### Information provided by The International DYSLEXIA Association®

### **DYSLEXIA BASICS**

#### What is dyslexia?

Dyslexia is a language-based learning disability. Dyslexia refers to a cluster of symptoms, which result in people having difficulties with specific language skills, particularly reading. Students with dyslexia usually experience difficulties with other language skills such as spelling, writing, and pronouncing words. Dyslexia affects individuals throughout their lives; however, its impact can change at different stages in a person's life. It is referred to as a learning disability because dyslexia can make it very difficult for a student to succeed academically in the typical instructional environment, and in its more severe forms, will qualify a student for special education, special accommodations, or extra support services.

#### What causes dyslexia?

The exact causes of dyslexia are still not completely clear, but anatomical and brain imagery studies show differences in the way the brain of a person with dyslexia develops and functions. Moreover, most people with dyslexia have been found to have problems with identifying the separate speech sounds within a word and/or learning how letters represent those sounds, a key factor in their reading difficulties. Dyslexia is not due to either lack of intelligence or desire to learn; with appropriate teaching methods, students with dyslexia can learn successfully.

#### How widespread is dyslexia?

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. Nevertheless, many more people—perhaps as many as 15–20% of the population as a whole—have some of the symptoms of dyslexia, including slow or inaccurate reading, poor spelling, poor writing, or mixing up similar words. Not all of these will qualify for special education, but they are likely to struggle with many aspects of academic learning and are likely to benefit from systematic, explicit, instruction in reading, writing, and language.

Dyslexia occurs in people of all backgrounds and intellectual levels. People with dyslexia can be very bright. They are often capable or even gifted in areas such as art, computer science, design, drama, electronics, math, mechanics, music, physics, sales, and sports.

In addition, dyslexia runs in families; parents with dyslexia are very likely to have children with dyslexia. For some people, their dyslexia is identified early in their lives, but for others, their dyslexia goes unidentified until they get older.

#### What are the effects of dyslexia?

The impact that dyslexia has is different for each person and depends on the severity of the condition and the effectiveness of instruction or remediation. The core difficulty is with word recognition and reading fluency, spelling, and writing. Some individuals with dyslexia manage to learn early reading and spelling tasks, especially with excellent instruction, but later experience their most debilitating problems when more complex language skills are required, such as grammar, understanding textbook material, and writing essays.

People with dyslexia can also have problems with spoken language, even after they have been exposed to good language models in their homes

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and good language instruction in school. They may find it difficult to express themselves clearly, or to fully comprehend what others mean when they speak. Such language problems are often difficult to recognize, but they can lead to major problems in school, in the workplace, and in relating to other people. The effects of dyslexia reach well beyond the classroom.

Dyslexia can also affect a person's self-image. Students with dyslexia often end up feeling "dumb" and less capable than they actually are. After experiencing a great deal of stress due to academic problems, a student may become discouraged about continuing in school.

#### How is dyslexia diagnosed?

Before referring a student for a comprehensive evaluation, a school or district may choose to track a student's progress with a brief screening test and identify whether the student is progressing at a "benchmark" level that predicts success in reading. If a student is below that benchmark (which is equivalent to about the 40th percentile nationally), the school may immediately deliver intensive and individualized supplemental reading instruction before determining whether the student needs a comprehensive evaluation that would lead to a designation of special education eligibility. Some students simply need more structured and systematic instruction to get back on track; they do not have learning disabilities. For those students and even for those with dyslexia, putting the emphasis on preventive or early intervention makes sense. There is no benefit to the child if special instruction is delayed for months while waiting for an involved testing process to occur. These practices of teaching first, and then determining who needs diagnostic testing based on response to instruction, are encouraged by federal policies known as Response to Intervention (RTI). Parents should know, however, that at any point they have the right to request a comprehensive evaluation under the

IDEA law, whether or not the student is receiving instruction under an RTI model.

A comprehensive evaluation typically includes intellectual and academic achievement testing, as well as an assessment of the critical underlying language skills that are closely linked to dyslexia. These include receptive (listening) and expressive language skills, phonological skills including phonemic awareness, and also a student's ability to rapidly name letters and numbers. A student's ability to read lists of words in isolation, as well as words in context, should also be assessed. If a profile emerges that is characteristic of readers with dyslexia, an individualized intervention plan should be developed, which should include appropriate accommodations, such as extended time. The testing can be conducted by trained school or outside specialists. (See the Dyslexia Assessment Fact Sheet for more information.)

#### What are the signs of dyslexia?

The problems displayed by individuals with dyslexia involve difficulties in acquiring and using written language. It is a myth that individuals with dyslexia "read backwards," although spelling can look quite jumbled at times because students have trouble remembering letter symbols for sounds and forming memories for words. Other problems experienced by people with dyslexia include the following:

- Learning to speak
- Learning letters and their sounds
- Organizing written and spoken language
- Memorizing number facts
- Reading quickly enough to comprehend
- Persisting with and comprehending longer reading assignments
- Spelling
- Learning a foreign language
- Correctly doing math operations

Not all students who have difficulties with these skills have dyslexia. Formal testing of reading,

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language, and writing skills is the only way to confirm a diagnosis of suspected dyslexia.

#### How is dyslexia treated?

Dyslexia is a lifelong condition. With proper help, many people with dyslexia can learn to read and write well. Early identification and treatment is the key to helping individuals with dyslexia achieve in school and in life. Most people with dyslexia need help from a teacher, tutor, or therapist specially trained in using a multisensory, structured language approach. It is important for these individuals to be taught by a systematic and explicit method that involves several senses (hearing, seeing, touching) at the same time. Many individuals with dyslexia need one-on-one help so that they can move forward at their own pace. In addition, students with dyslexia often need a great deal of structured practice and immediate, corrective feedback to develop automatic word recognition skills. For students with dyslexia, it is helpful if their outside academic therapists work closely with classroom teachers.

Schools can implement academic accommodations and modifications to help students with dyslexia succeed. For example, a student with dyslexia can be given extra time to complete tasks, help with taking notes, and work assignments that are modified appropriately. Teachers can give recorded tests or allow students with dyslexia to use alternative means of assessment. Students can benefit from listening to audiobooks and using text reading and word processing computer programs.

Students may also need help with emotional issues that sometimes arise as a consequence of difficulties in school. Mental health specialists can help students cope with their struggles.

# What are the rights of a person with dyslexia?

The Individuals with Disabilities Education Act 2004 (IDEA), Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) define the rights of students with dyslexia and other specific learning disabilities. These individuals are legally entitled to special services to help them overcome and accommodate their learning problems. Such services include education programs designed to meet the needs of these students. The Acts also protect people with dyslexia against unfair and illegal discrimination.

#### **Suggested Readings**

Moats, L. C., & Dakin, K. E. (2008). Basic facts about dyslexia and other reading problems.

Baltimore: The International Dyslexia
Association.

Shaywitz, S. (2003). Overcoming dyslexia: A new and complete science-based program for reading problems at any level. New York: Knopf.

The International Dyslexia Association (IDA) thanks Louisa C. Moats, Ed.D., and Karen E. Dakin, M.Ed., for their assistance in the preparation of this fact sheet.

### **TESTING AND EVALUATION**

When a child is struggling to read, someone will probably suggest that he or she be tested for dyslexia. What does it mean to be tested? You might think that of a test as something you take in an afternoon. Someone scores it and tells you how you did. *Evaluation* is a more accurate word to describe the process of determining if someone has dyslexia. The word *evaluation* encompasses identification, screening, testing, diagnosis, and all the other information gathering involved when the student, his or her family, and a team of professionals work together to determine why the student is having difficulty and what can be done to help.

#### Why is evaluation important?

An evaluation is the process of gathering information to identify the factors contributing to a student's difficulty with learning to read and spell. First, information is gathered from parents and teachers to understand development and the educational opportunities that have been provided. Then, tests are given to identify strengths and weaknesses that lead to a diagnosis and a tentative road map for intervention. Conclusions and recommendations are developed and reported.

When a student is having difficulties with reading and spelling, an evaluation is important for *three reasons*.

- 1. *Diagnosis* An effective evaluation identifies the likely source of the problem. It rules out other common causes of reading difficulties and determines if the student profile of strengths and weaknesses fit the definition of dyslexia.
- 2. *Intervention planning* An effective evaluation develops a focused remedial

- program. Students who have a specific learning disability in reading (dyslexia) need a specialized approach to reading instruction to make progress. It is crucial that this specialized instruction begin at the student's current level of reading skill development, rather than at the student's grade level. An effective evaluation helps parents and teachers see which specific skills are weak and where reading and spelling instruction should begin.
- 3. **Documentation** An effective evaluation documents the history of a student's learning disability. One purpose of this documentation is to determine eligibility for special services, including special education. Documentation is also important for obtaining accommodations on college entrance exams (ACT, SAT), in college, or in the workplace.

#### When should a child be evaluated?

It is possible to identify potential reading problems in young children even before the problems turn into reading failure. Screening tests, such as Predictive Assessment of Reading (PAR); Dynamic Indicators of Basic Early Literacy Skills (DIBELS); Texas Primary Reading Inventory (TPRI); and AIMSweb screening assessments, developed by researchers for those purposes should be used with all children in a school, beginning in kindergarten, to locate those students who are "at risk" for reading difficulty. Preventive intervention should begin immediately, even if dyslexia is suspected. How the child responds to supplementary instruction will help determine if special education services are justified and necessary.

Before second grade, it is more important to focus an evaluation on the precursors of reading

development. Measures of language skills, phonological awareness, memory, and rapid naming are more suggestive of being at-risk for dyslexia among young children than are measures of word reading, decoding, and spelling. Therefore, measures of phonological awareness, memory, and rapid naming are typically included in Kindergarten and beginning first grade screening tests that can identify children who need targeted intervention to improve these critical skills so these children can meet gradelevel benchmarks. Although there are many tests that may be used early (in Kindergarten and beginning of first grade) to assess beginning skills in reading and spelling, the standards for average achievement are generous. A child in late kindergarten or early first grade may only need to read a few letters and two or three common words to score well enough to reach a score of "average." Compared to other young learners, students with dyslexia may not seem to be "behind." Further, even if achievement is found to be low or poor it does not explain why the child may not be learning as expected.

By January or February of first grade, tests of early word reading, decoding, and spelling begin to be useful in providing information about what the student has learned and what gaps in knowledge exist. This information may be used to plan instruction and guide ongoing assessment.

# What should be included in the evaluation?

The following areas should be considered when carrying out an evaluation.

#### **Background information**

Information from parents and teachers tells us a lot about a student's overall development and pattern of strengths and weaknesses. Because dyslexia is genetically linked, a family history of dyslexia indicates that a student is more likely to have dyslexia. A history of delayed speech or language also puts a child at-risk for reading difficulties. It is important to know the types and length of time of any interventions the student has

received at school, home, or through tutoring, as well as the student's response to the intervention. School attendance problems should be ruled out. A history of poor attendance, alone, can explain an identified weakness in skill development.

#### Intelligence

Until recently, an intelligence test was considered to be a necessary part of the evaluation because the diagnosis of a learning disability was based on finding a significant difference between IO and reading skill. Poor achievement despite average or better intelligence was considered a key indicator. Current regulations no longer require that such a discrepancy be present when making a diagnosis. This change in the regulations came about because many studies have shown that intelligence is not the best predictor of how easily a student will develop written language (reading and spelling) skills. Instead, oral language abilities (listening and speaking) are considered the best predictors of reading and spelling.

A formal measure of intelligence is not always needed to document average intellectual abilities. For younger children, parent information about language development and teacher information about the child's ability to learn orally may indicate average intellectual abilities. For older students or adults, past achievement in school or work may indicate at least average intelligence.

#### Oral language skills

Oral language, simply stated, refers to our ability to listen to and understand speech as well as to express our thoughts through speech. Oral language is made up of low-level skills, such as recognizing and making the sounds within our speech, and higher-level skills, such as getting meaning by listening to someone speak or creating sentences to express thoughts. Students with dyslexia typically have adequate higher-level language skills. Indicators of higher-level oral language skills include being able to understand an age-appropriate story and spoken directions, to carry on a conversation, and to

understand and use words that are age appropriate. If a student has average higher-level oral language skills but much difficulty developing written language (reading and spelling) skills, the need for evaluation for dyslexia is recommended.

Although students with dyslexia usually have strong higher-level language skills, they typically have problems (a deficit) in low-level language skills (see following section "Phonological processing"). This deficit limits the ability to learn to read and spell using the sounds of the language. Young children with dyslexia often have delays in language development, but their higher-level language skills are usually age-appropriate by the time they enter school. Difficulties with higher-level language skills suggest a need for a language evaluation by a speech-language pathologist to rule out language impairment.

#### Word recognition

Word recognition is the ability to read single printed words. It is also called word reading or word identification. Tests of word recognition require that students read individual words printed in a list. The student is not able to use cues, such as the meaning of a sentence, to help them figure out the word. Tests of word recognition that score both accuracy and the time it takes for the student to read the words (fluency) are particularly useful. Students with dyslexia often become accurate but are still very slow when reading words. Both accuracy and the speed of word reading can affect understanding what is read.

#### **Decoding**

Decoding is the ability to read unfamiliar words by using letter-sound knowledge, spelling patterns and chunking the word into smaller parts, such as syllables. Decoding is also called "word attack". Decoding tests should use nonsense words (words that look like real words but have no meaning, such as *frut* or *crin*) to force the student to rely on these decoding skills rather than on memory for a word already learned.

#### Spelling

Tests of spelling measure the student's ability to spell individual words from memory using their knowledge of, for example, letter-sound pairings, patterns of letters that cluster together to spell one sound (igh in high; oa in boat), the way plurals may be spelled (s, es, ies) and so on. Spelling is the opposite of word attack but is even more difficult. It requires separating out the individual sounds in a spoken word, remembering the different ways each sound might be spelled, choosing one way, writing the letter(s) for that sound and doing the same, again, for the next sound in the word. Spelling stresses a child's short and long-term memory and is complicated by the ease or difficulty the child has in writing the letters, legibly and in the proper order. Spelling is usually the most severe weakness among students with dyslexia and the most difficult to remedy.

#### Phonological processing

Phonology is one small part of overall language ability. It is a low-level language skill in that it does not involve meaning. Phonology is the "sound system" of our language. Our spoken language is made up of words, word parts (such as syllables), and individual sounds (phonemes). We must be able to think about, remember, and correctly sequence the sounds in words in order to learn to link letters to sounds for reading and spelling. Good readers do this automatically without conscious effort. However, students with dyslexia have difficulty with identifying, pronouncing, or recalling sounds. Tests of phonological processing focus on these skills.

#### Automaticity/fluency skills

Students with dyslexia often have a slow speed of processing information (visual or auditory). Tasks measure Naming Speed (also called Rapid Automatic Naming). Sets of objects, colors, letters, and numbers are often used. These items are presented in rows on a card, and the student is

asked to name each as quickly as possible. Naming speed, particularly letter naming, is one of the best early predictors of reading difficulties. Therefore, it is often used as part of screening measures for young children. Slow naming speed results in problems with developing reading fluency. It also makes it difficult for students to do well on timed tests. Students with both the naming speed deficit and the phonological processing deficit are considered to have a "double deficit." Students with the double deficit have more severe difficulties than those with only one of the two.

#### Reading comprehension

Typically, students with dyslexia score lower on tests of reading comprehension than on listening comprehension because they have difficulty with decoding and accurately or fluently reading words. It is important, however, to be aware that students with dyslexia often have strong higherlevel oral language skills and are able to get the main idea of a passage despite difficulty with the words. Further, reading comprehension tasks usually require the student to read only a short passage to which they may refer when finding the answers to questions. For these reasons, students with dyslexia may earn an average score on reading comprehension tests but still have much difficulty reading and understanding long reading assignments in their grade-level textbooks.

#### Vocabulary knowledge

It is important to test vocabulary knowledge, because vocabulary greatly affects understanding when listening or reading. Difficulties students with dyslexia might have had in learning language or with memory can affect the ability to learn the meanings of words (vocabulary). Independent reading is also an important means for developing new vocabulary. Poor readers, who usually read less, are likely to have delays in vocabulary development. It is important to note, however, that students with dyslexia may perform poorly on reading vocabulary tests because of their decoding problems and not because they don't know the meaning of some words. For this

reason, it is best to administer both a reading and listening vocabulary task to get a true measure of vocabulary knowledge.

The profile of strengths and weaknesses of an individual with dyslexia varies with age, educational opportunity and the influence of co-occurring factors such as emotional adjustment, ability to pay attention in learning situations, difficulties with health or motivation. Nevertheless, clusters of distinguishing characteristics are frequently noted.

#### Family History and Early Development

- Reports of reading/spelling difficulties across generations in the family
- Normal prenatal and birth history
- Delays/difficulties acquiring speech/language

#### Early Childhood/Primary Grades

- Difficulty with rhyming, blending sounds, learning the alphabet, linking letters with sounds
- Difficulty learning rules for spelling—spell words the way they sound (e.g., lik for like); use the letter name to code a sound (lafunt for elephant)
- Difficulty remembering "little" words the, of, said—that cannot be "sounded out"
- Listening comprehension is usually better than reading comprehension—may understand a story when read to him but struggles when reading the story independently.

#### Middle and Secondary School

- Reluctant readers
- Slow, word-by-word readers; great difficulty with words in lists, nonsense words and words not in their listening vocabulary

- Very poor spellers—miscode sounds, leave out sounds, add or leave out letters or whole syllables
- Non-fluent writers—slow, poor quality and quantity of the product
- When speaking, may have a tendency to mispronounce common words (floormat for format); difficulty using or comprehending more complex grammatical structures
- Listening comprehension is usually superior to performance on timed measures of reading comprehension (may be equivalent when reading comprehension measures are untimed)
- Weak vocabulary knowledge and use

#### Outcomes of an evaluation

An evaluation should result in a written report. This report should detail the kinds of information collected. This includes information related to the family literacy history, any significant medical issues the child may have, prenatal and birth conditions, and preschool development, including language learning. The education history should include information on school attendance, tests administered and test scores. These scores should be stated as standard scores. Standard scores compare the learner to others of the same age or grade. This material should provide the framework for the detailed evaluation of relative strengths and weaknesses across the various skill areas assessed as well as the overall fit of all information with the typical profile of dyslexia for the child's age. This should lead to a tentative diagnosis that states that the child's ability to learn to read, write and spell does or does not appear to be related to dyslexia. The specific evidence that supports the diagnosis should be explained in the report.

#### **Diagnosis**

A diagnosis of dyslexia begins with the gathering of information gained from interviews,

observations and testing. This information may be is collected by various members of a team that includes including the classroom teacher(s), speech/language pathologist, educational assessment specialist(s), and medical personnel (if co-occurring difficulties related to development, health or attention are suspected).

The task of relating and interpreting the information collected should be the responsibility of a professional who is thoroughly familiar with the important characteristics of dyslexia at different stages in the development of literacy skills. This professional should also have knowledge of the influence of language development and behavior on literacy learning. Often, school psychologists and/or speechlanguage pathologists are responsible for this task.

CAUTION: An initial diagnosis of dyslexia should be offered only as a tentative conclusion based on the data available. A poor reader may appear to "fit the profile" of dyslexia. However, if the learner responds quickly to appropriate intervention, the source of the reading problem is more likely related to earlier educational opportunity than to problems in the child's physical makeup that limit the ability to learn from the instruction provided. The ability of the learner to benefit from instruction that is focused on the basic skills that support reading and spelling provides valuable information necessary to support or reject the initial diagnosis.

#### Intervention planning

Finally, the report should identify instructional programs that appear to be appropriate in meeting the specific skill(s) gaps and weaknesses identified through the evaluation process. Many children have already mastered some beginning reading skills. Thus, it is not always necessary or reasonable for a child to be placed in the very beginning lessons of a program. Although some programs have a placement test which helps the teacher to know where instruction should begin, many do not. For this reason, information about

the child's specific skill needs should be detailed in the report to assist in identifying the starting point for instruction. Recommended programs or intervention strategies should be consistent with the types of content and methods that research has shown to be effective for students with dyslexia and other poor readers. If warranted, a recommendation for further testing—vision, hearing, fine motor control (occupational therapy), attention, emotional adjustment—might also be included.

#### **Documentation**

The evaluation report should provide the documentation necessary to determine eligibility for special services, including special education. The specific guidelines for determining eligibility

are based on federal regulations set forth by IDEA. It is important to note, however, that the specific criteria, such as cutoff scores for eligibility vary from state to state.

The parent or guardian of a child with dyslexia must advocate for the best possible educational opportunities for that child. Effective advocacy requires understanding the diagnostic report and knowing the child's rights under the law. Information on related topics, such as teaching methodologies, accommodations, and instructional modifications are available in other IDA fact sheets.

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### Universal Screening: K-2 Reading

This fact sheet focuses on the importance of universal screening in the primary grades to identify students who are in need of reading intervention.

### What are the purposes for different types of assessment?

Assessment can have multiple purposes:

- Universal Screening—to determine a student's risk for reading difficulty and the need for intervention
- Intervention Planning—to make databased decisions for instruction informed by results of testing
- Progress Monitoring—to determine if progress is adequate or if more (or different) intervention is required
- Diagnostic Evaluation—to identify an individual's learning strengths and weaknesses and likely source of academic problems—and to determine if profile fits the definition of a learning disorder (diagnosis)

#### Universal Screening: K-2 Reading

Since research has shown that the rapid growth of the brain and its response to instruction in the primary years make the time from birth to age eight a critical period for literacy development (Nevills & Wolfe, 2009), it is essential to identify the instructional needs of struggling students as soon as possible. It is imperative to "catch them before they fall" (Torgesen, 1998). Thus, educators need to understand:

- The basic principles of universal screening
- Findings from cognitive science that are the basis of reading and literacy development

 Potential risk factors (i.e., "red flags") that indicate potential for common reading problems, including dyslexia

#### What is a screening?

Screening measures, by definition, are typically brief assessments of a particular skill or ability that is highly predictive of a later outcome. Screening measures are designed to quickly differentiate students into one of two groups: 1) those who require intervention and 2) those who do not. A screening measure needs to focus on specific skills that are highly correlated with broader measures of reading achievement resulting in a highly accurate sorting of students.

Universal screening tools have the following characteristics:

- Quick and targeted assessments of discrete skills that indicate whether students are making adequate progress in reading achievement
- Alternate equivalent forms so they can be administered three to four times a year
- Standardized directions for administration and scoring
- Have established reliability and validity standards

#### Why should we screen?

Universal screening results should identify those students who are potentially at risk for reading failure, including those who may have developmental reading disabilities.

Dyslexia is a neurobiological disorder. Research has shown that brain plasticity decreases through childhood. It takes four times as long to intervene in fourth grade as it does in late kindergarten (NICHD) because of brain development and

because of the increase in content for students to learn as they grow older. Children at risk for reading failure can be reliably identified even before kindergarten. "Deficits in phonological awareness, rapid automatized naming, verbal working memory and letter knowledge have been shown to be robust precursors of dyslexia in children as young as age three" (Gaab, 2017). Extensive evidence exists that supports the fact that early intervention is critical. Struggling readers who do not receive early intervention tend to fall further behind their peers (Stanovich, 1986).

Psychological and clinical implications of poor reading development can be prevented/minimized if we identify and intervene as early as possible.

#### **Screening Administration**

A screening instrument needs to be quickly and easily administered. Screening can occur as early as preschool, but no later than kindergarten and at least three times a year through second grade. It is imperative for screening to occur for all children, not just the ones "at risk" or who have already been determined to have reading failure. Students who are English Language Learners or speak in a different dialect should be included in this assessment. Since "dyslexia is strongly heritable, occurring in up to 50% of individuals who have a first-degree relative with dyslexia" (Gaab, 2017) initial screening should include family history. Teacher input on a child's phonological, linguistic and academic performance is also essential. Teachers can complete screening tools that require their rating of a child's abilities on a scale to measure risk of reading disability. Two examples of available tools include the Shaywitz Dyslexia Screen and the Colorado Learning Disabilities Questionnaire-Reading Subscale (CLDQ-R) School Age Screener. (See examples of Screening Tools at the end of this fact sheet.)

## What are typical screening measures by grade level?

Although a quick assessment, a screening battery should include key domains, identified as predictors of future reading performance.

#### Kindergarten

Research indicates that kindergarten screening measures are most successful when they include assessment of the following areas: phonological awareness including phoneme segmentation, blending, onset and rime; rapid automatic naming including letter naming fluency; letter sound association; and phonological memory, including non-word repetition (Catts, et al. 2015; Jenkins & Johnson, 2008).

#### First Grade

Research indicates first-grade screening measures are most successful when they include assessment of the following areas:

phoneme awareness, specifically phoneme segmentation, blending, and manipulation tasks; letter naming fluency; letter sound association; phonological memory, including nonword repetition; oral vocabulary; and word recognition fluency (i.e., accuracy and rate) (Compton, et al., 2010; Jenkins & Johnson, 2008).

The Center on Response to Interventions Screening Briefs indicate that oral reading fluency could be added in mid first grade. Second Grade:

The Center on Response to Interventions Screening Briefs indicate that in second grade, screening assessment should include word identification, oral reading fluency, and reading comprehension. Word identification assessments should include real and nonsense words.

#### K-2

The assessment of oral expressive and receptive language (including vocabulary, syntax and comprehension) provides key information in an individual's reading profile and is predictive of reading outcomes. Unfortunately, there are limited measures at the K-2 level to assess these

	SCREENING	EVALUATION
Time Involved	Brief; Administered individually or in a group	Lengthy; Administered individually
Characteristics	Criterion Referenced; Curriculum based measures; Arbitrary cut- off points	Norm Referenced; standardized based on standard scores, percentiles, grade/age based equivalencies
Focus	Specific skill areas	Extensive assessment of functioning (cognitive, academic, linguistic, motoric, behavioral)
Administrator	Teachers	Trained specialist (School Psychologist, LDT/C, Speech Language Therapist
Reason	Determine students who are at risk and in need of general education remediation	Identify strengths and weaknesses within profile in order to determine classification for special educations placement and services

#### Screening vs. Evaluation

The role of universal screening in primary grades to identify students who are in need of reading intervention has been widely studied. The old saying, "Just wait and they will catch up," does not hold up to all the empirical data and support for providing early intervention for struggling readers. Educators need to be well versed in the evidence-based methods that identify the risk for reading difficulty, and they need to make good decisions that provide appropriate educational interventions for their students who may be struggling. These decisions need to be informed by data that is gathered as a result of efficient assessments and progress monitoring that are accomplished in a regular and timely manner. It is critical that educators understand the importance of these factors in universal screening and early intervention to ensure that all students have the best opportunities for developing adequate literacy skills.

#### References

Catts, H. W., Nielsen, D. C., Bridges, M. S., Liu, Y. S., & Bontempo, D. E. (2015). Early identification of reading disabilities within an RTI framework. *Journal of Learning Disabilities*, 48(3), 281–297.

- Center on Response to Intervention (n.d.). *Progress monitoring*. Washington, DC: American Institutes for Research. Retrieved from <a href="http://www.rti4success.org/essential-components-rti/progress-monitoring">http://www.rti4success.org/essential-components-rti/progress-monitoring</a>
- Center on Response to Intervention (n.d.). Screening briefs. Washington, DC: American Institutes for Research. Retrieved from <a href="http://www.rti4success.org/resource/screening-briefs">http://www.rti4success.org/resource/screening-briefs</a>
- Center on Response to Intervention (n.d.). Screening tools chart. Washington, DC: American Institutes for Research. Retrieved from <a href="http://www.rti4success.org/resources/tools-charts/screening-tools-chart">http://www.rti4success.org/resources/tools-charts/screening-tools-chart</a>
- Compton, D. L., Fuchs, D., Fuchs, L. S., Bouton, B., Gilbert, J. K., Barquero, L. A., Cho, E., & Crouch, R. C. (2010). Selecting at-risk first-grade readers for early intervention: Eliminating false positives and exploring the promise of a two-stage gated screening process. *Journal of Educational Psychology*, 102(2), 327–340.
- Foorman, Barbara R.; Francis, David J.; Shaywitz, Sally E.; Shaywitz, Bennett A.; Fletcher, Jack M.
- Blachman, Benita A. (Ed). (1997). Foundations of reading acquisition and dyslexia: Implications for early intervention, (pp. 243-264). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers, xxii, 463 pp.
- Gaab, N. (2017). It's a myth that young children cannot be screened for dyslexia. Baltimore, MD: International Dyslexia Association. Retrieved from <a href="http://dyslexiaida.org/its-a-myth-that-young-children-cannot-be-screened-for-dyslexia/">http://dyslexiaida.org/its-a-myth-that-young-children-cannot-be-screened-for-dyslexia/</a>
- Gersten, R., Compton, D., Connor, C. M., Dimino, J., Santoro, L., Linan-Thompson, S., & Tilly, W. D. (2008). Assisting students struggling with reading: Response to Intervention and multi-tier intervention for reading in the primary grades. A practice guide. (NCEE 2009-4045). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <a href="http://ies.ed.gov/ncee/wwc/publications/practiceguides/">http://ies.ed.gov/ncee/wwc/publications/practiceguides/</a>

areas for screening purposes. Without such screening measures, testing for expressive and receptive language is usually done in diagnostic evaluations (Gersten et al., 2008).

There is no one test or assessment tool that measures all reading skills. Different assessments measure different discrete skills. Ideally, multiple measures for screening purposes should be used to ensure that all identified skills have been assessed at the appropriate grade level. When multiple measures are used to screen students, the accuracy of identifying those at risk improves significantly.

Some examples of screening assessment tools include (but are not limited to) DIBELS Next, Aimsweb, Predictive Assessment of Reading (PAR), and the Texas Primary Reading Inventory (TPRI). (Links to these examples are listed at the end of this fact sheet.)

#### Intervention Planning

Data from universal screenings should be used to make informed decisions about evidence-based interventions and the progress monitoring that should follow. Interventions should address the needs of the student, as identified by the screening process. Progress Monitoring is then done to determine if progress is adequate or if more (or different) intervention is required.

#### **Progress Monitoring**

Progress should be monitored frequently to determine the student's response to the chosen intervention and rate of improvement. The IES Practice Guide, Assisting Students Struggling with Reading: Response to Intervention (RTI) and Multi-Tier Intervention in the Primary Grades (Gersten et al., 2008) states that progress can be monitored weekly, but should be monitored no less than once per month.

Summary of suggested progress monitoring measures to use in K-2:

Grade	Measure
Kindergarten	Phonemic awareness
	measures (especially)
	measures of phoneme
	segmentation)
Grade 1	Fluent word recognition
	Nonword (pseudo word
	reading)
	Oral reading fluency
	(connected text)
Grade 2	Fluent word recognition
	Oral reading fluency

Source:

https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/rti\_re\_ading\_pg\_021809.pdf

# What is a comprehensive diagnostic evaluation and how does it differ from screening?

According to the Dyslexia Assessment Fact Sheet (Lowell, Felton, & Hooks, 2014), a formal clinical evaluation is necessary to determine a diagnosis of dyslexia if the student continues to struggle with literacy skills, despite high-quality instruction using an RTI (Response to Intervention) approach. Areas to be assessed, in depth, by a team of individuals include the following: phonological awareness, phonological or language-based memory, rapid automatic naming, receptive vocabulary, phonics skills, decoding/encoding real and pseudo-words, oral reading fluency, writing at the sentence and paragraph level. Evaluations are completed by trained specialists (e.g., psychologists and neuropsychologists, speech and language pathologists, or educational specialists who have advanced degrees in assessment or education.)

- Hosp, M., Hosp, J., & Howell, K. (2007). The ABCs of CBM: A practical guide to curriculum-based measurement. New York, NY: Guilford Press.
- Jenkins, J. R., & Johnson, E. S. (2008). Universal screening for reading problems: Why and how should we do this? New York, NY: RTI Action Network. Retrieved from <a href="http://www.rtinetwork.org/essential/assessment/screening/readingproblems">http://www.rtinetwork.org/essential/assessment/screening/readingproblems</a>
- Lowell, S., Felton, R. & Hook, P. (2014) Basic facts about assessment of dyslexia. Baltimore, MD: The International Dyslexia Association.
- Moats, L. C. (2005). Language essentials for teachers of reading and spelling module 8: Assessment for prevention and early intervention (K-3).

  Longmont, CO: Sopris West Educational Services.
- Nevills, P., & Wolfe, P. (2009). Building the reading brain, PreK-3 (2nd ed.). Thousand Oaks, CA: Corwin Press.
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21(4), 360–406.
- Torgesen, J. K. (1998). Catch them before they fall: Identification and assessment to prevent reading failure in young children. *American Educator*, 22, 32–39.

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