Without a common understanding of dyslexia or ‘reading difficulties’ how do educational professionals, special educators, parents, and most of all students respond to the disagreement and semantic struggle over the use of term ‘dyslexia?’

Misunderstanding and misperceptions occur throughout the educational community due from a continuum of limited knowledge to extensive diagnostic examination of a student’s discreet skills and deficits.

Dyslexia is defined as “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. 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. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.” (IDA Board of Directors and National Institute of Health, 2003; ISBE)

Dyslexia is often met with skepticism and controversy.

“These children are as handicapped by the ignorance surrounding the problem, as by the problem itself.” (Frances McGlannan, 1962)

Certification type, grade level, and exposure to literacy courses did not predict accurate understanding of reading disability or dyslexia, but certification grade level did predict misconceptions about dyslexia. 54% reported one or more misconceptions about dyslexia. Secondary teachers’ responses contained a higher degree of misconceptions. (Washburn, et al, 2017)

The International Literacy Association’s (ILA) Response to the International Dyslexia Association states “…there is no empirical basis for the use of the term dyslexia to distinguish a group of children who are different from others experiencing difficulty acquiring literacy (IRA, 2016).

According to the ILA position paper, it appears that students who continue to have a reading difficulty are “normal” students exhibiting some continued difficulty in reading.

Note: The ILA has no definition of a disabled, struggling, or reading difficulty.

Dyslexia Myths;

• A visual based disability – Note: Dyslexie font neither benefits nor impedes the reading process (Kuster, et al., 2018).
• Requires a Medical diagnoses
• Seeing words backwards
• Affects boys more than girls
• Identified by handedness
• Found in only “average to above average children”

Tom Parton, M.S. CCC-SLP/L partonta@comcast.net
Declaration of Rights for Individuals with Dyslexia (Shaywitz, Yale Center for Dyslexia Website)

1) Accurate Diagnosis
2) Use of the term dyslexia – federal law and state laws, proper diagnosis, EB and intervention
3) Provide evidence-based instruction
4) Provide accommodations – are abilities, not disability, being assessed
5) Function in a dyslexia friendly environment: elementary, middle school, and high school, college, and work environment.

I. Dyslexia definition and brief history of dyslexia in research, law, and education.

A precise and inclusionary definition of dyslexia is sorely needed for at least three reasons; (G.Reid Lyon, 1995)
1. Accurate identification requires that the key symptoms and characteristics be specified.
2. Treatment of dyslexia, including early intervention and general teaching methods, must be based on informed understanding of what difficulties impede reading development and reading mastery for children and adults with reading disabilities.
3. An operational definition is essential for research purposes.

“The diagnosis of dyslexia is as precise and scientifically informed as almost any diagnosis in medicine.” (Shwaywitz, S., 2003)

“Dyslexia has a specific, highly relevant and explanatory meaning,” says Dr. Sally Shaywitz. “It offers a common language, facilitating communication among dyslexic individuals, educators, clinicians, scientists and parents.

Definition

Dyslexia is present when the automatization, the establishment of an automatic process, of word identification (reading) and/or word spelling does not develop or does so very incompletely or with great difficulty. A process of this kind is characterized by a high level of speed and accuracy. It is carried out unconsciously, makes minimal demands on attention and is difficult to suppress, ignore, or influence…. Dyslexia is characterized in practice by a severe retardation in reading and spelling which is persistent and resists the usual teaching methods and remedial efforts…it will be accompanied by very slow and/or inaccurate and easily disturbed word identification and/or word spelling. (The Hague: Health Council of the Netherlands, 1995)

In 2009 Sir Jim Rose’s Report on ‘Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties’ gave the following description of dyslexia. (British Dyslexia Association. https://www.bdadyslexia.org.uk/about)
- ‘Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling.
- Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed.
- Dyslexia occurs across the range of intellectual abilities.
- It is best thought of as a continuum, not a distinct category, and there are no clear cut-off points.

Tom Parton, M.S. CCC-SLP/L  partonta@comcast.net
Co-occurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia.

A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to well-founded intervention.’

In addition to these characteristics, the British Dyslexia Association (BDA) acknowledges

- the visual and auditory processing difficulties that some individuals with dyslexia can experience and points out that dyslexic readers can show a combination of abilities and difficulties that affect the learning process.
- Some also have strengths in other areas, such as design, problem solving, creative skills, interactive skills and oral skills.

Boys and girls are equally afflicted. About 20% of children have significant difficulty learning to read, but the prevalence figure varies according the instruction available to K-3 students. (National Institute of Health, NICHD Branch).

Not dependent upon socioeconomic status (SES) or intelligence (can be gifted and dyslexic). Not dependent upon a parent’s level of education.

Influenced by heredity, a difference in the way the brain processes information. (Criticism from International Dyslexia Association and Moats, 2015).

K-2 Symptoms
- Trouble segmenting and blending sounds
- Poor letter-sound recall
- Poor application of phonics
- Inconsistent memory for words and lists
- Mispronouncing words
- Inability to spell phonetically

Grade 3-4 Symptoms
- Phonic decoding is a struggle
- Inconsistent word recognition
- Poor spelling, dysphonetic
- Over-reliance on context and guessing
- Trouble learning new words (spoken)
- Confusion about other symbols

Grades 5-6 Symptoms
- Poor spelling, poor punctuation
- Reverts to manuscript from cursive
- Organization of writing is difficult
- Decodes laboriously, skips unknown words
- Avoids reading, vocabulary declines
Grades 7-8 Symptoms
- Slow reading, loses the meaning
- Persistent phonological weaknesses, less obvious
- Poor spelling and writing
- Confusion of similar words
- Does better with structured, explicit teaching of language

Grade 9+ Symptoms
- Trouble with foreign language study
- Writing and spelling problems persist
- Reading is slow and labored, can’t sustain
- Longer writing assignments very difficult
- Can cope when given extra time, study strategies, and structured language teaching

A. Identification Dyslexia/Specific Learning Disorder

Dyslexia has long been established in literature, research, and in the development of educational and therapeutic treatments since the early twentieth century and in fact dyslexia was included in the initial Public Law 94-142 establishing special education. Leaders and researchers in speech-language pathology have also been at the forefront of research and treatment for dyslexic students and adults.

Moats (2008) states that Dyslexia is one kind of language-based learning disability, more common than any other reading disability. Dyslexia “responds to expert, informed instruction – the provision of which remains our greatest challenge.”

About 13–14% of the school population nationwide has a handicapping condition that qualifies them for special education. Current studies indicate that one half of all the students who qualify for special education are classified as having a learning disability (LD) (6–7%). About 85% of those students have a primary learning disability in reading and language processing. (https://dyslexiaida.org/dyslexia-basics/)

Dyslexia involves a specific deficit in single-word decoding that is based on a weakness in the phonological aspect of language and has only a secondary impact on reading comprehension, which distinguishes it from other types of reading disabilities (Catts & Kamhi, 2005) and that negatively affects and individual’s written language skills (i.e. reading, spelling, and written expression). (Lonergan and Duthie, 2018)

The Office of Special Education and Rehabilitative Services (OSERS) received a letter from the Council of Administrators of Special Education, and other groups which included the LDA and NEA, in July, 2015 asking for “caution in issuing guidance or directives which include the terms dyslexia, dyscalculia, or any other medical or mental health diagnostic term within the context of IDEA procedures.”
OSERS response letter dated Oct. 23, 2015 – Letter regarding clarification that there is nothing in IDEA that would prohibit the use of the terms dyslexia, dyscalculia, and dysgraphia in the evaluation, eligibility determinations, or IEP documents.

“There is nothing in the IDEA or our implementing regulations that prohibits the inclusion of the condition that is the basis for the child’s disability determination in the child’s IEP. In addition, the IEP must address the child’s needs resulting from the child’s disability to enable the child to advance appropriately towards attaining his or her annual IEP goals and to enable the child to be involved in, and make progress in, the general education curriculum. 34 CFR §§300.320(a)(1), (2), and (4).”

“Therefore, if a child’s dyslexia, dyscalculia, or dysgraphia is the condition that forms the basis for the determination that a child has a specific learning disability, OSERS believes that there could be situations where an IEP Team could determine that personnel responsible for IEP implementation would need to know about the condition underlying the child’s disability (e.g., that a child has a weakness in decoding skills as a result of the child’s dyslexia).

B. History of Dyslexia and Specific Learning Disorder

In 1896, a doctor in Sussex, England, published the first description of the learning disorder that would come to be known as developmental dyslexia. “Percy F. . . aged 14. . .has always been a bright and intelligent boy,” wrote W. Pringle Morgan in the British Medical Journal, “quick at games, and in no way inferior to others of his age. His great difficulty has been and is now his inability to learn to read.” (Shaywitz, Overcoming Dyslexia)

Word Blindness, in the literature at that time, did not come to indicate a visual basis but to refer to students who could ‘see’ and view words but after seeing the words they did not have any meaning or recognition; therefore, the student was ‘blind’ to the word. Students today with dyslexia will refer to their dyslexia as being able to see the word but have no recognition of that word or meaning upon initially viewing the word.

Conclusions from Hinshelwood regarding dyslexia, which he labeled Congenital Word Blindness (Hinshelwood, J. 1902. Congenital word-blindness with reports of two cases. London: John Bale, Sons & Danielsson.):

- Particular areas of the brain appear to be involved
- The children often have average or above average intelligence and good memory in other respects
- The problem with reading is localized, not generalized to all areas of academic performance

Diagnosis of Word Blindness:

“With the possession of a knowledge of the symptoms, there is little difficulty in the diagnosis of congenital word-blindness when the cases are met with, since the picture of the condition stands out as clear cut and distinct as that of any pathological condition in the whole range of medicine.” P. 88 Hinshelwood (1917). Congenital word-blindness. London: H.K. Lewis.
Samuel Torrey Orton (1879-1948), a neuropsychiatrist and pathologist, was a pioneer in focusing attention on reading failure and related language processing difficulties by bringing together neuroscientific information and principles of remediation. As early as the 1920s, he had extensively studied children with the kind of language processing difficulties now commonly associated with dyslexia and had formulated a set of teaching principles and practices for such children.

Orton’s Interest began with reading problems in bright children. He did not believe students with dyslexia were defective, but were hampered by patterns of growth which were normal but different from teachers’ expectations.

Dr. Orton first identified the disorder he was studying as strephosymbolia, meaning twisted symbols. Through his clients and work, Orton became convinced that dyslexia was not a perceptual problem or a problem with vision; rather it was a problem of language, “a specific reading disability” which he stated in 1928.

In 1939 Orton noted “… in a considerable portion of cases of reading disability there is evidence of difficulty acquiring other functions… for example, disorders in speech, special disability in spelling, special disability in writing, failure to acquire skilled movements with normal ease and accuracy, difficulty in learning foreign languages after English has been mastered…. (in Henry, Annals of Dyslexia, Vol 48, 1998).”

Orton first suggested that children’s reading difficulties may be related, in part, to auditory impairment of some kind.

Interesting note: Orton studied the relationship of stuttering to dyslexia (3 of his original 15 subjects involved stuttering). Orton concluded that dyslexia could not be studied or understood isolated from accompanying conditions.

Orton noted the frequency with which dyslexic children evidenced slowness in the acquisition of spoken language.

Importance of Phonics: …..that the logical training for these children would be that of extremely thorough repetitive drill on the fundamentals of phonic association with letter forms, both visually presented and produced in writing, until the correct associations were built up…” (Orton, 1925, p. 614)

Anna Gillingham (1878-1963) was a gifted educator and psychologist with a superb mastery of the language working with Dr. Orton, she trained teachers and compiled and published instructional materials.

Orton-Gillingham Technique: “Orton requested Gillingham organize instruction carefully structured to conform to his neurological hypothesis. He wanted the instruction carefully structured but not programmed, and it was to be adaptable to individual needs.” Henry (1998)

Gillingham and Bessie Stillman (1956) wrote that their technique “is based upon the constant use of associations of all of the following: how a letter or word looks, how it sounds and how the
speech organs or the hand in writing feels when producing it.” This technique or approach has been labeled as Multisensory due to the use of associations of how it looks, sounds, and feels.

Gillingham and Stillman insisted that children with specific reading difficulties could not “learn to read by ‘sight word’ methods, even when these are later reinforced by ‘functional,’ ‘incidental,’ ‘intrinsic or ‘analytical’ phonics, based on 150-200 learned words.”

This method and ‘teaching’ came to be known as the Orton-Gillingham Approach. “The Orton-Gillingham Approach always is focused upon the learning needs of the individual student. Students with dyslexia need to master the same basic knowledge about language and its relationship to our writing system as any who seek to become competent readers and writers. However, because of their dyslexia, they need more help than most people in sorting, recognizing, and organizing the raw materials of language for thinking and use. Language elements that non-dyslexic learners acquire easily must be taught directly and systematically.” (https://www.ortonacademy.org/resources/what-is-the-orton-gillingham-approach/)

According to past president of the New York Branch of the Orton Dyslexia Society, Amy Bailin, M.S.Ed., P.D., and Board of Directors member Marcia Mann, M.A., C.C.C.:
http://dyslexialearningcenter.com/about_dyslexia.html

“Letters and sounds are taught first in isolation, through auditory, visual, and kinesthetic linkages, then blended together to form works for reading and spelling. These words are often then put together into meaningful units to form sentences. Not only must the student learn the phonetic elements, he or she must also understand and apply the rule structure of the language.”

Over the last half century, the Orton-Gillingham Approach has been the seminal and most influential intervention designed expressly for remediating the language processing problems of children and adults with dyslexia.

Note: It is very difficult to research any reading program due to the need to isolate a control group, and the many influences of factors within programs and curricula. No controlled experiments have compared instructional approaches with and without a multisensory component. However, since every language task requires the integration of at least two modalities, it would be very difficult to design a study that isolated a single multi-sensory (multimodal) component. (CA Dept. of Education, 2017, p. 65)

Auditory/Auditory History:

- 1954 – Myklebust describes variety of “auditory” processing disorders that negatively impact communication and learning
- Mid 1960s – Cruickshank states that most learning disorders are the result of some kind of processing deficit
- Mid-late 1970s – Willeford “equates” auditory processing disorder and learning disability (this really muddied the waters regarding extent to which there was such an entity as an “auditory processing disorder”)
- Early 1980s – Gerber and Bryen noted that processing difficulties resulted in school failure
- Early 2Ks - two ASHA Working groups acknowledged that deficits in auditory, phonologic and/or linguistic processing would likely result in academic difficulties

If we do not label and diagnose dyslexia, students (and parents of those students) who exhibit the profile are left to their own conclusions, often feeling unintelligent, slow, frustrated, and afraid of what they don’t understand or can’t manipulate on their own.

II. Current advocacy, laws, and resources for the identification and treatment of dyslexia,

A. Decoding Dyslexia/Parents:

In Oct. 2011, 8 parents went on a train to NYC to attend a NCLD (National Center for Learning Disabilities) luncheon. On that train ride, we shared our stories, our struggles, our heart breaks and our frustrations and anger about trying to help our dyslexic children and getting nowhere within our public schools. ..... By the end of the day, we declared that someone should do something to help other parents like us and to fix the system. We decided that collectively, maybe we could be that someone. (November 4, 2018 retrieved from http://decodingdyslexianj.org/about-decoding-dyslexia-nj/)

Parents in New Jersey were being told by educators and school districts that there was no such thing as dyslexia, therefore there was no intervention for their child. These parents who were feeling isolated included Edward Bray, Director of Public Policy and Advocacy for Learning Ally. These parents began Decoding Dyslexia in New Jersey, the first state group, in order to provide advocacy and statewide responses to their children’s needs.

Now in all 50 states and there are 4 groups in Canada.

- 38 of 50 states have passed dyslexia laws,
- 3 states have approved dyslexia resolutions,
- 9 states have no current dyslexia laws,
- 24 states have published handbooks or resource guides, and
- 4 additional states have recently directed guidance for meeting the needs of students with dyslexia (Ward-Lonergan and Duthie, LSHSS, 2018).

Most states have same goals as New Jersey’s Decoding Dyslexia:

1. A universal definition and understanding of “dyslexia” in the state education code. - Illinois: This was completed in school code: special education and general education sections.
2. Mandatory teacher training on dyslexia, its warning signs and appropriate intervention strategies.
3. Mandatory early screening tests for dyslexia. - Illinois HB3700 caused concerns with regards to evaluation language.
4. Mandatory dyslexia remediation programs, which can be accessed by both general and special education populations. - This appears needed to provide focus for decoding. There is poor direct explicit instruction of sounds, orthography, and rules of language in
many core curricula. This also directly impacts students in grades 3 and above due to the focus of curricula not being on ‘basic’ skills.

5. Access to appropriate “assistive technologies” in the public-school setting for students with dyslexia. - This issue is critical for all dyslexic students, and especially true for access to the general education curriculum. The placement and isolation that can occur with students who have reading/writing difficulties are exasperated by equating reading/writing skills with intelligence.

Illinois:

Decoding Dyslexia Illinois (information obtained from Jennifer Fitzer, co-founder)

This group was started about 4 years ago after Kyle Redford published an article on the Huffington Post, Decoding Dyslexia: How a New Jersey Parents’ Group Started a Movement. The group’s main goals are to Advocate, Educate, legislate for better educational policies, and increase Assistive Technology supports.

Three areas of focus for DD Illinois are:
1) Teacher preparation and training
2) Early identification and screening for explicit intervention access
3) Educate and advocate for assistive technology

Jennifer understands the role and support of an SLP and wrote that “every dyslexic child needs an SLP in their corner.”

B. Reading Improvement Advisory Group, Illinois State Board of Education
First Meeting was November of 2014.

Definition of Dyslexia – first adopted in the Illinois School Code in the area of Special Education. Decoding Dyslexia was instrumental in extending the time of the task force and for the inclusion of the definition of Dyslexia within the general education section of the Illinois School Code.

Dyslexia is classified under a Specific Learning Disability, ISBE 226.125 (1-13-16).

a) Definition of dyslexia (ISBE, IDA, NIH).

b) In accordance with 34 CFR 300.8(b)(10), dyslexia is one of a number of disorders included as a specific learning disability that may adversely affect the student's educational performance and result in the child's eligibility for special education and related services.

c) Each child suspected of having dyslexia or identified as dyslexic shall be referred for an evaluation in accordance with the requirements of 34 CFR 300.304 through 300.311 and Subpart B of this Part. (Source: Added at 40 Ill. Reg. 2220, effective January 13, 2016)

Supports for Educators and Districts in Illinois

Dyslexia Toolkit Link to ISBE & Review: https://www.isbe.net/Pages/Understanding-Dyslexia.aspx

1. Assessments & Diagnostics: Reviewed various measurement tools
   a. Individual or group
   b. Time and grade level
   c. Components within the measure
C. Reading Specialist/Teacher Stakeholder Work Group

ISHA had representation on this ISBE task force beginning in June 2017. Areas listed in school code for Reading Teacher to include; knowing the history of reading instruction and its relevance to current theory and practice, understanding the difference between reading skills and strategies, understanding the models of reading disabilities used in special education; and knowledge of models and procedures for providing reading diagnosis and educational services to students.

The Reading Specialist has additional competencies listed which include; gathering and interpreting information for diagnosis of the reading problems of individual students, develops educational plans for students with severe learning problems related to literacy, interprets and explains diagnostic information for classroom teachers, parents and other professionals.

Areas of discussion: Standards of training, mentoring, and integration within the educational setting. All participants wanted the best for the teachers and the students in which they work but our conversations dissolved into concern and trepidation when dyslexia or explicit instruction was raised.

The language included in the Final Recommendations included “(students) with specific literacy needs, including those with dyslexia and other literacy difficulties”, and “signs and symptoms of dyslexia and other reading difficulties.”

The recommendations to the Illinois State Board of Education included this statement “Members of this committee have differing views about the language of this document related to dyslexia as a specific learning disability related to reading.” Two letters were prepared by the committee members.

**Letter not in favor of using term dyslexia:**
The letter stated the authors “…believe it is most accurate to use the terms reading difficulties and disabilities rather than dyslexia.” The members felt that groups are encouraging educators to ignore major elements of literacy development and emphasize
phonological awareness over meaning. They ended their letter referring to the Orton-Gillingham approach. They correctly defined the approach but felt that comprehension and writing was not a part of this approach and the group could not support the teaching of an individual program in university coursework.

**Letter in favor of using the term dyslexia and other disabilities related to difficulties in reading/literacy:** *(Note: I was a co-author of this letter with Joan Ponopolous and Dr. Elizabeth Norton)*

The letter stated the authors did not suggest recommending one specific program or approach. They felt that the language of the recommendations reflected the current Federal and State legislative codes. Reading teachers and specialists are central to MTSS and RTI and designing interventions. The understanding of reading disabilities, including dyslexia is paramount to their role. The letter stated that the intent was not to equate dyslexia with every literacy difficulties or deficits. The term dyslexia and other reading disabilities was included so that students with identified deficits receive the services they require.

The current language related to Reading Teachers/Specialist have no reference to dyslexia but rather reading problems and developmental and remedial reading instruction.

**D. Dyslexia Handbook – Sommer – Public Act 100-0617, July 20, 2018**

a. Amends the school code. Provides ISBE develop and maintain a handbook to be make available on its website providing guidance for pupils, parents or guardians, and teachers on the subject of dyslexia. The handbook shall be reviewed once every 4 years to update guidelines, educational strategies, or resources and services.

b. ISBE is in the process of developing the handbook.

**III. Speech and language development are central to learning to read and write**

**A. Roles and Responsibilities of Speech-Language Pathologists with Respect to Reading and Writing in Children and Adolescents (2001)**

The connections between spoken and written language are well established in that (a) spoken language provides the foundation for the development of reading and writing; (b) spoken and written language have a reciprocal relationship, such that each builds on the other to result in general language and literacy competence, starting early and continuing through childhood into adulthood; (c) children with spoken language problems frequently have difficulty learning to read and write, and children with reading and writing problems frequently have difficulty with spoken language; and (d) instruction in spoken language can result in growth in written language, and instruction in written language can result in growth in spoken language.

“I think most of us…deplore the division between two groups, one group being exclusively concerned with speech defects, and the other with reading disabilities. We adhere to Dr. Orton’s concepts with prove that in developmental disorders in language, much as in aphasia, several aspects of symbolic functioning may be disturbed.” *(de Hirsh, 1952)*

Tom Parton, M.S. CCC-SLP/L  partonta@comcast.net
B. Models to assist with aiding connections and intervention targets

Simple View of Reading (Gough & Tunmer, 1986) and Scarborough’s Rope (2001): The simple view of reading states that reading comprehension is the product of word recognition and linguistic comprehension.

“SLPs may be particularly vulnerable to whole-language propaganda because its primary tenet is that strong language skills underpin reading. This fact is true, but reading has two components – word reading and comprehension – as illustrated by the simple view of reading.” (Hogan, 2018)

Scarborough’s rope is characterized by IDA as “brilliant in its simplicity, but profound in its instructional implications.”
Language Comprehension Strands
As SLPs we understand the importance of language for learning. Students with dyslexia are often impacted in the language comprehension strands by decoding and success with print and reading.

Note: For students with Dyslexia, comprehension scores can be negatively impacted by poor decoding skills or less skilled reading and not by comprehension skills alone (Catts, et al, 20015; Hoover & Tunmer, 1993).

A. Background Knowledge – SEL, ELL, Academic placement and success

B. Vocabulary Knowledge – Vocabulary knowledge gets ‘richer’ and the poor get poorer due to reduced and limited reading skills. Reading is a vital part of vocabulary exposure. Mathew effect (Stanovich, 1986) and Chall Stages of Reading (1996). The access to curriculum is another important aspect of exposure and application of vocabulary knowledge.

C. Language Structures – morphology links to semantics and syntax skill knowledge and development. “Morphological awareness, which relies on a student’s phonological, semantic, and syntactic knowledge, also plays a critical role in spelling development (Masterson & Apel, 2000).

   o Instruction in morphological awareness and word elements may be especially important for individuals with dyslexia (Deacon, et al. 2008. Reed, 2008)

D. Verbal Reasoning

E. Literacy Knowledge – exposure to print, use and manipulation of text, symbols, and media.

Word Recognition Strands– this is area of Dyslexia deficit and impact

A. Phonological Awareness
   • Catts (1991) noted that SLPs have the training and clinical expertise, as well as an opportunity to play an integral role in the development and implementation of PA programs.
   • “…work on letter-sound correspondence knowledge which is more effective for improving reading than phonological awareness in isolation (Ehri, et al, 2001).
   • Share (1995) noted that review of research suggests that “phonemic awareness does not develop spontaneously in the normal course of cognitive and linguistic development but only in the specific context of learning to read an alphabetic script.”
   • Phonological awareness must be trained (Adams, 1990).
   • Auditory:
      i. ability to use “what we hear” is a process that begins at the ear and ends when one executes a response – right or wrong
ii. “processing” includes array of skills subserved by peripheral and central nervous systems

iii. impairment anywhere along continuum of processing will result in diagnosis of auditory processing disorder, central auditory processing disorder, phonologic processing disorder, language processing disorder, or executive dysfunction

B. Decoding (and Spelling)

- Phonemic knowledge will … develop in part as a consequence of reading and partly as a result of beginning to spell (Goswami, 1993).
- Hogan, Catts, and Little (2005) found by 2nd grade, a measure of word reading, not phonological awareness at this time, should be used to make predictions about future reading outcomes.
- Bernstein (2009) study noted ‘difficulty in phoneme perception for dyslexic spellers ….. appropriate for their level of literacy development but not for their age or grade in school.’ This led the author to suggest “spelling instruction for children with dyslexia, even those in 4th grade and higher, include time devoted to phoneme identification and code knowledge in integrated lessons.”

C. Sight Recognition

- Sight Words defined: ..as he meets a word and sounds it out over several times, it becomes unnecessary for him to sound it, and the word becomes a new sight word. It is in this way that most of our sight vocabulary has been built up. …. Most of which he learned by himself through sounding attack. (p. 2). (1951), Dolch, E.
- Torgesen – automatic, and efficient recognition, sight words continue to build through reading and learning.
- Stewart et al (1997) reported that pairing articulation training with sight words resulted in the learning of sight words that were generalized beyond therapy.
- Gillinham, ..., insisted children with specific reading difficulties could not ‘learn to read by ‘sight word’ methods, even when these are later reinforced by ‘functional,’ ‘incidental,’ ‘intrinsic’ or ‘analytic’ phonics based.

Articulation / Phonological Processes

Traditional articulation approaches put discrimination of sounds by others first, discriminating the standard sound from the error, comparing the sounds, correcting the production, and then strengthening and stabilizing the sound. This approach has roots in the 1950’s through Van Riper in the 1970s. The ear training is a phonological and phonemic exercise for the client.

Role of Motivation and Skilled Reading:

“Every poor reader is at risk for psychological disturbance, almost always as one result of, rarely as the cause of, and frequently as a further contribution to the poor reading……In the school environment reading is being.” (Eisenberg, 1975)

“Many of these children experience a destructive emotional cycle that begins with an awareness of disappointing adults. Simultaneously, the child is also frustrated with him or herself.” (Moats & Darkin, 2008).


Simple View and Scarborough’s Rope:

These ‘views’ help us to realize the complexity and focus needed for the teaching, remediation, and support in reading.

Linking goals and targets with reading instruction and remediation in the educational setting are critical for the success of our students.

The skills associated with reading and the impact of skills for a student with dyslexia require a true multidisciplinary team for screening, evaluation, and decisions regarding eligibility and treatment/intervention.

C. Appropriate roles and responsibilities for SLPs include, but are not limited to; (Hogan, 2018 LSHSS);

(a) preventing written language problems by fostering language acquisition and emergent literacy;

SLPs are often the first to assess, identify, and work with students who will exhibit difficulty in learning to read. Bashir and Scavuzzo (1992) found reports of 40-75% of preschoolers with early language impairments develop reading difficulties, often with other academic problems.

75-80% of Special Education Students identified Learning Disabled have basic deficits in language and reading (National Institute of Health, 1994).

(b) identifying children at risk for reading and writing problems;

- SLPs have a unique opportunity to assist in the identification of young children who are at risk for dyslexia. (Cabbage, et al., 2018)
- …children who are poor readers may have less exposure to written text, which not only hinders the development of fluency and automaticity but also limits exposure to more advanced vocabulary and grammar. As a result, children’s reading comprehension and ability to learn from what they read is reduced (Cunningham & Stanovich, 1998; Mol & Bos, 2011).

Risk factors that may be key early indicators for future development of reading difficulties (Colenbrander, Ricketts, & Breadmore, 2018)

- Genetics – Children who have a first-degree relative with reading difficulties, 40-66% will go on to develop reading difficulties, compared to 6-14% of those who do not have a family member with reading difficulties (Catts, 2017; Pennington & Lefly, 2001; Scarborough, 1990; Snowling, et al, 2003).
- Oral Language Skills - Weak oral language skills at the time of learning to read are associated with a high risk of developing future reading difficulties (Catts, Fey, Tomblin, & Xhang, 2002; Snowling, 2014; Snowling, Duff, Nash, & Hulme, 2016; Thompson et al, 2015).
- Phonological Skills and Letter Knowledge
- Vocabulary Knowledge
- Morphological Awareness

- Hearing Difficulties:
  - Deaf and Hard of Hearing
  - Chronic Otitis Media

- Spear-Swerling (2016) noted that “Listening comprehension is critical to students’ success in formal schooling. It has important implications for differentiating instruction, designing interventions, and selective screening and progress monitoring tools, accommodations, and assistive technology.

- a student who presents with deficit(s) in auditory (i.e., acoustic) processing, phonologic processing, or language processing may be diagnosed with dyslexia with some evaluators using the term dysphonetic dyslexia to describe students with issues in auditory and/or phonologic processing skills.

- any diagnosed disorder among the skills continuum has the potential for adversely affecting academic success including literacy skills

- Speech Sound Disorders - Complex relationship, higher level of reading and spelling difficulties was found to be greater for children with speech sound disorders who had co-occurring language difficulties and/or a family history of reading difficulties (Hayiou-Thomas et al, 2017)

**Because reading, writing, speaking, and listening develop concurrently there is a risk that the exclusion of any one of these skills will ultimately impact upon the other skills, creating a lag in development and learning.**

(c) assessing reading and writing;

Ferre (2019) The term “dyslexia” can mean different issues to different examiners/therapists.

Consider areas within the simple view and ‘rope’ model as a guide and link assessment information to reading and writing skills.

- a) Language Comprehension
- b) Word Recognition

As SLPs and audiologists assist in assessing language/reading skills we should also consider our findings in relation to how the student’s strengths and weaknesses impact on the performance on reading and writing measures that other professionals have completed for the evaluation.

Key areas for screening and assessing dyslexia are:

- a) Phonological Awareness Skills
- b) Phonological or Language-Based memory
- c) Rapid Automatic Naming
- d) Receptive Vocabulary
- e) Word List Reading – ‘gold standard’ for reading/dyslexia research, including ‘nonsense’ word reading
g) Spelling

h) Writing

i) Auditory:
   a. Conduct audiometric hearing screening to rule out any peripheral hearing impairment that may be contributing to literacy issues
   b. At a minimum, screen acoustic-phonologic-linguistic skill sets to “narrow in” on possible contributing/causal impairment
   c. At a maximum, conduct comprehensive central auditory (audiologist), phonologic (audiologist and/or speech-language pathologist), and linguistic (speech-language pathologist) assessments to identify specifically contributing/causal impairments

(d) providing intervention and documenting outcomes for reading and writing; and

• “For school based SLPs, … (metalinguistic skills essential for learning to read and participating in classroom discourse), means that engagement of written modality should be incorporated into therapy sessions, not only for improving reading and writing skills but for engaging language at a deeper level. (Saletta, 2018)

(e) assuming other roles, such as providing assistance to general education teachers, parents, and students; advocating for effective literacy practices; and advancing the knowledge base.

   Roles need to be defined for two-way communication between teachers and specialists in order to support the needs of all students at-risk of and experiencing reading difficulties (NRC, 1998).

   Finding suggest that good-quality, evidenced based training is essential so that teachers have a better understanding of the multilayered aspects of dyslexia and to dispel any inaccuracies held (Knight, 2018).

- any diagnosed disorder among the skills continuum has the potential for adversely affecting academic success including literacy skills

- Underlying auditory/acoustic impairments may be due to brainstem, right hemisphere, left hemisphere, or corpus callosum dysfunction with phonologic-linguistic-cognitive disorders usually secondary to dysfunction in the left hemisphere or frontal lobes

  “One of the most important conclusions from research is that for children with learning problems, learning is hard work. A corollary to this finding is that for their teachers, instruction is very hard work and requires an enormous amount of training and support. Children who have difficulty learning to read or completing mathematics problems will likely not benefit from ‘more of the same’ but require an alternative method of teaching to assist their learning.” (Semrud-Clikeman, M. 2005)

These roles are dynamic in relation to the evolving knowledge base and have implications for research and professional education.

By clarifying the underlying nature of any processing disorder that may be contributing to a student’s literacy needs, therapeutic interventions can be identified that “fit” the deficit thus maximizing intervention effectiveness and allocation of intervention resources. (Ferre, 2019)
D. Curriculum: RTI and reflection for intervention, assessment, and diagnosing SLI and SLD.

Curricular review, revision, and recommendations can be enhanced through the view of an SLP. SLPs know normal language development and milestones. This knowledge is essential as decisions are made with regards to the approach, scope and sequence, theory, and delivery of a curriculum within a target age and grade level. Even with the Common Core Standards as a reference, many prerequisite and subskills in reading impacted by dyslexia are implied or embedded in the strategies. These skills are outlined in Appendix A of the English Language Arts Standards and are therefore not directly targeted by classroom instruction or reading interventions.

SLPs are often involved in conversations and decisions about core curriculum within a district and/or building. The SLP also needs to consider the instruction and interventions students have received as a member of evaluation teams and as we consider assessments and/or diagnoses for speech language eligibility.

Meaux and Norris (2018) advocate for the expertise and support of SLPs in the use of Curriculum Based Language Interventions. While many SLPs are engaged in the use of curricula in their treatment goals, we have to be good consumers of what curriculum is being used or considered within our districts and intervention targets.

5 Essential Components of Effective Reading Programs (Moats & Dakin, 2008)

1. Phonemic Awareness
2. Phonics and Word Recognition
3. Reading Fluency
4. Vocabulary Development
5. Reading Comprehension

Considerations when reviewing a district’s core curricula;

a) Dolch: “But phonics is a skill. You can assign an attack on a skill but you cannot schedule the learning of a skill…. We schedule when we try to teach. We cannot schedule when the child will have learned. So we keep on teaching until finally they do learn. (p 21) **WHEN** are curricular targets introduced, supported, practiced, and even remediated within the district?

b) Brady and Moats (1997) stated “both research results and teaching practice indicate that children profit from instruction in reading that is explicit, systematic, and sequential.” HOW are students instructed and what is the sequence of instruction? **How is the curriculum taught, practiced, and sequenced?**

c) The accumulated research over nearly 100 years has been that a code emphasis leads to better results – in word recognition and in comprehension. (Chall, 1997) **WHAT** is the code emphasis and theory base of the district?
Four clear results of cognitive research (Perfetti, 1995)

a. Skilled readers read words rather than skip them.
b. Less skilled readers do rely on context.
c. Skilled readers use phonology in reading.
d. Children learn to read successfully by learning how their writing system works.

WHAT is the prevailing treatment for RTI and IEP goals and objectives related to decoding, reading fluency, and written language goals?

A child with a reading disability who is not identified early may require as many as 150-300 hours of intensive reading intervention if he is going to close the reading gap…And of course, the longer identification and effective reading instruction is delayed, the longer the child will require to catch up. (Shaywitz, 2003)

III. Conclusion

The use of the term dyslexia should assist in focusing the difficulty and profile of an individual student/adult.

Some tips to encourage the use of the word “dyslexia”: (Yale Center for Dyslexia and Creativity website)

- If you have been diagnosed with dyslexia, use the word when talking about your specific disability. Just using the word itself can bring a sense of comfort, confidence and identity.
- Own your own dyslexia. Talk about it and don’t be afraid to ask for help.
- For teachers and parents, be aware that instruction, intervention and related services must be based upon the child’s unique needs as an individual with dyslexia. Using a broad term such as “learning disability” instead of the word dyslexia makes that far more difficult. Never use even less-specific terms such as “learning differences.”
- Using dyslexia as a term that follows the student from year to year helps each teacher provide continuity in supports and accommodations.
- Follow the example of the many successful people who openly call themselves dyslexic.

Dyslexia has always been and is now specifically cited in the Illinois School Code. Areas associated with dyslexia clearly fall into areas of speech and language processing and performance. Dyslexia is not a new concept but the term clearly elicits a response from parents, educators, administrators, and practitioners. Understanding the various concerns and viewpoints are vital to establishing a multidisciplinary team and meet the needs of students with speech-language and audiological disabilities.

SLPs can become a vital and integral part of education teams and extraordinary advocates for students who have been misunderstood, and who have negative self-images and poor performance extending through their educational progress.
“For those with dyslexia, knowing that they are dyslexic provides direction and a starting point for self-advocacy and accommodations. It helps them feel that they are not alone—that they are part of a community of dyslexics contending with similar struggles. They can look to other people with dyslexia who are succeeding and know that they can do the same. They develop greater self-awareness about the specific challenges they face and what they can do to succeed, rather than assuming they are stupid or lazy. And they can learn to identify and utilize their strengths in both school and, later, in the workplace, bringing their best assets to the job at hand, knowing what tasks to delegate and when to allow themselves a little extra time.” (Shaywitz, Yale Center for Dyslexia website)

“Educating the dyslexic child on a level commensurate with his cognitive ability is essential not only for his general education but for the full development of his reading ability. For beyond the primary grades, proper growth in reading can be achieved only with sufficient knowledge and sufficient language development. After the bare beginnings in reading, one needs to be educated in order to read and understand, just as one needs to read in order to be educated. Concern for the dyslexic’s reading achievement means concern for his total education.” ………
“The work to be done on this issue in the next 30 years is great.”(Chall, 1978)

Please keep up the good work.

Bibliography available on request.

Thank You:
- Jeanane Ferre, PhD. for her consultation, contribution, and collaboration
- Josh Parton B.A. for his editing assistance
- All of my students who have opened up their vulnerability to go on a journey with me to once again work on one of their biggest weaknesses.