

LEARNING DISABILITIES (LD)

THE NJCLD DEFINITION OF LD:

- LD are heterogeneous group of disorders
- LD result in significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, and/or mathematical skills
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- the problem is intrinsic to the individual
- the problem is presumed to be related to a central nervous system dysfunction
- LD may occur along with other disabilities or conditions

Characteristics of LD:

- difficulty reading, writing, spelling, and/or using mathematical concepts in contrast with average to superior skills in other areas.
- poor handwriting
- trouble listening to a lecture and taking notes
- easily distracted by noise or visual stimulation - unable to pay attention
- trouble understanding and following directions
- confuses/reverses some letters ('b' and 'd', etc.) or words ('was' and 'saw', etc.) and numbers ('41' to '14')
- omits or adds words when reading
- repeatedly forgets things, loses things
- appears clumsy and poorly coordinated
- confuses left and right, gets lost
- often late for class, cannot sense time
- misinterprets subtleties in language - tone of voice - sarcasm

LD at school

- difficulties organizing information
- limited store of background knowledge to academic activities
- ineffective ways of learning

Typology of LD:

- reading disability (dyslexia)
- written language deficit (dysgraphia)
- math underachievement (dyscalculia)
- dyspraxia

Prevalence of LD

- in the USA 47% with SEN have LD
- 5 in 100 students have LD

READING DIFFICULTIES (DYSLEXIA)

- neurobiological origin
- difficulties with accurate and/or fluent word recognition
- poor spelling and decoding abilities (orthographic representation and specific sound)
- difficulty with spatial orientation (b,d, etc.)

- inability to accurately and fluently decode single words
- difficulty rapidly retrieving and stating names of letters, even though they know their names
- COMPREHENSION – goal of reading

Key Principles for Early Reading Instruction

- begin teaching phonemic awareness directly in the kindergarten
- teach each letter-phonemic relationship explicitly
- teach frequent, high regular letter-sound relationships
- show exactly how to sound out words
- decodable text
- use interesting stories to develop language comprehension

WRITTEN LANGUAGE DEFICIT (DYSGRAPHIA)

Example:

A long time ago they atene a cosnen they head to gatthere on feseo
 A long time a go there were ancient cave men. They had to get their own food.

Symptoms:

- Generally illegible writing
- Random punctuation
- Spelling errors
- Syllable omissions
- Mixture of print and cursive
- Unfinished letters, omitted words
- Cramped, unusual grip

Writing a paper:

- **P** – plan your paper
- **O** – organize thoughts and ideas
- **W** – write your draft
- **E** – edit your work
- **R** - revise your work, producing a final draft

MATH UNDERACHIEVEMENT (DYSCALCULIA)

- major problems with numerical reasoning and calculation
- inability to perform operations in math or arithmetic, understand or manipulate numbers
- LD progress about 1 year for every 2 years in school
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Ss with dyscalculia at school:

- extra time for numerical problems
- make sure that the S has understood
- learning style of the S (visual kinaesthetic, auditory)
- plenty of examples, repetition
- encourage Ss to visualize the quantities involved

Frequency:

- up to 10% of population
 → 1 in 30 children in the UK

- men 4 times more often than women

DYSPRAXIA

- Impairment of the organisation of movement
- immaturity in the way brain processes information
- accompanied by problems in perception, language, taught
- possible overlaps with: ADD, ADHD, Dyscalculia, Dyslexia, behavioural difficulties

A S with dyspraxia has difficulties with:

- planning their movement
- perception
- co-ordination of body parts
- laterality
- manual + practical work, handwriting
- concentration, short-time memory
- response to external stimulation

Daily Life

- avoid tight neck holes
- trousers with elastically waist
- don't fill cups too full, use straw
- damp towels under plates (stop moving), sit down to eat
- keys and purses on a chain tight to clothing
- keep to daily routine

Teacher:

- No comparison
- Praise every effort to raise self-esteem
- Allow extra time
- Check a child's understanding
- One to one teaching

LD in general:

Causes of LD

- in most cases unknown
- central nervous system dysfunction (danger of a built-up excuse for teachers)
- heredity
- environmental factors (living conditions, instruction, communication)

Educational Approaches

- education should include:
- opportunity for Ss to express themselves
- learn problem-solving skills
- meaningful way of learning
- effective, explicit instruction
- learning strategies

Classroom adjustments:

- special seating
- alternative / modified assignments
- modified testing procedures

Equipment and assistant:

- electronic spellers, dictionaries

- calculators
- word processor
- note takers
- readers
- proof-readers

Explicit Instruction

- carefully designed materials and activities
- sufficient range of examples
- step-by-step strategies
- broad Qs, guidelines to focus attention at deep processing
- frequent, positive feedback
- practice opportunities

Content Enhancement

- guided notes
- graphic organizers
- letter strategies
- mnemonic strategies
- keywords
- peg words

Education Placement Alternatives

- regular classroom
- consultant teacher
- resource room
- separate class
- separate school
- residential facility

Student Skill/Behaviour

- follow directions in the class
- comes to class prepared with materials
- uses class time wisely
- makes up assignments and tests
- treats Ts and Ss with courtesy
- completes homeworks in time
- works cooperatively in student groups