

MODULE 35: Intervention for dyslexia

As we have discussed in earlier modules, there is no cure for dyslexia. There are certainly strategies that an individual can practice in order to manage the disability. Dyslexia is a disorder that can make it very difficult for someone to read and express his or her thoughts in writing. Having dyslexia does not mean that the individual is a lost cause. With the right kind of work and effort, an individual can find ways to work with his or her dyslexia, and still lead a successful and fulfilling life. Without any work and effort, however, dyslexia can be a lifelong hindrance that holds an individual back, and keeps him or her from accomplishing their goals.

What you will learn in this module:

- 35.1 Observation
- 35.2 History
- 35.3 Testing
- 35.4 Highlight Strengths
- 35.5 Strategies to Cope with Dyslexia

35.1 Observation

The first step in designing interventions that will help an individual with dyslexia is diagnoses. So, how do you know when a person has dyslexia? We have discussed the struggles that people with dyslexia face in earlier modules, but these struggles do not necessarily point to dyslexia 100% of the time. Most individuals, who have dyslexia, find out about the disorder when they are children. It is easiest to observe in children who are constantly learning new things, and developing intellectually. We will briefly discuss observation of the disorder in adults because there are cases when dyslexia goes unnoticed for a long time. The bulk of our focus will be on observing signs of dyslexia in children.

35.1.1 Observation - Observing Dyslexia in Children (1 of 2)



Sometimes it can be difficult to tell why a child is struggling in school. There are so many factors that go into motivation and achievement. A vast number of obstacles (both self-imposed and not) can get in the way of a student's success. When it comes to dyslexia, however, there are a number of potential symptoms that you can use as indicators of the disorder, so let us review them here.

- Difficulty with the alphabet
 - Recalling what letters are called
 - Recalling the sounds that letters make
- Difficulty with word recognition and decoding
 - Identifying familiar words
 - Identifying unfamiliar words
- Difficulty with phonological awareness
 - Breaking words down into separate sounds (phonemes)
 - Identifying rhyming words or giving examples of words that rhyme
- Difficulty with spelling
 - Spelling words in the context of writing
 - Memorization

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35.1.1 Observation – Observing Dyslexia in Children (2 of 2)

- Difficulty with written expression
 - Producing lengthy written responses (as is grade appropriate)
 - Putting together cohesive sentences
 - Organizing ideas into a cohesive response



- Difficulty with reading comprehension
 - Understanding new ideas
 - Understanding subtext



- Difficulty with oral language skills
 - Understanding stories or texts that are read aloud
 - Remembering complex verbal instructions
 - Speaking in grammatically correct sentences
 - Choosing the right word for the right situation
 - Learning new vocabulary orally
 - Explaining his or her ideas verbally
- Difficulty with handwriting
 - Speed of handwriting
 - Accuracy of handwriting

If a child is showing significant difficulty with a number of theses skills, then there is a very good chance that he or she is suffering from some form of dyslexia. It is important to restate, however, that you need to compare the student's reading and writing skills to his or her intellectual ability to really know if deficiencies in these areas are a result of dyslexia. A student who is struggling because he or she does



not have a high IQ will also display deficiencies in these areas; deficiencies that are a result of the individual's low IQ, not a disability like dyslexia.

35.1.2 Observation - Monitoring Dyslexia in Children

Once you have identified that a child may have dyslexia, it is important to continue to monitor his or her progress to understand the full nature of the child's dyslexia. Remember that an individual can experience dyslexia in a variety of different ways; some severe and some more moderate. Understanding a child's specific difficulties with dyslexia will allow you to help the child as much as possible in dealing with the disability. In order to do this, you must monitor the child's dyslexia in phases, taking note of how it affects the child at different ages.

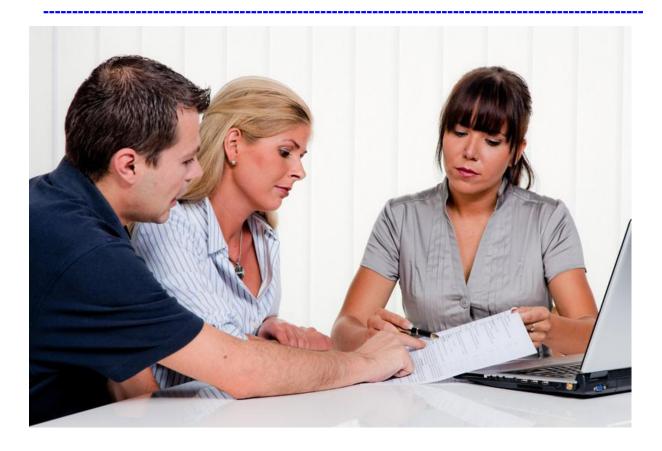
Phase 1: Initial identification of a learning difference (3-5 years of age)

Teachers and/or parents notice a deficiency in relevant reading and writing skills within grade appropriate tasks. Both parents and teachers take steps to help the child catch up to the grade-appropriate level in these skills, and monitor the results. If the interventions are not working, then phase 2 is needed.

Phase 2: Identification of a possible learning difficulty arising from dyslexia (5-7 years)

Teachers continue to observe the child's difficulties as formal reading instruction begins. If necessary, testing should begin at this age to identify the root of the child's struggles. If the learning difficulties continue to be consistent with dyslexia, and the child's test scores reinforce this conclusion, and individual plan or program needs to be created for the student. If the student continues to struggle with these skills, then phase 3 is necessary.





Phase 3: Identification of dyslexia and analysis of learning needs (7-12)

A team of classroom teachers, special education teachers, appropriate school psychologists, and parents/guardians meets to identify the most appropriate plan for the student (this is usually where IEP meetings begin). The idea is to find the student the least restrictive environment needed for achievement. The group discusses the child's current responses to interventions, and what the child needs. A plan is created, to be followed by all involved including the student. This is where it is most appropriate to make an official diagnosis, using teacher observations, academic achievement, and testing as appropriate evidence.

Phase 4: Annual review of learning needs (12+)

Every year, a meeting is held to assess the student's growth and needs, making adjustments to the plan from phase 3 where necessary, and discussing the efficacy of the student's current support system.

35.1.3 Observation - Observing Dyslexia in Adults



Dyslexia affects adults in the same way that it affects children. It can be more difficult to identify the disorder in adults because the situation to evaluate an adult's reading or writing comes about much less frequently than it does for children. Whether the adult realizes that he or she has dyslexia, he or she has learned to live with it, and is usually going through a lot of effort to hide his or her struggles. Because dyslexia affects adults the same as it does children, if you observe an adult struggling with the same skills that we have previously discussed, then he or she likely has dyslexia. However, in order to truly find dyslexia in adults who have not already been diagnosed, you may have to look for other behaviors and signs because they are probably hiding their struggles. Here are some potential symptoms:

- Individual has chosen a career or job that does not require him or her to read and/or write.
 Alone, this does not necessarily mean that the individual is dyslexic. He or she may have just chosen a job or career based on interest. However, you may observe that the individual exerts particular effort in avoiding reading or writing when it is expected.
- Individual gravitates towards tasks that require visual, spatial, and/or kinesthetic skills. This goes along with the previous idea, but you may observe that the individual thrives in tasks that require presenting, artistic representations, athletic prowess, trade skills, etc.
- Individual avoids or gets frustrated with sequential problems. You may notice that the
 individual gets very frustrated with planning meetings that deal with the sequential plan for
 the company, team, or workers (more frustrated than everyone else). A dyslexic adult who
 is compensating for his or her disability will often have a specific process for doing things,
 and may have difficulty straying from that process, even if it is more logical or efficient.



Individual avoids or passes up advancement opportunities that would require more
planning and administrative work. Most people would love to get a promotion or a
raise, unless that promotion/raise threatens to reveal a severe skill deficiency.

Dyslexic individuals may avoid this situation to avoid people finding out that they
struggle with reading and writing skills.



 Individual learns best through hands-on experience. Having instructions explained to him or her is not going to be very helpful. Dyslexic adults may need to get involved with a process to really learn it. If done right, they can often mask this as a strong work ethic, or a desire to "go the extra mile."

35.2 History

The term "dyslexia" has a fairly short history. The disorder has been something of a topic of curiosity since as far back as the 19th Century. For a very long time, experts have been very curious to understand why some people seem to have a mental block for learning, reading, and writing words. Even without the wealth of information and empirical evidence that we have today, experts were able to generally identify this inability as a problem or affliction. Let us take a very brief look at the history of our understanding of dyslexia.

35.2.1 History – The Beginning (1 of 2)

In the 19th Century, learning disabilities did not exist as a standard identification tool for children who struggled with specific aspects of learning. All such struggles, if they were accepted as a problem within the student and not simply written off as laziness or stupidity, were classified as medical problems. Medical diagnoses and medical "solutions" were often proposed. This early on, though, dyslexia was not dyslexia. Experts saw dyslexia as a medical problem that was keeping children from seeing words properly, and would identify it with terms like *word blindness* or *strephosymbolia*.



Word blindness: Word blindness is a medical term that is still used today, and is also call alexia. While alexia is a form of dyslexia, and individuals with alexia exhibit symptoms that are similar to individuals with dyslexia, they are different. Dyslexia is a developmental disorder that is present



in an individual from birth, but alexia is a condition that is caused by a specific event, usually a stroke. In the 19th Century, experts did not distinguish a difference between these two afflictions, and so dyslexia was considered a medical condition that was probably caused by an event in a person's life.

Strephosymbolia: This term is currently used to describe a condition in which the individual perceives objects as if they are in a mirror (the brain reverses the images). Strephosymbolia can be a form of dyslexia if the individual has difficulty reading words because the letters get reversed in his or her mind as if they are in a mirror.

These terms marked the earliest identifications of the disorder we would come to call dyslexia. They were used to describe the disability as a medical condition rather than an educational and developmental disorder.

35.2.1 History – The Beginning (2 of 2)

Dyslexia became the well-known and accepted learning disability that it currently is through a long and evolving process, starting in the 19th Century. Along the way, many experts have contributed to our current understanding of the disorder.



Adolph Kussmaul (German neurologist, 1878): In analyzing his own patients, he noticed that many of them struggled with reading, and often mixed up the order of the words in a text. He was the first to call this affliction "word blindness," and identified it as a neurological impairment.

Dr. Dejerne (1891): Dr. Dejerne took on a patient who was struggling with many of the difficulties that we now associate with dyslexia as a result of an accident where



he was struck with a crowbar. This furthered the idea that word blindness was a medical condition brought on by a traumatic injury.

Dr. James Hinshelwood (Scottish eye surgeon, 1900): Claimed that the problems associated with dyslexia (again, it was not known as dyslexia at the time) were a result of a defect in a person's eyes; that these individuals had a defect in the communication between the eyes and the brain.

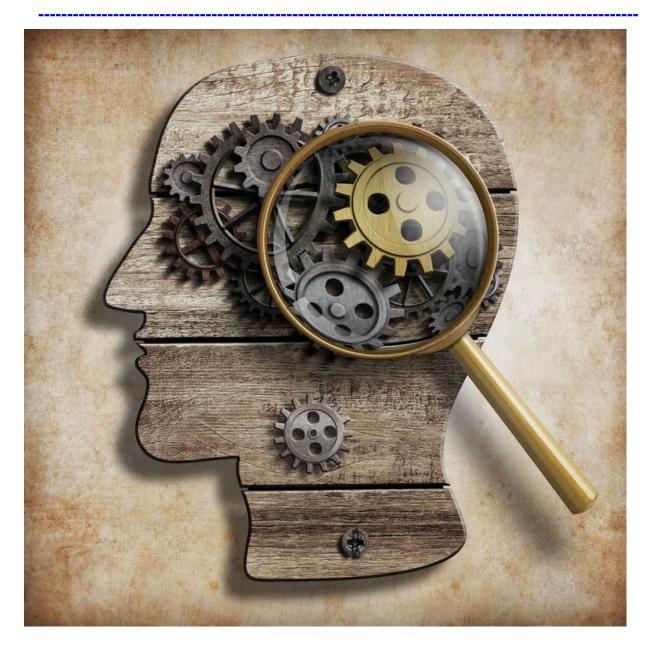
It was not until the 1930's that experts began to shift their classification of this disorder as a medical condition to a developmental disorder.

35.2.2 History – Dyslexia as a Developmental Disorder

During the rise of educational and psychological research in the mid 20th Century, experts began to realize that dyslexia was a learning disability, not a medical condition that could be treated. This distinction is extremely important for several reasons:

- Experts began to agree that dyslexia was a disability that was best treated in an
 educational setting. This is important because dyslexia is a disability that most
 directly affects an individual's educational growth in reading and writing. True
 intervention needs to address that component first and foremost.
- Experts realized that dyslexia was not a condition that needed medication or a
 cure. This opened up many new opportunities for intervention and growth. Instead
 of spending resources trying to find a cure that does not exist, experts were able
 to exert their effort and expertise in finding strategies that would help with
 diagnosis and management of dyslexia.
- By giving the power of treating dyslexia to psychologists, experts accepted that
 this was a disability of the brain, allowing professionals who were most equipped
 to help dyslexic patients the opportunity to do so.
- This eventually led to our current model of intervention, which typically occur within, and are the responsibility of, the school system.





While we are not done researching, analyzing, and understanding dyslexia, we have come a long way in terms of understanding the disability. The current progress of experts is owed directly to all who contributed to dyslexia's path of understanding. Even those experts who misdiagnosed the disorder as a medical condition because their diagnoses brought attention and credence to an otherwise unknown problem.



35.3 Testing

Diagnosing dyslexia can be very difficult because it represents such a vast litany of difficulties. Symptoms of dyslexia can often be misrepresented as something else. Once you have observed that a child is having difficulty with the skills that we have previously discussed, you can diagnose dyslexia by giving the child a series of tests that will reinforce your evaluation of the child.

35.3.1 Testing – Dyslexic Tests (1 of 2)

There is no one test designed entirely to identify whether an individual is dyslexic or not because dyslexia is such a complex disability. Instead, experts often use a series of tests, the results of which combined will give an accurate picture of the deficiencies that are causing the individual to struggle. If the skills that the individual struggles with match up to those associated with dyslexia, then experts can accurately make a diagnosis. Here is a general idea of the range of tests that experts might use to assess an individual's dyslexia:

- Wechsler Intelligence Scale for Children-Third Edition (WISC-III): This is a test that
 experts use to calculate a child's overall IQ, and can be done without reading or writing.
 When diagnosing dyslexia, experts would expect a dyslexic child to do better on this test
 than he or she does on the tests that focus more directly on reading or writing. This is
 essentially used as a baseline to decide if the child's reading and writing are in line with
 his or her intellectual ability.
- Kaufman Assessment Battery for Children (KABC): This test is used to gauge a child's cognitive development. Much like the Wechsler, it is used as a baseline to compare with specific reading and writing scores.
- Stanford-Binet Intelligence Scale: This is another intelligence test. This test assesses five weighted factors: knowledge, quantitative reasoning, visual-spatial processing, working memory, and fluid reasoning.
- Wechsler Individual Achievement Tests (WIAT): This is a general, but focused test that
 assesses a child's academic achievement in reading, writing, math, and oral language.
 This is a great test for identifying struggles that are associated with dyslexia.

35.3.1 Testing – Dyslexic Tests (2 of 2)

- Kaufman Tests of Educational Achievement (KTEA): Another academic achievement test that assesses a child's abilities in reading, writing, math, and oral language.
 There are also subtests within the KTEA that assess specific abilities within these skills that are directly associated with dyslexia.
- Bender Gestalt Test of Visual Motor Perception: This is a test that can be used to assess visual-motor maturity, and ultimately can indicate developmental disorders like dyslexia.



- Test of Auditory Perception (TAPS): This is a helpful assessment when testing a child's phonological awareness, blending, and word discrimination.
- Test of Visual Perception (TVPS): The TVPS is very helpful in assessing a child's visual perception. Using black and white, the test requires an individual to discriminate between objects visually, demonstrate a visual sequential memory, and analyze visual/spatial relationships.
- Peabody Picture Vocabulary Test-Revised: The Peabody is a great test for assessing visual memory and scholastic aptitude, as it requires an individual to match up words with corresponding images.
- Expressive One-Word Picture Vocabulary Test: This is another great visual test that requires and individual to name an object, action, or concept that is shown in an illustration.



 Test for Auditory Comprehension of Language: This is a test of more traditional fluency that assesses a child's ability to recognize, identify, and use vocabulary, identify and understand grammatical morphemes, and work with long and complex words and sentences.



Once an expert has administered a few of these tests to an individual who is suspected of having dyslexia, he or she can take a comprehensive look at the results to identify symptoms of the disability, and potentially make a diagnosis. These tests will collectively show the expert if the struggles that the individual is dealing with are consistent with symptoms of dyslexia.

35.4 Highlight Strengths

When discussing a developmental disorder like dyslexia, it can be easy to focus so heavily on the individual's deficiencies that we forget to put focus on the individual's strengths. Yes, dyslexia is a disorder that can make it extremely difficult for an individual to read fluently and express him or herself in writing, but it does not fundamentally affect an individual's intelligence. Dyslexic individuals are fully functioning people who can be highly intelligent and wildly successful despite the difficulties caused by their disorder. That is why, especially with children, it is important to focus on strengths as well as weaknesses. Dyslexia can be a very frustrating problem to struggle with, and negative thinking and lack of support will only reinforce those frustrations.

35.4.1 Highlighting Strengths – Common Strengths

When we discussed the deficiencies often associated with dyslexia, we discussed how every individual is different, and how dyslexia can affect individuals in a wide range of levels of severity. This is similar when we talk about common strengths of individuals with dyslexia. These are common strengths that have been observed in many dyslexic patients, but just because a strength is on this list does not mean that every dyslexic individual will possess it. Here are a few of the common strengths that are often observed in dyslexic individuals:

 Mechanical ability: Many dyslexic individuals flourish with remembering and working within known processes. This means that once they understand how something works, they can usually retain that knowledge and use it to fix or create mechanical objects.





- Creative thinking: While dyslexic individuals often struggle with reading or writing, they are
 often very intelligent and have profound and creative ideas for big-picture thinking.
- Vivid imagination
- People skills: Dyslexic individuals often learn to compensate for their weaknesses with people skills. They often do well remembering names and faces, and making connections with the people around them.
- Artistic ability: Because of their vivid imagination and creative thinking skills, artistic
 endeavors come easy to many dyslexic individuals. This is why it can be very helpful for
 teachers to give dyslexic students more than one way to express their understanding of
 the material.
 - Curiosity: Dyslexic individuals are often more curious about the world around them.
 Perhaps this comes from the early reinforcement of perception not aligning with reality, but dyslexic individuals are often more likely to question the norm and find their own path.

35.4.2 Highlighting Strengths - Celebrating Successes

While there are plenty of strategies that individuals can use to overcome and manage their dyslexia, teachers can help them as well by celebrating their successes and offering them



opportunities to play to their strengths when possible. Reading and writing are extremely important. Dyslexic individuals need to work harder than others to work on these skills. Teachers can also give dyslexic students (and all students) the opportunity to show their understanding in less conventional ways. A student does not have to write an essay to show that he or she has mastered the material. Here are some assessment tools that teachers can use to help dyslexic individuals celebrate their strengths and their success:

- Through artistic representations.
- Presentations where the students can deliver material verbally.
- Group projects where each student has a different role and task
- Assessments that ask students to take on the role of the teacher.

These types of activities can help prepare dyslexic students by showing them how they can use their strengths in tandem with reading and writing to find success. This is a great learning experience that will prepare them for their careers. Traditionally, dyslexic individuals find the most success and satisfaction in careers like:

- Teaching
- Psychology
- Carpentry
- Music
- Design
- Graphic arts
- Acting or performing arts
- Architecture
- Athletics
- Electronics





As we have discussed before, many dyslexic individuals have gone on to find great success, and positive reinforcement will help motivate dyslexic students to continue improving themselves.

35.5 Strategies to Cope with Dyslexia

Once an individual has been diagnosed with dyslexia, it is time to help him or her find a way to cope with, and manage the disability. Even with dyslexia, individuals can improve in their reading and writing; it just takes more work than it would for someone who does not have dyslexia. Here is a list of ways that you can help someone with dyslexia cope with his or her disability:

- Remind the dyslexic individual that his or her dyslexia is not a reflection of intelligence. This needs to be constantly reinforced because struggling with reading or writing can make someone feel stupid. Constantly remind the dyslexic individual that they are very intelligent.
- Help the individual look at the big picture when he or she gets frustrated with details. This
 serves two purposes: it helps to calm the individual and ease some of the frustration, and
 it gives the individual the opportunity to focus on something that is a strength of his or
 hers.
- Help train the individual to use charts and graphic organizers even when the teacher does
 not provide one. The teacher did not give you a chart to work with? Make your own. When
 dyslexic individuals learn this strategy early, it becomes an inherent action and can help
 them tremendously.



• If you are a parent and think your child may be dyslexic, seek help early. The earlier that dyslexia is recognized (and potentially diagnosed), the quicker and easier a child can get help. Just like any learning, if it starts early it is more likely to stick.



 Never stop fighting for the individual, and never let him or her stop fighting. It is sometimes difficult to get the accommodations and resources that one may need to cope with dyslexia. Know the rights that are afforded to dyslexic individuals and do not let anyone(be it schools, employers, or anyone else)deny these rights.

The earlier that a dyslexic individual learns how to cope with the disability, the more opportunity he or she will have to develop appropriate coping strategies. With the proper attention, support, motivation, and effort, a dyslexic individual can go on to find a lot of success.

EXAM LINK