# PHYSICAL LITERACY
# IS IT THE TIE THAT BINDS US?


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|---|---|---|---|
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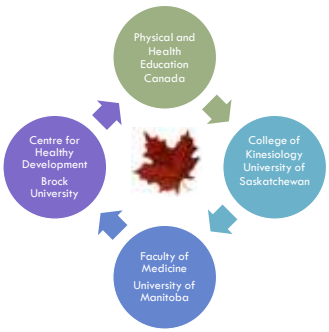
| Niagara, Canada | Ottawa, Canada | Saskatoon, Canada | Winnipeg, Canada |


## Who Are We and What are We Doing Here?




## Who Are We and What are We Doing Here?

## The Plan for The Morning …


## Part 1 – Physical Literacy Background

Setting the Framework

- "The great aim of education is not knowledge but action"

Herbert Spencer

Mingle Mingle Tennis

Sport has the power to change the world. It has the power to unite in a way that little else does.

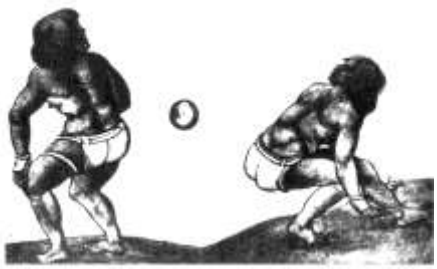
It speaks to youth in a language they understand.

Sport can create hope where once there was only despair. It is more powerful than governments in breaking down racial barriers.

It laughs in the face of all types of discrimination.

*Nelson Mandela (former President of South Africa)*

## Ulama



## Monism

- "A human intelligence bereft of a body would be an intellectual cripple" (Sheets-Johnson, 1992, p. 43)

## Medieval

## Soft America

- "In a very real and immediate sense, our growing softness, our increasing lack of physical fitness, is a menace to our national security … such softness on the part of the individual citizen can help to strip and destroy the vitality of a nation" (John F. Kennedy, 1960, *Sports Illustrated*)

## Physical literacy and health

- **The Story of Pinocchio**

- Singers: He can *walk and talk and fly*.
- Pinocchio: *Do anything I try*.
- Singers: He can dance, sing a tune, play a flute.
- Pinocchio: *Do anything I try*.
- Singers: But never never …

move

## Why Are We Worried?

**26% OF CANADIAN CHILDREN AND ADOLESCENTS AGED 2 TO 17 BEING OVERWEIGHT OR OBESE AND 8% BEING OBESE**

Only 9% of boys and 4% of girls meet the Canadian Physical Activity Guidelines of 60 minutes of moderate-to-vigorous intensity physical activity daily

PARENTS REPORT THAT 44% OF CANADIAN CHILDREN GET 1-2 DAYS OF PE CLASSES / WEEK, 25% GET 3-4 PE CLASSES / WEEK, AND 22% GET NO DAILY PE

57% of Canadian children and youth aged five to seventeen years were not sufficiently active to meet international guidelines for optimal growth and development

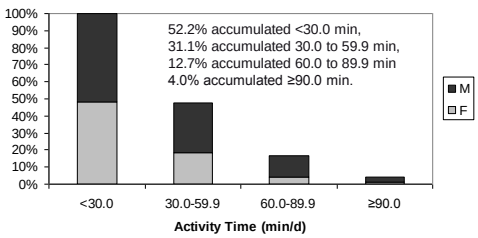

## What percentage of people are active enough?

| | | Males | Females |
|---|---|---|---|
| All | **6–11** | 48.9 | 34.7 |
| | **12–15** | 11.9 | 3.4 |
| | **16–19** | 10 | 5.4 |
| 10 min Bouts | **16–19** | 7.1 | 4.1 |
| | **20–59** | 3.8 | 3.2 |
| | **60+** | 2.5 | 2.3 |

Self reported PA reveals 33 to 51% adherence.
6 to 14X over-estimation (age dependent).

Troiano et al 2008

## PA Adherence Grade 6




(Wittmeier, Mollard and Kriellaars, 2007)

## Kruger Report 2010

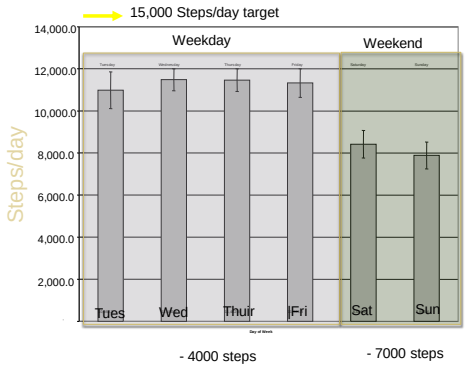
Heart and Stroke Foundation of Manitoba

- **Physical inactivity combined with obesity and smoking cost Manitobans $1.62 billion in 2008; *the economic burden will ↑ by $4.7 billion* by 2026.**

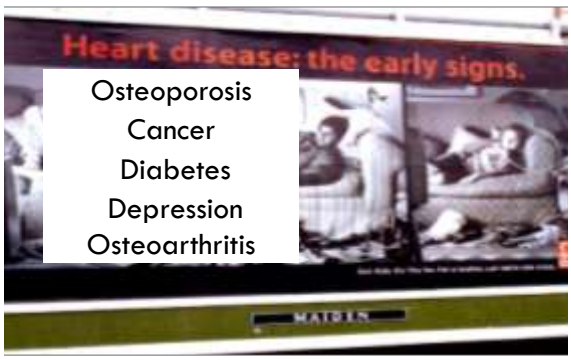
**Table 20. Leisure Time Physical Inactivity in Manitoba**
2003, 2005, 2007 & 2008 CCHS
Ages 12 to 19

| Year | Inactive Males | Inactive Females | Total |
|---|---|---|---|
| 2003 | 30.7% | 52.8% | 26.6% |
| 2005 | 24.5% | 40.2% | 32.2% |
| 2007 | 33.6% | 27.2% | 30.4% |
| 2008 | 27.4% | 36.7% | 32.0% |

**NOTE: Estimated from self-report data which is 6 to 14X over-estimate (age dependent).**

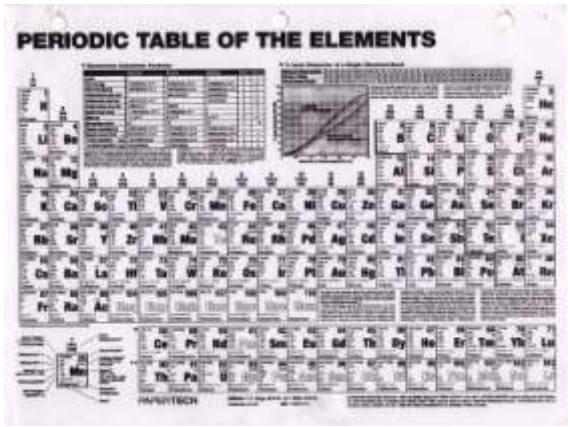



Physical Activity of Children – Weekend Parental Control.

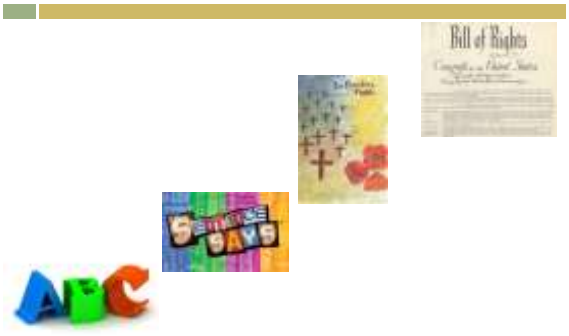


## Despite our best intentions we have failed our children….

We will kill them slowly, but won't hurt them quickly.

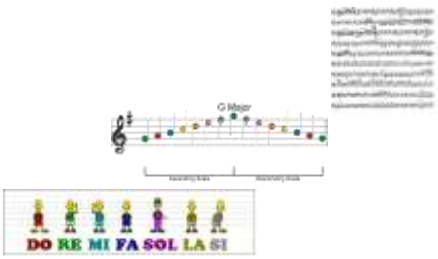




## Language Arts

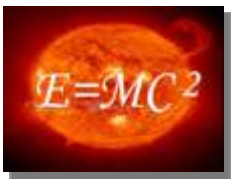


## Mathematics


## Music









## *UNESCO statement for the United Nations Literacy Decade*

- Literacy is defined as the ability to 'acquire the essential knowledge and skills that *enable* individuals *to actively participate* in all the activities for which reading and writing are needed'. UNESCO 2006
- "Literacy is crucial to the acquisition, by every child, youth, and adult of essential life skills (which) is an indispensible means for effective participation in the societies and economies of the twenty first century." United Nations 2002
  - **You can simply replace the word *literacy* with *physical literacy*.**

## *UNESCO statement for the United Nations Literacy Decade (2003)*

- Literacy is about more than reading and writing. It is about:
  - how we communicate in society.
  - social practices and relationships, about knowledge, language and culture.

## Literacy Includes

- Knowledge and Understanding
  - Content & comprehension of the content
- Thinking
  - Use of critical and creative thinking skills and/or processes
- Communication
  - Conveying of information through various forms
- Application
  - Use of knowledge and skills to make connections within and between various contexts


## Previous Literature on Physical Literacy

- "To be physically literate, one should be creative, imaginative, and clear in expressive movement, competent and efficient in utilitarian movement and inventive, versatile, and skillful in objective movement. The body is the means by which ideas and aims are carried out and, therefore, it must become both sensitive and deft." (Morrison, 1968 as cited in Wall & Murray, 1994, p. 5)

## Previous Literature on Physical Literacy (Whitehead, 2007)

The motivation, confidence, physical competence, understanding and knowledge to maintain physical activity at an individually appropriate level, throughout life

- The ability and motivation to capitalise on our movement potential to make a significant contribution to the quality of life.
- Its specific expression will be particular to the culture in which we live and the movement capacities with which we are endowed.
- Poise, economy and confidence in a wide variety of physically challenging situations.
- Perceptive in 'reading' all aspects of the physical environment, anticipating movement needs or possibilities and responding appropriately to these, with intelligence and imagination.
- Well established sense of self as embodied in the world. This together with an articulate interaction with the environment engenders positive self esteem and self confidence.
- Fluent self expression through non-verbal communication and to perceptive and empathetic interaction with others.
- The ability to identify and articulate the essential qualities that influence the effectiveness of his/her own movement performance
- Has an understanding of the principles of embodied health, with respect to basic aspects such as exercise, sleep and nutrition.

## Aligning PL with Literacy

- **Movement Vocabulary**
  - An individuals repertoire of movement skills (or sequence of skills)
- **Movement Fluency**
  - The ability to execute a component of movement vocabulary with expertise.
- **Physical Proficiency**
  - The ability to select and proficiently execute movement vocabulary suitable to an environment.
- **Physical Literacy**
  - Physical literacy is the ability to demonstrate physical proficiencies in multiple environments.

## Physical Literacy Across the Lifespan and Sectors

- Sport
  - *Fundamental* movement skills – terrestrial, sport based
- Vocational
  - Firefighter, armed services, dry waller, iron worker, underwater welder
- Daily Life
  - Ability and Injury Prevention
  - Lift, carry, transfer, lower – back injury and ability
  - Falls, stumble recovery, landing – fracture and ability
  - ACL: Female to Male ratio is 6:1, physical literacy related?

Don't limit it to sport. Physical literacy is a critical part of being a human being. Period.

## Physical Literacy in Different Contexts

Chevy Nova

Coke Adds Life


## Process of Creating a Working Definition

- Develop a strong team
- Review the literature
- Set the parameters
- Create a working draft
- Get feedback
- Rework, Rework, Rework
- Get more feedback
- Identify support tools needed

## Physical & Health Education Canada, 2009 Justification

Individuals who are physically literate move with **competence and confidence** in a wide variety of **physical activities** in **multiple environments** that benefit the **healthy development** of the **whole person.**

- bridge between the sport and education
- strong link to current notions of literacy
- "competence" should be viewed from an inclusive perspective - not based on population norms
- competence across a wide variety of physical activities (e.g., games, dance, fitness, gymnastics, outdoor).
- captures the "why" it is important to be physically literate - benefits the whole person (physical, cognitive, affective, etc).

## Full Definition

Individuals who are physically literate move with **competence and confidence** in a wide variety of **physical activities** in **multiple environments** that benefit the **healthy development** of the **whole person.**

- Physically literate individuals consistently develop the motivation and ability to understand, communicate, apply, and analyze different forms of movement.
- They are able to demonstrate a variety of movements confidently, competently, creatively and strategically across a wide range of health-related physical activities.
- These skills enable individuals to make healthy, active choices that are both beneficial to and respectful of their whole self, others, and their environment.

## Check & Reflect …

- What does a physically literate person look like?

## The Plan for The Morning …


## POLL
## I Would Like to Learn More About …

Top Choice

A. Practical resources to support the development of physical literacy
B. Physical literacy's link to education curriculum
C. Physical literacy's link to the sport sector
D. Physical literacy's link to the health/ medical sector
E. Physical literacy research
F. Advocacy and physical literacy
G. Physical literacy and university programs
H. Physical literacy and professional development opportunities
I. Physical literacy and recognition awards

## POLL
## I Would Like to Learn More About …

2nd Choice

A. Practical resources to support the development of physical literacy
B. Physical literacy's link to education curriculum
C. Physical literacy's link to the sport sector
D. Physical literacy's link to the health/ medical sector
E. Physical literacy research
F. Advocacy and physical literacy
G. Physical literacy and university programs
H. Physical literacy and professional development opportunities
I. Physical literacy and recognition awards

## POLL
## I Would Like to Learn More About …

3rd Choice

A. Practical resources to support the development of physical literacy
B. Physical literacy's link to education curriculum
C. Physical literacy's link to the sport sector
D. Physical literacy's link to the health/ medical sector
E. Physical literacy research
F. Advocacy and physical literacy
G. Physical literacy and university programs
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BREAK

Physical literacy's link to education curriculum

## Education Poll

- Does the word "physical literacy" appear in any curriculum documents in your state?
  a) Yes
  b) No

## Challenges...

- Education under provincial jurisdiction
  - No national standardized curriculum
  - Qualified Physical Education Teachers
  - Daily Physical Education - "No time in the timetable"
- Accountability
- Physical Education and Physical Activity
- Facilities/Equipment
- Assessment

PHE Canada

## Provincial Curriculum Examples


2010/11

## Provincial Curriculum - Manitoba

- Throughout Kindergarten to Grade 10, PE/HE programming emphasizes acquisition and application of movement skills in a variety of physical activities for developing physical literacy.
  - *Overview of Gr 11 Active Healthy Lifestyles*

## Newfoundland & Labrador Program of Studies

**Intermediate Physical Education**

- The Intermediate Physical Education curriculum provides an understanding of the benefits of an active lifestyle and leads individuals to develop their personal wellness and personal movement competency and physical literacy that contribute to an active lifestyle throughout life.


## Physical Literacy for Life

A Model for Physical Education

## Physical literacy and university programs

## Linking LTAD to University Teacher Training

**The process of implementation:**

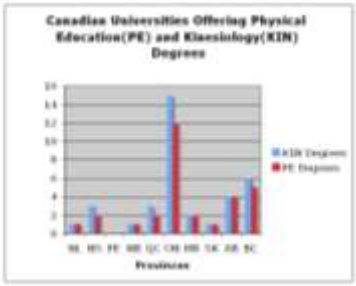
- It's complicated!
- University structures vary
- Professors have academic freedom with respect to course content

## The process of implementation: University structures vary

Faculties, schools or departments of:

- education
- physical education
- health, physical education, recreation, and dance
- physical education, health, and leisure studies
- physical education and fitness
- exercise and health science
- Sports studies/sport science and physical education
- exercise and sport science
- physical education and movement science
- movement sciences and leisure studies
- food, nutrition, and exercise science
- human movement studies

The process of implementation: University structures vary




## Pre-Forum Survey (2010)

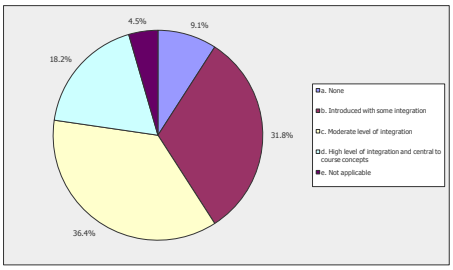
- N = 22 (21 different Universities)
- 9 Provinces

## University Poll

- To what degree is/was Physical Literacy integrated into your coursework?

a) None
b) Introduced with some integration
c) Moderate level of integration
d) High level of integration and central to core concepts
e) Not applicable

## To what degree is Physical Literacy currently integrated into your coursework?




## If Physical Literacy is currently integrated to some degree at your university, please explain how

- Curriculum
  - Readings
  - Lecture
  - Lab/ Practical
- Pedagogy
  - Teacher Education
  - Coaching Education
- Research
- Grad Program
- Community Based Programs

## Do you anticipate any challenges or barriers with bringing about change or integrating Physical Literacy

- Mostly No … but …
- Some resistance to LTAD
- Different theoretical perspectives
- Relevance to students outside of PETE and Coaching Ed programs
- Community Barriers
- Integrated Model – Broad Based PA vs High Performance Sport
- Physically Educated vs Physical Literacy
- How does LTAD fit with Provincial (H)PE Curriculum?

## The PE Forum (2010)

- N = 30
- Deans, Directors, Faculty Members from 24 Canadian Universities
- Discussed background of LTAD, PHE Canada's Physical Literacy Framework, Role and Challenges Facing Universities

## Outcomes

| Opportunities for Universities | Challenges for Universities |
|---|---|
| Research & Funding | Who funds this research and how it accessed? |
| Helping to provide evidence based decisions & policies | Death by Kinesiology |
| Role of Fundamental Movement Skills (FMS) | PE Specialists not until Secondary |
| Physical Activity for All | Teacher Education & Last 3 Stages of LTAD (training to train, compete, win) |
| Teaching Games for Understanding | How is "Athlete" Defined within LTAD |
| Eager and Energetic Students (Undergrad & Graduate) who want to have applied opportunities in the community | Intellectual Property |
| Curriculum Development (Coaching Education & Provincial PE Curriculum) | Research vs Scholarship |
| Intramural & University Sport | Active for Life – how is it defined |
| Canadian Based "Textbook" for Teacher/ Coach Educators | Mixed messages<br>Education (e.g., Literacy)<br>Health (e.g., Obesity)<br>Sport (e.g., Own the Podium)<br>Policy (e.g., Child tax credit) |
| Pedagogy | |

## Physical literacy's link to the sport sector

## Long Term Athlete Development (LTAD)


## Canada's Long Term Athlete Development Plan

**Active Start**
- Learning proper movement skills such as running, jumping, wheeling, twisting, kicking, throwing, catching, skating & skiing
- Some organized physical activity
- Exploration of risk and limits in safe environments
- Focus on fun and maximum participation

**FUNdamentals**
- Focus on the development of fundamental skills
- Integrated mental, cognitive and emotional development
- Elements of athletics: running, jumping, wheeling, and throwing
- Fitness activities (strength, flexibility, endurance)
- Introduce simple rules and ethics of sport

**Learning to Train**
- Major skill learning stage: all basic movement and sport skills should be learned
- Overall physical, mental, cognitive and emotional development
- Introduction to mental preparation
- Fitness development
- Introduce sport specific training + participation in other sports

## Fundamental Skill Categories

- Travelling Skills
- Balance Movement
- Manipulation
  - Sending
  - Receiving
  - Retaining


## Health Benefits of Developing Fundamental Skills

Lubans et al., 2010. Sports Medicine Journal 40(12)

- Purpose:
  - to examine the relationship between FMS con potential health benefits in children and youth
- Behavioural Benefits
  - FMS Competency related to:
    - Higher levels of physical activity
- Physiological Benefits
  - FMS Competency related to:
    - Lower BMI levels
    - Higher cardio-respiratory fitness levels
- Psychological Benefits
  - FMS Competency related to:
    - Higher levels of perceived physical competence
- Conclusion
  - "FMS development should be included in school- and community-based interventions"


Fundamental Movement Skills in Children and Adolescents

## Canada's Long Term Athlete Development Plan

**Training to Train**
- Major fitness development stage: endurance, strength and speed
- Overall physical, mental, cognitive and emotional development
- Develop fundamental mental skills
- Sport specific training

**Training to Compete**
- High Performance Athletes at Major National and International Events
- Sport, Event, Position Specific Training for Physical Conditioning, Tactical Preparation, Technical Preparation and Playing Skills under Competitive Conditions
- Overall physical, mental, cognitive, and emotional development
- Sport specific technical, tactical, and fitness on a regular basis

**Training to Win**
- High Performance Athletes Training to Win Major International Events
- Modeling all possible aspects of training and performance
- Frequent preventative breaks permitting recovery to avoid injury
- Sport specific technical, tactical, and fitness training on a daily & regular basis

## Canada's Long Term Athlete Development Plan

**Active for Life**
- Daily Physical Activity = minimum of 60 minutes moderate daily physical activity, or 30 minutes of intense activity for adults
- Foundation of being physically literate
- Transfer from one Sport to Another
- Move from competitive sport to recreational sport
- Lifelong Participation
- Sport Careers Or Volunteering

www.activeforlife.ca

## Sport Poll

- Which of the following principles do you think the concept of physical literacy could best help address in sport?

a) Variety is the key for children and youth
b) Specialization takes place later on (adolescence)
c) Development of the "whole" athlete
d) Developmental age is more important than chronological age
e) The "system" is responsible for the overall development at various levels
f) Not just about developing ELITE athletes

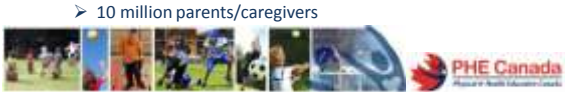
## Practical resources to support the development of physical literacy

## Physical & Health Education Canada

- Formerly CAHPERD
- Founded in 1933, PHE Canada is a national advocacy leader for the healthy growth and development of Canadian children.
- PHE Canada is the national voice for Physical and Health Education, Intramurals and Dance Education in Canada and is the leader in the call to physically educate all Canadian children and youth.


## Our Reach….

- 40, 000 website hits/month
- 2.5 million people in Print media coverage
- 2,500 members
- 150 universities and colleges
- 12,170 elementary and secondary schools
- 450 schools boards
- 292,119 teachers
- 4.88 million Canadian children
- 10 million parents/caregivers

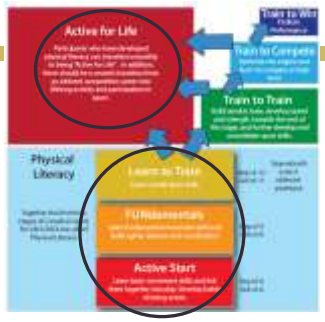



## LTAD & Education (from www.cs4l.ca)

- highlights the need for quality daily physical education.
- highlights the need to improve training for teachers in the elementary schools to understand the concept of physical literacy and LTAD and correctly model and teach fundamental movement skills and sports skills.
- encourages new courses at colleges and universities to ensure that educators and coaches are familiar with physical literacy and LTAD and can apply these when teaching and coaching.
- encourages the establishment of sport academies and Sport-Étude programs enriching the training environment during the Train to Train phase.

## PHE Canada & Physical Literacy

How does PHE Canada support the implementation of Physical Literacy?




## www.phecanada.ca



## Podcast Example

## Educating for Physical Literacy Checklist

**A: Planning** (Organizing for Student Learning)

- ☐ Am I using a variety of appropriate teaching methods?
- ☐ Am I implementing suitable progressions?
- ☐ Am I applying relevant concepts to the lesson content?
- ☐ Am I connecting learning to the past, present and future?
- ☐ Am I being developmentally appropriate and minimizing public comparisons?
- ☐ Am I articulating clear and appropriate learning objectives?

**B: Environment** (Creating an Environment for Student Learning)

- ☐ Am I creating a fair, respectful and holistically safe climate?
- ☐ Am I exhibiting rapport and a caring disposition?
- ☐ Am I appropriately enthusiastic, participatory and energetic?
- ☐ Am I fostering authentic and optimally challenging learning experiences?
- ☐ Am I maintaining consistent standards of classroom behaviour?
- ☐ Am I stimulating maximum participation and academic learning time for all?

**C: Instruction** (Teaching Strategies and Skills for Student Learning)

- ☐ Am I fostering students' motivation to participate in physical activity in or out of school?
- ☐ Am I managing equipment, space, transitions and groups?
- ☐ Am I maintaining optimal pace and making necessary adaptations?
- ☐ Am I utilizing technology and non-verbal aids?
- ☐ Am I monitoring learning and providing appropriate feedback?
- ☐ Do I engage in professional growth and development?

**D: Professionalism** (Personal Qualities for Motivation and Instruction)

- ☐ Am I clear (e.g., critical cues, avoiding slang and vulgarity)?
- ☐ Do I have the necessary requisite knowledge and ability?
- ☐ Do I appear self-efficacious, poised and confident?
- ☐ Do I appear professional (e.g., attire, hygiene, promptness)?
- ☐ Am I demonstrating mature self-reflections of my teaching?
- ☐ Am I applying valid and reliable assessments for learning?

Physical Literacy Checklist

Video Example

## Download the Podcasts

- On iTunes, search Physical Literacy for Educators
- Download the podcasts and sync to your handheld device

iTunes U

http://deimos.apple.com/WebObjects/Core.woa/Browse/brocku.ca.2056144157

## Physical Literacy Background Info


## FMS – The Series…

The **Fundamental Movement Skills** (FMS) resources are designed to support generalists teachers, physical education specialists, and coaches, as well as others tasked with teaching motor skill development.

Andrea

## FMS – Elementary Resources

1. Active Start & FUNdamentals Stages
2. Active Start & FUNdamentals Stages For Children with Physical Disabilities
3. Active Start & FUNdamentals Stages For Children with Developmental and/or Behavioural Disabilities
4. Learning to Train Stage


## Inclusion

Foster an environment that encourages **success** for **all participants.**

1. Autonomy
   - Provide students with choice i.e. various equipment, levels of difficulty
2. Exploration
   - Prompt students through guided discovery problem solving
3. Self – Competition
   - Setting and achieving personal goals instead of peer competition

## FMS – Secondary Resources

1. Beyond the Fundamentals: A Games Approach
2. Alternative Activities and Pursuits

## FMS – Active Start & FUNdamentals Stages

- Designed as a resource for teachers of children in Kindergarten to Grade 3 (5-9 years old), and for coaches of young athletes who are in the Active Start and FUNdamentals stages.
- Addresses the three major skill categories within the LTAD Model: stability skills, object manipulation skills, and locomotor skills.


## FMS – Active Start & FUNdamentals Stages

- This resource includes:
  - A description and characteristics of the mature movement pattern for the 12 fundamental motor skills
  - Specific tips to help the teacher/coach develop these motor skills
  - Activities that utilize the motor skills
  - Checklist for assessment of the motor skills

## FMS Carabineer Cards


CATCH

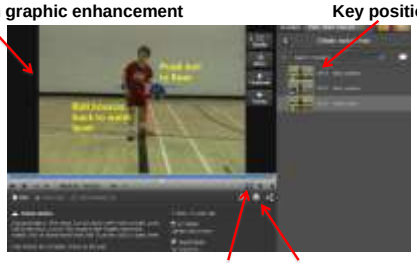

CATCH
TEACHING TIPS
• Keep your eyes on the object
• Get your body behind the object
• Hands are out and elbows are bent
• If the object is below the waist, keep your little fingers close together
• If the object is above the waist, keep your thumbs close together
CHECKLIST FOR STUDENT ASSESSMENT
• Aligns body
• Moves the hands to meet the object
• Elbows are bent and hands are out
• Little fingers together for below-waist catch
• Thumbs together for above-waist catch


Exploration Activities
Skills: Catching
Students: Pairs
Equipment: One medium-sized ball per student, other balls of different sizes and shapes
Area: Gymnasium
ACTIVITY
Ask the students to find a partner and try to ...
• Catch a rolling ball.
• Catch a bounce pass.
• Catch while on your knees.
• Catch the ball while jumping.
• Catch the ball with straight arms.
• Catch a ball that is high in the air.
• Catch a fast throw.
• Catch a smaller ball, a bigger ball.
• Catch a different-shaped ball.
CATCH Warm-up activity


## Dartfish TV & Mediabooks

Video with graphic enhancement

Key positions



Full screen mode

Print

## Dartfish TV & Mediabooks

**Three Stages:**
- Early
- Intermediate
- Mature

**Two Views:**
- Front
- Side

## Practical Examples from Resource

Dartfish Video Example – Catch

## Catching – Early Development

**Preparation**

- Characteristics
  - Eyes on thrower; facing oncoming ball; arms at rest at side of body or slightly in front
- Cue Words for Children
  - Ready


## Catching – Early Development

- Characteristics
  - Arms held out toward the direction of the incoming object; feet pointing towards the object; little adjustment to the flight of the object; knees remain extended
- Cue Words for Children
  - Move to the ball

## Catching – Early Development

- Characteristics
  - Elbows remained flexed throughout; palms are open, facing upward and inward


## Catching – Early Development

- Characteristics
  - Negative response to the object - eyes close as object arrives or the head turns to the side to avoid the object
- Cue words for children
  - Keep eyes on ball


## Catching – Early Development

- Characteristics
  - Attempt to catch object with hands without bringing object down and towards the body; late catching action (arm action may be initiated before ball contact); ball bounces off fingers
- Cue Words for Children
  - Bring ball to chest; soft hands

## Catching - Mature

**Preparation**

- Characteristics
  - Eyes on object to catch
- Cue Words for Children
  - Look


## Catching - Mature

**Preparation**

- Characteristics
  - Align body with incoming object
- Cue Words for Children
  - Get behind


## Catching - Mature

- Characteristics
  - Move hands to meet object
- Cue Words for Children
  - Soft hands

## Catching - Mature

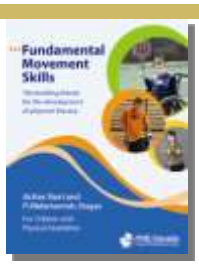
- Characteristics
  - Hands adjust to flight and size of object; if object is above the waist the thumbs are close together (if object is below the waist little fingers are close together).
- Cue Words for Children
  - Thumbs together


## Catching - Mature

- Characteristics
  - Elbows are bent and bend as object is brought down and toward the body
- Cue Words for Children
  - Bring to body


## FMS – Active Start & FUNdamentals Stages For Children with Physical Disabilities

- This resource includes theory, tips and activities to assist in teaching motor skills with specific adaptations for children with mobility aids, mobility limitations, visual impairments, hearing impairments, and in wheelchairs.
- Address the three major skills: stability skills, object manipulation skills, and locomotor skills.



## FMS – Active Start & FUNdamentals Stages For Children with Physical Disabilities

- This resource provides
  - A description and characteristics of the mature movement patterns for the 12 fundamental motor skills;
  - General inclusion tips for maximum participation and development of the student.
  - A variety of adaptations for each of the motor skills.
  - Activities that utilize the motor skills and allow for modification based on needs.

## Practical Examples from Resource

**Trick Catch**

- Skills: Catching and throwing in movement transition
- Children: Pairs
- Equipment: Balls of various sizes; one per child
- Area: Children spread out in the gymnasium
- Activity: One child begins with a simple toss and catch and the partner attempts to replicate the toss and catch. The first partner then tosses the ball and does a trick (e.g., a half turn) before catching the ball; the partner tries to replicate the trick.
- Specific Modifications: For children with mobility limitations in their upper body, allow the child to wear a Velcro glove and use a Velcro ball to facilitate catching.

**Dartfish Video Example**

## Catch – Visual Impairment

- Characteristics
  - Arms out in front, palms cupped; elbows flexed
- Cue Words for Children
  - Hands ready

## Catch – Visual Impairment

- Characteristics
  - Cradle the ball with both hands or trap the ball in the midsection
- Cue Words for Children
  - Absorb the ball

## Catch – Visual Impairment

- Tips
  - Use larger balls that are brightly coloured for children with partial vision.
  - Soft or deflated balls are also useful in facilitating catching.
  - Try having the child catch a ball following a bounce pass because the bounce makes a noise and gives the child an auditory cue about timing the ball's arrival.
  - Balls that make sounds can be powerful tool for children with visual impairments

## FMS – Active Start & FUNdamentals Stages For Children with Developmental and/or Behavioural Disabilities

- Includes theory, tips and activities to assist in teaching motor skills with specific adaptations for children with Autism Spectrum Disorders, Down Syndrome, Attention Deficit Hyperactivity Disorder, Developmental Coordination Disorder, and Intellectual Disabilities.
- LTAD Model: stability skills, object manipulation skills, and locomotor skills.

## FMS – Active Start & FUNdamentals Stages For Children with Developmental and/or Behavioural Disabilities

- This resource provides:
  - A description and characteristics of the mature movement patterns for the 12 fundamental motor skills
  - A continuum of prompts (physical, visual, verbal, none) for each skill
  - Behavioural management and pedagogical considerations
  - Inclusion tips for maximum participation and development of the student
  - Specific adaptations for each of the motor skills
  - Activities that utilize the motor skills and allow for modification

## Practical Examples from Resource

**Hot Potato**

- Skills: Tossing, catching
- Children: Groups of four
- Equipment: One beanbag per group
- Area: Gymnasium
- Activity: One child stands in the middle with the beanbag, while the others spread out in a large circle. The child in the middle tosses the beanbag to one of the children in the circle. This child catches and gets rid of the beanbag as quickly as possible to the centre child. This pattern continues until everyone has caught the hot potato, and then the middle person changes. Repeat the pattern.

**Dartfish Video Example**

## Catch

Attention Deficit Hyperactivity Disorder (ADHD)

- Characteristics
  - Arms at rest at side of body or slightly in front
- Cue Words for Children
  - Ready
- Behaviour Management and Pedagogical Considerations
  - Use structure and sameness for consistency.
  - Capitalize on the child's preferences for motivation (e.g., certain colours, textured balls).
  - Maintain good "timing" - boredom may result in off-task behaviours,

## Catch

Attention Deficit Hyperactivity Disorder (ADHD)

- Characteristics
  - Eyes on object to catch
- Cue Words for Children
  - Look

## Catch

Attention Deficit Hyperactivity Disorder (ADHD)

- Characteristics
  - Body aligned with incoming object
- Cue Words for Children
  - Move your body to where the ball is

## Catch

Attention Deficit Hyperactivity Disorder (ADHD)

- Characteristics
  - Move hands to meet object; elbows bent;
- Cue Words for Children
  - Bend your elbows

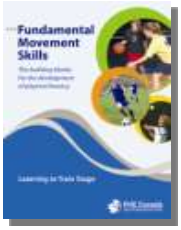
## Catch

Attention Deficit Hyperactivity Disorder (ADHD)

- Characteristics:
  - Object is brought down and toward the body
- Cue Words for Children
  - Bring to body
- General Inclusion Tips
  - When pairing a child with a disability with a classmate for catching exercises, ensure that the classmate is mature and responsible enough to provide skill-appropriate throws for the child with the disability to catch.

## FMS – Learning to Train Stage

- Designed for teachers and coaches of youth in Grade 4-8 (8-14 years old) who are in the Learning to Train stage




## FMS – Learning to Train Stage

- This resource includes:
  - Theory, teaching tips, and activities to assist in teaching dynamic motor skills and sport specific skills
  - Introduction of 24 mature movement patterns
  - An assessment checklist for the various motor and sport skills
  - Elaborations and combinations of stability skills, manipulation skills, and locomotor skills;
  - Transitions to more sport-specific qualities including new fitness-related concepts like speed, strength, stamina, coordination, balance, and agility;
  - Development of integrating cognitive, mental, emotional, and social skills
  - Basic training and self-regulatory principles like warm-up, progression, and anxiety management.

## Practical Examples from Resource

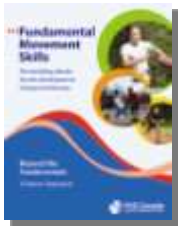
**Hoopster**

- Purpose: Cover, Pass, Catch (or Trap), and Dodge
- Participants: In teams of 3-6 participants playing another team.
- Equipment: Ball or implement for passing, 2 large hula-hoops, and 4 cones per group to mark the square.
- Area: Large field space with ample space for each game (about 15m x 7m).
- Description: One game consists of two teams with four players on each. One player (the hoopster) from each team stands in a hoop (or in the end zone). Regularly switch hoopsters. Players advance the ball by passing to each other but must pass within five seconds and may only take a maximum of two steps with the ball. The player with the ball tries to pass to another teammate with the ultimate goal of earning a point by passing to the hoopster standing in the hoop or end zone.

**Video Example - Fielding**

## FMS – Beyond the Fundamentals
## A Games Approach

- Involves the development of more specialized and contextually-situated variations of fundamental movement skills that are transferable to several sports
- A tactical games approach with the categories: skill development and fitness games, striking and fielding games, net and wall games, and territorial games
- Uses Teaching Games for Understanding (TGFU) approach




## Practical Example from Resource

**Home Run**

- Players: Teams of four to six
- Space: Gymnasium or field
- Formation: Two teams sharing a four-base diamond
- Equipment: Bases, appropriate bats and balls
- Activity level: Medium
- Tactical problems: Defence: To defend space, field the ball and pass Offence: To throw/strike the ball into open space and run the bases
- Skills: Running, accelerating, working on angle of approach and foot placement on each base
- Primary rule: The outside foot must touch each base
- Secondary rules: None

**DVD Video Example**

## Resource Poll

- What type of resources do you think practitioners would benefit from the most?

a) Lesson Plans
b) Video Demonstrations (podcasts, DVD)
c) Professional development
d) Assessment Tools
e) Short Activity Cards
f) Environmental Scans/ Checklists
g) Advocacy Tools

## Advocacy/ Partnerships and physical literacy

## PHE Canada Partnership Opportunities

**Organizations across Canada have the opportunity to benefit by leveraging PHE Canada's:**

- Access to every school and school board in Canada
- Knowledge of provincial curricula
- Expert advice from the educational and sporting fields
- Educational seal of approval

## Canada's Long Term Athlete Development Plan
(Canadian Sport for Life)


## EXAMPLE OF COLLABORATION

SCHOOL PROGRAM
PROGRAMME SCOLAIRE



## At My Best®

***At My Best*® is a Free comprehensive curriculum-supported toolkit for children in Grades Kindergarten to Grade 3 to promote and develop children's overall wellness.**

- **Physical activity**
- **Healthy eating**
- **Emotional well being**

## Advocacy/ Partnership Poll

- What "sector" should be prioritized to learn more about physical literacy?
  a) Education
  b) Government
  c) Sport
  d) Health
  e) Recreation
  f) Corporate
  g) Other

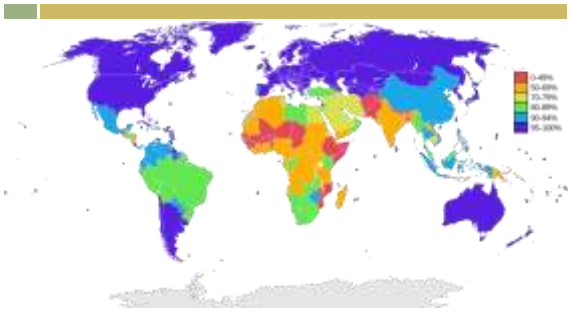
## Physical literacy's link to the health/ medical sector

## Health Poll

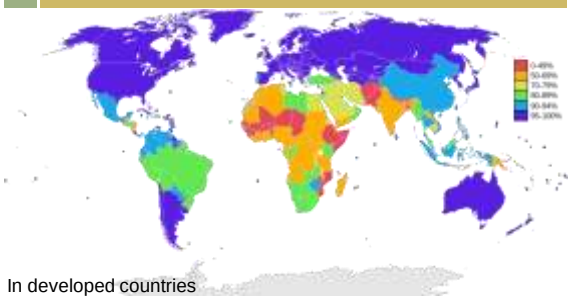
- What is the top health issue facing American children and youth today?
  a) Heart Disease
  b) Diabetes
  c) Hypertension
  d) Mental Health
  e) Osteoporosis
  f) Cancer
  g) Infectious Disease

The function of protecting and developing health must rank even above that of restoring it when impaired
*Hippocrates*

## World Literacy Rates



## World PHYSICAL Literacy Rates – is it the inverse of literacy?

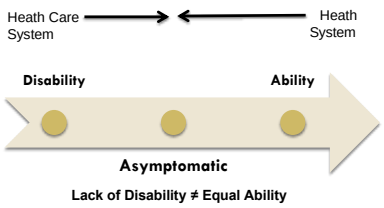


In developed countries
Lifestyles are an expression of the attitudes and beliefs of a society.

## BORN TO MOVE

- Better brain
- Better muscle
- Better bone
- Better heart
- Better body
- Better social life
- Low burden on health care and society

## WHO Disability Model

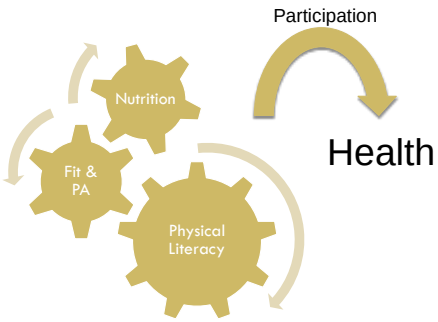
## Bounds of An Ability Model

Drives Participation

| | | | |
|---|---|---|---|
| **Body Structure** | Impairment | ⟺ | Optimal |
| **Body Function** | Impairment | ⟺ | Optimal |
| **Physical Literacy** | Illiterate | ⟺ | Literate |
| **Activity** | Limitation | ⟺ | Unlimited |
| *Performance* | Poor | | Optimal |
| *Capacity* | Low | | High |

Performance < capacity = barrier

| | | | |
|---|---|---|---|
| **Nutrition** | Malnutrition | ⟺ | Optimal |
| **Participation** | Restriction | ⟺ | Unrestricted |




## Towards An Ability Model

"Inverted" WHO ICF + Physical Literacy & Nutrition = Ability Model

**Existing Curricular Frameworks for Ability Progression**

School

Recreation

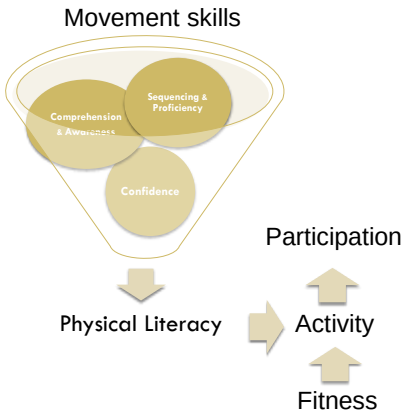
Sport

## Physical literacy research

## Research Poll

- Which of the following variables do you feel is most important to measure when conducting research on physical literacy?

a) Health Related Fitness
b) Skill Proficiency
c) Activity Levels
d) Nutrition
e) Life Skills
f) Health Knowledge



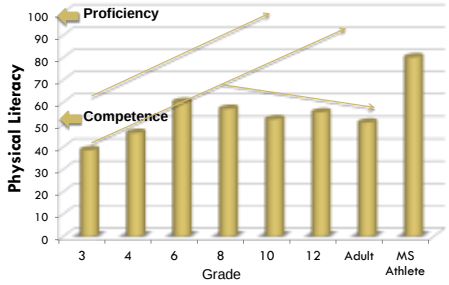
## Do we mean what we say?
## PL & Environments

- Land
  - Indoor
  - Outdoor
- Water
  - On top
  - In
  - Under
- Ice
- Snow
- Air

Non-human transport

- Animals
- Mechanical

## Physical Literacy
## Progression & Extinction




PLAY$_{FUNDAMENTALS,}$ 25 skill assessment, n>60 per category, N=512

## Skill Assessment

- Criterion Based
  - Deficiency based – itemized – ceiling effect
- Model based
  - Proficiency based - subjective - trained

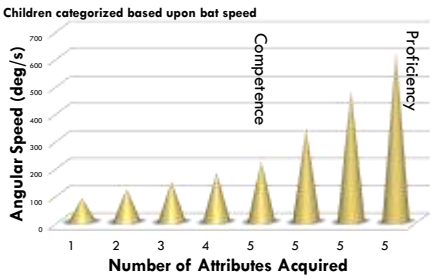
Disability → Criterion → Model → Ability

## Deficit Tools ⇄ Ability Tools

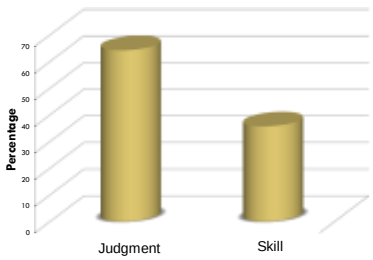
- Test of Gross Motor Development (TGMD-2)
- Bruininsk-Oseretsky Test of Motor Proficiency (BOTMP)
- Movement Assessment Battery for Children (M-ABC)
- Functional Movement Skills (FMS)

**We do not identify ability by the lack of deficit!**

## Competence or Proficiency

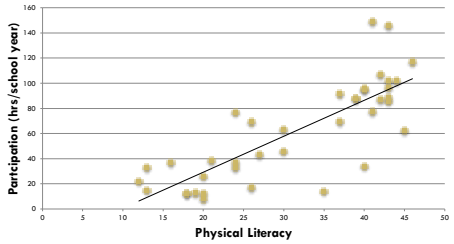



## Why children don't participate. Is competence the gate keeper?




N=123, Grade 6, audience response system

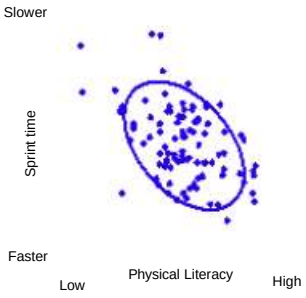
## PL and Active Participation




PLAY$_{FUNDAMENTALS}$, n=39, Grade 6

## Physical Literacy and Running Performance

Running performance was inversely related to PL.
(r=-0.44, p<0.01)




## Physical Literacy in Youth

| | | | Physical Literacy | | ΔPL |
|---|---|---|---|---|---|
| **Grade** | 3 | 4 | 39.2 | 46.4 | **7.2** |
| **Sex** | female | male | 43.5 | 45.6 | **2.1** |
| **GR3** | female | male | 38.8 | 39.6 | 0.7 |
| **GR4** | female | male | 45.2 | 47.2 | **1.9** |
| **Program** | PE | PE+RJT | 38.6 | 50.8 | **12.2** |
| **Proficiency** | GR4 | Spec PE11 | 46.4 | 81.5 | **35.1** |

## Perception of Competence

| | Hi PL (n=44) | | Lo PL (n=57) |
|---|---|---|---|
| ***Physical Self-Description Questionnaire (PSDQ) (maximum of 6)*** | | | |
| Health | 4.93 (0.68) | **>NS** | 4.60 (1.03) |
| Coordination | 4.82 (0.81) | **>**** | 4.08 (0.94) |
| Physical activity | 5.37 (0.69) | **>**** | 4.14 (1.32) |
| Body fat | 5.37 (0.83) | **>**** | 4.32 (1.53) |
| Sports competence | 4.93 (0.80) | **>**** | 3.73 (1.33) |
| GP self-concept | 5.24 (0.71) | **>**** | 4.10 (1.20) |
| Appearance | 4.83 (0.78) | **>*** | 4.28 (0.94) |
| Strength | 4.66 (0.99) | **>**** | 3.74 (1.13) |
| Flexibility | 4.21 (1.13) | **>NS** | 3.81 (1.20) |
| Endurance/fitness | 4.89 (0.98) | **>**** | 3.57 (1.27) |
| Global self-esteem | 5.44 (0.46) | **>**** | 4.87 (0.81) |

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## Physical literacy and professional development opportunities

**Physical Literacy**
**Professional Development**

### Physical Literacy Through Fundamental Movements Workshops

Interactive workshops directed at educators and coaches (but appeal to a range of participants) on creating positive learning environments in the development of physical literacy. Includes interactive activities, assessment ideas, teachable moments, support tools that are available.

Trained workshops leaders across Canada.
Close to 100 workshops and
more than 1200 participants in the first year.

***Coming soon – online webinars and workshops.***

## Professional Development Poll

- What audience at the moment do you feel would most benefit from a workshop on physical literacy?

a) Teachers
b) Coaches
c) Administrators (any sector)
d) Parents
e) Health Workers
f) Community Recreation Leaders
g) Post-Secondary Teachers & Researchers
h) Government
i) Other?

## Physical literacy and recognition awards

## Awards Poll

- Incentive programs are an effective way to motivate practitioners and participants to participate?

a) Yes
b) No
c) Maybe – It Depends

# PASSPORT TO LIFE

February 3rd, 2012

## Aim

•Aims to support the development and advancement of physical literacy among children and youth, and it involves the creation of resources and tools to assist teachers (and other intermediaries) in assessing levels of physical literacy, while working with those children to set individualized goals on enhancing physical literacy levels.

•Additionally, this program will aim to build knowledge and awareness of the importance and practice of regular participation in sport and physical activity.

## Goals

The overall goals for the physical literacy award are to:

- Raise awareness
- Assist children and youth in their progress toward Physical literacy

These goals will be accomplished by:

- Creating resources and tools to assist teachers (primarily through schools – secondary delivery through other intermediaries) in assessing students' physical literacy levels, then work with those students to set individualized goals to enhance physical literacy levels.
- Building knowledge and awareness (among children and youth) of the importance and practice of regular participation in sport and physical activity.

## Objectives

**Children**

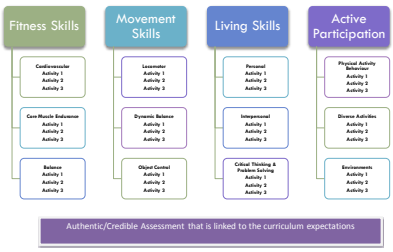
- To teach children about what it means and why it is important to be physically literate and make healthy lifestyle choices.
- To raise children's awareness of their own fitness level, how to interpret their fitness scores, and what they can do to stay or become more physically literate.
- To equip and motivate children to be conscious of, monitor and maximize their healthy lifestyle choices, physical activity and sports that they participate in their daily lives.

**Providers**

- To gain an understanding of the physical literacy, fitness, physical activity levels and healthy living practices of school age children across Canada.
- To gain an understanding of how the healthy living practices, physical literacy, fitness and physical activity levels of school age children vary within and among jurisdictions across Canada.
- To assist children in understanding their levels of physical literacy and healthy living practices, and to assist them in setting goals and working towards goal achievement.

## Framework

- Inclusive
- Adaptable
- Individualized
- Process Oriented
- Safe
- Complimentary
- Comprehensive
- Provider Friendly
- Facilitate knowledge and understanding
- Aligned
- Formative and Summative
- Life long
- Ongoing
- Provide diversity of activity
- Authentic and balanced
- Assessment
- Feasible



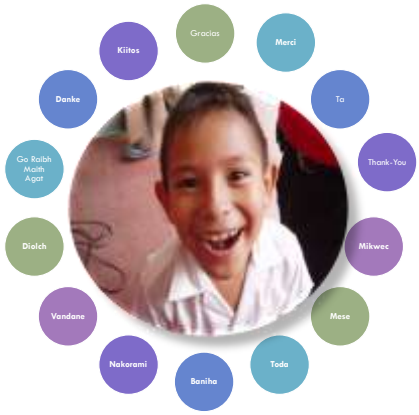

## Process

## Online Interactive Web Tools

- General welcome page/ overview page
- May include sub pages directed at different audiences (i.e. teachers, school boards, parents, media).
- Member login and password required by each teacher.
- Host lessons/instructions of the 12 skills/activities for the pilot and 48 activities/skills for the eventual launch of the Grade 4-5 grade range.
- Video examples
- Sample resources/lesson plans –to practice/strengthen skills assessed in the program.


## Data Entry

•Provides 2 data entry points in pilot test (initial and final) and 3 data entry points for eventual launch (initial, mid-way, and final).
• Results of each student's skills/activities are uploaded and saved within each member's login site.
•Provide a summary of each student's results at each data entry point and complete summary for total results (therefore able to demonstrate improvements).
•Provide a summary of the class results .
•Provide a summary of the school results .
•Summary of student results in order to determine award .


## Credits

PHE Canada EPS Canada

Canada
Sport Canada

the centre
for healthy development through sport and physical activity
Brock University