Kindergarten
Personnel providing services	No services provided	Teacher assistant/digital program	Classroom teacher	Interventionist or literacy coach	Certified therapist or practitioner
Average days per week	1	2	3	4	5
Average number of students/group	9 or more	7-8	5-6	3-4	1-2
Average length of session	<15 min	15-30 min.	30-45 min.	45-60 min.	>60 min.

School-Based Level of Appropriate Intervention for Dyslexia

- Range = 0 – 18 (20 points possible)
- Mean = 7.28
- SD = 6.44



Results

- Knowledge and beliefs about dyslexia explained a significant proportion of variance in the School Based Level of Intervention for Students with Dyslexia

$R^2 = .18, F(1, 142) = 30.76, p < .001$

Implications of the study

- Degree programs for educators, including school administrators, should include the components of good reading instruction as designated by the NRP as well as specialized multisensory structured language necessary for teaching students with dyslexia.
- Principals should encourage identification of students as early as possible to help remediate academic difficulties.

Implications of the study

- Principals should support intensive intervention for students identified with dyslexia.
 - Delivered more often
 - In small groups
 - For longer periods of time
- Principals should ensure that personnel providing services to students with dyslexia have appropriate training and skills.
 - Hiring individuals trained in Structured Literacy
 - Providing appropriate professional development to staff

Conclusions

- Increased levels of knowledge and beliefs about dyslexia explained a significant difference in services provided to students.
- Principals with more more correct beliefs and greater knowledge about dyslexia provide more appropriate services for students with dyslexia.

Conclusions

- Using this knowledge, principals may be able to improve the academic environment in their schools.
 - Better and earlier identification of students with reading disabilities
 - Earlier provision of intervention
 - Increased teacher capacity through appropriate professional development
 - May allow the 5-20% of students to make more *progress* toward academic success

For more information:

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