

NASET LD Report #10

Assessment Measure Used to Determine Learning Disabilities in Students

The definition for a specific learning disability cited in the 2004 Individuals with Disabilities Education Improvement Act (IDEA) is:

A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Such term includes conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Such term does not include a learning problem that is primarily the result of visual, hearing, or motor disabilities; of mental retardation; of emotional disturbance; or of environmental, cultural or economic disadvantage.

Under IDEA 2004, when determining whether a child has a specific disability, a local education agency shall not be required to take into consideration whether a child has a severe discrepancy between achievement and intellectual ability.

Learning disabilities (LD) vary from person to person. One person with LD may not have the same kind of learning problems as another person with LD. One may have trouble with reading and writing, another with understanding math, and another in each of these areas, as well as with understanding what people are saying.

Researchers think that learning disabilities are caused by differences in how a person's brain works and how it processes information. Children with learning disabilities usually have average or above-average intelligence. Their brains just process information differently (National Dissemination Center for Children with Disabilities, 2004).

Interestingly, there is no clear and widely accepted definition of learning disabilities. Because of the multidisciplinary nature of the field, there is ongoing debate on the issue of definition, and there are currently at least twelve definitions that appear in the professional literature. There are several technical definitions offered by various health and education sources.

Overall, most experts agree that (cited in Pierangelo & Giuliani, 2006):

- Individuals with learning disabilities have difficulties with academic achievement and progress.
- Discrepancies exist between a person's potential for learning and what he or she actually learns.
- Individuals with learning disabilities show an uneven pattern of development (language development, physical development, academic development, or perceptual development).
- Learning problems are not due to environmental disadvantage.
- Learning problems are not due to mental retardation or emotional disturbance.
- Learning disabilities can affect one's ability to read, write, speak, spell, compute math, and reason and also affect a person's attention, memory, coordination, social skills, and emotional maturity.

- Individuals with learning disabilities have normal intelligence, and sometimes even giftedness.
- Individuals with learning disabilities have differing capabilities, with difficulties in certain academic areas but not in others.
- Learning disabilities affect either input (the brain's ability to process incoming information) or output (the person's ability to use information in practical skills, such as reading, math, and spelling).

As many as one in every five people in the United States has a learning disability. Almost 3 million children (ages 6 through 21) have some form of a learning disability and receive special education services in school. In fact, over half of all children who receive special education have a learning disability (U.S. Department of Education, 2002).

According to the Child Development Institute (2005) Children with learning disabilities exhibit a wide range of symptoms (previously mentioned). Learning disabilities typically affect five general areas:

- Spoken language: delays, disorders, and deviations in listening and speaking
- Written language: difficulties with reading, writing, and spelling
- Arithmetic: difficulty in performing arithmetic operations or in understanding basic concepts
- Reasoning: difficulty in organizing and integrating thoughts
- Memory: difficulty in remembering information and instructions

If a child has unexpected problems learning to read, write, listen, speak, or do math, teachers and parents may want to investigate. The same is true if the child is struggling to do any one of these skills. The child may need to be evaluated to see if he or she has a learning disability (National Dissemination Center for Children with Disabilities, 2004a)

A learning disability usually has a history that can be traced to a child's early years in school. Many schools use kindergarten screening programs to identify high-risk children. It is normally at this stage that some signs of a potential problem may be noticed. As the child progresses through school and the work demands increase, the symptoms of a possible learning disability may become more apparent. Once these symptoms are recognized, the child is usually referred to the child study team, a local school-based team, to determine whether a suspected disability exists. If the study team suspects that the student has a disability, a referral is made to the multidisciplinary team for a comprehensive assessment. This assessment will cover many areas, including reading, writing, spelling, math, and perceptual, cognitive, psychological and social skills. Other areas of information will be gathered as well from the classroom teacher, parent, and the student.

If the comprehensive assessment indicates the presence of a learning disability, the child will receive special education services and supports. In most cases these services and supports can be maintained in the regular education setting through resource room, inclusion, or special education classes.

The rest of this LD Report will describe some of the most commonly used measures for assessment of learning disabilities.

Analytic Learning Disability Assessment (ALDA)

General Test Information

Authors: Thomas D. Gnagey and Patricia A. Gnagey

Publisher: Slosson Educational Publications

Address of Publisher: P.O. Box 280, East Aurora, NY 14052

Telephone Number: 1-888-756-7766

Fax Number: 1-800-655-3840

Web Site of Publisher: www.slosson.com

Type of Test: Assessment of Learning Disabilities

Administration Time: 75 minutes

Type of Administration: Individual

Ages/Grade Levels: Kindergarten to high school (most reliable for ages 8 to 14)

Purpose and Description of Test

The ALDA was designed specifically to match the student's unique learning style with the most effective method of learning. It tests the seventy-seven skills that underlie the basic school subjects. Each subtest taps a discrete learning process called a unit skill. Each neuropsychological unit skill is a small, practically functional skill unit of brain processing, such as sound blending and visual figure-ground discrimination.

Subtest Information

The ALDA analyzes reading, spelling, math computation, and handwriting into the several diverse ways that, according to recent neuropsychological research, a student's brain seems to be able to go about learning each. It matches the strengths and weaknesses of the student's underlying skills with that student's most appropriate learning method for each school subject: eleven reading methods, twenty-three spelling methods, six math computation methods, and eight handwriting methods. The learning methods are ranked in order, with the most effective and efficient being numbered one and the higher numbers being the most time-consuming.

Strengths of the Test

- The results are quickly transformed onto the accompanying multipage Recommendation Pamphlet, creating an individualized teaching plan providing specific procedures and methods for the students. The beginning section of the pamphlet is devoted to how the student can function best in the general classroom no matter what the activity or subject.

It proceeds to the specific recommendations for each subject area. Often these recommendations fit into established classroom procedures. The special education teacher can take the results of each subtest and know where to begin remedial work, as well as have an indication of just how strong or weak each skill is at that time.

Dyslexia Early Screening Test-Second Edition (DEST-2)

General Test Information

Authors: Rod Nicolson and Angela Fawcett

Publisher: Harcourt Assessment (formerly known as the Psychological Corporation and Harcourt Educational)

Address of Publisher: 6277 Sea Harbor Drive, Orlando, FL 32887

Telephone Number: 1-800-211-8378

Fax Number: 1-800-232-1223

Web Site of Publisher: www.harcourt.com

Type of Test: Assessment of learning disabilities

Administration Time: 30 minutes

Type of Administration: Individual

Ages/Grade Levels: Ages 4-6 to 6-5

Purpose and Description of Test

The DEST-2 profiles strengths and weaknesses often associated with dyslexia.

Subtest Information

The ten diagnostic subtests cover the range of skills known to be affected in dyslexia:

- Rapid Naming—Measures the time it takes to name a page full of outline drawings
- Bead Threading—Assesses hand and eye coordination
- Phonological Discrimination—Assesses the ability to hear the sounds in words
- Postural Stability—Provides an accurate index of balance ability
- Rhyme Detection—Assesses the ability to tell whether words rhyme and to determine the first letter sound
- Digit Span-Forward—Provides an index of a child’s working memory
- Digit Naming—Checks whether the child is able to name the digits from 1 to 9
- Letter Naming—Determines if a child can name lowercase letters
- Sound Order—Determines if a child can discriminate the order of two sounds presented close together
- Shape Copying—Assesses the quality of pencil control when copying simple shapes

Strengths of the Test:

- The battery contains screening tests of attainment and ability. These determine whether a young child is experiencing difficulty in areas known to be affected in dyslexia. An asterisk score for dyslexia determines whether further in-depth testing should be undertaken. A profile of skills provides valuable information that can be used to guide in-school support.

Dyslexia Screening Instrument

General Test Information

Authors: Kathryn B. Coon, Mary Jo Polk, and Melissa McCoy Waguespack

Publisher: Harcourt Assessment (formerly known as the Psychological Corporation and Harcourt Educational)

Address of Publisher: 6277 Sea Harbor Drive, Orlando, FL 32887

Telephone Number: 1-800-211-8378

Fax Number: 1-800-232-1223

Web Site of Publisher: www.harcourt.com

Type of Test: Assessment of Learning Disabilities

Administration Time: 20 minutes

Type of Administration: Individual

Ages/Grade Levels: Grades 1 through 12; ages 6 through 21

Purpose and Description of Test

The Dyslexia Screening Instrument helps identify students at risk for dyslexia. Designed for clients who have reading, spelling, writing, or language processing problems, it consists of thirty-three statements to be rated by the classroom teacher using a five-point scale.

Strengths of the Test:

- Practical and efficient, this instrument measures a cluster of characteristics associated with dyslexia and discriminates between those who have the cluster and those who do not.
- The Dyslexia Screening Instrument helps meet the requirements of Section 504 of the Rehabilitation Act of 1973, the Individuals with Disabilities Education Act, and state guidelines.
- Rating scores are entered into the scoring program software, and within two minutes the examiner obtains a pass, fail, or inconclusive classification.

Learning Disabilities Diagnostic Inventory (LDDI)

General Test Information

Authors: Don Hammill and Brian Bryant

Publisher: PRO-ED

Address of Publisher: 8700 Shoal Creek Boulevard, Austin, TX 78757-6897

Telephone Number: 1-800-897-3202

Fax Number: 1-800-397-7633

Web Site of Publisher: www.proedinc.com

Type of Test: Assessment of learning disabilities

Administration Time: 10 to 20 minutes

Type of Administration: Individual

Ages/Grade Levels: Ages 8-0 to 17-11

Purpose and Description of Test

The LDDI is a rating scale designed to identify intrinsic processing disorders and learning disabilities in students. It was designed for the single purpose of helping professionals identify learning disabilities in individuals. It is not an ability or achievement measure; it will not tell how well or how poorly students read, write, speak, and so forth. Instead, it will identify the extent to which students' skill patterns in a particular area are consistent with individuals known to have a learning disability in that area (for example, dyslexia, dysgraphia). Thus, using the LDDI shifts the diagnostic emphasis away from interpreting norm-referenced ability test scores and toward studying an individual's skill patterns, especially patterns that are indicative of people who are known to have specific learning disabilities.

Subtest Information

The LDDI is composed of six independent scales, one for each of the areas listed in the definition by the U.S. Office of Education and the National Joint Committee on Learning Disabilities:

- Listening
- Speaking
- Reading
- Writing
- Mathematics

- Reasoning

Strengths of the Test:

- The LDDI was built with the American Psychological Association's standards for technical adequacy clearly in mind. The test was normed on 2,152 students with learning disabilities residing in forty-three states and the District of Columbia. The demographic characteristics of the normative sample are representative of the population of students who have learning disabilities in the United States as a whole with regard to gender, race, ethnicity, urban/rural residence, family income, educational attainment of parents, and geographical distribution. The sample characteristics were stratified by age and keyed to the demographic characteristics reported in the 1996 Statistical Abstract of the United States (U.S. Census Bureau, 1996).
- The LDDI was built to minimize the effects of bias. Numerous steps were taken to detect and eliminate sources of cultural, gender, and racial bias. First, the effects of bias were controlled and minimized through the inclusion of minority groups in the normative sample. Second, the examination of reliability and validity information was presented for the different racial, ethnic, and gender groups. A particularly powerful element of content-description validity is the demonstration of excellent internal consistency reliability for the different racial, ethnic, and gender groups. Finally, the use of differential item functioning analysis was used to reduce item bias during item selection. Delta score values were used to remove items that appeared to be biased against targeted groups.
- Internal consistency reliability coefficients exceed .90 for all scales. In addition, evidence for stability and interscorer reliability is provided, and coefficients are in the .80s and .90s. Thus, the LDDI can be used with confidence to yield consistent results.
- Numerous validity studies were conducted to ensure that the LDDI scores have content description, criterion-prediction, and construct-identification validity. These studies involved extensive item selection and differentiation examinations, which included confirmatory factor analysis, as well as studies that examined the LDDI's relationship to age, academic achievement, group differentiation, gender, and ethnicity, all of which support the validity of the LDDI scores. Factor analysis research also validated the LDDI's factor structure. These studies provide evidence that the LDDI yields valid results that can be used with confidence to identify the presence or absence of learning disabilities in children and adolescents.

Learning Disability Evaluation Scale (LDES)

General Test Information

Author: Stephen B. McCarney

Publisher: Hawthorne Educational Services

Address of Publisher: 800 Gray Oak Drive, Columbia, MO 65201

Telephone Number: 1-800-542-1673

Fax Number: 1-800-442-9509

Web Site of Publisher: <http://www.hes-inc.com>

Type of Test: Assessment of learning disabilities

Administration Time: Approximately 20 minutes

Type of Administration: Individual

Ages/Grade Levels: Grades K to 12

Purpose and Description of Test

The LDES is based on the federal definition of learning disabilities in the Individuals with Disabilities Education Improvement Act. It can be completed by instructional personnel and

contains eighty-eight items representing the most commonly identified characteristics of children with learning disabilities.

Subtest Information

The LDES was factor-analyzed to create the seven factor clusters (subscales):

- Listening
- Thinking
- Speaking
- Reading
- Writing
- Spelling
- Mathematical Calculations

Strengths of the Test:

- The LDES was standardized on 6,160 students, including students identified with learning disabilities. The standardization sample included students from twenty-six states and seventy-one school districts and represented all geographical regions of the United States.
- The LDES provides separate norms for male and female K-1 students.
- The Pre-Referral Learning Problem Checklist provides a means of calling attention to the behavior for the purpose of early intervention before formal assessment of the student.
- The Learning Disability Intervention Manual contains goals and objectives for the student's individualized education program, as well as a complete set of interventions and instructional strategies for the specific learning problems identified by the LDES.
- The Parent's Guide to Learning Disabilities was written for parents to help their child with learning disabilities experience more success at home and at school.
- The LDES Quick Score computer program converts raw scores to standard and percentile scores and makes the scoring of the rating form efficient and convenient.

Slingerland Screening Tests for Identifying Children with Specific Language Disability

General Test Information

Author: Beth H. Slingerland

Publisher: Educators Publishing Service

Address of Publisher: P.O. Box 9031, Cambridge, MA 02139-9031

Telephone Number: 1-800-435-7728

Fax Number: 1-888-440-2665

Web Site of Publisher: www.epsbooks.com

Type of Test: Assessment of learning disabilities

Administration Time: Forms A, B, and C: 60 to 80 minutes; Form D: 110 to 130 minutes

Type of Administration: Individual

Ages/Grade Levels: Grades 1 through 6

Purpose and Description of Test

The Slingerland screens elementary school children for indications of specific language disabilities in reading, spelling, handwriting, and speaking. This is not a test of language but

rather a test of auditory, visual, and motor skills related to specific academic areas. It is a multiple-item verbally presented paper-and-pencil examination containing eight subtests.

Subtest Information

Each subtest focuses on curriculum-related skills:

- **Far Point Copying.** This subtest requires the student to copy a printed paragraph from far points to probe visual perception and graphomotor responses. It assesses visual motor skills related to handwriting.
- **Near Point Copying.** This subtest requires the student to copy a printed paragraph from near points in order to probe visual perception and graphomotor responses. It assesses visual-motor skills related to handwriting.
- **Visual Perception Memory.** This subtest requires the student to recall and match printed words, letters, and numbers presented in brief exposure with a delay before responding. It assesses visual memory skills related to reading and spelling.
- **Visual Discrimination.** This subtest requires the student's immediate matching of printed words and eliminates the memory component of visual perception memory. It assesses basic visual discrimination without memory or written response.
- **Visual Kinesthetic Memory.** This subtest requires the student's delayed copying of words, phrases, letters, designs, and number groups presented with brief exposure. It assesses the combination of visual memory and written response, which is necessary for written spelling.
- **Auditory Kinesthetic Memory.** This subtest requires the student to write groups of letters, numbers, and words to dictation after a brief delay with distraction. It combines auditory perception and memory with written response.
- **Initial and Final Sounds.** This subtest requires the student to write the initial phoneme and later to write the final phoneme of groups of spoken words. It assesses auditory discrimination and sequencing related to basic phonics with a written response.
- **Auditory/Visual Integration.** This subtest requires the student's delayed matching of spoken words, letters, or number groups. It assesses visual discrimination related to word recognition.

Learning Disabilities

There are four forms of this test (Forms A, B, C, and D). Some of the forms contain subtests other than those already mentioned:

- **Following Directions.** This subtest requires the student to provide a written response from a series of directions given by the examiner. It assesses auditory memory and attention with a written response.
- **Echolalia.** This subtest requires the student to listen to a word or phrase given by the examiner and to repeat it four or five times. This is an individual auditory test that assesses auditory kinesthetic confusion related to pronunciation.
- **Word Finding.** This subtest requires the child to fill in a missing word from a sentence read by the examiner. This is an individual auditory test that assesses comprehension and the ability to produce a specific word on demand.
- **Storytelling.** This subtest requires the child to retell a story previously read by the examiner.

This is an individual auditory test that assesses auditory memory and verbal expression of content material.

Strengths of the Test:

- This is useful test for screening for academic problems.
- The test uses skills related to classroom tasks.
- This is one of the few tests designed for disability screening for treatment purposes.
- The test has the power to predict reading problems.

Structure of Intellect Learning Abilities Test (SOI-LA)

General Test Information

Authors: Mary Meeker and Robert Meeker

Publisher: Slosson Educational Publications

Address of Publisher: P.O. Box 280, East Aurora, NY 14052

Telephone Number: 1-888-756-7766

Fax Number: 1-800-655-3840

Web Site of Publisher: www.slosson.com

Type of Test: Assessment of learning disabilities

Administration Time: 2.5 hours

Type of Administration: Individual or group

Ages/Grade Levels: Grades 2 to 12 and ages to adult

Purpose and Description of Test

The SOI-LA is used to diagnose learning disabilities, prescribe educational interventions, profile strengths and weaknesses, identify reasons for underachievement, match cognitive style and curriculum materials, and screen for gifted students.

Strengths of the Test:

- The SOI-LA is available in two alternate forms, which are ideal for pre- and posttesting.

The Divergent Production subtests are particularly useful in assessing creative thinking.

The SOI-LA profile shows at a glance which abilities are poorly developed and which are strong and serve as the basis for further intellectual growth.