

## An LD Primer for Adult Educators

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#### What is LD & How Does it Affect My Learners?

- Welcome & Introductions, Review Agenda & Outcomes
- Information Processing
- Definition of Learning Disabilities
- Statistics
- The LD Discrepancy Model
- Characteristics of Adults with LD
- Deficit Areas
- 3 Common Types of LD
- Causes of Learning Disabilities
  - Dyslexia
  - Dysgraphia
  - Dyscalculia
- Screening for Learning Disabilities
- Homework
- Resources
- Miscellaneous/Reflections/Wrap-up



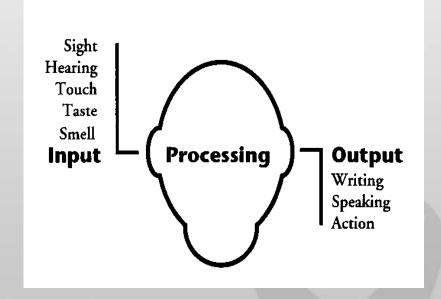
#### At the conclusion of this program, individuals will be able to:

- Understand what is involved in processing information.
- Explain how an information-processing deficit affects learning.
- Explain the three core components of a learning disability.
- Identify characteristics that may signify an undiagnosed learning disability.
- Explain the process of screening for suspected learning disabilities.
- Explain why LD screening tools are important for teachers and tutors with students suspected of having learning disabilities.
- Administer a free LD screening tool to an at-risk student.



- Sensory Input
- Attention
- Decoding/Perception
- Processing
  - Includes Storage and/or
  - Retrieval processes
- Memory (short/long)
- Physical Output

## BASIC INFORMATION PROCESSING MODEL





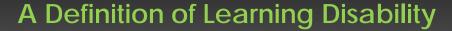
- Input process of getting new information to brain
- Attention ability to focus on material or information to be learned; loss of attention is distraction - inability to focus
- Perception perceives information correctly
- Short-term (Working) Memory tasks that require that we retain information only for a short, usable period of time. e.g., phone numbers
- Long-term Memory needed to remember the things we learn and be able to use them later
- Output language and motor



### Processing Time.....



is up to 3 times longer for adults with learning disabilities.





A learning disability is a permanent information processing deficit (disorder) that affects the manner in which individuals with average to above average intelligence learn. Deficits in areas such as reading, mathematics, and written language are presumed to be due to a central nervous system dysfunction. Learning disabilities occur regardless of gender, race, or ethnic origin and they are not the result of a poor academic background, mental retardation, or emotional disorders.



#### The Discrepancy Model of LD

Information Processing Dysfunction

Intellectual Potential

Significant Academic Discrepancy



- LD increased almost 200% between since the late 1970s
- 15-20% of U.S. population may be affected by LD
- 30–50% of the population has undiagnosed LD
- 50–80% of students in literacy programs with below a 5th 7th grade reading level either have a suspected or diagnosed LD
- 85% of all individuals with LD have reading difficulties
- 35% of children with LD drop out of school



- Only 1% of those with LD have proper documentation
- 25-40% on government assistance programs may have LD
- 48% with LD are out of the workforce or unemployed
- 15-23% are LD in federally funded job training programs
- 43% of LD adults are living at/or below poverty level
- Approximately 60% of inmates have a learning disability

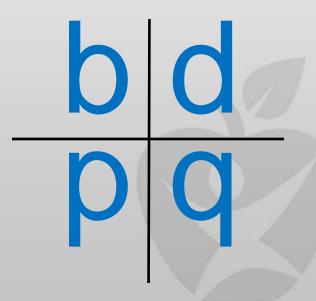




- Performs similar tasks differently from day to day
- Difficulty memorizing info., following columns, using small print
- Misinterprets facial expression, body language
- Difficulty manipulating fingers on a keyboard
- Slow reaction time
- Clumsy or poorly coordinated, poor balance



- Reading (e.g., decoding, comprehension)
- Oral language (e.g., listening, speaking, understanding)
- Written language (e.g., spelling, written expression)
- Mathematics (e.g., computation, problem solving)
- Organizational skills
- Handwriting/penmanship
- Social perception and interaction
- Difficulty in copying/notetaking





- Slow work speed
- Spatial, timing, and sequencing
- Visual/Auditory perception problems
- Fine-motor and gross-motor issues
- Visual-motor and Auditory-motor impairments
- Memory and thinking disorders / Speech and language disorders

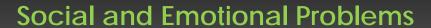




#### LD is exacerbated by:

- ✓ Substance/physical abuse
- ✓ Alcohol abuse
- ✓ Living in poverty
- ✓ Environmental toxins, poisons
- ✓ Incarceration
- ✓ Mental illness
- ✓ Other risk factors







- Feeling embarrassed, frustrated, anxious, lonely, isolated
- Being called stupid, lazy; being put down by teachers, friends, and even parents
- Feeling nobody understands
- Feeling need of help
- Fearing rejection and failure
- Always having to cover up, act a role





- Dyslexia severe difficulty in understanding or using one or more areas of language including listening, speaking, reading, writing, and spelling
- Dyscalculia severe difficulty in understanding and using symbols or functions needed for success in math
- Dysgraphia severe difficulty in producing handwriting that is legible and written at an age-appropriate speed
- Dysnomia marked difficulty in remembering names or recalling words needed for oral or written language





- Dyspraxia severe difficulty in performing drawing, writing, buttoning and other tasks requiring fine motor skill, or in sequencing the necessary movements
- Specific Learning Disability official term used in federal legislation to refer to difficulty in certain areas of learning, rather than in all areas.
- Auditory & Visual Processing difficulty understanding despite normal hearing and vision



#### **Dyslexia – Reading Disability**

Specific language-based disorder of constitutional origin characterized by difficulties in single word decoding, reflecting insufficient phonological processing. Single word decoding difficulties are often unexpected in relation to age and other cognitive and academic abilities, not the result of developmental disability or sensory impairment. Manifested by variable difficulty with language including problems in acquiring reading, writing, and spelling.



#### **Dyslexia – Reading Disabilities**

- Most commonly recognized type of learning disabilities
- Hereditary-50% chance that dyslexic will have child with dyslexia
- Phonological processing deficit; continuum of mild to severe
- Inability to learn all various sound combinations for symbols
- Inability to blend sounds together to recognize word
- Reverses, mis-sequences, or omits letters/words or numbers within words (b/d, brid/bird, on/no, p/q, m/w, now/won, 6/9)
- Not perceiving spatial, critical features that identify letters
- Trouble translating printed words into spoken words (decoding)
- Significant spelling problem
- Difficulty rhyming
- Poor symbol imagery (seeing letters in your mind's eye)
- Developmental history-coordination problems, left/right dominance



"An individual is identified as dyslexic when a significant discrepancy exists between intellectual ability & reading performance without an apparent physical, emotional, or cultural cause."





#### **Dysgraphia – Writing Disabilities**

Neurological disorder characterized by writing disabilities and difficulty with the mechanics of writing. Form of dyspraxia or motor clumsiness.

- Difficulty communicating through writing with output severely limited
- Writing is disorganized
- Lacks a clear purpose for writing
- Does not use the appropriate text structures
- Difficulties with mechanics or written expression
- Persistent, wrong or 'odd' spelling
- Production of words that is not correct (boy, child)
- Poor handwriting, sloppy, illegible, difficulty taking notes
- Persistent problems with sentence structure, writing mechanics, reviewing, and organizing written work



#### **Common Learning Disabilities**

#### **Dyscalculia – Math Disabilities**

Profound difficulties in learning concepts in math despite instruction, good intelligence, and sound sensory functioning. Results from problems with complex, spatial reasoning.

- Does not remember and/or retrieve math facts
- Lacks automaticity of basic facts
- Does not use visual imagery effectively
- Has a visual spatial deficit, trouble telling time
- Math concept difficulties
- Confused with math operation, especially multi-step processes
- Reverses numbers in checkbook, inability to balance it
- Difficulties in language processing that may affect the ability to complete math problem solving
- Trouble dialing phone numbers & reading addresses

Focus on Basics, Vol. 4, Issue B, Sept. 2000.

24 Accommodating Math Students with Learning Disabilities, by Rochelle Kenyon



- Genetic defects
- Environmental Factors
  - accidents
  - poor health care
  - poor nutrition/diet
  - lack of stimulation
  - lead poisoning, toxins/chemicals and impact of brain development

#### Biological Risks

- anoxia/oxygen deprivation
  - HIV, Aids
  - low birth weight
  - birth trauma
  - maternal hypothyroidism
  - endocrine gland dysfunction
- maternal substance abuse
  - malnutrition
  - chronic illness
  - ear infection, high fever



- Low intelligence/an intellectual disability
- Mental retardation
- Mental illness/emotional disturbance
- Autism
- Visual or auditory acuity problems
- Laziness/lack of motivation
- Physical handicap
- The result of a poor academic background
- A way to avoid other issues



#### **Questions for the Adult Educator**

- Are adults that enter your program routinely screened to detect undiagnosed learning disabilities?
- Are adults with documented learning disabilities given the appropriate accommodations to help them be successful?



- Determine adult learner's preferred learning style (modality)
- Administer Learning Style Inventories
- Determine deficits (weaknesses)
- Teach to his/her strengths and minimize weaknesses



# The Snellen Chart screens for vision problems, but does not diagnose them.



F				70
В		C		60
P	T	E	0	50
B	Z F	E	D	40
O F	' C ]	L T	В	30
TE	P O L	F D	Z	20
LPO	C T Z D	B F E	0	15
ZOECFLDPBT				10
ETOLEBZEFDC				7
	3 0 F C P T F B L F B E	2 C O P E		4



## Initial step in the process of gathering pertinent information about the individual with a suspected learning disability.

- Does learner show unexpected underachievement, but demonstrate evidence of at least average ability in some intellectual or social areas?
- Does learner display signs of poor vision or hearing? Or, are you observing effects of auditory or visual processing deficits?
- In terms of academic performance, is learner having problems in Reading (oral and silent), Expressive Language (writing, spelling, handwriting), or Math?
- Are you observing behaviors/psychological manifestations that interfere with the learning process?



- Gather information about the learner.
- Review the observations with the learner.
- Explain definition of LD before proceeding.
- Determine how the learner feels about screening.
- Select a screening instrument.
- Obtain informed consent.
- Conduct the screening.
- Prepare a summary of the results of screening to be discussed afterward with the learner.
- Decide with learner the next course of action.
- If necessary, discuss further LD diagnostic evaluation with student.



- LD screening answers the question, "Should this person be referred for diagnosis of a learning disability?"
  - Helps determine the likelihood that a learning disability might exists.
- LD diagnosis answers the question, "Does this person have a learning disability?"



#### **Characteristics of a Good Screening Tool**

- Helps determine need for further assessment
- Information about strengths and challenges
- Developed using research principals with adequate normative populations
- Appropriate for use with a variety of cultures & races
- Usually inexpensive
- Quick, easy to score & interpret
- Narrow in purpose
- Helps determine if further testing is necessary
- Does NOT identify that person is LD



#### Who & When to Screen

- All students Orientation
- Students with learning difficulties
- Students with lack of progress
- Learners with a major academic discrepancy
- Establish written criteria and apply consistently
- Screen all students No Informed Consent
- Screen some students Need Informed Consent



#### Informed consent includes:

- Purpose of screening
- Screening process
- Who will do the screening
- How the results will be used
- Who will see the results
- Where results will be stored



## Washington State LD Screening Tool

- 72% reliable for TANF population
- Setting up the interview is crucial to getting honest answers
- Must be done orally and privately
- Client copy is optional—their choice to read along or not



- Cooper Screening of Information Processing (CSIP)
  - http://www.learningdifferences.com
- Destination Literacy
  - http://www.ldactaac.ca/Projects/destination\_literacy-e.asp
- PowerPath to Basic Learning
  - http://www.powerpath.com
- Screening Test for Adults with Learning Disabilities (STALD)
  - http://eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.js p?\_nfpb=true&\_&ERICExtSearch\_SearchValue\_0=ED287988&ERICExtSe arch\_SearchType\_0=no&accno=ED287988
- Delta Screener
  - http://www.cacuss.ca/\_Library/Resources/ENGLISH\_DeltaScreener2011\_Fi llable\_.pdf
- ALDS
  - https://aspe.hhs.gov/report/screening-and-assessment-tanfwelfare-workten-important-questions-tanf-agencies-and-their-partners-shouldconsider/adult-learning-disability-screening-alds



- Entitled to legal protections
- Learn what's at the root of learning problems
- Achieve progress/goals that have been out of reach
- Receive accommodations for equal access to services
- Approval for accommodations on GED<sup>®</sup> test and other tests



- LINCS Disabilities in Adult Education Communities of Practice
  - Free, quick, and easy to subscribe
  - https://community.lincs.ed.gov/groups
- Learning to Achieve A Professional's Guide to Educating Adults with Learning Disabilities
  - https://lincs.ed.gov/publications/pdf/L2AProfessionalGuide2010.pdf



- International Dyslexia Association 8600 LaSalle Road - Chester Building, Ste. 382 Baltimore, MD 21286-2044 info@interdys.org http://www.interdys.org 410-296-0232, 800-ABCD123, Fax: 410-321-5069
- Learning Disabilities Association of America
   4156 Library Road, Suite 1, Pittsburgh, PA 15234-1349
   Idanatl@usaor.net http://www.ldaamerica.org
   412-341-1515, 412-341-8077, Fax: 412-344-0224
- National Center for Learning Disabilities
  381 Park Avenue South, Suite 1401
  New York, NY 10016
  <a href="http://www.ld.org">http://www.ld.org</a>
- 212-545-7510, 888-575-7373, Fax: 212-545-9665



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The IPDAE Team

What was the single most important thing you learned today? How do you plan to use this new information? Please email this information to Rochelle Kenyon at RKenyon721@aol.com