Navigating Physical Literacy in Alberta: Implementing & Assessing Effective Programs

Healthy Child and Youth Development Symposium

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March 7, 2018
Navigating physical literacy in Alberta: what have I learned in 10+ years?
Move & Play through Physical Literacy

ACTIVE ALBERTA COALITION

An Idea
November 2017

Join an online community of physical literacy champions in Alberta
www.plconnect.ca

Communicate with your local PLAY Group
Connect with local & provincial physical literacy champions
Share expertise, resources & information on the Wiki
Ask a question in the Q&A
Post & RSVP to events
Share success stories & nominate someone you know to share!

What is Physical Literacy?
“Physical Literacy is the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life.”
- The International Physical Literacy Association

Active Start
Learn basic movement skills and link them together into play. Develop habits towards being active
BOYS & GIRLS 5 – 6 YRS

FUNdamentals
Learn fundamental movement skills and build agility, balance and coordination.
BOYS 6 – 9 YRS "& GIRLS 6 – 8 YRS

Train to Win
Optimize the engine and learn to compete at high levels.

Train to Compete
Build aerobic base, develop speed and strength towards the end of this stage, and further develop and consolidate sport skills.

Train to Train
Transition to high performance for those with the appropriate skills and motivation.

BOYS 9 - 12 YRS & GIRLS 9 - 11 YRS

These first 3 stages set the foundation for developing physical literacy.
Physical literacy is the... physical competence... to be active for life.

Sport for Life

If you can... Catch Jump Run Swim Throw

You will take part in Soccer Basketball Volleyball Track and Field Squash Badminton Rugby Tennis

If you can... Catch Jump Throw Swim Run

You will take part in Baseball Softball Bowling Soccer Goalball Football Rugby

If you can... Throw Jump Swim Catch Run

You will take part in Swimming Diving Water Polo Scuba Kayaking Sailing Surfing
Physical Literacy compared to Literacy, Numeracy and Music

Highest pursuit

- **Literacy**: Write professionally, pursue literature
- **Numeracy**: Be mathematician, Statistician, engineer or scientist
- **Music**: Play professionally, study music, be music critic
- **Physical Literacy**: Compete at the highest level, play professionally
- **All Domains**: Mastery of the activity

Daily Use

- **Literacy**: Read newspapers, signs, directions
- **Numeracy**: Make change, fill in tax forms, calculate day-to-day numbers
- **Music**: Play an instrument for personal enjoyment
- **Physical Literacy**: Play sports, engage in healthy physical activity
- **All Domains**: Which motivates to learn more, improve and value the activity

Functional Level

- **Literacy**: Put letters and words together to read and write
- **Numeracy**: Add, subtract, multiply, divide for basic arithmetic
- **Music**: Play simple tunes
- **Physical Literacy**: Combine fundamental movement skills into games and activities
- **All Domains**: Develops competence and confidence

Basic Building Blocks

- **Literacy**: Learn Letters
- **Numeracy**: Learn Numbers
- **Music**: Learn Notes
- **Physical Literacy**: Learn Movement Skills
- **All Domains**: Learning

Based on Mandigo, J. (2013)
Learning to move is just as important as learning to read and write.
Importance of Physical Literacy

The Canadian Physical Activity Guidelines for Children and Youth recommends at least 60 minutes of daily physical activity.

4% of 5- to 11-year-olds & 7% of 12- to 17-year-olds meet daily physical activity guidelines
40% of 5- to 17-year-olds 60 minutes of activity at least 3 days/week
60% NOT meeting guidelines, even 3 days/week
(Active Healthy Kids Canada. (2013). Report card on physical activity for children and youth p. 6)

Physical Literacy, just like reading and writing, children need to learn to move.

SKILLS + CONFIDENCE = FUN → ACTIVE FOR LIFE

For more information contact Kayla Hammel at Hammel@mhc.ab.ca
Physical Literacy

Sport for Life
Physical literacy:
- is an inclusive concept accessible to all
- represents a unique journey for each individual
- can be cultivated and enjoyed through a range of experiences in different environments and contexts
- needs to be valued and nurtured throughout life
- contributes to the development of the whole person.
Physical Literacy is the... Motivation + Confidence + Physical Competence + Knowledge and Understanding to value and take responsibility for engagement in physical activities for life.
Physical Literacy
Physical Activity: An Underestimated Investment in Human Capital?

Richard Bailey, Charles Hillman, Shawn Arent, and Albert Petitpas

Journal of Physical Activity and Health, 2013, 10, 289-308
© 2013 Human Kinetics, Inc.
Get FIT!!

Lose FAT!!

Come FIRST!
Figure 3: The Four Corner model of the Athlete Development Matrix

**Physical Capacities**
Engage in stage-of-development appropriate training to develop general and sport-specific, stamina (endurance), strength, speed, and suppleness (flexibility) to meet the physical demands of the sport and to develop and maintain optimum health, including injury prevention.

**Psychological (Mental) Skills**
Learn stage-of-development appropriate mental skills that enable the athlete to enhance personal performance in both training and competition. Skills include, but not limited to, focus and attention control, effective visualization and emotional control under performance pressure.

**Technical Skills**
Execute stage-of-development appropriate fundamental movement skill, foundation sport skills and sport-specific technical, tactical and strategic skills. Focus is on developing and enhancing skill performance under pressure.

**Life Skills**
Learn stage-of-development appropriate emotional, social and life skills to enable athletes to function effectively as individuals and harmoniously as group members enabling them to focus on key educational, relationship and sport activities.

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*Sport for Life*
PHYSICAL LITERACY

Fundamental Movement Skills
The Power of Sport Values
Le Pouvoir des Valeurs du Sport
Physical Literacy

What does this mean for me?

Physical literacy is lifelong holistic learning acquired and applied in movement and physical activity contexts. It reflects ongoing changes integrating physical, psychological, cognitive and social capabilities. It is vital in helping us lead healthy and fulfilling lives through movement and physical activity.

A physically literate person is able to draw on their integrated physical, psychological, cognitive, and social capacities to support health promoting and fulfilling movement and physical activity - relative to their situation and context - throughout their lifespan.
Physical Literacy

Physical

- The skills and fitness a person acquires and applies through movement

- Movement skills (Land)
  - Stability / Balance
  - Flexibility
- Movement skills (Water)
  - Agility
  - Strength
- Moving using equipment
  - Reaction time
- Object manipulation
  - Speed
- Muscular manipulation
  - Power
- Cardiovascular endurance
- Coordination

Psychological

- The attitudes and emotions a person has towards movement and the impact they have on their confidence and motivation to move

- Motivation
- Self-regulation (Emotions)
- Self-regulation (Physical)
- Self-awareness
- Confidence
- Engagement & enjoyment

Social

- A person's interaction with others and the environment in relation to movement

- Ethics
- Relationships
- Collaboration
- Safety & risk
- Society & culture
- Connectedness (Community & environment)

Cognitive

- A person's understanding of how, why and when they move

- Awareness
- Content knowledge
- Rules
- Purpose & reasoning
- Strategy & planning
- Tactics
A SENSE OF BELONGING THROUGH PHYSICAL ACTIVITY
Executive Functions

1. Working memory
2. Cognitive flexibility
3. Self regulation: Inhibition control
Social-Emotional Learning Skills

- Self-awareness
- Social awareness
- Relationship skills
- Responsible decision making

Growth Mindset

Grit
Domains of physical literacy

- Physical
- Psychological
- Social
- Cognitive

Live
Learn
Work
Play
Elements of social-emotional learning

- **Grit**
- **Self-Management**
- **Self-Efficacy**
- **Emotion Regulation**
- **Social Perspective-Taking**
- **Growth Mindset**
- **Social Awareness**

**Locations**:
- **Home/Family**
- **School**
- **Community**
- **Workplace**
- **Sport**
- **Outdoors**
- **Free play**
- **Others?**
Effects of Physical Exercise on Executive Functions: Going beyond Simply Moving to Moving with Thought

Adele Diamond* (2015)
Department of Psychiatry, University of British Columbia, Canada

Annals of Sports Medicine and Research

Sample activities

Dance (everyone involved)
Martial arts
Drumming circle
Social circus (juggling, tightrope walking, unicycle riding, pyramid building, clowning, acrobatics)

- Cognitively-engaging activity stronger effect on EF (not stable, not predictable)
- Bimanual coordination, eye-hand coordination and rhythmic movement is valuable
- Having youngsters do what they love to bring joy and pride (builds confidence, feel less alone, create larger community value, sense of belonging)
Enhancing and Practicing Executive Function Skills with Children from Infancy to Adolescence

Executive Function Activities for 6- to 18-month-olds

Executive Function Activities for 18- to 36-month-olds

Executive Function Activities for 3- to 5-year-olds

Executive Function Activities for 5- to 7-year-olds

Executive Function Activities for 7- to 12-year-olds

Executive Function Activities for Adolescents

Center on the Developing Child HARVARD UNIVERSITY
Suggested activities

• Card and board games
• Physical activities and games
• Music, singing and dance
• Brain teasers

Executive Function Activities for 7- to 12-year-olds
Physical activities/games

**Organized sports** helps to develop skill at children’s ability to hold complicated rules and strategies in mind, monitor their own and others’ actions, make quick decisions and respond flexibly to play.

Various **jump rope games** (jump rope, double Dutch, Chinese jump rope, and other such challenges) helps to develop focused practice, as well as the attention control and working memory to recall the words of the chant while attending to the motions.

**Free play** that requires constant monitoring of the environment and fast reaction times also challenge selective attention, monitoring, and inhibition. For younger children, hiding/tag games, particularly those played in the dark, like flashlight tag and Ghost in the Graveyard, are fun. Older children may enjoy games like flag football or orienteering.
Metrics? Indicators? Outcomes? Assessment?

- Positive social behaviour
- Improved academic performance
- Conduct problems
- Reduced emotional stress

https://casel.org/
Metrics? Indicators? Outcomes? Assessment?

✓ Student/participant/athlete skills/competencies
✓ Student/participant/athlete supports and environment
✓ Teacher/instructor/coach skills and perceptions

https://www.panoramaed.com/
Key components of a quality physical literacy experience

**PL environments**
- Ground
- Water
- Ice/snow
- Air
- Outdoors

**Risky play behaviours**
- Great heights
- High speed
- Dangerous tools
- Dangerous elements
- Rough and tumble play
- Disappear/get lost

**Learning formats**
- ✓ Individual
- ✓ Cooperative
- ✓ Competitive

**Executive Functions**
- ✓ Working memory
- ✓ Cognitive flexibility
- ✓ Self regulation

**Social-Emotional**
- ✓ Emotion management
- ✓ Empathy
- ✓ Team work
- ✓ Responsibility
- ✓ Initiative
- ✓ Problem solving

**Basic motor movements**
- Locomotor
- Non-locomotor
- Object manipulation

**TGfU categories**
- Net/wall
- Striking/fielding
- Target
- Invasion
- Individual pursuits (combative/acrobatic)
Consider your physical literacy environment *(play, recreation, sport, physical activity)*

- Have you had these conversations with your participants? Have you helped them learn this language and practice their SEL vocabulary?
- Do you create experiences to allow your participants to learn about their own SEL skills?
- How do you recognize and highlight these skills in your participants?
Be Fit for Life Network – PLAY groups

- PLAY West Country
- PLAY Grande Prairie
- PLAY Central Red Deer
- PLAY Lac La Biche
- PLAY Parkland
- PLAY Medicine Hat
- PLAY Fort McMurray
- PLAY Vermillion Wellness Coalition
- PLAY Lethbridge
- PLAY Canmore (soon)
- PLAY Edmonton (+ESC)
- PLAY Grande Prairie
- PLAY Central Red Deer
- PLAY Lac La Biche
- PLAY Parkland
- PLAY Medicine Hat
- PLAY Fort McMurray
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The Inclusion Spectrum: a model for inclusion in physical education and sport

Open
- Everyone can play

Disability Sport
- Adaptation tool
- Adapted physical activity

Parallel
- Ability groups

Modified
- Change to include

Separate / Alternate
- No inclusion

Quick Guide

Inclusive Coaching

I CAN Teach Physical Literacy

Special Olympics Canada
Sport for Life for ALL NEWCOMERS TO CANADA
Creating Inclusion of Newcomers in Sport and Physical Activity

Vital Signs
SPORT & BELONGING
**INCREASED ENGAGEMENT & ENTHUSIASM**
Exploration and discovery through outdoor experiences can promote motivation to learn:

- Increased enthusiasm for learning
- Greater engagement with learning

**IMPROVED BEHAVIOR**
Nature-based learning is associated with reduced aggression and fewer discipline problems:

- More impulse control
- Less disruptive behavior

**INCREASED PHYSICAL ACTIVITY**
Access to parks and greenspace can foster:

- Increased physical activity
- Reduced risk of obesity

**OUTDOOR PLAY**
Increases the likelihood that girls will remain active into adolescence.

**SOCIAL-EMOTIONAL WELLBEING**
Learning in nature can support:

- Improved relationship skills
- Reduced stress, anger, and aggression

Children are better able to cope with stress when they live near trees and other greenery.
Working with others...

Let Grow projects to do alone or with a friend

- Walk to school
- Make dinner
- Run an errand
- Walk the dog
- Wait at the bus stop
- Ride your bike to a friend's house
- Skateboard
- Make a fort
- Go get ice cream
- Go get pizza
- Spend some time at the library
- Ride a local bus
- Organize a visit to a friend's and get yourself there
- Visit a relative
- Buy a surprise for
- Organize a game outside with your friends
- Go to a museum
- Mow a neighbor's lawn
- Get to an afterschool activity on your own
- Take the subway
- Get the ingredients for a cake and make it
- Bake something delicious
- Make your lunch for tomorrow
- Camp out in the backyard
- Trick or treat
FREE APP
Traditional Sports and Games