

Specific Learning Disabilities

Federal Definition (Including IDEA) and other commonly used definitions)

Specific Learning Disability

The term shall have the meaning given in federal law at 34 C.F.R. §§300.7 and 300.541.

Federal Definition:

Specific learning disability is defined as follows:

- (i) General. The term means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.
- (ii) Disorders not included. The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage

<http://www.doe.mass.edu/sped/definitions.html>

Causations of disabilities (when known)

- **Familiarity studies.** A method of determining the degree to which a give condition is inherited; look at the prevalence of the condition in relatives of the person with the condition.
- **Heritability studies.** A method of determining the degree to which a condition is inherited; a comparison of the prevalence of a condition in identical (i.e. monozygotic, from the same egg) twins versus fraternal (i.e., dizygotic, from two eggs) twins.
- **Teratogens.** Agents, such as chemicals, that can disrupt the normal development of the fetus; a possible cause of learning disabilities and other learning and behavioral problems.
- **Fetal alcohol syndrome (FAS).** Abnormalities associated with the mother's drinking alcohol during pregnancy; defects range from mild to severe.
- **Fetal alcohol spectrum disorders.** A range of disorders whose mothers consumed large quantities of alcohol during pregnancy.
(Hallahan, Kauffman, and Pullen, 2009, p. 194-195)

Characteristics of disabilities

- **Decoding.** The ability to convert print to spoken language; dependent on phonemic awareness and understanding of the alphabetic principles; a significant problem for many people with reading disabilities.
- **Phonological awareness.** The ability to understand that speech flow can be broken into smaller sound units such as words syllables, and phonemes; generally thought to be the reason for the reading problems of many students with learning disabilities.
- **Phonemic awareness.** One's ability to understand that words are made up of sounds, or phonemes.
- **Reading fluency.** The ability to read effortlessly and smoothly; consists of the ability to read at the normal rate and with appropriate expression; influences one's reading comprehension.
- **Reading comprehension.** The ability to understand what one has read.
- **Syntax.** The way words are joined together to structure meaningful sentences (i.e., grammar).
- **Semantics.** The study of the meanings attached to words.
- **Phonology.** The study of how individual sounds make up words.
- **Pragmatics.** The study within psycholinguistics of how people use language in social situations; emphasizes the functional use of language, rather than mechanics.
- **Attention Deficit Hyperactive Disorder.** A condition characterized by severe problems of inattention, hyperactivity, and/or impulsivity; often found in people with learning disabilities.
- **Short-term memory (STM).** The ability to recall information after a short period of time.
- **Working memory.** The ability to remember information while also performing other cognitive operations.

- **Metacognition.** One's understanding of the strategies available for learning a task and the regulatory mechanisms needed to complete the task.
- **Comprehension monitoring.** The ability to keep track of one's own comprehension of reading material and to make adjustments to comprehend better while reading; often deficient in students with learning disabilities.
- **Nonverbal learning disabilities.** A term used to refer to individuals who have a cluster of disabilities in social interaction, math, visual-spatial tasks, and tactual tasks.
- **Locus of control.** A motivational term referring to how people explain their successes or failures; people with an internal locus of control believe that they are the reason for success or failure, whereas people with an external locus of control believe that outside forces influence how they perform.
- **Learned helplessness.** A motivational term referring to a condition in which a person believes that no matter how hard he or she tries, failure will result.
(Hallahan, Kauffman, and Pullen, 2009, p. 196-202)

What does a student with (specific disability) need from a teacher (regarding structure and organization, curriculum, expectations, special adaptations, transition, and/or social relationships with peers)?

- **Cognitive training.** A group of training procedures designed to change thoughts or thought patterns.
- **Self-instruction.** A type of cognitive training technique that requires individuals to talk aloud and then to themselves as they solve problems.
- **Self-monitoring.** A type of cognitive training technique that requires individuals to keep track of their own behavior.
- **Scaffolded instruction.** A cognitive approach to instruction in which the teacher provides temporary structure or support while students are learning a task; the support is gradually removed as the students are able to perform the task independently.
- **Reciprocal teaching.** A cognitive teaching strategy whereby the student gradually assumes the role of co-instructor for brief periods; the teacher models four strategies for the students to use: (1) predicting, (2) questioning, (3) summarizing, and (4) clarifying.
- **Content enhancement.** The modification of curriculum materials to make them more salient or prominent, e.g., graphic organizers and mnemonics.
- **Graphic organizers.** A way of enhancing content visual displays using lines, circles, and boxes to organize information.
- **Mnemonics.** The use of memory-enhancing cues to help one remember something.
- **Direct Instruction (DI).** A method of teaching academics, especially reading and math; emphasizes drill and practice and immediate feedback; lessons are precisely sequenced, fast-paced, and well-rehearsed by the teacher.
- **Task analysis.** The procedure of breaking down an academic task into its component parts for the purpose of instruction; a major feature of Direct Instruction.
- **Classwide peer tutoring (CWPT).** An instructional procedure in which all students in the class are involved in tutoring and being tutored by classmates on specific skill as directed by their teacher.
- **Curriculum-based measurement (CBM).** A formative evaluation method designed to evaluate performance in the curriculum to which students are exposed; usually involves giving students a small sample of items from the curriculum in use in their schools; proponents argue that CBM is preferable to comparing students with national norms or using tests that do not reflect the curriculum content learned by the students.
- **Baseline data point.** Used in CBM; the beginning score gathered before an intervention begins, e.g., the number of correct words per minute that a student reads before receiving a fluency intervention.
- **Expected growth norms.** Used with CBM; the rate at which the average student is expected to learn given typical instruction.
- **Aim line.** Used in CBM; based on expected growth norms, a line drawn from the baseline data point to the anticipated end of instruction.
- **Informal reading inventory (IRI).** A method of assessing reading in which the teacher has the student read progressively more difficult series of word lists and passages; the teacher notes the difficulty level of the material read and types of errors the student makes.
- **Error analysis.** An informal method of teacher assessment that involves the teacher noting the particular kinds of errors a student makes when doing academic work.
- **Standardized achievement assessment.** A method of evaluating a person that has been applied to a large group so that an individual's score can be compared to the norm, or average.
(Hallahan, Kauffman, and Pullen, 2009, p. 203-212)

Organizations that support, work for, or advocate for the disability.

- [Succeeding with LD: 20 True Stories about Real People with LD](#) - 20 first-person accounts from children, adolescents, and adults ages 10 to 61 who have struggled in school—or their careers—because of learning problems. The subjects, who include include Paul Orfalea, the founder of Kinkos, and paleontologist Jack Horner, share happy and sad experiences as well as strategies that helped them move beyond obstacles. Many attended special schools and fought to achieve success. Reader questions generated by each story appear in the margins.
 - [Kidsource articles on LD](#) - Practical articles from Kidsource on learning disabilities, including those on education & disabilities and speech & language development
 - [Learning Disabilities Explained](#) - Have you heard terms like dyslexia, dysgraphia, dyscalculia, dyspraxia, non-verbal learning disorder, and wondered what they all mean? If so, this is the site for you. This area of the site covers three different categories including: What is a learning disability?, What is NOT a learning disability?, and the various Types of learning disabilities.
 - [10 Tips for Software Selection for Math Instruction](#) - Many students with learning disabilities struggle to learn mathematics. Students have trouble understanding mathematical concepts, recalling and carrying out mathematical procedures, and solving a range of mathematical problems. Importantly, researchers have identified a range of effective mathematics interventions for students with disabilities. Computer-aided instruction has been shown to be an effective tool for mathematics instruction.
 - [Book - Nonverbal Learning Disabilities at School](#) - This book has absolutely terrific ideas for how to modify and accommodate an NLD child at school. It provides a subject by subject blueprint for modifying curriculum that makes it fast and easy for a classroom teacher to accommodate different learners. A must for parents working through the IEP process for their children--bring it to your meetings!
 - [Assistive Technology for Children with Learning Difficulties](#) - This extensive guide was prepared by the Frostig Center in Pasadena, California. It identifies the various types of AT for writing, reading, listening, organization/memory, and math. Under each type, there is a list of specific devices with descriptions on how it can help people with learning disabilities. Next, they discuss how to select the best AT for your child and the importance of knowing the intended purpose for it. There is a list of "Steps to Success" for selecting AT, frequently-asked-questions, and additional Internet Resources. Finally, the last page is a table, Technologies by Area of Difficulty, which shows which technology can help with each learning difficulty.
 - [Learning disabilities: Tips for parents](#)- Basic facts to help parents recognize and cope with learning disabilities.
 - [Struggling Teens.com](#) - A resource for parents and professionals helping teens with behavioral and/or learning disability problems.
 - [Schwab Learning](#) – Schwab Learning contains more than 200 pages of content on learning differences and disabilities. On the site, parents can easily navigate between: a) Identifying a Learning Difference b) Managing a Learning Difference and c) Connecting with Others. It draws upon the work of recognized authorities, current studies and leading institutions in the fields of learning, child development, education and psychology, but is written and organized to be easily understood and accessible to parents. New features and content are added weekly.
 - [Early Warning Signs of Learning Disabilities](#) -
 - [LD Online](#) - LD Online is simply the leading resource site for parents, teachers and professionals interested in learning disabilities. It has extensive information resources, offers access to leading LD experts, and provides current, research-based information.
 - [Interactive Learning Disabilities Checklist](#) -
 - [The ABCs of Learning Disabilities](#) - A good place to start if you are brand new to learning disabilities.
 - [Ways to Get Students with Learning Disabilities to Write More](#) - Learning how to write is not an easy process and takes a lot of practice, for anyone. For a person with a learning disability this learning process can be harder still and may take even more practice. This article offers ways to motivate a person with a learning disability to practice writing enough so that they learn from their own writing experience.
 - [LD and Your Child: An Age-by-Age Guide](#) - Learning disabilities can "look" different at different ages. If your child is struggling Find out about learning disabilities at different ages from this age by age guide plus get a tip about what your "next step" ought to be.
- <http://www.ideallives.com/resources.php?a=lc&lid=35>

Long term implications of the disability on adolescents and adults

Although it would seem that IQ and achievement would be the best predictors of success, according to successful adults with learning disabilities, the things that set them apart from those who are not as successful are the following:

- An extraordinary degree of perseverance
- The ability to set goals for oneself
- A realistic acceptance of weakness coupled with an attitude of building on strengths
- Access to a strong network of social support from friends and family
- Exposure to intensive and long-term educational intervention
- High quality on-the-job or postsecondary vocational training
- A supportive work environment
- Being able to take control of their lives

(Hallahan, Kauffman, and Pullen, 2009, p. 216)

Current trends

- **Early Intervention**
- **Individualized Education Plans**

Annotated bibliography of at least 6 resources (websites, booklist, articles) for each disability area

- For first-person accounts of having a learning disability, visit www.Idonline.org/first_person/first_person_archives.html
- This page is contained on the LD-Online Website, which is a service of the Learning Project of WETA in Washington, DC. Visit the LD-Online home page for more information on learning disabilities: www.Idonline.org
- The Learning Disabilities Association of America remains the major parent organization for learning disabilities. Its Website at www.Idanatl.org contains a variety of information on learning disabilities for parents and professionals.
- To see an executive summary of papers from the Learning Disabilities Summit, as well as videos of the presenters, visit www.air.org/LDsummit/default.htm
- To see the full text for the Helmuth article from Science, see www.sciencemag.org/content/vol291/issues5511/index.shtml
- In 1999, two mothers of daughters with nonverbal learning disabilities started a Website devoted to information on nonverbal learning disabilities: www.nldontheweb.org
- The Division for Learning Disabilities of the Council for Exceptional Children maintains a Website devoted to research-based, teaching practices: www.TeachingLd.org
- Another professional organization providing information on learning disabilities is the Council for Learning Disabilities: www.cldinternational.org
- For more information on DI, visit the Association for Direct Instruction Website: www.adihome.org
- For more information on PALS, visit their Website: www.kc.vanderbilt.edu/kennedy/pals
- For more information on the University of Kansas Center for Research on Learning, visit www.ku-crl.org
(Hallahan, Kauffman, and Pullen, 2009, p. 186-216)