



Level 1: ASD/CI

Teaching People with Cognitive Impairments
and Autism Spectrum Disorder

Learning Objectives

- Understanding Cognitive Impairments and ASD
- Teaching Strategies – Fill your toolbox
- Assessment of Abilities
- Communication
- Behaviour/Motivation
- Kinesthetic Learning



Cognitive Impairments



- What are some **Cognitive Impairments**?
- What are some **characteristics** of these conditions?
- How will this affect a **snowsports lesson**?

Defining Cognitive Impairment

A group of disorders defined by diminished cognitive and adaptive development.

Individuals with **CI** may have challenges with:

- Agility
- Fatigue
- Muscle tone
- Coordination
- Communication
- Understanding/Processing

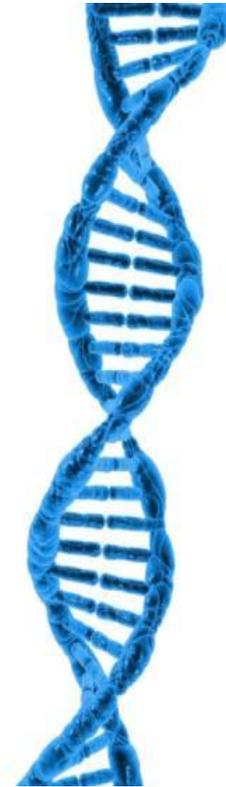


Down Syndrome

A Genetic disorder caused by an extra chromosome, also called **Trisomy 21**.

May include :

- Endurance challenges
- Adaptive behaviour deficits
- Poor motor co-ordination
- Low muscle-tone, loose joints
- Cardiac, respiratory, digestive, vision and hearing impairments
- Atlanto Axial instability

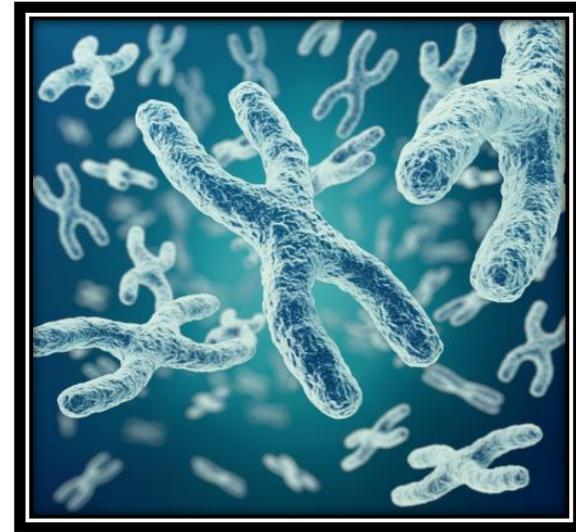


Fragile X Syndrome (FXS)

A genetic condition that causes intellectual disability, learning and behaviour challenges, and various physical characteristics.

May include:

- Low muscle tone
- Poor motor co-ordination
- Stereotyped movements
- Tremors
- Hyperactivity
- Memory deficits
- Social & Communication skill challenges
(Similar to ASD)



Learning Disabilities

Refers to a number of different lifelong disorders. Genetic or neurobiological factors alter the person's brain functioning.

May Include:

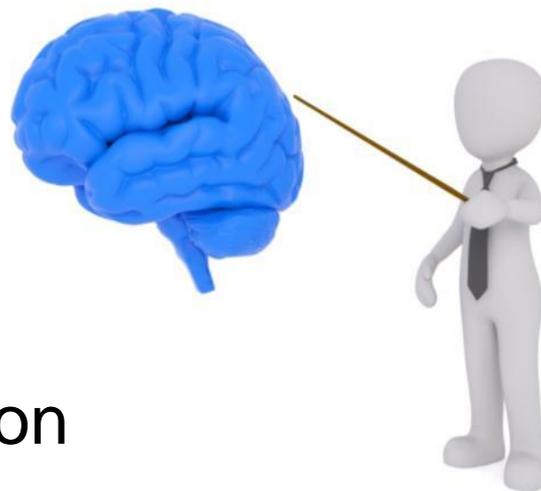
Impacts on the **Learning Process**

E.g. -Acquisition

-Organization

-Retention

-Understanding or use of
verbal/non-verbal information



Brain Injury

An **Acquired Brain Injury (ABI)** is damage to the brain occurring after birth, that is NOT degenerative or genetic, and is classified as either **TBI** or **NTBI**.



Could be **caused by** but **not restricted to**:

- Stroke
- Blast Injury
- Illness
- Brain tumors
- Violence
- Meningitis
- Car Accident
- Concussion

Brain Injury

Impacts of Brain Injury may include:

Physical

- Balance, Agility, Coordination, Reaction Time, Fatigue
- Focal paralysis

Sensory

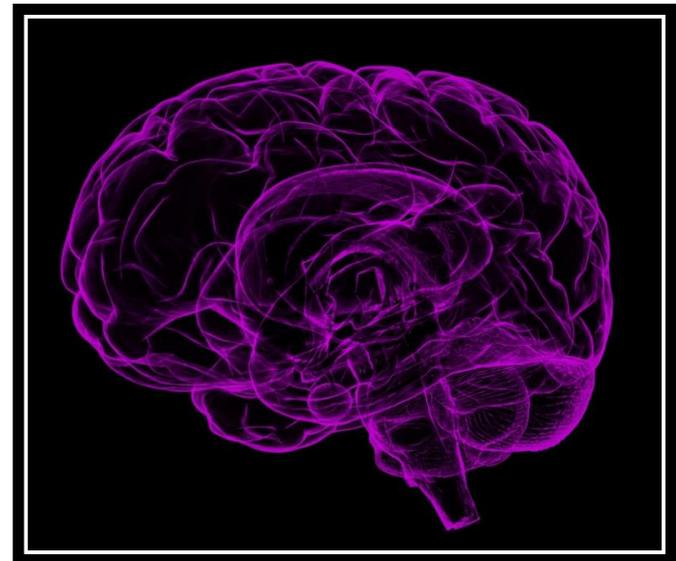
- Vision

Cognitive

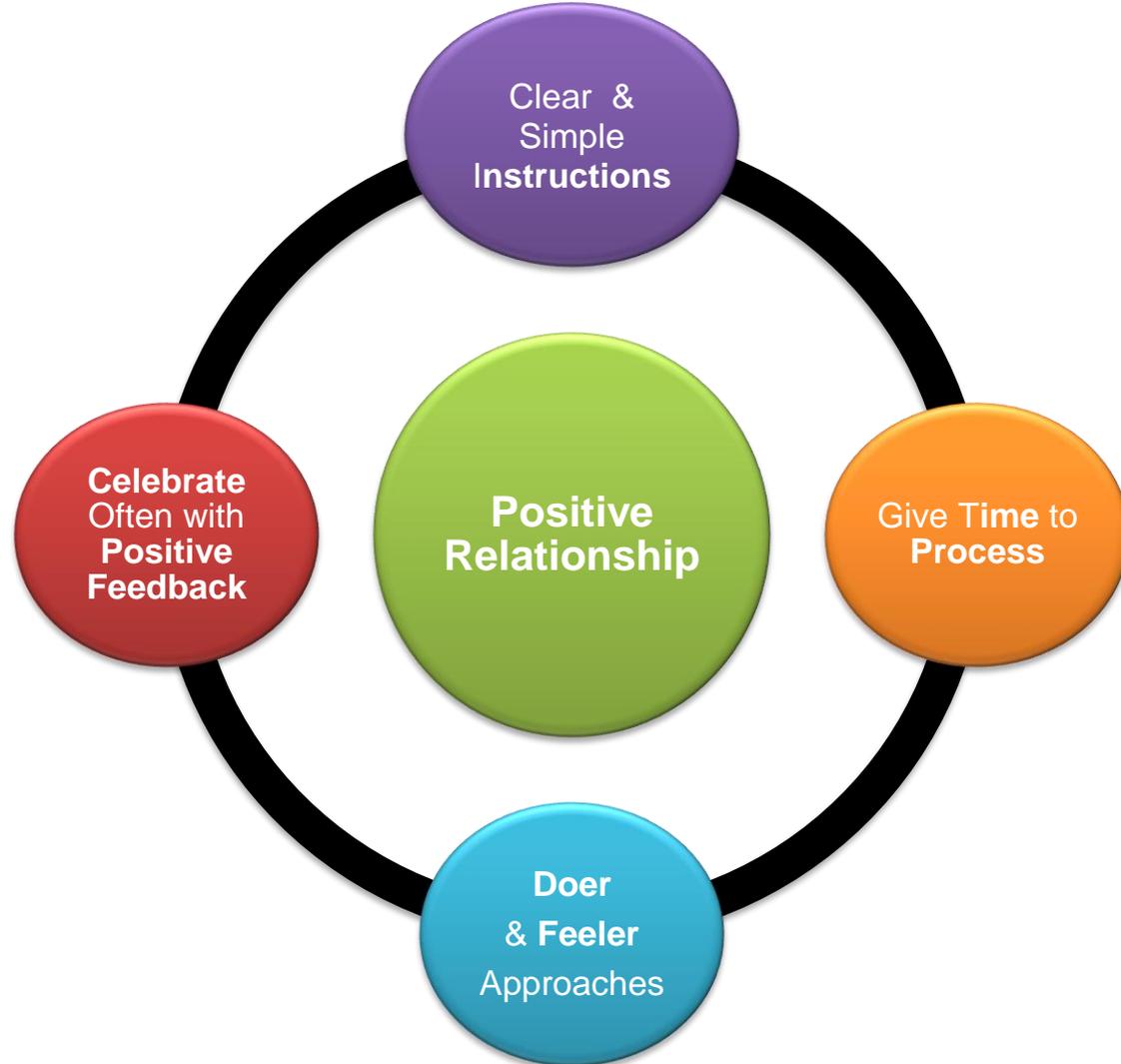
- Learning, memory

Psychological

- Mood disorder, impulsivity



Tips to create a **Successful** learning environment for students with CI



Defining Autism Spectrum Disorder (ASD)

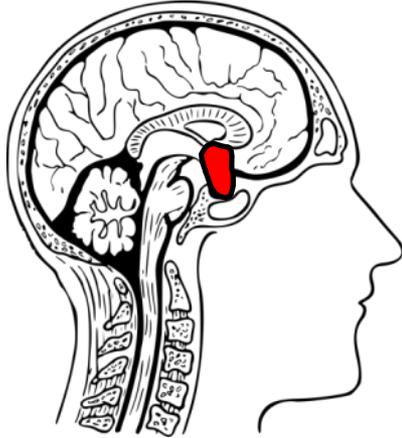


1 in 59 children
1 in 42 boys
1 in 189 girls

**“If you’ve met
one person with
autism, you’ve
met one person
with autism”**

**The term ‘spectrum’ refers to a continuum of
severity or developmental impairment.**

Parts of the brain affected by **ASD**



Amygdala

- Emotion
- Aggressive behaviours

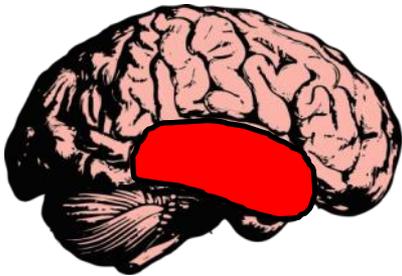
Prefrontal cortex

- Attention
- Planning
- Abstract thinking
- Social behaviour



Temporal Lobe

- Language
- Social perception



Cerebellum

- Attention
- Motor:
 - Coordination
 - Balance
 - Speaking



Observational Activity

- What are some of Julia's **strengths**?
- What things are **challenging** for **Julia**?
- What are some **tactics** used to **support** Julia?



Advance Slide to START VIDEO





ASD and Sesame Street

Video: <https://www.youtube.com/watch?v=dKCdV20zLMs>

Social Skills

Possible Challenges:

- Little to no **Eye Contact**
- Struggle with **Perspective Taking**
- Difficulties with **Expected Social Behaviour**



Communication

Possible Challenges:

- **Repetitive** language
- Back and forth **conversation**
- **Non-verbal** communication



Restricted or Repetitive Behaviours

Possible Challenges:

- **Perseveration**
- Dependence on **routine**
- Difficulty with **transitions**



Sensory Sensitivities

- **Hyper-reactivity** (Greater than expected reaction)
- **Hypo-reactivity** (Lesser than expected reaction)

Frequently associated Challenges



- Sleep
- Gastrointestinal
- Eating/diet
- Motor skills
- Anxiety
- Focus and Attention

Strengths (vary by individual)

Individuals may have strengths in these or other areas:

- Exceptional memory
- Visual and Spatial abilities
- Music
- Drawing
- Reading
- Computer skills
- Non verbal reasoning, e.g. Chess.
- Perceptual Motor skills, e.g. Baseball



DSM Diagnostic Criteria: ASD

A. Persistent deficits in social communication and social interaction across contexts

B. Restricted, repetitive patterns of behaviour, interests, or activities

C. Symptoms must be present in early childhood

D. Symptoms together limit and impair everyday functioning

If Stephen was taking a lesson. What are some questions we would like to ask Stephen to make the lesson more successful?

VIDEO LINK:

<https://www.youtube.com/watch?v=gWTeSvCOFyE>

Meet Stephen Wiltshire



Assessment of Abilities (AOT)

Ask Questions, **Observe**
and do **Tests** to discover:

- Diagnosis
- Mobility
- Balance
- Strength

**Specifically for students
with **ASD** and **CI**:**

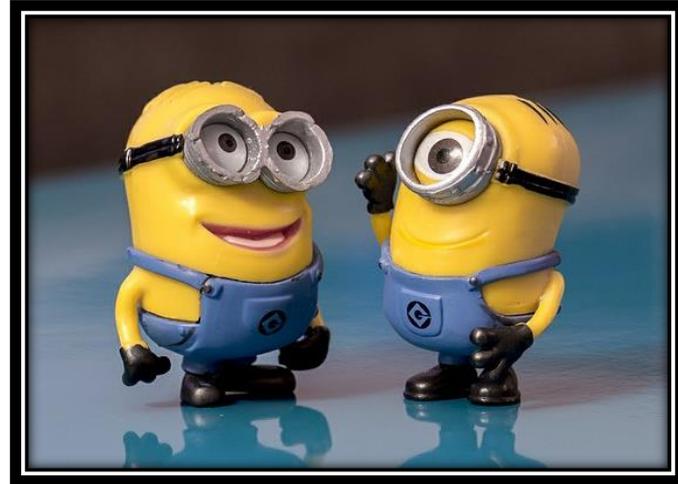
- Find ways to **Connect** with your student
- Determine Best **Communication** strategies
- Learn about possible **Triggers**
- Discover **Motivation** and **Support** Strategies

Key Questions for parent/care-giver

- What does your child **like**?
(For rapport)
- Is there anything I should **avoid**?
- Is there one **support strategy** you would recommend I definitely use?

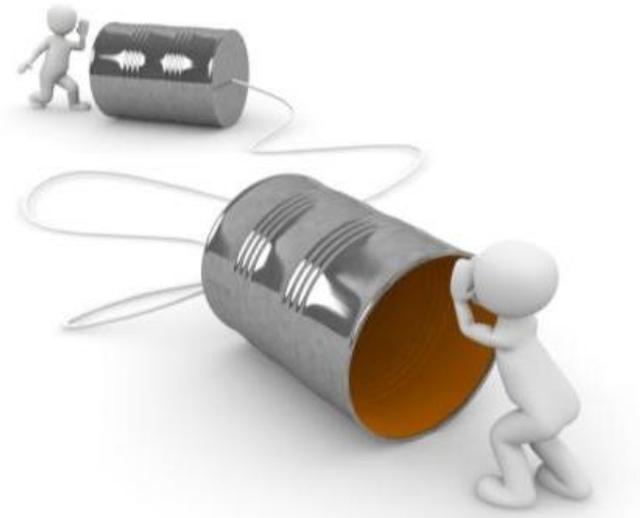


AOT Activity



- 2 min exercise
- In pairs, one person is the student's parent and one person is the instructor doing the introductory AOT (after already connecting with their student).
- Jack is 8, ASD, highly social, strong verbal language skills, and has an Educational Assistant at school to keep his focus.

- **Talk Less – Do More**
- Use **Show and Say** strategies
- **Avoid Yes/No** questions
- Give time to **Process**
- **Match** their communication style
- Say it **Back** to me

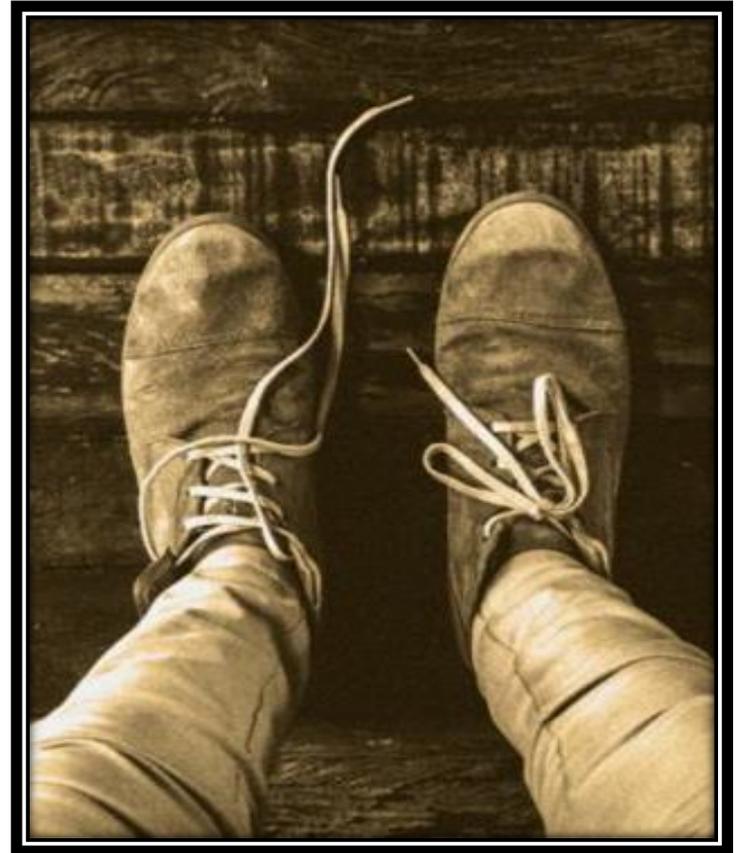


Communication Strategies

Communication Activity

You have **90 seconds** to
complete the next task

Write down how to tie your
shoes in the fewest number of
words possible





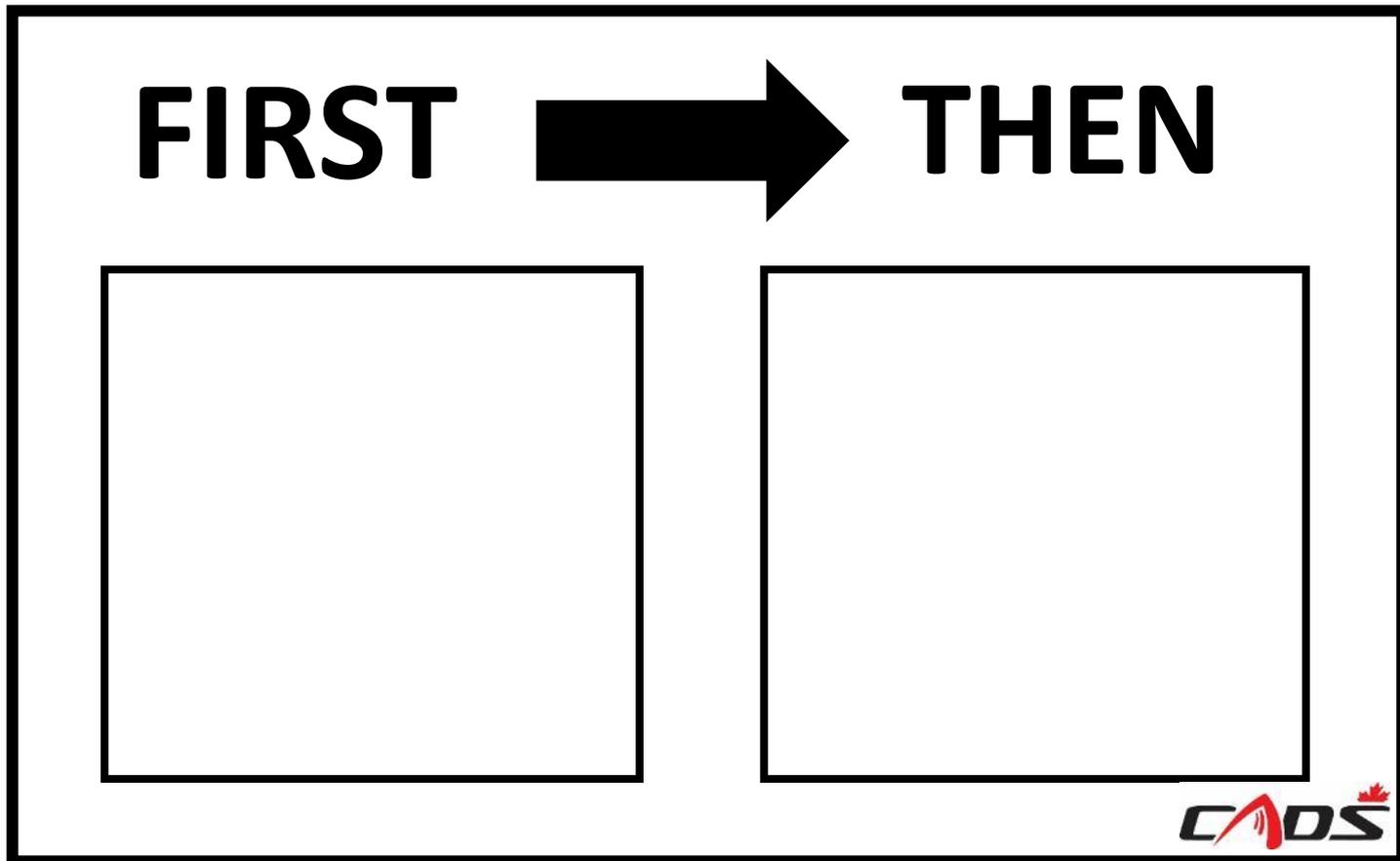
BREAK TIME



Behaviour & Motivation Strategies

Behaviour & Motivation Strategies

First-Then (Motivation & Frontload)



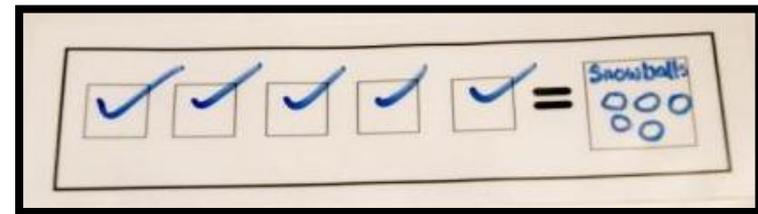
Behaviour & Motivation Strategies

Token Boards / Points System

- Motivation
- Positive feedback

Countdown Strips

- Shows how many more
- Help stretch the First/Then



Behaviour & Motivation Strategies

Timers

- Good for transitions between activities

Breaks

- Recharge, refresh, have a break proactively



Behaviour & Motivation Strategies

Choices

Play with Snowballs



Build a Snowman



Take a Break



Choices can be: Verbal, Written or Pictures in a choice board

Behaviour & Motivation Strategies

Visual Schedule Or 'Shape of the Day' (Frontload)

My ski day - morning

 bye	 make a morning ski-plan
 Get organized	 skiing
 gondola up	 In the hut
 stairs up	 gondola up
 In the hut	 lunch in the Roundhouse

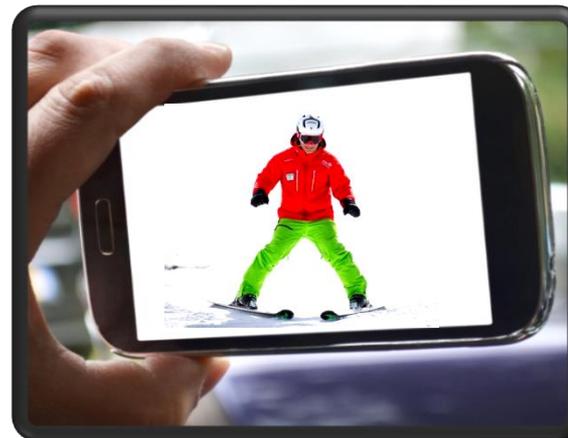
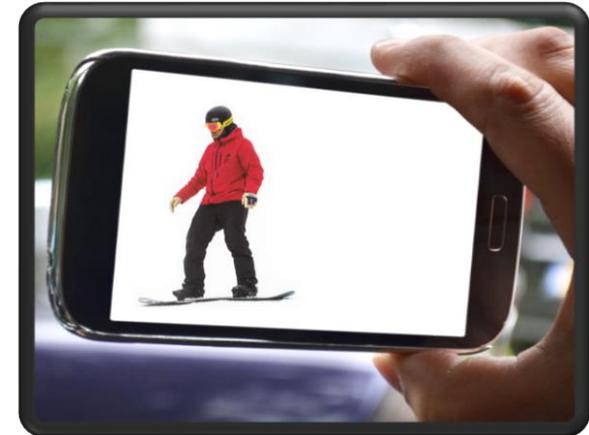
My skiday - afternoon

 Gondola down	 In the hut
 In the hut	 pack up
 make an afternoon ski-plan	 Gondola down
 skiing	 bye skiinstructor

Behaviour & Motivation Strategies

Social Scripts
(Front load)

Video-modelling
(Front load)



Behaviour & Motivation Strategies

Wait Cards
(visual cue)

Stop and Go Cards
(visual cue)



Behaviour & Motivation Strategies

Review

Let's review the behaviour & motivation strategies.



Equipment Activity

A role play in groups of two. The younger candidate will be the instructor. The other person will be the student.

The Instructor is assisting the student to put on Ski/SB boots, gloves and a helmet, using behaviour/motivation strategies.





STOP & THINK:

Why am I using this?

What are the safety concerns?

Kinesthetic Learning

- Hands-on Techniques
- Tethers
- Tip Connectors
- Pole
- Hoop/ski-pal/sno-wing
- Slider and Rider-bar



Hands-On



Tether



Tip Connectors





Poles





Hoop/ Sno-wing/ Ski-Pal





Slider / Rider Bar



Adaptive Tools



Should tools be used as a **safety** device?

How are tools used to manage **fear**?

How do we test the **success** of the tool?

Warning:

Excessive use of any adaptive tool
may cause reliance!

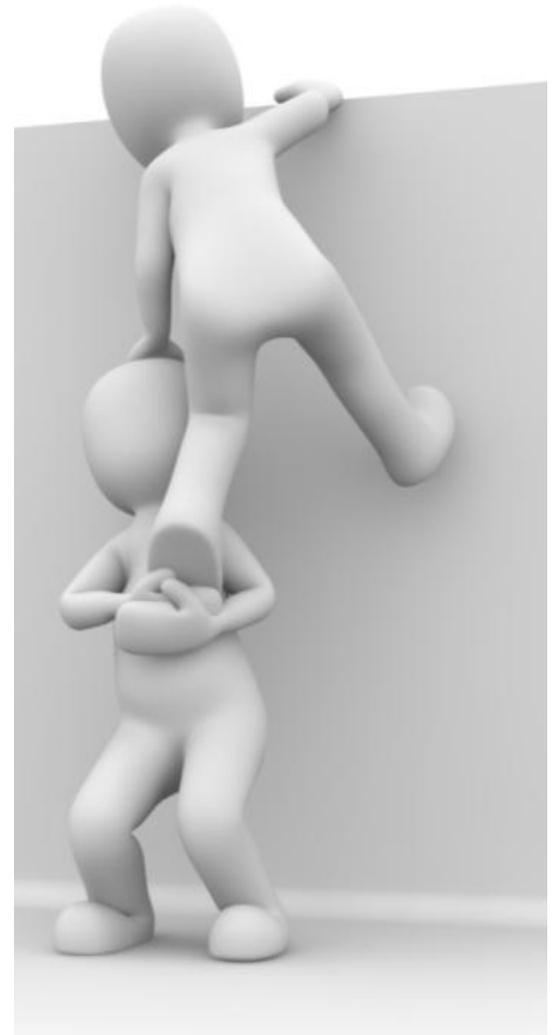




Key Questions for parent/care-giver

How to be Successful in a Lesson

- Continually use your AOT
- Build Rapport
- Remember your Toolbox
- Stay Safe
- Have Fun!
- Teach a snowsports lesson first then adapt as you need.





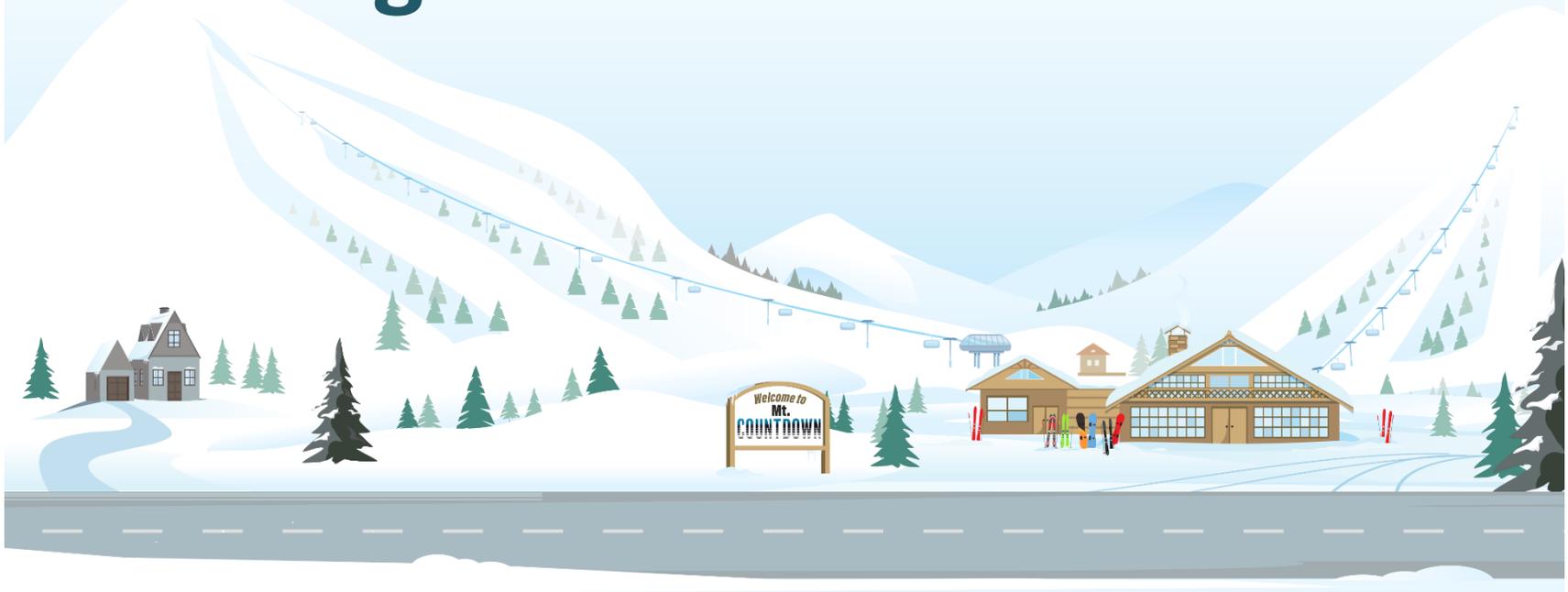
Final Game...

May I please have 4 volunteers come to the front of the room!

NEW! COUNTDOWN eTraining

Designed to support diverse learners by providing inclusive tools and strategies.

FREE for CADS members in 2021-22 Season.
Approx. 90 minutes. See cads.ski for more.





Thank You
