



Non Verbal Learning Disorder

NVLD

Amy Mahlke
Independent Consultant
amy.mahlke@gmail.com

Definition

• “A neurological condition believed to result from damage to the white matter connections in the right hemisphere, which are important for intermodal integration,” (Thompson, 1997).

- Manifests in three major categories
 - Motoric
 - Visual-spatial-organizational
 - Social

Description

- NVLD is not a learning disability in the traditional sense, but rather a life learning disability. It should be considered in terms of a pervasive developmental disability (assumes a severe, chronic disability that is present before the individual reaches the age of 21), rather than a learning disability. It causes substantial functional limitation in areas such as self-care, receptive and expressive language, learning, self-direction and mobility, as well as the capacity for independent living and economic self-sufficiency. Pamela B. Tanguay Nonverbal Learning Disabilities at School, 2002

Brief History of NVLD

- 1967 Johnson and Mykelbust were the first to recognize the subtype of Learning Disorders that was characterized by difficulty interpreting emotional expression and social settings yet had a strong speaking vocabulary.
- Mid 1970's Byron Rourke began intensive research into what is now called NVLD (NLD)
- Found limited access to the right hemisphere systems
- Mykelbust (1975) NVLD impedes all understanding and adaptive learning making NVLD more debilitating than verbal disabilities

Rourke's Findings

- Research focused on the neuropsychological profile of the child whose deficits were manifested in social skills.
- Studied students labeled as SLD who did not seem to 'fit' the profile
- Early indicator of Neuropsychological Deficits:
 - Tactile perception- as an infant they will not explore things orally
 - Infants tend to not have desire to explore when left on blanket – stay where they are put



Indicators of the disorder

What may be considered as 'red flags' of a possible
NVLD



Note: Diagnosis must be done by medical personnel.

1. Evidence of any of these indicators does not necessarily mean the child/adult has NVLD.
2. It is important for family and school teams to look at the indicators and seek medical advice if the team suspects the disorder.
3. A medical diagnosis may or may not lead to special education placement. Schools would need to conduct a comprehensive evaluation.
4. Handout with comparisons of syndromes with social incompetencies

Psychomotor Skills

- Psycho-motor is the relationship between the brain and muscles
- Deficits more pronounced on left side
- Children tend to walk and crawl later
- May actually talk before they walk
 - Which can mask the condition
- Struggles with balance
- Handwriting begins very poor then can become compulsive about neatness
- Talks there way through even basic tasks
- Positive results with repetitive practice

Visual- Spatial- Organizational

- Early on may appear/test as high intelligence with high scores on receptive and expressive language measures
- Does not pick up on non-verbal cues
- ‘blank stares’ may be interpreted as manipulative
- Does not project how they are feeling
- Difficulty changing activities or places
 - Results in avoiding new activities
- Integration of visual/spatial
 - Tera Kirk, a young adult with NVLD describes the visual deficit on daily living- Vacuuming

Social

- Misinterprets body language and voice tones
- Unable to interpret subtle cues
 - Personal space
 - Facial expressions
 - Non-verbal signals of pleasure or displeasure
 - When enough is enough
- Naively trusting
 - Doesn't recognize being lied to or joked with
 - Don't understand dishonesty
- “I shouldn't have to tell you this” ---- yes you should and will
- Constant verbage
- May repeat movies, books, songs non-stop

Social continued

- Does not understand commonly used humor/idioms/sarcasm
- Rarely/never seeks out peers for play, social interactions
- Tend to isolate themselves
 - However they tend to attach to a significant adult
- Struggles with novel situations, inflexible
- Often perceived as blunt, rude uncooperative because of concrete approach to life
- Poor sense of time, elapsed time
- Indicators can become more pronounced as the child gets older

Novel Material or Settings

- Right hemisphere of the “normal” brain is adept at dealing with new material-deficit area of brain for NVLD
- Deficit’s impact may increase in severity with adulthood.
 - Adulthood is expected time of competence
- New situations may cause panic attacks
- Over reliance on rote verbal memory
- Unable to generalize situations

Oral Verbal Indicators

- Little or no speech prosody
- Repetitive speech
- Pragmatics
- Reliance on oral language as principle means for social relationships
 - They don't understand the reciprocal nature of conversations
- Lack of/limited ability to read nonverbal language cues
- May appear to have highly developed vocabulary and speech early on

Academic Difficulties

- Graphomotor
 - Early in school will have difficulty with printing, letter/number formation
 - Coloring, cutting, pasting
 - May become compulsive about neatness and therefore take extreme amounts of time to complete tasks.
 - Margin of written work tends to slope to the right with left margin getting larger
 - Crossing the midline difficulties
 - Spacing of words and letters on the paper

Reading Comprehension

- Often this is thought to be a strength in early grades
- Able to retell the story verbatim
- Recall explicit facts and details from the story
- Unable to make predictions, interpretations, formulate relationships between characters etc., relate their own background knowledge

Reading/spelling - phonics

- Enjoy, seek out reading and spelling words that are phonetically accurate
- Strong rote memory – recalls phonics rules
- Early reading development
- Written spelling more difficult than oral spelling
- More successful in phonetic based program than ‘whole language’ or discovery approach
- Will become frustrated with too much repetition

Math

- Able to memorize rote facts
- Writing difficulties makes copying of problems and place value difficult
- Helpful to require fewer problems on each page- easily visually overwhelmed
- Inability to switch between operations or format /horizontal-vertical problems
- Problem solving very difficult

Science/ Content Areas

- Visually overwhelmed with texts that have multiple pictures, graphs etc.
- Unable to connect concepts
- Applying theory to problems, applications difficult
- Unable to use knowledge in one academic area for another – math skills for chemistry

Assessment/ Eligibility

- Multidisciplinary approach is necessary
- Possible eligibility in several special education categories depending on needs/profile
 - OHD/would require a medical diagnosis
 - Autism Spectrum
 - EBD
 - SLD
 - May require speech and language services
 - Expressive and receptive language skills
 - 504 (not special education)

Direct training necessary for:

- Planning
- Discriminating
- Temporal concepts
- Organizational skills
- Study skills
- Written expression
- Body image
- Social cognition
- Interpersonal communication

Accommodations in school/home

- Open lines of communication between home and school
- Keep accommodations/modifications consistent across classes and teachers
- Minimize oral multiple step directions
 - Use of written or visual directions
- Minimize visual overload
- Parent/teacher should verbalize as much as possible
- Minimize the number of changes required throughout the day
 - Possibly have student stay with same teacher as much as possible
 - Forewarn child of changes

Accommodations

- Frequently and explicitly praising the child
 - Child often experiences more negative feedback from adults and peers
- Explicitly talking about situations that other children would be able to make inferences from
- Giving the gift of time for students to complete complex tasks
 - Set up timelines
 - Break apart tasks
 - Prioritize tasks – team should determine relevance of the assignment
 - Determine if missing assignments are “can’t do” or “won’t do”

Accommodations

- Provide outlines of notes for lectures prior to lecture
 - Allows student time to preview
 - Student won't have to take notes
 - Promote use of highlighter on notes
 - Instructor needs to verbally make connections between concepts and key points

Writing accommodations

- Difficult area
- Difficulty transferring what is in mind to paper
- Motor impairments compounds the difficulty
- Use of scribe, use of word processor
- Focus on organization of written work
- Emphasize content over quantity

Math accommodations

- Verbal explanations vs. visual representations
- Verbally explain each step – think alouds
- Use of consumable text
 - Simple black & white if possible
- Use of graph paper to assist with aligning of place values
- Minimize distracters in story problems
- Eliminate timed tests if possible
- Geometry is very difficult area due to visual nature

Getting around the school

- Provide the student with a map of the school
- Practice route between classrooms
- Practice alternate routes with potential scenarios
- If possible allow student to leave a few minutes early

Behavioral interventions

- Ignoring undesired behaviors won't be understood
- Punishment of inappropriate behaviors is effective
- Role-play with verbalizations
- Describe appropriate behaviors
- Social stories: pros and cons
- Avoid ultimatums: “if you do this, then this will happen” – sets up fear and anxiety
- Be proactive with behaviors not reactive
 - Child may not understand how they may be made to be the ‘class clown’
 - Don't understand difference between being laughed at and laughed with

The Source® for Nonverbal Learning Disorders

Ages: All Ages Grades: All Grades

The child with this disorder presents a puzzling and challenging profile to teachers, therapists, and parents. This resource translates the research into an understandable manual for the identification and treatment of children and youth with nonverbal learning disorders.

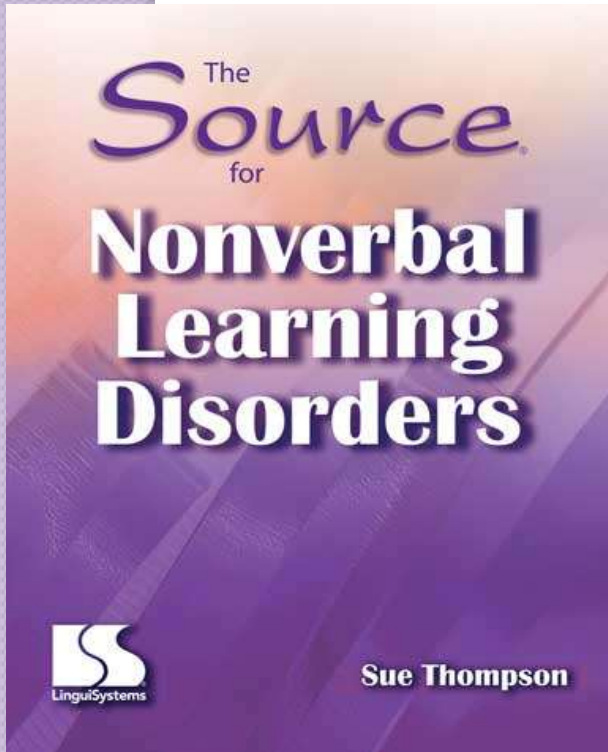
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Sources

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