Case Study: Jane Dhillon

1. Background information on Jane Dhillon

2. Why do I think Jane has a non-verbal learning disability?

Three issues in this course that relate to Jane:

3. Memory

4. Peer relationships

5. Emotional health

6. Conclusion: Does Jane really have a non-verbal learning disability?

Background on Jane Dhillon

Jane Dhillon is a friendly and rambunctious grade two student who attends Fleetwood Elementary in Delta, B.C. She has some difficulties with non-verbal memory, social skills and regulating her emotions. Jane is a child with alcohol related neurodevelopmental disorder, attention deficit hyperactivity disorder and oppositional defiant disorder. She was also slow to reach developmental milestones in terms of fine motor and communication development.

Jane’s father died soon after her birth and she occasionally brings this up when conversing with her educational assistant at school. Since then, Jane has resided with her mother and her mother’s current partner; however, she has been emotionally affected by these disruptions in her early history as well as concerns of possible abuse. In terms of behaviour, Jane sometimes uses inappropriate language and at times becomes physically aggressive towards adults. Despite all of these obstacles, Jane is slowly making progress at school.
1.) Why do I think that Jane has a non-verbal learning disability?

- **Visual-spatial deficit:** Vacca (2001) stated that people with non-verbal learning disabilities have difficulties with visual-spatial perception, organization and imaging. A psychological assessment conducted on Jane at the age of five reported that she had issues with visual-spatial perception (3rd percentile). For example, when asked to copy square block designs, Jane would use the correct colours, but line her blocks up in a line of four, or two rows of two, rather than a square.

- **Rigid behaviour:** Most individuals with non-verbal learning disorders (NVLD) are very rigid in terms of his or her behaviour (Vacca, 2001). They often have problems during transitional times and in novel situations. Jane has issues with schedule changes during her day. She often storms out of her classroom if her teacher alters the shape of the day. Jane also becomes physically aggressive in novel situations; for example, she is frequently aggressive with her educational assistant during school assemblies.

- **Fine motor problems:** Vacca (2001) asserts that people with non-verbal learning disabilities have problems with letter formation and spacing. Jane initially had difficulties in these two areas of fine motor tasks. She also protests when requested to do paper and pencil tasks and also has very little interest in drawing and printing in general.

- **Difficulties in some areas of language arts:** Vacca (2001) reported that students with non-verbal learning disabilities may have disorganized writing, difficulties understanding the relationships between events, drawing conclusions and making inferences. Jane has difficulties answering reading comprehension questions and making predictions. However, like students with non-verbal learning disabilities, Jane has excellent phonemic awareness skills (Vacca, 2001).

- **Difficulties with math:** Individuals with non-verbal learning disorders have problems with math because it largely relies on spatial concepts. In contrast to many other subjects at school, math is
usually taught through demonstration (Franz, 2000). Jane often experiences difficulties with math and I believe this may be due to the fact that direct modeling is generally the preferred method of instruction.

- **Well-developed auditory memory** (Franz, 2000): Please see page 4.
- **Poor non-verbal memory** (Franz, 2000): Please see page 6.
- **Deficits in social understanding** (Vacca, 2001): Please see pages 9-11.
- **Emotional difficulties** (Vacca, 2001): Please see pages 7-9.

**Memory, Non-Verbal Learning Disorders and Jane**

- **Well-developed auditory memory**: Franz (2000) states that people with non-verbal learning disabilities have a well-developed auditory memory and are also able to produce lengthy descriptions. In fact, they almost sound as if they are reciting an excerpt from an encyclopaedia.

Jane is able to produce lengthy descriptions regarding information that she has previously heard. For example, Jane is able to remember discussions her parents have at home and often re-collects these lengthy discussions at school. In addition, Jane sometimes recites a plethora of science facts and she almost sounds like an encyclopaedia when she does this. Furthermore, she does have an excellent verbal memory.

- **Difficulties producing visual images in response to verbal input**: People with non-verbal learning disorders have problems creating visual images in his or her mind that represent oral information. Individuals with “normal” memories are able to listen to verbal input, create visuals in his or her head in response to these words, and these visuals often aid them when they are trying to remember information. In this way, the visuals help them chunk the verbal information and it is easier for them to remember the auditory information. For instance, if a typical individual was trying to recall
the plot in a story they listened to, they would probably rely on visual images that they created in their head when listening to the text. They rely on these visuals when they try to remember specific verbal details later on when they try to recall this verbal information (Franz, 2000). The difference in individuals with non-verbal learning disorders is that they do not have a store of visuals to help them recall oral information. Instead, they rely on much of the verbal information and it usually comes back to them all at once and it is difficult for them to make sense of all of this information. Furthermore, it makes sense that they would have difficulties with reading comprehension questions afterwards.

In Jane’s case, she does have difficulties answering reading comprehension questions after listening to a story. I speculate that she must have had difficulties conjuring up images in her head that are related to the words that are read to her. Therefore, later on when asked comprehension questions, she is overwhelmed with verbal input and this is why she has issue answering comprehension questions.

- **Poor non-verbal memory:** Liddell and Rasmussen (2005) studied visual and verbal memory in fourteen children with non-verbal learning disabilities. These researchers discovered that the NVLD children’s visual memory was below average and that their verbal memory was either average or above average. Furthermore, these children do have a deficit in the area of non-verbal memory. Franz (2000) also stated that individuals with a non-verbal learning disorder have a poor non-verbal memory and that this often translates into difficulties reading maps, operating appliances, managing time and organizing items.

In terms of Jane, she does have a very poor non-verbal memory. She always has difficulties with math problems and it is probably because the demonstrations rely on visual information. She also has a very messy desk and often has difficulties operating simple appliances during her cooking lessons. Jane’s early psychological report showed that she scored quite low in three areas of non-
verbal intelligence as well; these subtests were pattern construction, copying and pattern similarities.

- **Poor non-verbal memory and facial recognition:** The literature states that people with NVLD have problems with facial recognition (Franz, 2000; Liddell and Rasmussen, 2005). Liddell and Rasmussen discovered that children with NVLD scored well below average on the immediate memory subtest that was one of the visual memory tasks in their study. In this task, the subjects were shown pictures of people’s faces and asked to remember them. Soon afterwards the experimenters presented the NVLD children with two pictures of different faces, one that the child viewed previously and one that they had never seen before; the child was then supposed to point to the picture they had recently seen. The students with a non-verbal learning disability had a very difficult time identifying the face that they had recently seen.

♀️ I believe that Jane also has difficulties remembering faces. I remember one incident when Jane was having a tantrum in my office. She decided to throw toys up in the air and I called in our principal for extra support. Our principal clearly stated, “stop Jane” in a menacing tone, but Jane took one look at him and went back to throwing items all over my room. I remember thinking to myself, does she even realise that he is the principal. Now that I think back on it I wonder if she just did not realise who he was. After all, she probably did not have much contact with the principal and maybe she could not remember his face. Perhaps he was just another adult telling her what to do to her.

**Emotional Health, Learning Disabilities and Jane**

- **Mental Health and Learning Disabilities:** Individuals with learning disabilities are at greater risk for developing mental health issues. One group of researchers discovered that individuals with LD have higher levels of “distress, depression, anxiety disorders, suicidal thoughts, visits to mental health professionals, and poorer overall mental health than persons without learning disabilities” (Wilson et. al., 2009, p. 24). Many studies have also found that students with learning disorders...
obtain statistically higher depression scores than students without learning disabilities (Maag & Reid, 2006).

I think that there is a great possibility that Jane may be depressed. She suffers from social withdrawal, has sleeping difficulties and often seems sad at school. I think it must have also been very difficult for her to deal with her father’s death at such a young age. She often talks about him going to heaven in a melancholic tone.

- **Mental Health and Poor Self-Concept:** One factor that increases students with learning disabilities (LD) risk of developing depression is their self-concept. Students with LD and a low self-concept are at a greater risk for developing depression (Maag & Reid, 2006).

I have also found that Jane does have a low self-esteem. After all, even with modifications, Jane’s school work is very difficult for her to complete. When work is too difficult for her, she storms out of the classroom and into the hallway in order to avoid the task. She will also sometimes state that she thinks she is stupid.

- **Mental Health and External Loci of Control:** Individuals with learning disabilities are often more likely to develop mental health issues because they have an external locus of control. An external locus of control means they feel that they have no control over events that happen in their lives; furthermore, they would be more susceptible to mental health conditions since they feel they can not change anything (Maag & Reid, 2006).

I believe that Jane had an external locus of control. At school she feels that she has to do everything her educational assistant and teacher request her to do. Moreover, when the workload becomes too difficult for her to do, she runs out of the school. She obviously feels that she had no control over what is happening to her and wants to escape as quickly as possible. In reality, her educational staff would have reduced her work expectations if they knew that she was this frustrated.
• Mental Health and Anxiety: Wilson et. al. (2009) found that individuals with learning disabilities are two times more likely to have an anxiety disorder than people without a learning disability. People with learning disabilities also often have many of the symptoms of generalized anxiety disorder, such as “excessive worry and apprehension”. In addition, school is one of the greatest stressors in the life of an individual with LD and I am sure this also contributes to a learning disabled individual’s anxiety levels (Wilson et. al., 2009).

❖ It is possible that Jane has a generalized anxiety disorder. Jane has very little control over the adults in her life. Her father died and he is no longer a part of her life. Her mother separated from her partner and she can no longer see her mother’s partner. Additionally, school is very stressful for Jane which probably increases her stress levels in general.

Peer Relationships, Learning Disabilities and Jane

• Peer Relationships and Learning Disabilities: Students with learning disabilities have difficulties with peer relationships. For instance, Kavale and Forness (1995) found that 75% of the individuals in their study with a learning disability had problems with peer relationships (Kavale & Mostert, 2004). Wiener and Tardif (2004) also noted that students with learning disabilities have lower social acceptance, fewer friendships and lower quality relationships with peers. In addition, Franz (2000) specifically states that individuals with non-verbal learning disabilities often have difficulties forging relationships with their peers.

❖ In terms of peer relationships, Jane was not well-accepted by her peers. I think that they thought she was very disruptive in class and I know that they did not like it when she was physically aggressive with her teacher’s assistant. She also did not have very many friends, and even the friends that she had, would often leave after a while. After all, she threw items at them and would sometimes be physically aggressive towards them. Furthermore, even the friendships she had were of poor quality.
Peer Relationships and Difficulties Reading Non-Verbal Cues: People with non-verbal learning disabilities have problems reading non-verbal cues. Moreover, they often misinterpret social cues and are more likely to interrupt conversations, quickly change topics and sometimes do not even respond to what others have said. In addition, they often had issues with personal boundaries. For example, while most people understand that a teacher placing his or her hand straight out in front of them means that you are in his or her personal space, an individual with a non-verbal learning disability would not be able to interpret this (Franz, 2000).

Jane has difficulties reading non-verbal cues; for instance, she frequently interrupts her teacher when she is instructing the entire class or when I am discussing something with her educational assistant. She also has problems with personal boundaries that are characteristic of individuals with non-verbal learning disabilities. The psycho-educational report from when she was five years old states, “She sometimes tries to mother young children. She is so strong that she may squeeze too hard while hugging them or knock them down accidentally”.

Peer Relationships and Turn-Taking: Even if individuals with non-verbal learning disabilities display some social skills, including eye contact and waiting for the other person to respond, they may still return to their favourite topic when it their turn to speak. Furthermore, they ignore the content of what the speaker has said and continue with their own dialogue prior to the other person speaking (Franz, 2000).

In this area of peer relations, Jane changes the topic of conversation frequently, but she seems to have adequate social skills in general. Her eye contact is good and she seems to be able to turn-take in conversations. In fact, she is even able to respond to what her peers say on topic. In this way, she seems to be different from individuals with non-verbal learning disabilities.

Peer Relationships and Social Skills Interventions: Kavale and Mostert (2004) discovered that social skills interventions do not significantly improve the social skills of students with learning
disabilities; however, they also stipulate that these interventions should not be abandoned. We are very much still in the “experimental” phase of social skills intervention and there needs to be further research in this area.

In Jane’s case, we tried to teach her social skills through social stories and they were ineffective; however, it does seem that Jane has difficulties with non-verbal cues. Furthermore, visual social stories would be very difficult for her to comprehend. In the future, we will have to focus on social skill instruction that is more verbally based. Perhaps we could give her short auditory scripts that would benefit her during specific social interactions.

**Conclusion: Does Jane have a non-verbal learning disability?**

It seems that Jane could have a non-verbal learning disability when all of this information is taken into consideration. She has all of the features of an individual with a non-verbal disability, such as poor visual-spatial perception, poor non-verbal memory, well-developed auditory memory, emotional difficulties, social skills deficits, rigid behaviour, fine motor problems and difficulties with math and language arts. The only area that she did not seem to fit the profile of an individual with a non-verbal learning disability is in one area of peer relationships. In contrast to most individuals with non-verbal learning disabilities, Jane is able to stay on topic when conversing with her peers. Furthermore, as a general educator, I think it is best for me to bring Jane up at school based team in the fall and we will finally be able to determine if she has a non-verbal learning disability.
References:


