LEARNING DISABILITIES

Curriculum



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BACKGROUND INFORMATION FOR PRESENTERS

This background information provides presenters with additional information about learning disabilities that is not presented to the students. It is provided to help you avoid misconceptions, use appropriate disability-positive language and feel more comfortable answering questions that may arise during class discussion.

Many people in the general public equate learning disabilities with dyslexia, or difficulty reading. In truth, learning disabilities (LD) is a broad term encompassing a range of neurologically based conditions that affect one's ability to acquire, retain, or broadly use specific skills or information. They are identified when there is a distinct gap between the level of ability (for instance as determined by IQ testing), and what has actually been learned in school (as determined by achievement/educational testing). It is this unevenness between ability and achievement that often characterizes a learning disability. Learning disabilities occur in people across the range of intelligence from those who have the highest of IQ's to those with developmental delay. For a long time, learning disabilities were defined as primarily affecting understanding or use of language, either spoken, written or expressive language capabilities. However a large range of learning disabilities also affect non-verbal skills, social skills and various other areas of learning. (For instance dyscalculia refers to a math learning disability.)

There are many causes of learning disabilities. In some cases, learning disabilities are inherited, and often individuals with LD have family members who share similar issues. Learning disabilities are sometimes caused by problems during pregnancy and birth such as: low birth weight; lack of oxygen at birth; prematurity; prolonged labor; illness; or drug and alcohol use during pregnancy. Learning disabilities can also be caused by head injury, poor nutrition and exposure to toxic substances. In many cases, there is no identifiable cause. Learning disabilities ARE NOT caused by cultural or economic disadvantage.

Learning disabilities are apparent as early as preschool. Others are diagnosed in later grades. Typical time points of diagnosing a learning disability come with a jump in expectations in the curriculum. For instance, a reading-writing learning disability might be identified as early on as kindergarten or first grade if a child struggles with identifying letter-sound combinations. Another child might progress until 3rd grade but then become overwhelmed with the shift from learning to read to reading to learn (i.e. using reading to understand content). Other common times for identification of learning disabilities are when learning a foreign language and at the beginning of middle school when changing classes and diverse expectations of teachers can present challenges.

Learning disabilities were once thought to be a school-based problem that did not affect life skills out of school. However, it is now recognized that learning disabilities are pervasive throughout all areas of daily life. **They do not go away**. With appropriately targeted interventions, individuals with learning disabilities can make progress at school in areas they find difficult by developing strategies to manage their challenges while capitalizing on their strengths. Ultimately, the goal for students with learning disabilities is to choose career paths that will allow them to utilize their areas of strength.

Learning disabilities affect 6-10% of the population. It is estimated that 40-50% of all children receiving special education services in school have learning disabilities.

Teaching the Understanding Our Differences Learning Disabilities Unit

Of all the disabilities addressed by Understanding Our Differences, learning disabilities are among the most prevalent and are likely to be encountered in every classroom. It is therefore particularly important for volunteers to be acutely sensitive to the language he or she uses when presenting this unit. There may be students in the classroom with diagnosed LD or whose LD has not yet been diagnosed. The goal is for students to recognize and empathize with the struggles of their peers, while feeling supported if they do have a learning disability. The intent of this program is not to "out" anyone or make anyone uncomfortable.

We use the term "learning disability."

There is currently a lot of debate in the education community about nomenclature and the use of the term "learning disability." Some people prefer the term "learning challenges" or "learning differences". We use the term "learning disability" to avoid confusing students. The curriculum teaches that everyone has strengths and areas of relative challenge. That is what makes people unique. The point we try to make in the unit is that at some time, for some individuals, differences cross a line and become major hurdles (or, in other words, disabilities). This is not meant to be demeaning but to acknowledge that the difficulties some people face in certain areas go beyond ordinary challenges to become "disabling" until accommodations are worked out to enable the person to function more fully. In addition, the term disability is widely accepted among the community of people with disabilities and has come to be a source of pride rather than embarrassment. We point out that having an LD does not mean people are not smart, but that the intake, processing, remembering or output of information can make doing some things particularly difficult.

Learning disabilities are a hidden disability.

Usually, someone with LD looks just like everyone else. Peers and unknowing adults can often misinterpret an area of deficit as laziness, messiness or lack of caring, when often just the opposite is true.

A goal of this program is to empower individuals with LD so that they feel safe to share their struggles.

We go beyond LD as a label and empower children to "own" their particular issues while finding strategies that utilize their areas of strength. Under IDEA and ADA one needs to be willing to have a diagnosis to get accommodations. Often students must become strong self-advocates to receive all the services necessary to maximize their potential. We want students to see their learning disability as only one aspect of their identity and for their peers to accept and understand this reality.

We purposely do not use diagnostic labels in this curriculum, though definitions of some of the more common learning disabilities are included in the glossary for your information.

We also do not talk about Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD) in this curriculum. Many people think ADD is a learning disability. Individuals with LD have an elevated possibility of also having ADD (approximately 1/3 of individuals with LD also have ADD). However, ADD is not a learning disability. A learning disability cannot be ameliorated with medication and ADD often can. We do not want students to think there is a medication that can cure a learning disability.

The activities in this curriculum are meant to be challenging. It is important to reassure students who have difficulty with an activity that it does not necessarily mean they have a learning disability.

GLOSSARY

Attention is a brain process enabling focus of thinking, senses and memory.

Attention Deficit Disorder (ADD) is a behavioral condition characterized by developmentally inappropriate degrees of distractibility and impulsivity resulting in difficulties in attention.

Attention Deficit Hyperactivity Disorder (ADHD) is a behavioral condition characterized by developmentally inappropriate degrees of distractibility, impulsivity and excessive motor activity resulting in difficulties in attention.

Auditory Processing is the way in which the brain attends to, discriminates, processes and remembers information coming in to the brain through the ears and sense of hearing.

Distraction is something that interferes with focus and concentration.

Dyscalcula is impairment in the ability to do mathematical calculations.

Dysgraphia is impairment in the ability to write.

Dyslexia is impairment in the ability to read.

Executive Function is a cluster of high-order capacities, which include selective attention, behavioral planning and response inhibition, and the manipulation of information in problem-solving tasks that enable an individual to manage organization, priority-setting, time management, and decision making.

Expressive Language is the ability to use vocabulary, grammar and syntax to communicate orally and in written form.

Figure-Ground Discrimination is the ability to discriminate the salient characteristics of important information from less important background input; can be either visual or auditory.

Fine Motor Skills are the ability to organize and regulate muscles in the hands.

Gross Motor Skills are the ability to get muscles working together to accomplish tasks using arms, trunk, legs and entire body.

Impulsiveness is a trait in which people do or say things too quickly without thinking.

Individualized Educational Plan (IEP) is a plan developed by teachers, therapists and parents to identify the special learning needs of a child and set goals and objectives to meet those needs.

Learning Disability is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition of academic skills. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Underlying learning disabilities can cause problems with listening, speaking, reading, writing, reasoning or mathematical skills. They can also impact other areas of functioning including daily living skills and social skills.

Long-Term Memory is the ability to recall things learned or experienced over a long period of time.

Organizational Difficulty is a difficulty with ordering things in time and/or space.

People First Language refers to describing a person before their disability by explaining what a person *has*, rather than defining who a person *is* by the disability. For example: the person with a learning disability, rather than the learning disabled person.

Perception is the ability to interpret incoming sensory information.

Perceptual-Motor Skills are coordination of motoric system (muscles) in response to visual information. Involves eye-hand coordination (writing, cutting with a pair of scissors) and also needed for activities like driving, kicking a ball, etc.

Receptive Language is the ability to understand words and sentences and involves listening, following directions and conversing with others.

Sensory Integration Dysfunction is the inability of the brain to typically process information brought in by the senses. Individuals with sensory integration dysfunction may seem over- or under-sensitive to certain types of stimuli such as sounds, touch or texture, taste and smell.

Sequencing is the understanding and remembering of the proper order of information.

Short-Term Memory is the ability to recall things just learned or experienced.

Social Perception is the ability to understand the meaning of social situations by picking up on social cues such as facial expression, tone of voice and/or body language as well as spoken language.

Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

- Ron Mace Center for Universal Design, College of Design, North Carolina State University

Visual Processing is the way in which the brain attends to, discriminates, processes and remembers information coming in to the brain through the eyes.

LEARNING DISABILITIES BIBLIOGRAPHY

Nonfiction

Baldwin, Carol. Attention Deficit Disorder. Chicago: Heinemann, 2003.

Edwards, Nicola. **My Friend Has Dyslexia**. North Mankato, MN: Chrysalis Education, 2005.

Lauren, Jill. **Succeeding With LD 20 Real Stories About People with LD.** New York: Star Bright Books, 2007.

Quinn, Patricia Q. Putting on the Brakes: Young People's Guide to Understanding Attention Deficit Hyperactivity Disorder. Washington, D.C.: Magination Press Books, rev. ed., 2005.

Rotner, Shelley and Sheila Kelly. **The A.D.D. Book For Kids.** Brookfield, CT: Millbrook Press, 2000.

Silverstein, Alvin. Attention Deficit Disorder. New York: Franklin Watts, 2001.

Silverstein, Alvin. Dyslexia. New York: Franklin Watts, 2001.

Steiner, Hartley. **This is Gabriel Making Sense of School: A Book About Sensory Processing Disorder**. Bloomington, IN: Trafford Publishing, 2010.

Taylor, John. **The Survival Guide for Kids with ADD and ADHD.** Washington, D.C.: Magination Press Books, 2006.

Fiction

Betancourt, Jeanne. My Name Is Brain Brian. New York: Scholastic Press, 1995.

Denison, Katherine. I Wish I Could Fly Like A Bird! Latham, New York: Wildwood Creative Enterprises, 1996.

Gantos, Jack. I Am Not Joey Pigza. New York: Farrar, Straus & Giroux, 2007. Series: Joey Pigza Loses Control, Joey Pigza Swallowed the Key, What Would Joey Do?

Griffith, Joe. How Dyslexic Benny Became A Star. Yorktown Press, 1998.

Hodge, Deborah. Lily and the Mixed-up Letters. Toronto: Tundra Books, 2007.

Janover, Caroline and Charlotte Fremaux. **How Many Days Until Tomorrow.** Bethesda, MD: Woodbine House, 2000.

Kraus, Jeanne and Whitney Martin. Cory Stories: A Kid's Book About Living With ADHD. Washington, D.C.: Magination Press Books, 2004.

Levine, Mel. **All Kinds of Minds**, Cambridge, MA: Educator's Publishing Service, 1992.

Moss, Deborah M. **Shelley the Hyperactive Turtle. 2nd ed.** Bethesda, MD: Woodbine House, 2006.

Polacco, Patricia. Thank you, Mr. Falker. New York: Philomel, 1998.

Robb, Diane Burton. **The Alphabet War: A Story About Dyslexia.** Morton Grove, IL: Albert Whitman Co., 2004.

Shreve, Susan. Trout and Me. New York: Yearling, 2004.

Winkler, Henry and Lin Oliver. **Hank Zipzer Collection.** New York: Grosset & Dunlap, 2005.

Winkler, Henry and Lin Oliver. **Help? Somebody Get Me Out Of Fourth Grade.** Indianapolis, IN. Spotlight, 2006.

Winkler, Henry and Lin Oliver. Holy Enchilda! New York: Grosset & Dunlap, 2004.

Web Sites for Students

Fable Vision

http://www.fablevision.com/"http://www.fablevision.com

KidsHealth for Kids: Dyslexia

http://www.kidshealth.org/kid/health_problems/learning_problem/dyslexia.html

KidsHealth for Kids: Learning Problems

http://www.kidshealth.org/kid/health_problems/learning_problem/learning_disabilities.html

KidsHealth for Kids: What is Hyperactivity?

http://www.kidshealth.org/kid/health_problems/learning_problem/adhdkid.html

Zigawhat! Connect with Other Kids: National Information Center for Children and Youth with Disabilities.

http://old.nichcy.org/kids/index.htm

Reading for Adults

Alexander-Roberts, Coleen. **The AD/HD Parenting Handbook : Practical Advice for Parents from Parents**. Lanham, MD: Taylor Trade, c2006

Baskin, Amy, and Heather Fawcett. **More than a Mom: Living a full and Balanced Life When Your Child Has Special Needs**. Bethesda, MD: Woodbine House, 2006.

Fowler, Mary, and Scott Eyler. **20 Questions to Ask if Your Child has ADHD**. Franklin Lakes, NJ, 2006.

Hall, Susan L., and Louisa C. Moats. **Parenting a Struggling Reader**. New York: Broadway Books, 2002.

Hallowell, Edward M. MD and John J. Ratey MD. **Delivered from Distraction: Getting the Most out of Life with Attention Deficit Disorder**. New York: Ballantine Books, 2005.

Hallowell, Edward M. MD and John J. Ratey MD. **Driven To Distraction:**Recognizing and Coping with Attention Deficit Disorder from Childhood Through Adulthood. New York: Pantheon, 1994.

Richard Lavoie, It's So Much Work to Be Your Friend: Helping the Child with Learning Disabilities Find Social Success, Touchstone, NY, 2005.

Mel Levine, A Mind at a Time, NY, NY: Simon and Shuster, 2002.

Rawson, Margaret Byrd. **The Many Faces of Dyslexia**. 4th ed. Baltimore, MD, Orton Dylexia Society, 2000.

Roffman, Arlyn. **Guiding Teens with Learning Disabilities**. New York: Random House, Princeton Review, 2007.

Santelli, Betsy, Florence S. Poyadue, and Jane Young. **The Parent to Parent Handbook: Connecting Families of Children with Special Needs**. Baltimore,
MD: Brookes Publishing, 2001.

Silver, Larry. The Misunderstood Child: Understanding and Coping with Your Child's Learning Disabilities. 4th ed. New York: Three Rivers Press, 2006.

Whitney, Rondalyn Varney. **Bridging the Gap: Raising a Child with Nonverbal Learning Disorder**. New York: Perigee Trade, 2002

Wright, Peter W., and Pamela Darr Wright. **Wrightslaw: From Emotions to Advocacy: The Special Education Survival Guide**. 2nd ed. Hartfield, VA: Harbor House Law Press, 2006.

Web Sites for Adults

Children and Adults with Attention Deficit/Hyperactivity Disorder (CHADD) http://www.chadd.org/Content/CHADD/Understanding/ADDorADHD/default.html

Family Resource Center on Disabilities www.frcd.org

Federation for Children with Special Needs http://www.fcsn.org

International Dyslexia Association http://www.interdys.org

Learning Disabilities Association of America http://www.ldaamerica.org

Learning Disabilities Association of Massachusetts http://www.ldam.org/

LD Online http://www.ldonline.org/

National Center for Learning Disabilities http://www.ncld.org/

National Institutes of Health: Attention Deficit Hyperactivity Disorder http://health.nih.gov/result.asp/61/24

National Institutes of Health: Learning Disorders http://health.nih.gov/result.asp/397/24

SCHEDULE

The Learning Disabilities unit will take 2 hours to implement and requires 4 – 5 volunteers for every 30 students.

ACTIVITY	TIME	ORGANIZATION
1. Introduction	10 min	Students are kept in one group for a discussion about strengths and challenges.
2. Computer Analogy PowerPoint	15 min	Students remain as one group for the PowerPoint presentation.
3. Activities	60 min	Students are divided into groups of 6 – 8, each group led by a volunteer. A quarter of the groups do the 'Mirror Box' activity, a quarter do the 'Connect the Dots'/'Mystery Picture' activity, a quarter do the 'Circle Story' and a quarter do the 'Memory Game' activity. After 15 minutes, the groups rotate to the next activity and repeat this until all groups have done each activity.
4. Guest Speaker with a learning disability and Wrap Up	35 min	Students remain as one group to meet and interact with the guest speaker and for the Wrap Up.

TWO-DAY IMPLEMENTATION SCHEDULE

Some schools choose to have the speaker and/or optional activities at another time. If this is the case, please end the first session with all students in a large group after the activities. Tell students that they will meet a guest speaker when they next meet. Thank the students for doing a great job!

LEARNING DISABILITIES KIT CONTENTS

- Whiteboard or flipchart and easel with appropriate markers*
- Choice of Mirror Boxes or Mirrors in Frame
- Paper
- Pencil
- Figure-ground pictures
- Worksheets for "Connect the Dots" activity
- "Connect the Dots" instruction
- Pencils
- Can with barcode on label
- Apron
- Tray with 15 20 familiar and unfamiliar items such as:

Wooden block Clip

Animal Tongue Depressor

Car Spoon Number stamp Penny Clothespin Pencil

Wooden letter Screw and nut

Rubber band Marker Straw Tape

Lego piece

For Optional Activity: Strategies chart

- Masking tape
- Colored markers

1. INTRODUCTION TO LEARNING DISABILITIES

1 Leader 10 minutes

Note to presenters:

Teach and use the American Sign Language sign for "I agree" (or YOU-ME-SAME) to:

- Keep students engaged
- Allow all students to have a voice
- Keep the fast pace of the discussion on track

The ASL sign for YOU-ME-SAME is a "Y" hand shape with a back and forth movement between the speakers.



PURPOSE:

- To introduce the topic of learning disabilities
- To teach the concept that everyone has strengths and challenges
- To understand that what can be a strength for one person may be a challenge for another person
- **MATERIALS:** Whiteboard or easel and markers
- **SETUP:** Students sit facing the leader and white board or easel.
- **PROCEDURE:** The presenter teaches the students the ASL sign for "I agree."
 - Ask the students to take one minute to think about things that they do well and things that are challenges for them.
 - Brainstorm and create two lists on the board: one for STRENGTHS and one for CHALLENGES. Adults should contribute to the list as well.

- The goal of this activity is to show that what is easy for one person may be difficult for another. It is important that many of the same items appear on both the strengths and challenges lists. If this does not occur naturally, you may need to ask when someone volunteers a challenge, "Is this a strength for anyone?"
- When there are as many responses on the board as you have time to take, ask the students if they see any similarities between the lists. As students recognize similarities on the lists of strengths and challenges, circle the common items on each list (e.g. reading might be a strength for some, and a challenge for others).

Hot Tips!

There is a lot of information that has to be covered in this unit in a short period of time. Be prepared, respect the timekeeper and get going quickly. You might have to put limits on the number of responses you take from students.

When brainstorming about strengths and challenges, keep the students focused on activities and school subjects rather than behaviors.

INTRODUCTION TO LEARNING DISABILITIES

Sample introduction

Good morning girls and boys. Today we are talking about learning disabilities. We are going to be giving you a lot of information and asking you a lot of questions. This is the American Sign Language sign to show that you agree. When you agree, do this (**show the sign**). Everyone, give it a try.

Unlike some of the other disabilities we have discussed, like blindness/low vision and deafness/hard of hearing, learning disabilities are more hidden. They are not as obvious. You may not be able to tell that someone with a learning disability has difficulty doing things that you can do easily.

We all have things that we are good at doing. These are our strengths. Some of you may be good at sports; others might be good at reading, art or music. We also have things that are harder for us and these are our challenges. Everyone has a subject that is harder for him or her in school. Some of you may struggle with math or with creative writing. Maybe some of you don't like sports because you don't feel particularly good at them. I know that I have an easy time______ (speaking in front of a large group like this or organizing my papers), but I know that I have trouble______ (following several directions that I am told all at once or catching a ball).

Take one minute and think about one activity or subject that you do well. Think about some things that are difficult for you to do. I wouldn't be surprised if your answers are all different.

Brainstorm and create two lists on the board: one for STRENGTHS and one for CHALLENGES. Adults should contribute to the list as well. Because the goal of this activity is to show that what is easy for one person may be difficult for another, it is important that many of the same items appear on both the strengths and challenges lists. If this does not occur naturally, you may need to ask when someone volunteers a challenge, "Is this a strength for anyone?

Discussion

What do you notice about the two lists? (It looks as if there are some similar things on both lists.)

What is easy for one person may be difficult for another person. Each of us has different strengths and challenges.

2. DEFINING TERMS - COMPUTER ANALOGY

1 leader 15 minutes

PURPOSE:

- To give students a concrete way to understand learning disabilities
- Using the analogy of a computer, students learn that people with learning disabilities can potentially have issues with input, processing, memory, and output.

MATERIALS:

 Introduction PowerPoint from UOD website or Flash drive from kit.

SETUP:

Set up computer, projector and screen.

- **PROCEDURE:** The students remain in the large group and sit facing the presenter and screen.
 - Presenter leads the discussion using the PowerPoint slides.

COMPUTER ANALOGY

SLIDE	DISCUSSION		
LEARNING DISABILITIES			
Computer designers try very hard to make computers work like the human brain.	The reason we each have different strengths and challenges has to do with the way our brains work. Let's compare our brains to computers. • Computer designers try very hard to make computers work like the human brain, but even with all the amazing things computers can do, our brains are much more complex. • Everybody's brain is different.		
INPUT How does a computer take in information?	Input Let's think about computers. How does a computer take in information? (Information is typed or scanned into the computer or electronically transmitted through email or Internet. Computers with voice recognition can also recognize human speech.)		
INPUT A computer takes in information from: Keyboard Scanner Voice recognition program Email	Like a computer, our brain takes in information. Our brains take in information through our five senses. Let's name them. (Sight, hearing, touch, taste, and smell)		
	INPUT A computer takes in information from: Keyboard Scanner Voice recognition program		

INPUT

The brain takes in information through:

- Sight
- Hearing
- Touch
- Taste
- Smell

Our five senses give us information about the world around us. You are constantly taking in all sorts of information through your senses.

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INPUT CHALLENGES

Difficulty taking in or receiving information



Difficulty focusing on the most important information



Input Challenges

Some people with learning disabilities have difficulty taking in information.

What if someone was reading and the words on the page were: "The girl loves pears." However, the person read it as: "The girl <u>loves bears</u>." If the teacher asked, "What did the girl like to eat", would this reader be able to answer correctly?

Another kind of difficulty is when the brain cannot focus on the most important information. How many of you have found it hard to work on an assignment in your classroom when other students talk loudly? Use the sign if you agree.

For some people, even "quiet noise" like a humming fan can be distracting when they are trying to concentrate. Their brains do not filter out sounds or sights well, so it is hard to focus.

PROCESSING

Making sense out of information and using it

How does a computer know what to do with the information it receives?

Processing

The next thing our brains and our computers do is process information. How does a computer know what to do with the information it receives? (The computer needs to have a program installed. A computer program is a set of instructions for the computer.)

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PROCESSING

Our brains organize and make sense of information like a computer program.



Just like a computer program, our brains constantly organize and make sense of information. Solving math problems, getting our leg ready to kick the ball, moving out of the street when a car is coming or playing a musical instrument are examples of processing information.

If someone has a challenge processing information, it may take longer to learn how to do some things.

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MEMORY

Your brain's memory saves and stores information like a computer.



Memory

What do you do when you are working on the computer and you don't want to lose your work? (*Save*) This is called "memory" and is very much like your brain's memory.

All of us have many things we do automatically because we have memorized the steps. When you brushed your teeth this morning, you did not have to stop to think, "How do I do that?" Use the sign if you agree.

MEMORY CHALLENGES

- Storing and organizing information can be difficult.
- Information is not stored in a way that can easily be found.

Do you have trouble finding things in your backpack?



Memory Challenges

- Some people struggle with memorizing and organizing information in their brains.
- Information is not stored in a way that can easily be found.
 It's a bit like your backpack.
 How many of you have a messy backpack? Do you have trouble finding things in your bag? Use the sign if you agree.

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OUTPUT

The computer shares work and ideas by:

- Printing
- Sending electronically
- Talking
- Playing music
- Displaying artwork

How do people communicate ideas?

Output

When you want to share the work you've done on the computer, you print your work or send it electronically. Computers can even talk, play music and display artwork.

How do we communicate our ideas? (Speaking, writing, body language, art, music, dance)

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OUTPUT CHALLENGES

 Finding the words to share ideas can be difficult.

Output Challenges

- Some people with learning disabilities have difficulty sharing their thoughts. It may take more time to talk or write about their ideas.
- It is like having a problem with the printer for the computer.

All of our brains:

- Take in
- Process
- Remember
- Give out information in unique ways

All of our brains:

- Take in
- Process
- Remember
- And give out information in unique ways.

People with learning disabilities struggle in one or more areas.

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A learning disability doesn't mean someone is less intelligent.

It means that people learn some things differently.





- People with learning disabilities can be very smart.
- An individual with a learning disability may use things they are good at to help them with their challenges.
- Sometimes this allows them to see and understand the world in interesting and unique ways.

Some very successful and famous people you might know that have had learning disabilities.

They are:

- Athletes like Magic Johnson
- Political leaders like former US Presidents Woodrow Wilson and Dwight D. Eisenhower
- Actors like Whoopi Goldberg, Salma Hayek, Keira Knightly, Robin Williams and Tom Cruise
- Creative cartoonist Walt Disney
- Scientists like Thomas Edison, Louis Pasteur and the Wright Brothers
- Business people like Charles Schwab.

We are now going to break up into four groups and take turns doing some activities. We purposely have made the activities very difficult to complete. Think about what we discussed as you do each of the activities and see if you can figure out how each of the activities demonstrates how you take in information (input), how you process information, how you remember information (memory), and how you communicate information (output) to do them successfully.

3. ACTIVITIES

PERCEPTION ACTIVITY: MIRROR BOX

Station 1

1 - 2 leaders for every 6 - 8 students
15 minutes

PURPOSE:

- To help the students understand that writing becomes more difficult when communication between the brain and the hand slows down
- To help the students understand that people with learning disabilities might require more time to complete tasks involving eye-hand coordination
- To strengthen the cooperative spirit in forming strategies

MATERIALS:

- Choice of Mirror Boxes or Mirrors in Frames
- Paper
- Pencil

SETUP:

• Place mirror boxes or mirrors in frames on desks/tables. Equip each with a supply of paper and a pencil.

PROCEDURE: •

- The following instructions are given for the activity:
 - o Write your name by looking in the mirror, not at the paper.
 - Your name should come out looking correct in the mirror, not correct on the paper.
- Have the students work in pairs. While one child uses the mirror box, encourage the student watching to help form strategies to perform the task.
- Discuss strategies with the students as they perform the task.

Hot Tips!

Watch to be certain students are looking only in the mirror, not directly at their hands or doing the tasks by using motor memory. This will not give them the desired outcome. Their writing should look correct IN THE MIRROR.

MIRROR BOX

Sample Discussion

Before beginning the activity

You are now going to have the opportunity to use these mirrors to write. However, instead of looking at the blackboard/paper and your hand, as you would usually do when writing, you are to look only in the mirror. Try writing your name. **Write your name so that it looks correct in the mirror**. It will not look right in the mirror if you look at the paper directly.

While doing the activity

- Do you know what you want to write?
- Are you able to form the letters?

Some, but not all people with learning disabilities have to struggle with eye-hand coordination. A disruption in communication between the eye and hand occurs in the brain so that the person finds it difficult to form the letters correctly.

- Did you succeed in writing your name?
- How do you feel about completing this task? (Relieved, satisfied)

People with learning disabilities have the same feelings of accomplishment when they succeed at a task that is challenging for them.

- Is your writing neat or messy?
- Was that because you were not trying?
- Did it take longer to accomplish writing your name than it usually would?
- How would it feel if you needed this much time for everything that you wrote?

When people with eye-hand coordination issues turn in messy work, other people might think they didn't care or didn't take much time. Actually, they probably worked harder and longer than their classmates. People today are lucky to have computers, so their writing looks neat. When they edit their work, the computer makes changes easily. (You can point out what people had to do before there were computers!)

- Did you figure out some techniques to write your name successfully?
 These are called strategies.
- What strategies did you use?
- Did you share them with your partner?

- What strategies might you use if this was a problem you faced every day?

 (Have someone take notes for you, use a computer, use speech-to-text software on the computer, volunteer to give an oral report or be the person who makes the oral presentation to the class in a cooperative learning project)
- How did you feel doing this activity?
 (Pressured, frustrated, impatient, discouraged)

If you have to struggle with eye-hand coordination, other things might be difficult like cutting with scissors or catching a ball.

How can you help a friend who has difficulty with eye-hand coordination?
 (Be supportive, patient, understanding, encouraging)

Hot Tips!

- If students can write their names quickly, have them try their last names, numbers, script, tic-tac-toe, or draw something.
- It is best to have two students sharing one mirror box so that they can help each other by sharing strategies. Sharing strategies is important. The leader should circulate and encourage students to share what worked for them so they are invested in helping their partners.
- Some students will find this activity very frustrating. Discuss their frustration and how it would feel to have this happen each time they had to write something on paper. Again, see if a partner can suggest a strategy. Note that children who usually complete schoolwork easily may be the most frustrated in your group if they find this activity surprisingly difficult.
- Some children have names with letters that are more difficult to form.
- Some people find writing in script makes this activity easier because they do not have to raise their pencil, so you could suggest that.
- For some students, just writing their initials can be enough.

FIGURE GROUND AUDITORY DISCRIMINATION ACTIVITY: "CONNECT THE DOTS"

Station 2A 1 leader for every 6 - 8 students 7 minutes

PURPOSE:

 To show students how background noise can be distracting and make it difficult to complete a task that requires concentration

MATERIALS:

- "Connect the Dots" instruction sheet
- "Connect the Dots" recording from UOD website, Flash drive from kit or smartphone
- · computer with external speakers Pencils
- Worksheets

SETUP:

- Students should be seated at a table so they can write.
- Place worksheet and pencil for each child on the table.

- PROCEDURE: Tell the students they are going to do an activity that will demonstrate that people without a hearing disability can have difficulty concentrating when there are background noises.
 - Give the students directions for the activity for the top picture and play the recording. (You may not need to complete the whole progression of numbers and letters, as many students will be unable to follow the directions. In fact, we do not want or expect the students to be able to complete this top picture)
 - After the recording, ask the students to use the bottom picture so that they can connect the dots a second time. This time, read the directions slowly from the "connect the dots" instruction sheet.
 - When the text asks "is everybody following?" be sure to check around the room to see if anyone needs help. Encourage students to raise their hand if they need an extra moment. Help any child having difficulty to stay on track. The goal is for all the students to be able to complete this picture.



- While the recording is playing, leaders can talk to each other or make noises for added distractions.
- Watch for frustration.

Sample Discussion

Before doing the first part of the activity

We are going to connect the dots on the top half of this paper while following the directions on the recording. This is how a classroom might sound to someone who is distracted by background noises.

Before doing the second part of the activity

Now connect the dots at the bottom of the page while listening to the same exact words that I will read aloud. If you need me to slow down please raise your hand.

After the Activity

- Was one part of the worksheet more difficult to complete than the other?
- Which one? (*The first one*)
- Why do you think that was the case? (*The first one, the recording was so noisy; it made it difficult to concentrate.*)

Do you remember earlier today we said that if there is too much noise, the brain might have trouble focusing on the most important sounds? We said that for some people, even a guiet noise, like a humming fan, could be a distraction.

This recording was an example of how background noises may make it harder for a person to complete a task. Many of us found that we had trouble concentrating on the dots because we were listening to the noises on the recording.

- How did you feel when you weren't able to keep up with the directions?
 (I felt like not trying anymore, I felt angry that I could not understand the words the teacher was saying.)
- Were you frustrated?
- Did you feel yourself working extra hard to concentrate?
- Did you find yourself peeking at other people's papers?
- Did you figure out something to do that made it easier to do the task the first time? These are called strategies.

People with this type of learning disability are not any less intelligent than their friends. They may get frustrated when there is noise, even quiet noise, when they are doing a task or assignment. Some people really do need quiet in order to concentrate.

What strategies could someone with this type of issue use?

(Limit distracting noises; tape record directions in order to listen to them more than once; work in a quiet place; ask clarifying questions; ask for written directions; repeat the instructions aloud.)

How could you help a classmate?

(Try not to distract them, do not make fun or tease someone who has difficulty concentrating)

FIGURE GROUND VISUAL DISCRIMINATION ACTIVITY: MYSTERY PICTURE

Station 2B
1 leader for every 6 - 8 students
7 minutes

PURPOSE:

- To understand that some people with learning disabilities have a challenging time selecting the most important visual information
- To understand that it is sometimes hard to separate the foreground from the background (i.e. <u>Where's Waldo?</u>)
- To understand that this is not an issue with a person's vision
- To show how difficult learning would be if one had to struggle to find and focus on the most important information

MATERIALS: •

- Figure-ground picture
- Answer sheet

SET UP:

- Students should be seated at a table.
- This activity needs to be done in a visually separate space from the other groups because there is a surprise picture.

PROCEDURE: •

- Hold the picture so that the side labeled "top" is indeed on the top and the photo is in close range.
- Tell the students: "Look at this picture. Without saying anything out loud, try to figure out what is in the picture. If you know what it is, don't say it out loud just raise your hand."
- After each student looks at the picture close up, ask the group "What is this?"
- Show them the answer sheet that has a cow outlined. Tell them it's a cow.
- Show the original sheet and ask if they can now see the cow without the outline.

Hot Tips!

- The pictures are not to leave the group. They must be shown to the students close up (in front or put them on the table) because the picture is more obvious from a distance.
- Tell the students in each group not to give away the secret in the picture to the students in the next group.

MYSTERY PICTURE

Sample Discussion

Before Doing the Activity

In another unit we talked about blindness and visual disabilities. Today we are going to think about how the brain understands the information it receives from the eyes.

(Hold the picture so that the side labeled "top" is indeed on the top and the photo is in close range.)

Look at this picture. **Without saying anything out loud,** try to figure out what is in the picture. If you know what it is, don't say it out loud just raise your hand.

(Allow each student to look at the picture close up.)

What is this?

- This is a picture of a real object.
- It is a photograph.
- What do you think is the important part of this picture?
- Can you separate that from the background of the picture?
- Do you know what the picture is?

(Show them the answer sheet that has a cow outlined.)

It is a cow.

(Show the original sheet without the outline.)

Can you see the cow now?

After Doing the Activity

- You know your eyes see clearly or if they do not see clearly, you probably wear glasses.
- Do you think wearing glasses can help you see the cow in the first picture? (*No*)
- Why can't you tell what is in this picture? (Foreground and background are confusing)
- Why do you think you could see the cow after it was outlined? (*The important information was identified.*)
- Was it easier for you to see the cow when you were shown the first picture again? (*Yes*)
 - Your brain now understands the important information and was able to focus on that information.
- What strategies could you use to help you focus on the important information?
 - (When reading, use your finger to follow the words, say the words quietly to yourself)
- Remember, when you leave the group not to tell other students what was in the picture! Keep the secret!

WORD FIND ACTIVITY: CIRCLE STORY

Station 3
1 leader for every 6 - 8 students
15 mins

PURPOSE:

 To appreciate the amount of effort people with word-finding issues might have in formulating words and sentences in order to get ideas across to others

MATERIALS: • No special materials required

SET UP: • The students sit in a circle.

PROCEDURE: •

- Tell the students they are going to play a game to help them understand what it might be like to have to struggle with putting their thoughts into words.
- Explain that the group will make up a story, with each person adding something to the story. The students do not repeat the preceding sentences. They only add their own ideas to the story.
- Start the story by saying, "Once upon a time there was a boy named Jack who ..." and have a student complete the sentence in any way he/she may want.
- Go around the circle letting each child contribute to the story. (Students
 who might have a challenging time with this activity can add one
 word or pass).
- When everyone has had a turn, explain that the next step will make the game harder. This is the way it might feel for a person who has a difficult time finding words.
- A second story is to be composed by the group, but this time no word
 can be used that has the letter N in it. Explain that your first sentence
 has to be changed because you cannot say "Once upon a time" because
 there are N's in the words "once" and "upon."
- Begin the second story by saying, "There was a boy called Jack," and go around the circle in the opposite direction, letting each person once again contribute their ideas to the story. The story does not have to be a retelling of the first story and can be different. Once again, the students need only add their own ideas. They do not need to repeat the preceding sentences. Participants can pass or contribute less.

Hot Tips!

Sometimes during the activity a participant will struggle to find a word and someone else will jump in and finish their sentence.

This is an opportunity to ask the first student if it made him feel relieved to be off the hook, or if he wanted a chance to express his own ideas? Point out to students that they might want to ask their classmate if they could help by making a suggestion before blurting out the answer. If no one has jumped in to finish a sentence, ask the entire group how they might have felt if someone had supplied a word to finish their sentence when it was their turn.

CIRCLE STORY

Sample Discussion

Before doing the activity

- We are going to play a game that will help you understand what it is like to want to say something and have to really struggle to quickly come up with the words you want to use.
- Have you ever heard the expression "it was on the tip of my tongue?"
 Does anyone know what it means?
 (That you know what you want to say but cannot find the right words.)

 All of us have had that happen occasionally.
- This game will give you an idea of how people with word finding issues have to work harder to communicate.

During the activity

- We are going to make up a story and each of you will add to it. You do not need to repeat the preceding sentences. Just add to the story with your own ideas.
- This story needs to be "G-rated." Please don't say anything violent, gross or super-silly.
- I'm going to start the story. "Once upon a time there was a boy named Jack who..."
 - (Go around the circle letting each child contribute to the story. Students who might have a challenging time with this activity can add one word or pass.)
- Now that everyone has had a turn, the next step will make the game harder. This is the way it might feel for a person who has a difficult time finding words to communicate. We are going to make up a second story, but this time no word can be used that has the letter N in it. The story does not have to be a retelling of the first story and can be totally different. Once again, just add something new to the story. You do not need to repeat the preceding sentences.
- I need to change my first sentence because "Once upon a time" contains N's in the words "once" and "upon." So I will start with, "There was a boy called Jack...."

(Go around the circle in the opposite direction, letting each person contribute his or her ideas to the story. Participants can pass or contribute less.)

After doing the activity

- Was the game harder the second time?
- How did it feel?
- Were you frustrated at times?
- Did you feel like your brain was slowing down when you had to think about each word you used?

- What would it feel like if you worried about getting called on in class because you knew you would have difficulty answering?
 (Anxious)
- Was there anything you did to make it easier for yourself? These are called strategies.
- What could you do if you had to struggle with this all the time? (Write things out before you speak, volunteer for another part of a group presentation that you find easier)
- Did anyone spend time figuring out what you were going to say instead of listening to what other people were contributing to the story? (Yes)
- If that happened in class, would you be able to pay attention to the rest of the discussion?
 (No)

A good strategy would be to let your teacher know that you will volunteer rather than have the teacher call on you. That way, you could be more relaxed and pay attention to the entire discussion once you spoke.

- How could you be a friend to a classmate who had trouble expressing their ideas?
 - (Give them time to get their words out, ask them if they want you to suggest a word, be patient so he/she is confident responding at their own pace, do not tease anyone)
- Was our second story as interesting as the first?
 (No; less complex; simpler sentences; not as rich.)

It is not because we had less imagination or were less smart the second time. People with word finding challenges are not less intelligent than their friends. Their vocabularies might be just as large, especially when they have the time to think and write their ideas on paper, but they sometimes have to work harder to express themselves verbally. Their brains are working extra hard when they talk, just like yours worked harder to make up the second story. Working this hard can make school much more tiring and stressful.

Hot Tips! • Allow students who are having difficulties supply one or two words rather than complete sentences. (This option can be especially helpful for children who have difficulty with expressive language due to a variety of possible causes.)

- Again, some students will find this activity frustrating. Talk about their frustration, how it feels, and possible strategies that would be helpful.
- There is usually a marked decrease in the complexity and richness of the second story. Discuss this outcome and how the lack of elaboration isn't a sign of less imagination or intelligence. Some people find this task difficult, while some find it easy. How would it feel if everything you said was such an effort?

VISUAL MEMORY ACTIVITY: MEMORY GAME

Station 4

1 leader for every 6 - 8 students 15 minutes

PURPOSE:

- To show students how they remember things visually
- To consider how difficulty with memory would affect school and social skills
- To think about strategies for compensating for this type of challenge
- To strengthen cooperative spirit in strategy formation

MATERIALS: • Apron

- A can with a barcode
- A tray containing 15 20 familiar and unfamiliar objects such as:

Wooden block Clip

Animal **Tongue Depressor**

Spoon Car Number stamp Penny Clothespin Pencil

Wooden letter Screw and nut

Rubber band Marker Straw Tape

Lego piece

SETUP:

- Students are seated at a table or in a circle on the floor.
- Spread items on a tray.
- The leader wears the apron found in the kit.

PROCEDURE: •

- Show the group the tray with contents for a short while.
- Take it out of sight and remove 6-8 objects. Put the objects in the apron pocket.
- Return with the tray and give each student a chance to name a missing item.
- Take it out of sight again and remove more objects.
- Going around the table in the opposite direction, give each student a second chance to name the missing objects.
- Discuss the process of memorizing and strategies for improving memory each time the students figure out what is missing.
- While playing the game, encourage the students to think about how they are memorizing the objects.
- Ask the students: Does it help to name objects? Categorize them? Count them?

MEMORY GAME

Sample Discussion

Before the activity

We spoke earlier about the similarities between our brains and computers. (**Hold up** a can with a barcode.) At the grocery store, a scanner ""reads" the barcode on a can and the computer "remembers" what it is and how much it costs and prints that information on the cash register screen. It can remember millions of items. How many things are in your memory?

(Millions, if you consider language, faces, movement)

We are going to play a game where I put a number of objects on a tray; you "scan" them with your eyes. Then I will remove a few of the objects while you are not looking and you will see if you can figure out which I removed. While we are playing this game, I want you to think about how you are memorizing what you see.

During the activity

(Show the group the tray with all of the contents for a short while.) Look at the objects on the tray and try to remember the objects.

(Take the tray out of sight and remove 6-8 objects. Put the objects in the apron pocket. Return with the tray and show it to the group.)

Look at the tray now. Let's each take a turn. Can you tell me which items are missing?

(Take the tray out of sight again and remove more objects. Go around the table in the opposite direction.)

Let's each take a turn. Can you tell me which items are missing now?

- How did you figure out what was missing?
- How did you remember what was there?
- Did you simply "take a picture" of the tray with your eyes and brain?
- Does it help to name objects?
- Does it help to categorize them based on their color, shape or size?
- Does it help to count the objects?

After the activity

If people have issues with visual memory, their brain can't "take a picture" of what they see. This game involves a number of skills that help us remember things that we have seen. These are the same skills we use to learn to read, to play a game, to set the table and many other daily activities.

If remembering things that you have seen but not heard is challenging for you, what can you do?

(Put things into categories such as color, size, shape, use; name objects out loud; write them down.)

Remember to be patient with yourself and others if you see them having a hard time remembering things.

Hot Tips!

Encourage a cooperative rather than competitive atmosphere so that students solve the problem as a group. Remind the children that none of us are as smart as all of us!

4. GUEST SPEAKER & WRAP UP

1 leader 35 minutes

- **PURPOSE:** To put a personal face on the unit information.
 - The speaker tells the students about his or her experience and feelings living with learning disabilities and about ways he/she has learned to compensate.
 - The students have an opportunity to express their curiosity, interest, and understanding.
 - This experience reinforces the concept that a disability is only one of the many traits that contribute to a person's identity.

MATERIALS: •

Card with optional speaker questions and wrap up discussion from kit

SETUP:

No special setup is required.

PROCEDURE: •

- Students and leaders sit facing the guest speaker.
- The speaker is introduced.
- The speaker speaks and answers questions.

Hot Tips!

The Wrap Up is especially important for this unit because some of the students may have found the activities challenging. It is important the students are reassured that the activities are meant to be a challenge and do not mean that they have a learning disability. Please be aware of the time throughout the unit presentation to make sure you leave at least 5 minutes for the wrap up before you introduce the speaker.

GUEST SPEAKER & WRAP UP

Sample Discussion

We learned today about learning disabilities. I want to review with you some of the main points that we learned.

- 1. Learning disabilities are hidden, meaning that you can't tell if someone has an learning disability by looking at them. For that reason, sometimes people with learning disabilities are seen as not trying hard when actually, they are probably working harder than others to accomplish a task.
- People with learning disabilities may have unique challenges that make learning some things harder. That doesn't mean they are not smart, but instead that they need to use their strengths and learn strategies to help meet their challenges. They want to be able to tell others what is hard for them and what strategies will help, instead of hiding that they have a disability.
- 3. You can be a good friend by being sensitive about things that may be challenges for someone with a learning disability. You can be patient and encourage them to use the strategies that are helpful.
- 4. Being part of our community and a good friend means valuing and accepting people of all abilities. Every person has a combination of strengths and challenges, and who a person is on the inside is what matters.

If some of the activities we did today seemed very hard to you, it does not mean that you have a learning disability. I want you to know that our brains sometimes play tricks on us, especially when we're very busy or tired. You might go your room to get something, like a pair of scissors, and forget what you were looking for when you get there, or you may find it difficult to remember a person's name occasionally. This does not mean you have a learning disability. We all have difficulty with some tasks or forget things some of the time. There are teachers and counselors who are trained to give special tests to find out if a person has a learning disability. If you are concerned about this you should talk to your teacher and your parents. Our guest speaker has a learning disability. He (she) will talk to you about what it is like to have a learning disability and you will have an opportunity to ask questions.

OPTIONAL DISCUSSION STRATEGIES: THE WAY WE LEARN

2 leaders 15 minutes

PURPOSE:

To help students learn the strategies they can use to accommodate for areas of challenge using areas of strength

- **MATERIALS:** Colored markers
 - Computer generated chart (one for every classroom)

SETUP:

• Display the chart.

PROCEDURE: •

- The students are brought back together as an entire group and seated facing the chart.
- A discussion is held in which a list of strategies is generated. The leader records the students' and leaders' ideas.
- Additional volunteers should also fill out the other charts so each classroom can post one at the end of the unit.

NOTE: Some strategies can be used in more than one column.

STRATEGIES: THE WAY WE LEARN

Sample Discussion

I hope doing the activities today has helped you think about the things you do well and the things that are challenges for you. You should now realize that all people have things that are easy for them to do and other things that are hard for them to do. People with learning disabilities have unique challenges that make doing some things harder. That doesn't mean they are not smart and cannot get around their challenges. Now, we are going to create a list of strategies we can all use to make it easier to take in information, to process information, to remember important things and to be able to tell others what we know. These strategies work well for everyone but can be particularly important when a person has learning disabilities.

Strategies for Taking In Information/Input

Let's think about techniques and strategies you might want to use if you had a challenging time with taking in information you hear or see. Can you name some?

- Use a tape recorder
- Take notes or ask that instructions be written down
- Repeat back instructions so the person who gave them can make sure the student heard them correctly
- · Ask questions when you don't understand
- Have a learning buddy

Strategies for Using and Understanding Information/Processing

Let's think about techniques and strategies you might want to use if you had to struggle with reading. Can you name some?

- Listen to books on tape
- Have someone read to you
- Read aloud
- Check to see if what you read makes sense

Let's think about techniques and strategies you might want to use if you had math difficulties. Can you name some?

- Use a calculator, computer
- Check work carefully
- Use graph paper to line up numbers

What are some general strategies you might want to use?

- Break tasks down into small steps
- Work in a quiet place
- Limit the number of things you try to do at one time
- Say to yourself or out loud the things that you will need to do

Strategies for Remembering Information/Memory

Let's think about techniques and strategies you might want to use if you had a memory issue. Possible techniques:

- Write things down, especially directions
- Keep a calendar for appointments and assignments
- Have a watch with an alarm to remind you of appointments
- Listen to a recording with step-by-step instructions on doing complex things
- Keep lists
- Use spell checkers
- Use visualization picture the steps

Strategies for Sharing and Communicating Information/Output

Let's think about techniques and strategies you might want to use if you had a challenging time finding the words you want when you want to tell someone something. Possible techniques are:

- Have good notes when you have to speak out loud
- Practice what you are going to say
- Role play a situation before you do it
- Visualize or try to see the word or object in your head
- Think of associations such as salt and pepper

We have come up with some very good ideas! Everyone here does at least some of these things. Finding the right strategies is important for someone with a learning disability.