

## **Specific Learning Disorder**

This developmental disorder involves difficulties learning and using academic skills. “Specific Learning Disorder” has become the umbrella term for mathematics, reading, and written expression disorders in the updated DSM-5. The DSM-IV previously classified these as separate diagnoses. Instead, these disorders are now housed under one diagnosis with added specifiers (e.g., specific learning disorder with impaired reading).

The biological origin of a learning disorder is likely an interaction of genetic and environmental factors, which affect the brain’s ability to perceive or process verbal or nonverbal information efficiently and accurately. Key academic skills of deficit include reading of single words accurately and fluently, reading comprehension, written expression and spelling, arithmetic calculation, and mathematical reasoning (solving math problems).

In contrast to talking or walking, which are acquired developmental milestones that emerge with brain maturation, academic skills (e.g., reading, spelling, writing, mathematics) have to be taught and learned explicitly. Specific learning disorder disrupts the normal pattern of learning academic skills; it is not simply a consequence of lack of opportunity of learning or inadequate instruction.

A key feature is that the individual’s performance in a particular area is well below average for age. Oftentimes, individuals with a learning disorder will achieve at least 1.5 standard deviations below the norm for their age on standardized achievement tests within domain of difficulty.

Another core feature is that the learning difficulties are readily apparent in the early school years in most individuals. However, in others, the learning difficulties may not manifest fully until later school years, by which time learning demands have increased and exceed the individual’s limited capacities.

Finally, the learning difficulties are not better accounted for by intellectual disabilities, uncorrected visual or auditory acuity, other mental or neurological disorders, psychosocial adversity, lack of proficiency in the language of academic instruction, or inadequate educational instruction.

The following describe the updated 2013 DSM-5 diagnostic subtypes of Specific Learning Disorder:

### **1. Specific learning disorder with impairment in reading includes possible deficits in:**

- Word reading accuracy
- Reading rate or fluency
- Reading comprehension

*DSM-5 diagnostic code 315.00.*

**Note:** *Dyslexia* is an alternative term used to refer to a pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding and poor spelling abilities.

**2. Specific learning disorder with impairment in written expression includes possible deficits in:**

- Spelling accuracy
- Grammar and punctuation accuracy
- Clarity or organization of written expression

*DSM-5 diagnostic code 315.2.*

**3. Specific learning disorder with impairment in mathematics includes possible deficits in:**

- Number sense
- Memorization of arithmetic facts
- Accurate or fluent calculation
- Accurate math reasoning

*DSM-5 diagnostic code 315.1.*