

I.I Understanding Learning Difficulties

CHALLENGE

By the end of this session, educators will...

- Draft a script that could be used to explain to a student teacher what a learning disability is and is not.

GOALS

1. To recognize that all individuals have a unique pattern of strengths and needs that form a key part of a robust learner profile.
2. To understand the nature of learning disabilities in the context of school and curriculum. For example:
 - We all learn differently.
 - We each have various strategies to help us learn.
 - Students with learning disabilities process information differently.
 - Learning disabilities vary in severity.
3. To consider the implications of the cognitive processing skills involved in learning.
4. To review the definition of learning disability in Policy / Program Memorandum No. 8 (PPM 8): Identification of and Program Planning for Students with Learning Disabilities.

SUMMARY

During this facilitated learning opportunity, educators will explore and deepen their understanding of what is a learning disability with the goal of being able to include the key components in an explanation to a student teacher. They begin by reflecting on and assessing their own abilities, honing in on a particular ability and considering how variations in that ability might become a disability given the demands of certain tasks. Participants extend their understanding of learning disabilities by examining and applying the cognitive processing skills to a case study, and then to a student they know. Finally, they synthesize, consolidate and communicate their learning by preparing a draft script that could be used to explain to a student teacher what a learning disability is and is not. They will refine their thinking about what constitutes a robust learner profile (see Session 1.0).

FACILITATOR PREPARATION AND CONSIDERATIONS

Read through the activities for the session. Depending on the size of the group, the knowledge and experience of participants (including whether or not they have previously participated in one or more of the other modules), and the grade level they teach, you may need to make choices about presentation style, instructional strategies or activity materials.

The following chart summarizes the challenge, activities and materials for this session.

SESSION TITLE	CHALLENGE By the end of the session, educators will:	OVERVIEW OF SUPPORTING ACTIVITIES	MATERIALS
I.1 Understanding Learning Differences	Draft a script that could be used to explain to a student teacher what a learning disability is and is not	<ul style="list-style-type: none"> A. Share the goals of the session B. Assess individual abilities C. Uncover the relationships between learning, learning variation and learning disability D. Revisit our understanding of learning disabilities E. Explore cognitive processing skills F. Apply understanding of cognitive processing skills to a case study G. Apply understanding of cognitive processing skills to our students H. Revisit the criteria for a robust learner profile I. Synthesize, consolidate and communicate learning 	<p>Appendix 2 <i>Examining Cognitive Processing Skills</i></p> <p>Appendix 3 <i>Identifying Learning Processes (CASE STUDY: Shawn)</i></p> <p>Appendix 4 <i>Using a Strengths and Needs Chart</i></p> <p><i>Policy / Program Memorandum No. 8 (PPM 8): Identification of and Program Planning for Students with Learning Disabilities</i></p> <p><i>York Waterfall Chart: Understanding Disabilities— How Processing Affects Learning</i> + two videos (https://www.ldatschool.ca/york-waterfall-chart)</p> <p><i>Video: Dr. Sue Ball from York Regional District School Board</i></p> <p><i>Video: Dan and Elisa: An Introduction to Learning Disabilities in the Classroom</i></p> <p>Dan 00:09–01:03 Elisa 06:25–07:54</p>

SUGGESTED ACTIVITIES

A. Share the goals of the session

- If participants have worked through Session 1.0 of this module, you might invite them to share their initial thoughts about what a robust learner profile would look like. Suggest that there will be opportunities to revisit and enrich these initial thoughts during this session.
- Explain to educators that the purpose of this session is to review and deepen understanding of learning disabilities as a step toward helping them support students.
- Share the session challenge: By the end of this session, we will draft a script that could be used to explain to a student teacher what a learning disability is and is not.
- Invite participants to think about their current level of confidence in explaining learning disabilities to a student teacher:
 - What would you say?
 - What would be difficult about that task?
 - What questions might you need answered to support your own understanding first?
- Encourage educators to note their initial thoughts about what they might say, assuring them that they will return to this exercise throughout the session.
- Invite participants to share their thinking with a colleague.

B. Assess individual abilities

- Invite pairs of participants to suggest how learning disabilities might be different from or similar to learning variations. Encourage pairs to share their thinking with the group. Suggest that some people may question how learning disabilities differ from the learning variations that everyone possesses.
- Ask participants to individually rate their own proficiency in the following areas, on a scale of 0 to 5, with 0 representing no proficiency; 5, highly proficient:
 - drawing
 - learning languages
 - organizational ability
 - physical coordination
 - sense of direction
 - singing
- Prompt teachers to compare their ratings with a partner or in a small group. What did they rate high versus low? To what extent were colleagues aware of their strengths and challenges?

- Ask participants to, on their own, note how they might effectively explain what a learning disability is and is not to a student teacher. Prompt participants to reflect on the activities from this part of the session as they consider their explanation. Encourage them to use point form notes for this draft explanation.

Key Point: We all have a profile of strengths and needs that make us who we are. We are all unique.

C. Uncover the relationships between learning, learning variation and learning disability

- Ensure that each participant has a blank piece of 8.5 × 11-inch paper. Inform participants that their challenge is to create a visual representation of the route they travelled to this session, accurate enough that someone else could successfully follow it.
- When participants have completed their maps, ask them to suggest what skills or strategies were needed to successfully complete the task. Invite participants to share with the group why they used these strategies.
- Engage participants in the following questions:
 - What was the most challenging aspect of this task?
 - Could a lack of proficiency at mapmaking be considered a disability?
 - How do task requirements influence the strategies students might use?
 - How might students feel or react when they are asked to use lesser-developed or weaker skills?

Consideration: Consider inviting participants to describe the relationship between feeling successful, student success and student well-being. Emphasize or paraphrase participant answers that reveal the teacher's role in selecting tasks for students and using knowledge of students' strengths and needs to inform task development.

- Share the video clip (<https://www.ldatschool.ca/york-waterfall-chart>) of a psychologist who summarizes the relationships between learning, learning variation and learning disabilities. Before beginning the clip, prompt participants to record any **Got Its** (information that confirms your thinking); **Get Its** (information that you just learned); and **Need Its** (information that is still unclear) while they watch.

Key Points: Everyone has strengths and needs that vary in degree, not in kind. Normal variations in strengths and needs emerge in response to variables found in learning contexts and tasks. Among the variables are the level of skill that is required, the degree of difficulty of the task, the developmental stage of the learner, and the interplay between the requirements of the task and what capabilities are needed for success.

D. Revisit our understanding of learning disabilities

- After viewing the video, invite participants to turn to a partner and revisit their original understanding of learning disabilities noted at the beginning of the session. Prompt them to consider how their explanation of learning disabilities to a student teacher might be refined or revised in light of these learnings.
- Ask participants to suggest common misconceptions about learning disabilities that might need to be dispelled. Once they have had some time to talk with a partner about these misconceptions, share the description of what a learning disability is *not*, as explained in the Ontario Ministry of Education's *PPM 8*:
 - A learning disability “is not the result of a lack of acuity in hearing and/or vision that has not been corrected; intellectual disabilities; socio-economic factors; cultural differences; lack of proficiency in the language of instruction; lack of motivation or effort; gaps in school attendance or inadequate opportunity to benefit from instruction.” (*PPM 8*, page 2)
- Ask participants to suggest what ideas in the quote might be confusing or require clarification.
- Prompt participants to return to their notes on how they might effectively explain to a student teacher what a learning disability is and is not. Invite them to revise their point form notes given what they have just learned about learning disabilities.

E. Explore cognitive processing skills

Consideration: There are many possible ways to structure this activity based on the time and the resources available. You may wish to provide each educator with six slips of paper or cue cards, each with one of the six cognitive processing skills written on it. Invite educators to sort the slips (or cards) into different piles as each statement is read aloud. Alternatively, you might provide participants with a list of the skills and the seven statements and ask them to record their comfort level with each of the cognitive skills (Appendix 2). You might also simply encourage them to turn to a partner and talk about their responses.

- Without explaining the terms, share the following list of six cognitive processing skills referred to in the Ontario Ministry of Education's definition of learning disability:
 - executive functions
 - memory and attention
 - perceptual-motor processing
 - phonological processing
 - processing speed
 - visual-spatial processing
- Invite participants to select the cognitive processing skill that best completes each of the following statements:
 - I feel most comfortable with my understanding of...
 - I feel least comfortable with my understanding of...
 - I know a student who has a real strength in...
 - I know of a student who struggles with...
 - I suspect one of my students struggles with...
 - I need to better understand the signs of strength and weakness in....
 - I need to better understand how to implement strategies to support...
- Download a copy of the interactive waterfall chart from York Region District School Board (<https://www.ldatschool.ca/wp-content/uploads/2014/06/LD@school-2017.pdf>) that shows how the eight cognitive processing skills listed on the chart affect learning. Share and review this chart with participants.

Key Points: Note that some school districts use frameworks and policies based on eight cognitive processing skills. All individuals use eight cognitive processing skills to learn; it is the relative strength and weakness of these skills that is unique to each individual. Individuals with learning disabilities may have average to above average thinking and reasoning abilities.

A learning disability refers to a situation when one or more of the eight processing skills impacts an individual's ability to show their potential inside the classroom or out, whether it be in their oral language, reading, writing, math, organization and / or social skills.

The impact of weak processing skill(s) changes depending on a number of variables. Among them are the age and developmental stage of the learner; the degree of difficulty of the task, the nature of the learning conditions and environment, and the ability and opportunity for the student to leverage their strengths.

- Inform participants that their next challenge is to identify which of the cognitive processing skills are explicitly or implicitly referred to in videos about students.
- Show two sections from the video *An Introduction to Learning Disabilities in the Classroom* to demonstrate the variations in learning disabilities / processing skills. The video can be found at <https://www.ldatschool.ca/educator-supports/an-introduction-to-learning-disabilities-in-the-classroom>
 - Dan (clip: 00:09–01:03)
 - Elisa (clip: 06:25–07:54)
- Invite participants to share their observations. Encourage them to suggest which details from the videos might support their observations.
- Prompt participants to suggest how the waterfall chart might be useful in identifying the cognitive processing skills.
- Consider asking the teachers to discuss the following questions:
 - What strategies or actions may have contributed the most to the students' understanding of their learning strengths and needs?
 - What implications might increased student self-awareness and understanding have for learning and achievement?
 - What might help students develop this level of understanding, awareness and advocacy?

F. Apply understanding of cognitive processing skills to a case study

- Organize participants into pairs and ask them to read through the observations of a 10-year-old student with a learning disability (Appendix 3). Prompt participants to identify the student's strengths and challenges, recording the details on the strengths and needs chart (Appendix 4).
- Encourage participants to reflect on the cognitive processing skills and then to identify the student's greatest strengths and greatest needs.
- Invite participants to share their decisions with the group.

G. Apply understanding of cognitive processing skills to our students

- Invite educators to think of a student they work with who has a learning disability. Now ask them to scan through the "Possible Signs" sections of the *York Waterfall Chart: Understanding Learning Disabilities—How Processing Affects Learning*, available at <https://www.ldatschool.ca/wp-content/uploads/2014/06/LD@school-2017.pdf>.

Consideration: For this activity, it might be very helpful to have educators who share a student work together. You might also wish to show a video explaining the structure of the waterfall document before they engage in this activity. See <https://www.youtube.com/watch?v=82k0BfQgPlg>.

- Ask participants to put a checkmark next to any of the possible signs they have observed in that student and a question mark next any possible signs they have not observed.
- Working in pairs or small groups, ask participants to look for any trends in what was checked or not checked on their lists. Invite groups to share their observations with the group.
- Prompt participants to return to their draft explanations of learning disabilities. Encourage them to revise or refine their point form notes given what they've learned in these activities.

H. Revisit the criteria for a robust learner profile

- Display the criteria for a robust learner profile generated earlier in this module (see 1.0 Learning Launch). Ask participants what refinements or revisions might be made based on the activities in this session.

Consideration: If the criteria for a robust learner profile have not already been developed, see the activity suggestions in 1.0 Learning Launch.

I. Synthesize, consolidate and communicate learning

- Invite participants to reflect on what they have learned so far about learning, learning variation and cognitive processing skills with respect to the definition of learning disability in PPM 8.
- Ask participants to consider these ideas while revisiting their initial thoughts about how they might explain to a student teacher what a learning disability is and is not. How might they revise their script? What would they add or delete? Invite them to use point form notes for their draft explanation.
- Instruct participants to select four to five key understandings that they would share in their script. Remind participants to carefully consider the length and complexity of their message.
- Provide an opportunity for educators to share their draft, orally or in writing, with a colleague for feedback. Suggest that useful feedback would include information about
 - the clarity of the language,
 - the tone of the underlying message, and
 - the completeness and accuracy of the content.

Appendix 2

Examining Cognitive Processing Skills

CHALLENGE

Select a processing skill from the left-hand column that comes to mind when you read each statement in the right-hand column.

“Each student has his or her own unique patterns of learning.”

—*Learning for All*, page 7

Cognitive processing skill	Comfort level
executive functions	I feel most comfortable with my understanding of...
memory and attention	I feel least comfortable with my understanding of...
perceptual-motor processing	I know a student who has a real strength in...
phonological processing	I know of a student who struggles with...
processing speed	I suspect one of my students struggles with...
visual-spatial processing	I need to better understand the signs of strength and weakness in...
	I need to better understand how to implement strategies to support...

Appendix 3

Identifying Learning Processes (CASE STUDY: Shawn)

CHALLENGE

As you read the following case study, what learning processes come to mind?

- What are this student's areas of greatest strength?
- What are this student's areas of greatest need?
- What questions still remain about the student?

“Consultations with parents, students, educators, and community partners who have been involved with the student's education will provide critical insights that cannot be obtained from other sources.”

—*Learning for All*, page 46

Shawn is a grade 4 student who enjoys school, gets along well with his classmates and loves class discussions. He is good at reading and writing stories (Phonological Processing +; Language +). Math, on the other hand, is beginning to be a problem. Shawn can remember his multiplication tables when he says them in order (5×1 , 5×2 , 5×3 , etc.), but he struggles to recall these facts when he is solving a problem, especially a word problem (Memory & Executive Functioning -).

When Shawn reads a word problem he doesn't know where to start. What's more, once he has begun a problem, he can't seem to remember what to do in the middle, and he can't recognize when he's seen the same type of problem before.

Shawn understands concepts of measurement (for example, which is bigger: a cup or a litre?) while his teacher is explaining them but has trouble when he needs to apply them.

Before this year, Shawn had always looked forward to math class, especially when his teacher used any kind of hands-on activities. Now that Shawn is having trouble in math, he appears to be more and more anxious. He has even told his teacher that he thinks he is “dumb” because he can't figure out his math homework.

Shawn loves to draw by hand or on the computer. He easily figured out how to use the drawing program on the computer but he has had trouble learning to type and using the computer to write stories. No matter how he tries, he just can't remember where the right keys are.

Shawn also loves dogs, and last week during free reading time he read an entire encyclopedia entry on dogs. Shawn changes his mind each week about whether he wants to be an architect or a veterinarian when he grows up. Shawn's father is worried about how much Shawn has begun to hate math. Shawn's father has said that unless his son starts to improve in math, Shawn will have to get extra help with his schoolwork and cut back on his time participating in extracurricular activities.

—Adapted from <http://www.allkindsofminds.org/cs-shawn>

Appendix 4

Using a Strengths and Needs Chart

CHALLENGE

Use the following chart to record your emerging understanding of learning processes and your observations of an individual student. What are some initial strengths and initial needs for this student? What questions remain about the student's learning profile?

“Classroom observation and assessments also provide information about a student's general learning behaviour and help the teacher track and analyse changes in the student's learning behaviour.”

—*Learning for All*, page 46

