



**Physical Literacy in a  
Population with Autism  
Spectrum Disorders:  
A Progress Reporting Tool**



# Partnership between Ausome and City of Ottawa:

## Ausome

- Volunteers
- Autism behaviour therapist
- 4-6 year olds - Active Start
- 7-12 year olds - FUNdamental Movement

## City of Ottawa

- Training in Physical Literacy and PlayTools for Ausome staff/volunteers
- Physical literacy specialist/coach
- Facilities

## Assessment **not ideal** for kids at Ausome

- 1-on-1 attention required to engage each child
- Relies primarily on verbal instructions
- In our group, inter-observer reliability was low
- Efficiency was an issue

\*Used Physical Literacy Assessment for Youth (PLAYBasic and PLAYFun)

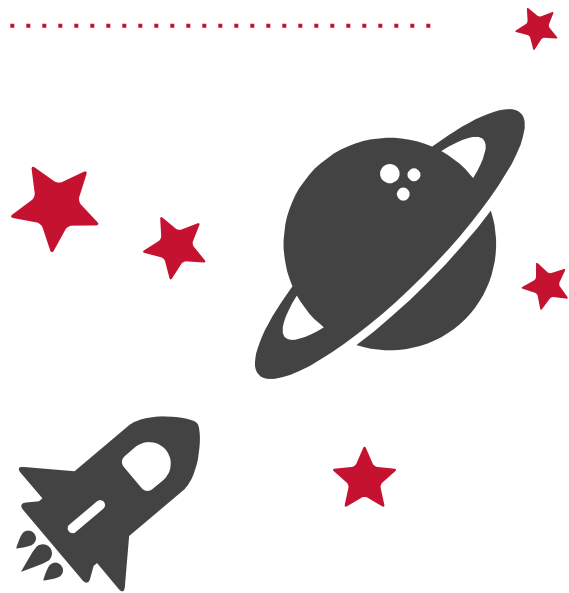




How can we **help** kids like Sammy become more physically literate?

# Let's set the kids up for success

Kids with autism have to overcome **so many obstacles** - and they just won't try or keep trying if they think they are going to fail.





# Modifications to the **pre- and post-program** assessment

Identify Pre-skills

Create engaging games/activities for the assessment

Create modifications within the assessment

Create markers for each skill

Cue using verbal, physical and visual prompts

Allow space for notes



# 6 Underlying Physical Components of Physical Literacy

*"Before you can run in a square, you have to be able to listen to the instruction, understand the mental imagery of a square, be able to move forward in a straight line, understand the difference between running and walking, balance while making a turn, and be motivated to do it."*

# Fight or **flight** response

- Threshold is usually low
- Expressed through behaviours like running away, yelling, crying, avoidance
- May take several sessions before there is enough trust to get a true assessment of ability





# Fundamental Movement



PROPRIOCEPTION



STATIC BALANCE



DYNAMIC BALANCE



MIDLINE



VISUAL



STRENGTH

# The **visual** system

- Uses 80% of brain function
- 6 pairs of muscles surrounding each eyeball must work in synch, otherwise brain only receives fragmented info
- And then we must add peripheral vision/information



# The **vestibular** system

- Located in inner ear
- Provides sense of balance
- Most important sensory system to help coordinate brain and body for movement
- Critical in self-regulation, feeling “grounded”



# The proprioceptive system

- Provides the brain with a high-res picture of the body's position in space
- If brain doesn't receive this signal, it triggers fight or flight and tells the body to move to get a sense of where it is



# Muscle tone and strength

Low tone

**More rapid  
fatigue**

Core  
weakness

**Imbalances  
& tightness**

Strength is often overlooked in these kids as there are so many other challenges to address



# Mirror neurons

When you demonstrate a particular task, kids with ASD will often not be able to perform it in their minds. They need to feel the movement - they need physical prompts/cues.





# Progress Reports





# Progress Reports

		WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5
<b>PROPRIOCEPTION</b> Ability to sense location, movement, and force of muscles and joints.	PROPRIOCEPTION 100%					
<b>STATIC BALANCE</b> Ability to maintain equilibrium while standing or sitting.	STATIC BALANCE 100%					
<b>DYNAMIC BALANCE</b> Ability to maintain equilibrium while moving.	DYNAMIC BALANCE 100%					
<b>VISION</b> Ability to see and interpret visual information.	VISION 100%					
<b>STRENGTH</b> Ability to exert force against resistance.	STRENGTH 100%					
<b>TOTAL</b>	<b>LEVEL</b>	Overall Performance Level: <b>100%</b>				







## **Partnership with Algonquin College**

Provides placement hours for occupational therapy/physiotherapy assistant program

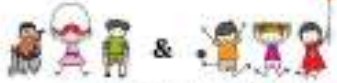
## **88 program spaces for kids**

...So far

## **105 OTA/PTA students**

More training = more awareness = more physical literacy in our communities!

Pediatric Physio



Occupational Therapy

# Thanks

You can find us at [AusomeOttawa.com](https://www.AusomeOttawa.com)

[LiisaVexler@AusomeOttawa.com](mailto:LiisaVexler@AusomeOttawa.com)

[liane@pediatricphysioandot.com](mailto:liane@pediatricphysioandot.com)



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