Case study 11

Non-verbal learning disorder (NLD) is a neurological condition that affects a person's ability to interpret and use nonverbal cues, such as body language, facial expressions, and tone of voice. People with NLD may have difficulties with spatial awareness, visual-spatial processing, and fine motor skills. They may also struggle with social skills, abstract reasoning, and executive functioning, which includes skills such as planning, organizing, and prioritizing tasks.

Description: Aisté, an 8-year-old girl, has a reluctance and inability to explore new things, and has difficulty in keeping her balance. She lacks self-confidence and behavioural skills in new situations. Difficulties in communication and decision making. Cannot grasp the big picture in lessons, has difficulty understanding spatial connections and relationships. Fits of anger. Lack of empathy, mood swings, anxiety, depression, fearful or anxious reactions to changes. The girl often feels confused and disturbed and this state may manifest itself in behaviour as attention deficit hyperactivity disorder. She may ask questions that are not related to the context of learning or communication because she has difficulty understanding that context. She often makes verbal comments on her non-verbal activities, as if she is helping herself to perform them. She is able to speak fluently, but her speech lacks emphasis, a sense of the big picture, she pays too much attention to detail, and she does not feel the non-verbal reactions of others to her speech. She has a lot of factual knowledge, but has difficulty in applying it to new situations, in generalising, in solving problems.

Key words:

Visual-spatial abilities, generalising, social and learning difficulties, visual-spatial abilities, clumsiness, non-verbal communication, symbols, gestures.

Case study 11. Non-verbal learning disorders

Tool 1

Title: How to recognise non-verbal learning disorders?

Using this tool you can suspect non-verbal learning disorder. Nonverbal learning disorder (NVLD) is a neurological condition that can affect a child's ability to understand and interpret nonverbal cues, such as facial expressions and body language. Children with NVLD may have difficulty with spatial skills, visual-spatial processing, and executive functioning.

Here are some signs and symptoms that may indicate NVLD:

- 1. **Difficulty with social interactions:** Children with NVLD may struggle with social interactions and have difficulty understanding nonverbal cues, such as body language and facial expressions. They may have trouble making and maintaining friendships, interpreting sarcasm or humor, or reading social cues in group situations.
- 2. **Strengths in verbal abilities:** While children with NVLD may struggle with nonverbal communication and visual-spatial processing, they may have strong verbal abilities, such as a large vocabulary, advanced grammar, and excellent reading comprehension.
- 3. **Difficulty with visual-spatial skills:** Children with NVLD may have difficulty with visual-spatial skills, such as reading maps or understanding geometric shapes. They may have difficulty with visual organization and struggle with tasks that involve multiple steps or require planning ahead.
- 4. **Difficulty with executive functioning**: Children with NVLD may struggle with executive functioning skills, such as planning, organization, time management, and problem-solving.
- 5. **Difficulty with math and science**: Children with NVLD may struggle with math and science, particularly with tasks that involve visual-spatial skills.

Instructions / Methodology / Recommendations how to use the tool

There are several tasks that can be used to assess for nonverbal learning disorder (NVLD) in children. Here are some examples:

- 1. **Block design task**: This task involves the child arranging blocks to match a given pattern or design. Children with NVLD may have difficulty with this task due to difficulty with visual-spatial processing.
- 2. **Visual-motor integration task:** This task involves the child copying a series of shapes or designs using paper and pencil. Children with NVLD may struggle with this task due to difficulty with visual-spatial processing and visual-motor integration.
- 3. **Trail-making task**: This task involves the child connecting a series of dots in order, either with or without numbers or letters to guide them. Children with NVLD may struggle with this task due to difficulty with visual-spatial processing and executive functioning.
- 4. **Clock-drawing task:** This task involves the child drawing a clock and setting the hands to a specific time. Children with NVLD may struggle with this task due to difficulty with visual-spatial processing and executive functioning.
- 5. **Visual memory task:** This task involves the child looking at a picture or series of pictures and then recalling details from memory. Children with NVLD may struggle with this task due to difficulty with visual-spatial processing and working memory.

Here's an example of clock drawing task:

In this example, the child is asked to draw a clock face and then set the hands to a specific time, such as 10:30. The evaluator may also ask the child to draw other specific details, such as the numbers on the clock face or the hour and minute hands.

Interpretation of the results

The evaluator should then score the drawing based on specific criteria, such as accuracy of the clock face, correct placement of the hands, and inclusion of other details. In addition to accuracy of the clock face, correct placement of the hands, and inclusion of other details, there are several other factors that an evaluator may consider when scoring the clock-drawing task. These factors may vary depending on the purpose of the assessment and the specific criteria being used. Here are some examples:

- 1. **Size and proportion:** The evaluator may look at the size and proportion of the clock face and hands to ensure they are proportional to each other and the overall drawing.
- 2. **Spatial organization: The** evaluator may look at the placement and spacing of the numbers and hands on the clock face to determine if the child has a good understanding of spatial organization.
- 3. **Conceptual understanding:** The evaluator may look at the child's ability to understand the concept of time, such as whether the child correctly sets the hands to a given time.
- 4. **Executive functioning**: The evaluator may look at the child's ability to plan and organize their work, as well as their ability to use working memory and sustain attention throughout the task.

Key words

NVLD, learning disorder.

Links for more information

Here are some links with information about nonverbal learning disorder (NVLD) in children:

- 1. Understood.org: Understanding Nonverbal Learning Disabilities in Children: https://www.understood.org/articles/en/nonverbal-learning-disabilities
- 2. Child Mind Institute: Nonverbal Learning Disorder (NVLD): https://childmind.org/guide/nonverbal-learning-disorder-nvld/
- 3. American Psychological Association: Nonverbal Learning Disabilities in Children: https://www.apa.org/topics/learning/nonverbal
- 4. National Center for Learning Disabilities: Nonverbal Learning Disabilities: <u>https://www.ncld.org/types-learning-disabilities/nonverbal-learning-disabilities/</u>
- 5. LD Online: Nonverbal Learning Disabilities: https://www.ldonline.org/article/Nonverbal Learning Disabilities