



Sri Lakshmi Narayana Institute of Medical Sciences

Date 05/09/2018

From
Dr.D.Raghavendran
Professor and Head,
Department of Paediatrics,
Sri Lakshmi narayana institute of medical sciences,
Bharath Institute of Higher Education and Research,
Chennai.

To
The Dean,
Sri Lakshmi narayana institute of medical sciences,
Bharath Institute of Higher Education and Research,
Chennai.

Sub: Permission to conduct value-added course: Learning disability course

Dear Sir,

With reference to the subject mentioned above, the department proposes to conduct a value-added course titled: **Learning Disability Course** from 01/11/2019. We solicit your kind permission for the same.

Kind Regards

Dr.D.Raghavendran

PAEDIATRICS HEAD
DEPT. OF PAEDIATRICS
SRI LAKSHMI NARAYANA INSTITUTE OF
MEDICAL SCIENCES
OSUDU, PUDUCHERRY

FOR THE USE OF DEANS OFFICE

Names of Committee members for evaluating the course:

The Dean: Dr.Jayalakshmi

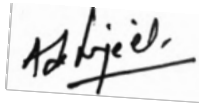
The HOD: Dr Raghavendran

The Expert: Dr Abhijeet

The committee has discussed about the course and is approved.



Dean



Subject Expert



HOD

Dr. G. JAYALAKSHMI, BSC., MBBS., DTCD., M.D.,
DEAN
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Agaram, Kudapakkam Post,
Villanur Commune, Puducherry - 605502.

ASSISTANT PROFESSOR
DEPARTMENT OF PAEDIATRICS
SRI LAKSHMI NARAYANA INSTITUTE OF
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PAEDIATRICS HEAD
DEPT. OF PAEDIATRICS
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MEDICAL SCIENCES
OSUDU, PUDUCHERRY



OFFICE OF THE DEAN

Sri Lakshmi Narayana Institute of Medical Sciences

OSUDU, AGARAM VILLAGE, VILLIANUR COMMUNE, KUDAPAKKAM POST,
PUDUCHERRY - 605 502.

[Recognised by Medical Council of India, Ministry of Health letter No. U/12012/249/2005-ME (P -II) dt. 11/07/2011]
[Affiliated to Bharath University, Chennai - TN]

Circular

10.10.2018

Sub: Organising Value-added Course: Learning disability Course., reg

With reference to the above mentioned subject, it is to bring to your notice that Sri Lakshmi narayana institute of medical sciences, **Bharath Institute of Higher Education and Research**, is organising “**Learning disability Course**”. The course content and registration form is enclosed below.

The application must reach the institution along with all the necessary documents as mentioned. The hard copy of the application should be sent to the institution by registered/ speed post only so as to reach on or before 19 october 2018. Applications received after the mentioned date shall not be entertained under any circumstances.

Dean

Dr. G. JAYALAKSHMI, BSC., MBBS., DTCD., M.D.,
DEAN
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Agaram, Kudapakkam Post,
Villianur Commune, Puducherry - 605502.

Encl: Copy of Course content

Course Proposal

Course Title: *Learning Disability in Children*

Course Objective: To enumerate and discuss the newer modalities available in the diagnosis of TB

Course Outcome: On successful completion of the course the students will identify and diagnose children with learning disabilities

Course Audience: Final year MBBS Students

Course Coordinator: Dr. Raghavendran

Course Faculties with Qualification and Designation:

1. **Dr. Raghavendran – MD Paediatrics – Head of Department**
2. **Dr. Abhijeet Shrivastava –DNB paediatrics– Assistant Professor**

Course Curriculum/Topics with schedule (Min of 30 hours)

| SINo | Date | Topic | Time | Hours | Resource person |
|------|------------|--|--------|-------|--------------------------|
| 1. | 2.11.2018 | Introduction to LDs | 2-4 pm | 2 | Dr. Raghavendran |
| 2. | 6.11.2018 | Phonological Processing Problems | 2-4 pm | 2 | Dr. Abhijeet Shrivastava |
| 3. | 9.11.2018 | Language Processing Problems | 2-4 pm | 2 | Dr. Raghavendran |
| 4. | 13.11.2018 | Memory Difficulties | 2-4 pm | 2 | Dr. Abhijeet Shrivastava |
| 5. | 16.11.2018 | Visual-Spatial Difficulties | 2-4 pm | 2 | Dr. Raghavendran |
| 6. | 20.11.2018 | Slow Processing Speed | 2-4 pm | 2 | Dr. Abhijeet Shrivastava |
| 7. | 23.11.2018 | Executive Functioning | 2-4 pm | 2 | Dr. Raghavendran |
| 8. | 27.11.2018 | Strategies for Helping with Executive Functioning Difficulties | 2-4 pm | 2 | Dr. Abhijeet Shrivastava |
| 9. | 30.11.2018 | LDs and Mental Health | 2-4 pm | 2 | Dr. Raghavendran |
| 10. | 4.12.2018 | Specific learning disabilities | 2-4 pm | 2 | Dr. Abhijeet Shrivastava |
| 11. | 7.12.2018 | Diagnostic tools in LD | 2-4 pm | 2 | Dr. Raghavendran |
| 12. | 11.12.2018 | Parental counseling in LD | 2-4 pm | 2 | Dr. Abhijeet |

| | | | | | |
|-----|------------|--|-------------|----|--------------------------|
| | | | | | Shrivastava |
| 13. | 14.12.2018 | Understanding LDs: Putting it all Together | 2-4 pm | 2 | Dr. Raghavendran |
| 14. | 18.12.2018 | Summary and discussion | 2-4 pm | 2 | Dr. Abhijeet Shrivastava |
| 15. | 21.12.2018 | Assessment | 2-4 pm | 2 | Dr. Raghavendran |
| | | | Total Hours | 30 | |

REFERENCE BOOKS:

1. Nelson Textbook of Paediatrics
2. IAP textbook of paediatrics

VALUE ADDED COURSE ON LEARNING DISABILITY IN CHILDREN

1. Name of the programme & Code

Learning Disability Course and PECO 9

2. Duration & Period

30 hrs (November 2018- December 2018)

3. Information Brochure and Course Content of Value Added Courses

Enclosed as Annexure- I

4. List of students enrolled

Enclosed as Annexure- II

5. Assessment procedures:

Multiple choice questions- *Enclosed as Annexure- III*

6. Certificate model

Enclosed as Annexure- IV

7. No. of times offered during the same year:

Once (November 2018- December 2018)

8. Year of discontinuation: 2019

9. Summary report of each program year-wise

| Value Added Course | | | | | |
|---------------------------|--------------------|----------------------------|--------------------------|------------------------|--|
| Sl. No | Course Code | Course Name | Resource Persons | Target Students | Strength & Year |
| 1 | PECO 9 | Learning Disability Course | Dr. Abhijeet Shrivastava | Final year MBBS | 10 (November 2018- December 2018) |

10. Course Feed Back

Enclosed as Annexure-

Adhijel.

RESOURCE PERSON

ASSISTANT PROFESSOR
DEPARTMENT OF PAEDIATRICS
SRI LAKSHMI NARAYANA INSTITUTE OF
MEDICAL SCIENCES

Ran

COORDINATOR

PAEDIATRICS HEAD
DEPT. OF PAEDIATRICS
SRI LAKSHMI NARAYANA INSTITUTE OF
MEDICAL SCIENCES
OSUDU, PUDUCHERRY

Annexure- I

LEARNING DISABILITY COURSE



PARTICIPANT HAND BOOK

COURSE DETAILS

| Particulars | Description |
|--------------------------------|---|
| Course Title | Learning disabilities in Children |
| Course Code | PECO 9 |
| Objective | <ol style="list-style-type: none"> 1. Introduction to LDs 2. Phonological Processing Problems 3. Language Processing Problems 4. Memory Difficulties 5. Visual-Spatial Difficulties 6. Slow Processing Speed 7. Executive Functioning 8. Strategies for Helping with Executive Functioning Difficulties 9. LDs and Mental Health 10. Understanding LDs: Putting it all Together |
| Further learning opportunities | Specific learning disabilities |
| Key Competencies | On successful completion of the course the students will identify and diagnose children with learning disabilities |
| Target Student | Final MBBS Students |
| Duration | 30hrs November 2018- December 2018 30 hrs December 2018 – March 2019 |
| Theory Session | 10hrs |
| Practical Session | 20hrs |
| Assessment Procedure | Multiple choice questions |

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Introduction to LDs

What are Learning Disabilities (LDs)?

LDs are a group of neurological or brain-based problems that affect one or more ways that a person takes in, stores or uses information.

LDs come in many forms and their effects are different from person to person. They relate to:

- Getting information into the brain (Input)
- Making sense of this information (Organization)
- Storing and retrieving information (Memory)
- Getting information back out (Output)

How are LDs Identified?

By definition, people with LDs have average to above average intelligence yet they have very specific impairments in one or more of the psychological processes related to learning. These processes may include:

- Language processing (understanding and expressing information using words)
- Visual-spatial processing (perceiving or organizing visual information)
- Visual-motor processing (carrying out hand-eye activities)
- Phonological processing (identifying and manipulating speech sounds)
- Processing speed (speed of taking in, using or pulling out information)
- Working memory (holding information in mind while also using the information)
- Executive functions (planning and organizing)

LDs are diagnosed most commonly as an outcome of a comprehensive psychological assessment. Using a number of standardized tests that have been given to thousands of people, psychologists will systematically look at how people think, problem-solve, remember, understand and express information.

What Do LDs Affect?

LDs are a life-long condition that affects people differently depending on the situation.

LDs can affect academic functioning, daily life and social life. For example, LDs can interfere with sight reading, reading comprehension, math, and writing. They can also interfere with organization, managing time, following multi-step instructions or interpreting graphs, charts and maps, for example. Some people with LDs have trouble interpreting facial expressions, understanding body language, understanding tones of voice or taking turns in conversations.

How Common are LDs?

Learning Disabilities (LDs) are very common and affect 5 to 10 percent of Canadians. However, LDs vary greatly in form and intensity: No two LDs are the same.

What Causes LDs?

Learning disabilities are due to genetic, other congenital and/or acquired neuro-biological factors. They often run in families.

LDs are not caused by factors such as cultural or language differences, inadequate or inappropriate instruction, socio-economic status or lack of motivation, although any one of these and other factors may compound the impact of learning disabilities.

Frequently learning disabilities co-exist with other conditions, including attentional, behavioural and emotional disorders, sensory impairments or other medical conditions.

What Helps?

Most people with LDs are resilient, and learn to manage challenges and achieve success. There are a number of factors that help. These include:

- Understanding their LDs and what helps them learn
- Learning how to set realistic goals, to solve problems and to make good choices
- Being open to asking for and getting help
- Not giving up when things get hard
- Believing successes are due to their own efforts
- Believing they can learn from their mistakes
- Feeling respected and connected to others
- Having someone who will listen to them and understand their feelings
- Being an active member of a community or group

To see a full definition of LDs please visit the LDAO website at www.LDAO.ca

LDs Reflecting Phonological Processing Problems

Reading Disability (also known as Dyslexia) is the most common learning disability accounting for at least 80% of all LDs.

Unlike speech and language, reading is not innate: It has to be taught. Reading requires the ability to decipher a phonetic code, to make sense of the relationship between written symbols (letters) and sounds. Dyslexia reflects a specific problem in processing individual speech sounds (e.g., the ssss sound, the mmm sound, etc) in words (phonemes). There can also be problems with holding sounds in sequence in short-term memory (e.g. holding the sequence of sounds in a new word in mind long enough to recognize it). Kids with a Reading Disability may also have difficulties with reading fluency, resulting in reading skills that are accurate but effortful and slow.

There is strong research evidence to suggest that reading disabilities are caused by an impairment in **phonological processing** (i.e., processing the sounds of speech). Individuals with reading disabilities often have difficulty breaking words down into individual sounds (decoding) and/or blending sounds together to read words quickly and accurately. These decoding problems often result in reading comprehension problems.

In the Walk-A-Mile workshop, we demonstrate **phonological processing** problems in the sight reading exercise with difficult sentences.

| Terms used | Description | Application (it can be harder to...) |
|--|--|--|
| <p>Phonological Processing</p> <p>Phoneme awareness</p> | <p>Ability to identify and manipulate speech sounds (phonemes)</p> | <p>Sound out new words or blend sounds together to form words</p> <p>Rhyme</p> <p>Learn the alphabet when very young (e.g., kindergarten)</p> <p>Learn a second language</p> <p>Spell by using phonics rather than rote memory</p> <p>Participate in activities that require fluent reading (e.g., rules of games, written instructions, ordering from a menu)</p> |

What can Phonological Processing Problems Look

Like?

Bill is a creative and motivated student in grade three. He is an enigma to his teachers because he is unable to read. At first, Bill's parents thought that he was just taking a little longer learning how to learn to read, much like he did with learning to speak. Now Bill, his parents, and his teacher are painfully aware of his reading difficulties. Bill can decode words, but he takes a long time to sound out each word. As a result of slow and labored decoding, Bill is unable to understand what he reads. Over the past three months, Bill has become increasingly self-conscious about his reading difficulty. He says he feels stupid and no longer wants to go to school.

Strategies for Helping Kids With Reading Difficulties

- Remember that some kids struggle with reading when planning an activity
- Supplement written material with pictures and repetition over time when teaching a lesson
- Supplement words with symbols or colour coding if classroom organization includes posting schedules or lists
- Help kids preview material that needs to be read (e.g., explain new terms, highlight what is most important)
- Don't assume that kids understand what they have read (e.g. talk about material and use illustrations to enhance comprehension)
- Break written material into small sections
- Keep reading material short & simple
- Trigger motivation to read by using reading material linked to prior hands-on experience, real-life experiences or specific areas of interest (e.g. high interest books, comic books, magazines)
- Have the kids take turns reading with an adult or read together with him/her in unison
- Be patient and provide extra time for reading
- Offer material in a different way (e.g., books on tape, podcasts)

LDs Reflecting Language

Processing Problems

Difficulties in understanding verbal information and/or in expressing oneself are a common feature of many learning disabilities. These language-based problems may reflect a variety of factors, such as an underdeveloped vocabulary, a concrete style of thinking, difficulties in remembering and keeping track of what is said, or difficulties in organizing one's thoughts, for example. For kids with a language-based LD, it can be hard to find the right words and phrases or to follow a fast-paced conversation, for example. Language-based LDs also get in the way of effective writing: It can be difficult to know how to organize ideas or to identify the main point of a written communication.

What can Language Processing Problems Look Like?

Naomi is a friendly 12 year old girl who loves animals. She often struggles to understand instructions and to follow conversations. In loud or chaotic setting she sometimes doesn't notice if some one is talking to her. Naomi is friendly but sometimes has trouble maintaining friendships. The girls in her class spend a lot of time sharing secrets and telling stories, and Naomi has a hard time joining in these activities. Sometimes when Naomi doesn't understand she acts silly because she is worried that that the other girls will think she is dumb. Naomi has a few friends who are younger than she is: She enjoys playing active games and sports with them. Naomi learns best in a quiet setting with an instructor who teaches using visual aids and checks to make sure Naomi understands each concept.

Strategies for Helping Kids with Oral Language Difficulties

- Encourage kids to describe the word they are looking for
- Give kids plenty of time to speak
- Be as clear and concrete as possible when communicating with kids
- Avoid sarcastic comments (eg., 'I have all day to wait for your response')
- Check to see what kids understand and how they interpret a situation before automatically implementing a consequence
- Provide plenty of warning and opportunity for practice before kids are required to speak in front of the class
- Make cue cards to provide prompts for specific ideas or words
- Encourage kids to elaborate single word or simple sentence responses, or accept less complex responses from them
- Encourage kids to talk about personal experiences and topics that are familiar or of interest to them as these are often the subjects easiest for them to express
- Model good listening skills. It is more important for adults to listen and to allow kids to speak
- Explain new/complex vocabulary or concepts ahead of time

- Use shorter sentences and simpler words
- Use visuals (pictures, illustrations, gestures) to supplement words
- Allow sufficient time for language to be processed

Strategies for Helping Kids with Written Composition Difficulties

- Encourage kids to complete written work in stages, offering explicit support in proof reading, editing and revising work
- Encourage activities at home that support practicing writing: keeping a journal, corresponding with a pen pal
- Assist kids to write about topics of interest to them

LDs Reflecting Memory Difficulties

Some kids with LDs have problems with memory. They are smart thinkers who may have trouble remembering what they see or hear or may struggle to retrieve what they know from memory. Memory impairments can be key factors underlying LDs in math, writing or in reading, and are often problems for everyday life.

Memory is a complex but important part of learning. There are many different theoretical models of memory. A simple but useful model differentiates between verbal memory, visual memory and working memory.

Verbal Memory

Verbal memory refers to the ability to take in oral information and to hold it in mind. For example, we use this type of memory to look up a phone number and then dial it, or to remember the connection between the names of letters and their sounds. Verbal information can be stored with a limited capacity in short-term memory and can be converted to longer-term storage if actively rehearsed.

Kids whose LDs reflect verbal memory problems may have trouble remembering math facts (e.g., learning times tables) or remembering the order of math operations (e.g., borrowing or carrying), for example. Sometimes, verbal memory problems interfere with the ability to keep track of group conversations or to follow a lecture.

In the Walk-A-Mile workshop, we demonstrate **verbal memory** impairments by having the participants listen to long series of numbers and then repeat them back exactly as read.

| Terms used | Description | Application (it can be harder to...) |
|---|---|--|
| Verbal Memory Short-term Immediate Rote | Memory for words, numbers, sentences, stories Can be meaningful to the person or arbitrary | Phone numbers Instructions Math facts Spellings lists Details from stories or oral instruction |

Working Memory

Working Memory refers to the ability to hold information in mind while reorganizing or manipulating it. This type of memory has a limited storage capacity: If overloaded, one usually loses track of the information in mind. We use this type of memory to multi-task, or to think about more than one thing at a time.

Kids whose LDs reflect working memory problems may have trouble carrying out multi-step instructions (i.e., keeping in mind steps while one completes the first instruction) or completing mental arithmetic problems. This type of memory can interfere with reading comprehension because it can be hard to keep track of story characters and plot lines while sounding out new words.

In the Walk-A-Mile workshop, we demonstrate **working memory** impairments by having the participants listen to long series of numbers and letters and then repeat them back in a different order (letters in alphabetical order and numbers in numerical order).

| Terms used | Description | Application (it can be harder to...) |
|-----------------------|---|---|
| Working memory | Holding information in mind while reorganizing or manipulating it Limited capacity | Multi-tasking Listening to a teacher, pulling out relevant information, taking notes Figuring out a tip Following multiple step instructions |

Visual Memory

Visual memory refers to the ability to take in visual information and to hold it in mind. Like verbal memory, visual information can be stored with a limited capacity in short-term memory and can be converted to longer-term storage if actively rehearsed.

Kids whose LDs reflect visual memory problems may have trouble remembering the differences between letters (e.g., 'd' and 'b' – both circles and sticks but one has to remember which side of the circle the stick is on). In school, they may struggle with visual-based subjects, such as mapping in geography, or labeling diagrams in science. Sometimes, kids with visual memory problems have trouble remembering faces.

In the Walk-A-Mile workshop, we demonstrate **visual memory** impairments by having the participants look briefly at an array of visual objects and then recall as many objects as they can remember.

| Terms used | Description | Application (it can be harder to...) |
|----------------------|--|---|
| Visual memory | Memory for visual information Can be abstract information or meaningful | Mapping, geography Remembering layout of objects Details of images Labelling diagrams on tests Learning names of numbers or cursive letters |

What can Memory Problems Look Like?

Sally is a bright and energetic student in grade eleven. When she was younger, Sally struggled to remember the names of the letters in the alphabet and she often mixed up b's and d's. In grade five, Sally didn't know her math facts and needed to use her fingers or a discrete counter system to add, subtract or multiply. Her teachers and parents thought that Sally was not paying attention because she did not follow instructions. Over time, Sally learned to ask people to repeat instructions and she began to carry a notebook to write down verbal information. Sally uses a calculator for math, which allows her to showcase her strengths in math problem-solving and conceptual understanding. She works best when given instructions one step at a time.

Strategies for Helping Kids with Working Memory Difficulties

- Show kids what to do more than once
- Break tasks into individual steps
- Avoid work settings that have high demand for multi-tasking, such as office reception or keeping track of short orders in a busy coffee shop

Strategies for Helping Kids with Instructions

- Keep rules and directions short, simple and clear
- Give instructions one at a time and repeat, if necessary
- Maintain eye contact while giving instructions
- Have the individual repeat the instructions
- Offer information in small chunks
- Strategies for Helping Kids with Memorization
- Apply mnemonic strategies such as creating acronyms
- Make information meaningful

- Write it down
- Repetition, repetition, repetition
- Make information visual or multisensory
- Use a calculator or math fact grid during more complex calculations
- Make associations between similar irregular spellings
- Remember distinctive phonological spellings (e.g., yacht is said /yot/ but is spelled /ya/ /ch/ /t/)
- Copy spellings repeatedly to learn by rote
- Use spell check and adaptive technology to ensure accuracy

LDs Reflecting Visual- Spatial Difficulties

Some kids with LDs have problems in processing or making sense of visual information. Often, these kids have strong sight reading or decoding skills. However, they may have trouble making sense of what they see (perception) or in organizing what they see (visual-spatial organization skills). Impairments in visual-spatial processing can make it harder to learn time/space concepts, such as telling time, understanding measurement, or interpreting charts and graphs. These types of processing impairments can affect one's ability to 'read' body language and non-verbal cues, such as tone of voice, facial expressions, or personal space.

Visual-perceptual processing

Visual-perceptual processing refers to the ability to make sense of visual information. In the Walk-A-Mile workshop, we demonstrate problems in visual-perceptual processing by means of the "Fly" and the "Bearded Man" exercises in which participants are given insufficient perceptual information to make sense of what they see.

| Terms used | Description | Application (it can be harder to...) |
|--|---|--|
| Perceptual processing Visual-spatial | Ability to make sense of what one sees Putting together visual information | Noticing & understanding facial expressions Understanding a chart or graph Reading a map Following a sewing pattern Putting together an IKEA furniture set |

Visual-motor processing problems

Visual-motor processing problems refer to impairments in the coordination of eye-hand movements and/or motor planning. People whose LDs reflect visual-motor problems may have trouble with activities such as printing or copying, or learning to tie shoelaces. They may find it hard to write, may put more pressure on a pencil or pen in order to control the motor movements and may experience fatigue with writing, and may take much longer to write. In addition, people with visual-motor problems may have trouble orienting their body in space and may need more help to learn dressing or may confuse left and right.

In the Walk-A-Mile workshop, **visual-motor processing** problems are demonstrated by the mirror tracing activity.

| Terms used | Description | Application (it can be harder to...) |
|---|--|---|
| Visual-motor Fine motor coordination Graphomotor Dysgraphia Perceptual motor | Ability to plan and execute hand movements | Print, write (cursive), copy Control size & spacing of letters on a page Line up numbers in columns Learn to tie shoelaces |

Strategies for Helping Kids with Visual-motor Processing Difficulties:

- Provide copies of notes from a classmate or the teacher or employer
- Allow kids to trace rather than draw freehand
- Provide templates for kids to fill in
- Allow kids to use a word processor
- Allow extra time for written work
- Use graph paper to keep columns orderly
- Occupational therapists can offer practical assistance in the development of motor planning skills, coordination, handwriting and organization
- Offer a variety of writing tools (pens/pencils) to allow students to find one that feels comfortable for them.
- Set appropriate expectations about the volume of writing required

Non Verbal Learning Disability (NLD)

The term, “Non Verbal Learning Disability” (NLD or NVLD) was introduced in the late 1980’s by a neuroscientist based in Windsor, Ontario (Dr. Byron Rourke) who studied a group of children with a ‘social perception’ disability. Individuals with NLDs are intelligent yet struggle with impairments in non-verbal aspects of daily living, such as understanding things from another’s perspective or ‘reading’ social cues.

Kids with NLD may have “meltdowns” or detach themselves by “spacing out” because they are overloaded by trying to work through situations that other kids learn to handle with much less effort. For example, they may avoid or react angrily to any sort of novelty because they are not able to quickly and accurately understand the new situation.

Kids with NLD may talk incessantly. This may be because they rely heavily on their well-developed language skills to interact with others and to cope with confusion and anxiety.

Social problems frequently occur because kids with NLD struggle with the parts of communication that take place without words, such as the idea of “personal space”, or the signals that other people use to convey irritation, anxiety, etc. Often kids may not understand the give and take of play and conversation. They may be unaware that the listener is bored. They may make inappropriate comments and then be bewildered when others become upset because they do not understand the social “rules.”

What are the differences between NLD and AS?

There has been controversy regarding the differentiation between NLD and Asperger Syndrome (AS). The two disorders share common features, including a history of advanced verbal skills, difficulties in processing nonverbal social cues and in adapting to new situations, impairments in executive function, and problems with handwriting and organization. However, AS is characterized by restricted repetitive and stereotypic interests (DSM-IV) which is not a hallmark feature of NLD. More research is needed to understand how NLDs work and how to best help the people who struggle with these types of challenges.

What Can Non Verbal Learning Disabilities Look Like?

Mark is a 16-year-old boy who is described by his parents and teachers as a "loner". Lately, Mark has been feeling depressed and anxious and he says that this is because no one likes him. He often appears untidy and physically awkward and his locker and knapsack are always a mess. Mark's teachers report that he has problems interacting with others. They note that he does not seem to understand or use appropriate social skills and feel that this is the cause of his social problems. At school, Mark struggles with written assignments, despite having a large vocabulary and an ability to speak with adults. His written work is disorganized and poorly structured. His most notable academic difficulties are with math problem solving. Mark's parents and teachers are concerned about his social and emotional well being.

General Strategies for Helping Kids with NLD

- Provide predictable schedules as much as possible.
- Provide preparation for changes in routines and give notice that they are about to be asked to make a transition in activities.
- Give advance planning and instruction about unfamiliar tasks and situations.

Strategies for Helping Kids with NLD to Participate in Physical Activity

- Teach physical activities explicitly, using verbal instructions, diagrams, and modelling.
- Ask if non-competitive sports are preferable to competitive sports
- Hiking, bicycling, martial arts, weight lifting, camping, swimming and canoeing can provide positive experiences of physical activity.
- Provide kids with opportunities to be active in non-physical extra-curricular activities like drama, music and clubs.
- Offer positive reinforcement for any attempts by kids to carry out physical challenges (reward effort).
- Look at potential underlying causes if kids refuse to participate

Strategies for Helping Kids with NLD to Socialize

- Create small, calm and controlled group settings that provide greater safety and increase the chance for successful social experiences
- Surround kids with others who share interests or talents
- Give kids verbal direction and instruction. Use kids' strengths with language to help them learn what others can observe and learn more easily.
- Help kids to learn to observe and notice others' facial expressions, body language, tone of voice and other social cues.
- Teach kids such details as:
 - What is expected in different social, family, and school situations;
 - How others feel, how to organize and carry out tasks, etc.
- Expect to repeat direct teaching several times before kids are able to master the skill. It is important to provide this instruction with kindness and patience.
- Model and practice the use of language that is similar to age-peers, rather than relying on "adult" language

LDs reflecting Slow Processing Speed

Some kids with LDs need more time to process information. They are smart and have good ideas but may take longer than most to make sense of what is being said or to organize their thoughts. Sometimes, kids with slow processing speed are quick to think but need more time to write than most others. Problems with processing speed can make it hard to finish tests on time, to copy information from the board before it is erased, or to volunteer an answer in class, for example.

In the Walk-A-Mile workshop, processing speed is demonstrated by the “Story of N” exercise.

| Terms used | Description | Application (it can be harder to...) |
|-------------------------|---|---|
| Processing Speed | <p>Speed at which information is identified, understood and responded to</p> <p>Speed & accuracy on rote visual scanning and paper and pencil tasks</p> | <p>Think on one’s feet</p> <p>Come up with an answer immediately</p> <p>Make a quick decision</p> <p>Copy work from the board</p> <p>Write information when time is a factor (e.g., taking tests)</p> |

What Can Slow Processing Speed Look Like?

Noah is a nine-year-old boy who loves baseball and computer games. He has always been a ‘dawdler’ and needs constant reminders to get moving in the mornings. Noah is a quiet boy who often lets his friends do the talking for him. He says it is easier to let others put up their hands in class even when he knows the answer because Noah knows it takes him a long time to get his words out. Noah worries that others will think he is not smart and he is beginning to doubt his own intelligence. Noah hates to write because it takes forever and his printing embarrasses him.

Strategies for Helping Kids with Slow Processing

- Provide additional time to complete work
- Build in resource time to complete class work
- Provide notes or photocopies of lecture material, where possible
- Be specific in telling kids exactly what you want them to do
- Directly assist kids in beginning activity (e.g., point out where to start with a * on page)
- Check with kids part-way through activity to ensure they have not forgotten what to do or have not lost the instructional set
- Avoid asking kids too many questions
- Provide additional time to complete work and modify expectations for amount completed

LDs Reflecting Problems with Executive Functioning

Some kids with LDs have trouble with tasks of executive functioning, or a set of higher order skills that control and regulate other abilities and behaviors. Executive functions include the ability to start or stop actions, to monitor and change behavior as needed, and to plan or organize, for example. Kids who struggle with executive functioning may have trouble inhibiting impulses or may have a hard time anticipating consequences or being flexible and adapting to new situations. They may have difficulty applying what they have learned in one setting to new situations (generalizability) or may not be able to pay attention to how they are doing something (self monitoring).

In the Walk-A-Mile workshop, difficulties with **executive functioning** is demonstrated by the Stroop exercises.

| Terms used | Description | Application (it can be harder to...) |
|---------------------------|---|---|
| Executive Function | “meta-cognitive” skills (ability to think about thinking) | Identify and carry out steps for a school project |
| Attention | Ability to select, direct and sustain focus | Manage frustration in a classroom setting |
| Self-monitoring | | Monitor and adapt tone of voice or volume of speech |
| Planning, organization | Ability to put on the brakes, to inhibit impulses | Stop and think before acting |
| Self-control | | |
| Initiation | | |

What are the differences between LDs with executive functioning problems and Attention Deficit Hyperactivity Disorder (ADHD)?

ADHD is one of the most common childhood psychiatric disorders, occurring in 3 to 7% of the population. It is defined as a persistent pattern of problematic symptoms that include difficulty staying focused and paying attention, difficulty controlling behavior, and/or hyperactivity (over-activity). For diagnosis, ADHD has to be present from an early age and evident in at least two settings (e.g., home and school) and it has to be causing significant functional impairments to daily life.

ADHD is technically not a learning disability but it can interfere with learning and it co-occurs in people with LDs up to 40% of the time. By definition, people with ADHD have problems with executive functioning. Often, the main difference between LDs with executive functioning problems and LDs with ADHD is really a difference in severity and intensity of inattention and/or hyperactivity.

What Can Difficulties with Executive Functioning Look Like?

Purnima is a ten-year-old girl who is full of fun ideas. Her teachers have complained that Purnima never listens and cannot sit in her seat without disrupting the other kids. Purnima's friends think she is energetic and a lot of fun, although sometimes, Purnima doesn't know when to stop. At home, Purnima gets into trouble because she doesn't stop and think of the consequences. Her mother worries about her safety and feels that she needs to watch Purnima more than the others in the family. Purnima's siblings complain that she is always the first to choose activities and to make the rules.

Strategies for Helping with Executive Functioning Difficulties

- Break tasks and routines down into steps. For example, getting ready for breakfast involves the following steps:
 - Getting out of bed
 - Making bed
 - Washing face, brushing teeth
 - Getting dressed, combing hair
 - Going to kitchen, etc.
- Outline the steps needed to complete a project or task, and help kids plan how and when to do each step.
- Discuss a number of alternative approaches to a problem and review the pros and cons of each approach.
- Prepare individuals ahead of time for change.
- Address the same issues and use similar approaches in all settings (eg at home and at school) to best achieve generalization
- Provide more adult supervision of activities than might be expected for their age

LDs and Mental Health

Having LDs puts kids at greater risk for a number of mental health concerns. As demonstrated by the experiential exercises in the Walk-A-Mile workshop, kids who have LDs may experience feelings of frustration, shame and perceived stigma, hopelessness, and anxiety about not meeting expectations. 40% of people with LDs are estimated to struggle with problems such as anxiety, depression, or low self esteem. In addition, 75% of kids with LDs are estimated to have difficulties with social relationships. Depending on the nature of the LDs, it can be hard for kids to 'read' social cues or to adapt to new social situations, or to regulate their emotions or behaviors in order to fit in with peers. Kids with LDs are at greater risk for bullying and victimization, social isolation and rejection, or for feelings of loneliness.

Research has identified a number of protective factors that help to foster resilience and well being among kids with LDs. People who have personal characteristics such as persistence in the face of adversity, flexibility to pursue alternate strategies when appropriate, and self-awareness are at reduced risk for problems. We also know that helping kids to develop effective skills such as achievable goal-setting and coping strategies to manage stress and frustration is important.

Strategies for Helping Self Esteem

- Support kids to pursue activities in their area of strength or interest
- Plan activities that will give kids the greatest chance of success
- Experiencing success may give kids the motivation to try activities that are more of a challenge for them
- Be supportive of any signs of progress, even when progress is slow
- Kids need to learn that practice can help develop skills and that success is within their reach
- Notice the reactions of classmates to a kid's academic strengths/weaknesses. Sometimes self-esteem and competence increases when students are in an academic environment with peers who are similar to them academically

Strategies for Helping Emotional Awareness and Control

- Look at anger and frustration as possible ways of saying, "I can't" or "It's too hard", which may in fact be the case
- Offer assistance in a supportive way
- Ask what part of what they are doing is frustrating kids: Would they like to learn another way of approaching it?
- Be patient
- Validate feelings of frustration, anger
- Label feelings and emotions in a non-judgmental way

- Allow kids time to engage in solitary activities in order to give them time to think, reflect, and calm down
- Create a safe, supportive atmosphere, which respects confidential information
- Allow kids to discuss their fears and anxieties. Show that it is ok to talk about them
- Recognize that kids with LD or ADHD may seem to overreact to what you think of as small issues. Remember that their reaction needs to happen to let you know how they are feeling. Try not to overreact in return.

Strategies for Helping Kids with Social Interactions

- Discuss with kids their understanding of what happens to them socially
- Assist them to gain awareness of how they behave with others
- Help them clarify their feelings and make their words consistent with their feelings
- Assist them to review cause and effect (behaviours and responses)
- Offer them meaningful feedback about their behaviour
- Allow kids the opportunity to engage in solitary activities, while taking care to ensure that there are also sufficient opportunities for peer interaction
- Help kids to learn to recognize situations that are potentially problematic and develop strategies to deal with them (i.e. recognizing that large groups are too stimulating, and requesting permission to be in a smaller group)
- Use descriptive, non-judgmental explanations about inappropriate behaviors, being specific and instructional
- Explain social situations verbally, as they happen
- Use real life rather than artificial examples
- Don't just tell the individual what they did wrong. Tell them what to do the next time, giving specific examples
- Kids with LDs may annoy, irritate or frustrate other kids. Allow others to share their frustration in private, out of earshot of the kids with LDs. Help them find positive ways of giving feedback that would be helpful

Strategies for Helping Communication Between Home, School and Other Settings

- Support all facets of the world of a kid with learning disabilities (home, school, recreational settings, religious settings, summer camp, scouts, etc.) to understand this kid's needs and offer flexibility in their approach to them
- Communication with school to develop consistency between home and school, particularly related to how behaviour is labeled, interpreted and handled
- Find out about the special education services available at your kid's school
- Understand your kid's legal rights in accessing support and accommodations

- Know the rules so that you can take part in your kid's educational planning
- Get to know the people who make the decisions at the school
- Keep written records
- Gather information from other parents, from health professionals etc.
- Communicate effectively
- Share the child's strengths and interests with the school
- Emphasize the need to find solutions to work collaboratively
- Focus on the big picture rather than on small details

Homework tips:

- Allow timed breaks but limit them to activities that are not too stimulating. Breaks may include changing the place of study
- Set a specific time each night for homework and keep it consistent
- Create a study space that is quiet, uncluttered, organized and equipped with supplies

Other Strategies to Help With Emotional Wellbeing

- Recognize that uncooperative behavior may be the result of feeling confused, anxious and overwhelmed
- Monitor progress with together with kids. Find out which situations are more easily managed and which are more troublesome. Self-evaluation should be used in a manner that strengthens self-esteem
- There are times that parents of kids with learning disabilities need to intervene *directly*. For example:
 - If child/adolescent is being bullied
 - If the school program is not meeting his/her needs
 - If the child/adolescent needs help with homework
 - If the child/adolescent needs assistive devices
 - If the child/adolescent needs mental health support (depression, anxiety, risk of self-harm)
- These kids benefit from frequent check-ins to discuss problems, develop strategies to address problems, and celebrate successes

Understanding LDs: Putting it all Together

Learning Disabilities (LDs) refer to a variety of neurologically-based disorders that affect a person's ability to take in, understand, remember or express information. Learning Disabilities are the most common form of disability for children aged 5 to 14 years and within Canada, LDs are estimated to affect over three million Canadians (Stats Canada, 2006). A lifelong and universal disability, LDs can have a negative impact on academic functioning, social functioning and on tasks of everyday life. Moreover, having LDs is associated with an increased risk for mental health problems including anxiety, depression and lower levels of self esteem.

In this booklet, we have outlined the specific cognitive processes that can be affected by LDs, such as phonological processing, memory or speed of processing, for example. However, each kid with LDs has his/her own profile of strengths and challenges. Often, there is an interaction between the processes that make each person unique. For example, someone whose LDs reflect working memory problems and slow processing speed can have trouble keeping information in mind (working memory) long enough to make sense of it (processing speed) and can end up feeling overloaded and overwhelmed.

One of the most effective strategies for people with LDs is knowledge: Understanding one's own abilities allows one to maximize areas of strength and to compensate for areas of challenge. Over the past decade, advances in research technology have provided us with a better understanding of how the brain works. We also learn from the experiences of kids with LDs and their families. It is our hope that by promoting a community-wide understanding of the mental health needs of kids with learning disabilities, we will create healthier and more supportive communities to foster resilience and wellbeing for our kids.

Resources

Books

Dane, Elizabeth. *Painful Passages*. NASW Press, 1990. Written by a social worker, this book offers information on understanding and working with individuals with learning disabilities and their families.

Farnham-Diggory, Sylvia. *The Learning Disabled Child*. Harvard University Press, 1992. This book presents a comprehensive overview of learning disabilities.

Fisher, Gary and Cummings, Rhoda. *The Survival Guide for Kids with LD*. Free Spirit Publishing, Inc., 1990. This book was written for children, to help them understand their learning disabilities.

Garber, Stephen, Daniels Garber, Marianne, and Spizman. *Beyond Ritalin*. Harper Perennial, 1992. This book presents an overview of ADHD, the role of medication, and alternate strategies to address issues related to ADHD.

Garcia-Winner, Michelle. *Thinking About YOU Thinking About ME*. Published by Michelle Garcia Winner, SLP, 2002. mwinner@worldnet.att.net. This book provides an overview of social cognitive deficits and offers strategies to develop perspective taking and communication abilities.

Hallowell, Edward and Ratey, John. *Driven to Distraction*. Pantheon Books, 1994. This book was written for laymen and professionals. It presents an overview of ADHD in children and adults.

Lee, Christopher and Rosemary Jackson. *Faking It: A Look into the Mind of a Creative Learner*. Heinemen, NH: Boynton Cook Publishers, 1992. In this book, a young adult describes his experiences growing up with learning disabilities and the process of accepting help through college.

Levine, Mel. *All Kinds of Minds*. Educators Publishing Service, Inc., 1994. This book was written to help children 11 and under to understand different kinds of learning disabilities.

Levine, Mel. *Educational Care: A System for Understanding and Helping Children with Learning Problems at Home and in School*. Educators Publishing Service, Inc., 1994. This book offers descriptions of learning difficulties, strategies for teachers and parents, and ways to demystify learning difficulties so that children can better understand their problems with learning.

Levine, Mel. *Keeping a Head in School: A Student's Book About Learning Abilities and Learning Disorders*. Educators Publishing Service, Inc., 1987. This book was written for teenagers to help them understand their learning disabilities.

Mate, Gabor. *Scattered Minds: A New Look at the Origins and Healing of Attention Deficit*. Vintage Canada. 2000. A new book on understanding attention deficit, written by a clinician who has ADD.

Mather, Nancy & Goldstein, Sam. *Learning Disabilities and Challenging Behaviors: A Guide to Intervention and Classroom Management*. Paul H. Brooks Publishing Company, 2001. This book was co-written by a psychologist and an educator, to assist teachers in understanding and programming for students with learning disabilities.

Manassis, Katarina. *Keys To Parenting Your Anxious Child*. Barron's Educational Series, Inc., 1996. This book is written to assist parents who are raising anxious children.

Osman, Betty B. *Learning Disabilities: A Family Affair*. Warner Books, reprinted 1989. This book describes the impact of the child with learning disabilities on the family and offers parenting strategies.

Rourke, B.P. (1995). *Syndrome of Nonverbal Learning Disabilities: Neurodevelopmental Manifestations*. New York: Guilford Press.

Shaywitz, Sally. *Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level*. Alfred A. Knopf, 2003. This book offers up to date information on understanding and treating dyslexia.

Smith, Sally L. *No Easy Answers: The Learning Disabled Child at Home and at School*. Bantam Books, 1981. This book was written to help parents and teachers unlock the mysteries of learning disabilities. The author is a mother, teacher, school administrator and university professor.

Stewart, Kathryn. *Helping a Child With Nonverbal Learning Disorder or Asperger's Syndrome*. Harbinger Publications Inc. 2002. Practical information for those working and/or living with children who have symptoms of Nonverbal Learning Disabilities or Asperger's Syndrome.

Swanson, H.Lee, Harris, Karen L. & Graham, Steve. *Handbook of Learning Disabilities*. The Guilford Press. 2003. This is a comprehensive volume of articles on understanding and remediating learning disabilities.

The Lab School of Washington. *Color Me Successful. I can be successful, just like my role models*. The Lab School of Washington, D.C. This is a colouring book highlighting successful individuals and how they learned to overcome their learning disabilities. 4759 Reservoir Road Northwest, Washington, D.C. 20007, USA, (202) 965-6600.

Thompson, Sue. *The Source for Nonverbal Learning Disorders*. LinguiSystems, Inc., 1997. Practical information for parents of children with nonverbal learning disabilities.

Wong, B.Y. *The ABC's of Learning Disabilities*. Academic Press, 1997. An excellent overview of learning disabilities, a review of current research in the field and academic intervention.

Organizations

Integra

25 Imperial Street, 4th Floor
Toronto, Ontario
M5P 1B9
www.integra.on.ca
Phone: (416) 486-8055
Fax: (416) 486-1282
Email: info@integra.on.ca

Learning Disabilities Association of Toronto District

121 Willowdale Avenue, Suite 205
Toronto, Ontario
M2N 6A3
www.ldatd.on.ca
Phone: 416-229-1680
Email: admin@ldatd.on.ca

Learning Disabilities Association of Ontario

Suite 1004, Box 39
365 Bloor St. East
Toronto, Ontario
M4W 3L4
www.ldao.ca
Phone: (416) 929-4311
Fax: (416) 929-3905

Learning Disabilities Association of Canada

323 Chapel Street Suite 200
Ottawa, Ontario
K1N 7Z2
www.ldac-taac.ca/index-e.asp
Phone: (613) 238-5721
Fax: (613) 235-5391
Email: info@ldac-taac.ca

Learning Disabilities Association of America

4156 Library Road
Pittsburgh, PA
15234 USA
www.ldanatl.org
Phone: (412) 341-1515
Fax: (412) 344-0224
Email: <http://www.ldanatl.org/contact/contact.cfm>

Council For Exceptional Children (C.E.C.)

Division of Learning Disabilities
ERIC Clearinghouse on Disabilities
1920 Association Drive
Reston, VA 20191-1589 USA
www.cec.sped.org
Phone: 1-800-232-7733

Council for Exceptional Children Ontario

www.cecontario.ca

Websites

Learning Disabilities – General:

LD OnLine - The Interactive Guide to Learning Disabilities
<http://www.ldonline.org>

National Center for Learning Disabilities: The power to hope, to learn, and to succeed.
<http://www.ld.org>

Smart Kids with Learning Disabilities - An information site for parents of children with learning disabilities
www.SmartKidswithLD.org

Ministry of Education
Special Education Web Site
www.edu.gov.on.ca/eng/general/elemsec/speced/speced.html

Special Needs Opportunity Window
www.snow.utoronto.ca

Attention Deficit Hyperactivity Disorder:

Attention Research Update - a web-site administered by David Rabiner, Ph.D, Senior research Scientist, Duke University
www.helpforadd.com/info

NLD/Aspergers:

NLD on the Web!

www.nldontheweb.org

NLDline! - Dedicated to improving awareness among professionals and parents about Nonverbal Learning Disabilities

www.nldline.com

Asperger's Society of Ontario

www.aspergers.ca

O.A.S.I.S.: Online Asperger Syndrome Information and Support www.udel.edu/bkirby/asperger

Videos

Learning Disabilities and Discipline: Richard Lavoie's Guide to Improving Children's Behaviour

Videotape and discussion guide, 1996

Learning Disabilities and Social Skills with Richard Lavoie: Last One Picked... First One Picked On

Videotape and discussion guide, 1994

Understanding Learning Disabilities: How Difficult Can This Be? The F.A.T. City Workshop with Richard Lavoie

Videotape and discussion guide, 1989

PBS Video

1320 Braddock Place, Alexandria, VA 22314 USA

(800) 344-3337

Glossary

Please Note: Terms change over time; this is common to all fields, but especially true in newer fields, when concepts are named and refined as our understanding deepens. You will notice if you research a number of different sites, books or articles, that different terms describe similar or identical disabilities, and the same term can mean different things, depending on the country of origin.

ADHD – (Attention Deficit Hyperactivity Disorder) ADHD often affects people who have LDs, and is beginning to be seen as a type of LD itself. It is also a term that changes very frequently, mostly because there are two distinct subcategories: one sort of ADHD includes hyperactivity, and the other does not. ADHD generally interferes with attention span, impulse control, and (sometimes) hyperactivity.

Auditory Processing – the way we understand information we hear. LDs affecting this process can affect the accuracy of what's heard, memory of what's heard, organization of what's heard, or figure-ground discrimination of sounds.

Cognitive – another way of talking about intelligence. Cognition means thinking.

Dysgraphia – learning disabilities that affect written expression.

Dyscalculia – learning disabilities that affect mathematics

Dyslexia – learning disabilities that affect language. Commonly misunderstood to be a condition that causes letters to appear backwards and upside down, but in reality much more complicated. The bottom line of dyslexia is now thought to be a problem with the sounds in words (phonological awareness).

Executive functions – the skills need to plan, manage, and evaluate things in everyday life as well as school and work.

Expressive / Receptive – refer to transmitting or receiving information.

Fine-motor/Gross-motor control – the ability to accurately use either fine-motor or gross-motor muscle control. Fine-motor muscle control refers to small muscles doing small things – threading a needle, holding a pen. Gross-motor muscle control are large – like dancing or jumping.

Figure-Ground Discrimination – this can refer to visual or auditory information, and describes the ability to distinguish important details from surrounding information. An example of visual figure-ground discrimination would be being able to see the words on a page and ignore a background design. Auditorily, it would be being able to pay attention to a lecture and ignore the sounds of rustling paper and people whispering.

Impulsivity – people with poor impulse control do not always think before they act, or consider the consequences of actions.

Memory (Long-Term) – memory that stores information for later use. For example, the phone number of your best friend or a family member that you have memorized is stored in your long-term memory.

Memory (Short-Term) – memory that holds information briefly while you use it. For example, when you read a phone number and then dial it, the number is held in your short-term memory.

Memory (Working) – memory that holds an idea while you are using it - for example, your working memory holds a formula when you are working on a math problem.

Multisensory Teaching - using many senses (visual/auditory, kinesthetic-tactile) and pathways in the brain simultaneously in order to enhance memory and learning.

Nonverbal LDs – learning disabilities that affect all learning not related to language, including social skills and physical coordination. Also called NLDs or NVLDs.

Organizational Problems – can include problems with managing time, organizing tasks, and organizing space.

Processing Speed – how quickly or slowly a person is able to use, take in, or bring out information. It is not related to cognitive ability – just to speed and fluency.

Phonemic Awareness/Phonological Awareness – the ability to recognize the distinct sounds in words, which is required for further language development.

Social perception – the ability to interpret social situations, for example by 'reading' facial expressions, tone of voice, body language and other verbal and nonverbal cues. Individuals who have trouble using social perceptions to guide their behaviour may have social skills difficulties.

Social Skills – the skills we use in society to get along socially. For example, we learn when it is appropriate to interrupt a conversation, and how close to stand to people when we're chatting. Some LDs interfere with learning these rules, which causes social struggles – loneliness, conflict, awkwardness, etc.





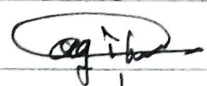


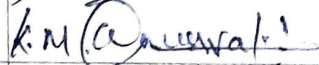
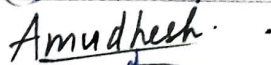



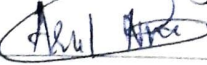


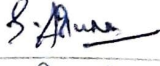

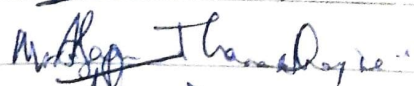


Visual-Motor Integration – the coordination of visual information with motor processes.

Visual Processing – the way we understand information from our eyes. LDs affecting this can affect the accuracy of what's seen, memory of what's seen, understand what's seen, or figure-ground discrimination. Visual Tracking – the way we follow a line of text on a page - can also be affected .

VALUE ADDED COURSE

Learning Disability Course and PECO 9

List of Students Enrolled (November 2018- December 2018)

| Final Year MBBS Student | | | |
|-------------------------|---------------------|----------|---|
| Sl. No | Name of the Student | Roll No | Signature |
| 1 | AARTHI .H | U15MB250 |  |
| 2 | ABARNA. M | U15MB251 |  |
| 3 | ABINAYA.J | U15MB252 |  |
| 4 | ADARSH .S | U15MB253 |  |
| 5 | AGILAN .A | U15MB254 |  |
| 6 | AKSHAYA .S | U15MB255 |  |
| 7 | AKSSHAYA .M.R | U15MB256 |  |
| 8 | AMARNATH. S | U15MB257 |  |
| 9 | AMUDHESAR .K.M | U15MB258 |  |
| 10 | ANANDH.S | U15MB259 |  |
| 11 | ARCHITH VIGNESH .B | U15MB260 |  |
| 12 | ARJUNBALAJI .A | U15MB261 |  |
| 13 | ARUL NIVETHINI V.A | U15MB262 |  |
| 14 | ARUL PRINCE. E | U15MB263 |  |
| 15 | ARUN PRASAD. K | U15MB265 |  |
| 16 | ARUNA .S | U15MB266 |  |
| 17 | ARUNKUMAR .S | U15MB264 |  |
| 18 | ASAN THASTHAGIR. M | U15MB267 |  |
| 19 | ASWIN. B | U15MB268 |  |
| 20 | BALAMANI KANDAN. S | U15MB269 |  |

Adhyak

Subject Expert
ASSISTANT PROFESSOR
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MEDICAL SCIENCES
OSUDU, PUDUCHERRY



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AND RESEARCH**

Annexure - III

LEARNING DISABILITY COURSE

MULTIPLE CHOICE QUESTIONS

Course Code: PECO 9

1. Developmental disorders can be broadly categorized into
- Autism and attention deficit/hyperactivity disorder.
 - Learning difficulties, autism and attention deficit/hyperactivity disorder.
 - Infant depression and attention deficit/hyperactivity disorder.
 - Learning difficulties and childhood schizophrenia.

2.

A child with dyslexia but with no other difficulties would be classified as having:

- Attention deficit/hyperactivity disorder.
- A learning difficulty.
- Autism.
- A specific learning difficulty.

3.

The most common causes of learning difficulties are:

- Perinatal infection (e.g. rubella).
- Postnatal trauma (e.g. encephalitis).
- Deprived upbringing.
- Genetics (e.g. Down's syndrome).



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4.

Autism is characterised by impairments in which of the following areas:

- Social interaction.
- Patterns of behaviour.
- Communication.
- All of the above.

5.

Which of the following has not been suggested to be a cause of autism?

- The measles, mumps and rubella vaccine.
- Metal metabolism disorder.
- Genetics.
- Overproduction of the neurotransmitter serotonin.

6.

Within attention deficit/hyperactivity disorder, which of the following is not classified as a problem relating to poor attention?

- Experiences difficulties in waiting in turn.
- Easily distracted.
- Dislikes tasks involving mental effort, e.g. homework.
- Appears routinely forgetful.



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7.

Within attention deficit/hyperactivity disorder, which of the following is not classified as a problem relating to hyperactivity-impulsivity

- Doesn't appear to listen when being told something or spoken to.
- Rather than sitting still, squirms in seat and fidgets.
- Experiences difficulties in playing quietly.
- Talks excessively.

8.

What is the suggested reason why the prevalence rates of ADHD is higher in the US (5–8%) than in the UK (0.5–1%)?

- The higher consumption rate of fast food in the US is a primary cause of the disorder.
- ADHD may be underdiagnosed in the UK.
- Pharmaceutical companies in the US encourage the diagnosis of the disorder.
- Children in the US watch more TV than those in the UK.

9.

Which of the following are perinatal risk factors associated with ADHD?

- Maternal alcohol misuse.
- Low birth weight.
- Maternal stress.
- All of the above.



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10.

The most widely prescribed pharmacological treatment for ADHD is:

- Diazepam.
- Ritalin.
- Risperidone.
- Lithium.



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ABARUA

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AND RESEARCH**

Annexure - III

LEARNING DISABILITY COURSE

MULTIPLE CHOICE QUESTIONS

Course Code: PECO 9

1. Developmental disorders can be broadly categorized into
- Autism and attention deficit/hyperactivity disorder.
 - Learning difficulties, autism and attention deficit/hyperactivity disorder.
 - Infant depression and attention deficit/hyperactivity disorder.
 - Learning difficulties and childhood schizophrenia.

2.

A child with dyslexia but with no other difficulties would be classified as having:

- Attention deficit/hyperactivity disorder.
- A learning difficulty.
- Autism.
- A specific learning difficulty.

3.

The most common causes of learning difficulties are:

- Perinatal infection (e.g. rubella).
- Postnatal trauma (e.g. encephalitis).
- Deprived upbringing.
- Genetics (e.g. Down's syndrome).



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4.

Autism is characterised by impairments in which of the following areas:

- Social interaction.
- Patterns of behaviour.
- Communication.
- All of the above.

5.

Which of the following has not been suggested to be a cause of autism?

- The measles, mumps and rubella vaccine.
- Metal metabolism disorder.
- Genetics.
- Overproduction of the neurotransmitter serotonin.

6.

Within attention deficit/hyperactivity disorder, which of the following is not classified as a problem relating to poor attention?

- Experiences difficulties in waiting in turn.
- Easily distracted.
- Dislikes tasks involving mental effort, e.g. homework.
- Appears routinely forgetful.



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AND RESEARCH**

7.

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Sri Lakshmi Narayana Institute of Medical Sciences

Affiliated to Bharath Institute of Higher Education & Research
(Deemed to be University under section 3 of the UGC Act 1956)



CERTIFICATE OF MERIT

This is to certify that AGILAN .A U15MB254 has actively participated in the Value Added Course on *Learning Disability in Children* held during November 2018- December 2018 Organized by Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry- 605 502, India.

Dr. Abhijeet Shrivastava
RESOURCE PERSON

Dr. Raghavendran
COORDINATOR



Sri Lakshmi Narayana Institute of Medical Sciences

Affiliated to Bharath Institute of Higher Education & Research
(Deemed to be University under section 3 of the UGC Act 1956)



CERTIFICATE OF MERIT

This is to certify that ABINAYA.J U15MB252 has actively participated in the Value Added Course on *Learning Disability in Children* held during November 2018- December 2018 Organized by Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry- 605 502, India.

Dr. Abhijeet Shrivastava
RESOURCE PERSON

Dr. Raghavendran
COORDINATOR

Student Feedback Form

Course Name: Learning Disability in Children

Subject Code: PECO9

Name of Student: Abhinaya. J Roll No.: V15MB252

We are constantly looking to improve our classes and deliver the best training to you. Your evaluations, comments and suggestions will help us to improve our performance

| Sl. NO | Particulars | 1 | 2 | 3 | 4 | 5 |
|--------|--|---|---|---|---|---|
| 1 | Objective of the course is clear | | | | ✓ | |
| 2 | Course contents met with your expectations | | | | | ✓ |
| 3 | Lecturer sequence was well planned | | | | | ✓ |
| 4 | Lectures were clear and easy to understand | | | | ✓ | |
| 5 | Teaching aids were effective | | | | | ✓ |
| 6 | Instructors encourage interaction and were helpful | | | | ✓ | |
| 7 | The level of the course | | | | | ✓ |
| 8 | Overall rating of the course | 1 | 2 | 3 | 4 | 5 |

* Rating: 5 – Outstanding; 4 - Excellent; 3 – Good; 2– Satisfactory; 1 - Not-Satisfactory

Suggestions if any:

nil

Date: 21.12.2018

Abhinaya
Signature

Date: 03.01.2019

From

Dr. Raghavendran V
Professor and Head,
Department of Pediatrics,
Sri Lakshmi Narayana Institute of Medical Sciences
Bharath Institute of Higher Education and Research,
Chennai.

Through Proper Channel

To

The Dean,
Sri Lakshmi Narayana Institute of Medical Sciences
Bharath Institute of Higher Education and Research,
Chennai.

Sub: Completion of value-added course: Learning Disability Course

Dear Sir,

With reference to the subject mentioned above, the department has conducted the value-added course titled: **Learning Disability Course** from November to December 2018 for 20 final year MBBS students. We solicit your kind action to send certificates for the participants, that is attached with this letter. Also, I am attaching the photographs captured during the conduct of the course.

Kind Regards,



Dr. Raghavendran V

**PAEDIATRICS HEAD
DEPT. OF PAEDIATRICS
SRI LAKSHMI NARAYANA INSTITUTE OF
MEDICAL SCIENCES
OSUDU, PUDUCHERRY**

Encl: Certificates

Photographs

PECO9 – LEARNING DISABILITY COURSE, NOV 2018

