PHYSICAL LITERACY
LITTÉRATIE PHYSIQUE
Grade 10, 11, 12

College Degree
Ecole nationale de cirque
PHYSICAL LITERACY
1885 in Germany, Karl Benz invented the first internal combustion engine powered car, the “Motorwagen”.

1947 at Bell Laboratories in New Jersey, William Shockley, John Bardeen and Walter Brattain invented the transistor.

A Mother: Vicky aged eight in 1979 was allowed to walk to the swimming pool alone half a mile away.

B Son: Ed, now eight is only allowed to walk on his own to the end of his street (300 yards).

C Grandfather: Jack aged eight in 1950. Able to walk about one mile on his own to the woods.

D Great-grandfather: George aged eight in 1919. Allowed to walk six miles to go fishing.

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88 years, 9.4 km reduction in free range
What percentage of people are active enough? % meeting minimum age guidelines. US Accelerometer data. 2008

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Canada is 7 years behind USA
Sweden is behind Canada.
Physical inactivity

Pulmonary diseases

Psychological disorders

Musculoskeletal disorders

Weight management

Cancer

Pulmonary diseases

Cardiovascular diseases

Congestive heart failure

Hypertension

Obesity

Diabetes

Overweight

Breast

Colon

Emphysema

Bronchitis

Asthma

Pain

Mood

Depression

Cognitive function

Body image

Atherosclerosis

Osteoporosis

Osteoarthritis

Congenital heart disease

Cardiovascular diseases

Anxiety

Depression

Cognitive function
Obesity and Olympic Performance

Canada: a Spectator Society
Northern Ontario school set to ban cartwheels

Postmedia Network
Tuesday, September 19, 2017 8:02:34 EDT AM
MOVEMENT SUPPRESSED CULTURE
BUBBLE WRAPPED KIDS
Free Play

A foundation of physical literacy

- Develops spatial awareness
- Allows development of sequencing of movements
- Develops movement variation for environmental variation
- Establishes constraints of movements
- Develops new movement vocabulary
- Develops competence in movement
- Develops confidence
- Enhances ability to spot hazards
- Enhances executive functioning
- Develops social skills
- Fantasy aids the imagination (innovation and creativity)
- Fuels motivation
Neurons that fire together, WIRE together.
Bubble wrapped kids make bubble wrapped brains!
THE PROBLEM
RISK ADVERSE
SOCIAL CONNECTION IS VIRTUAL
FEAR OF FAILURE
FEAR OF JUDGEMENT
NEED PERMISSION TO PLAY
LOST CONTACT WITH NATURE
CREATIVITY IS SUPPRESSED
SOCIALLY INHIBITED
SPECTATORS
SO LET’s UNWRAP our BUBBLE WRAPPED KIDS
THE IMPACT OF A MOVEMENT SUPPRESSED CULTURE
Winnipeg, March 17 & 18, 2017

109 and 130 hip & wrist fractures due to slips on ice.
Winnipeg, March 8, 2017

37 Adverse Cardiac Events – 14 Deaths
>125 back injuries
10 Percent of Canadians have Type 2 Diabetes – 2013
3.5 million Canadians!
30 Percent of Canadians have Type 2 Diabetes – 2063
19.1 million Canadians!
SPORT, RECREATION AND EDUCATION are the NEW HEALTH

IT IS ABOUT EXCELLENCE!
EXCELLENCE IN PARTICIPATION
& EXCELLENCE ON THE WORLD STAGE
THE SOLUTION?
Physical Literacy is crucial to the acquisition, by every child, youth, and adult, of essential life skills which is an indispensable means for active participation in the world.
Physically Literate People Live in Physical Literacy Enriched Communities.
The Elements of Physical Literacy

The definition of physical literacy includes four essential and interconnected elements whose relative importance may change throughout life.

Definition of 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.*

International Physical Literacy Association, May, 2014

Core Principles

Five core principles underlie the definition in this Statement.

Motivation and confidence (Affective)

Motivation and confidence refers to an individual’s enthusiasm for, enjoyment of, and self-assurance in adopting physical activity as an integral part of life.

Physical competence (Physical)

Physical competence refers to an individual’s ability to develop movement skills and patterns, and the capacity to experience a variety of movement intensities and durations. Enhanced physical competence enables an individual to participate in a wide range of physical activities and settings.

Knowledge and understanding (Cognitive)

Knowledge and understanding includes the ability to identify and express the essential qualities that influence movement, understand the health benefits of an active lifestyle, and appreciate appropriate safety features associated with physical activity in a variety of settings and physical environments.

Engagement in physical activities for life (Behavioural)

Engagement in physical activities for life refers to an individual taking personal responsibility for physical literacy by freely choosing to be active on a regular basis. This involves prioritizing and sustaining involvement in a range of meaningful and personally challenging activities, as an integral part of one’s lifestyle.

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.
Literacy Model
“Skill Based Literacies”

Literacy
• ABC
• Words
• Sentences

Numeracy
• 123
• Fractions
• Equations

Music
• Do-re-mi
• Scale
• Score

Physical Literacy
• Movements skills
• Sequences
• Tasks

CANADIAN CHARTER OF RIGHTS AND FREEDOMS

Justin Bieber
BELIEVE

Swimming in space
Competence in Movement Skills are the building blocks of Physical Literacy

- Highly limited Land Based Movement Vocabulary
- Competency in Basic Land Based Movement Skills (PLAY Fun)
- Competency in Multi-environment Movement Skills
PE Curricular Motor Competence Expectations

Movement Skill/Task
COMPETENT
CONFIDENT
MOTIVATED
& HAPPY MOVING
The Physical Literacy Cycle

Physical Competence

Movement Competence

Participation

Behavioral

Confidence

Psychological

Motivation & Enjoyment
“No matter how many sidewalks we build, no matter how many parks we construct, no matter how much we urge people to get involved with physical activity, they simply won’t do it unless they have the ability, confidence, and desire to be physically active. That’s where physical literacy comes in.”

American Surgeon General, Vivek Murthy
(Murthy, June 27, 2015)
Movement Vocabulary

Comprehension
Confidence
Motivation

Awareness
Selection
Sequencing
Modification

Motor
Competence
Symmetry

Environments
(Physical and
Social)

Physical Literacy

Free Play

Movement Creativity

Participation
Activity
Fitness

Durability
PHYSICAL LITERACY

Physical

Motor Competence
Movement Vocabulary
Environments

Psychological

Confidence
Motivation
Enjoyment

Behavioral

Active Participation

Fitness

Physical, Mental, & Social
Figure 1 Physical Literacy Framework with Correlations
All correlations significant at P<0.05. *Significant for Grade 8 only. MC=motor competence, MV=movement vocabulary, PS=PLAY-Self, NS=not significant for movement vocabulary.
Critical Considerations for Physical Literacy Policy in Public Health, Recreation, Sport, and Education Agencies

Dean Dudley, John Cairney, Nalda Wainwright, Dean Kriellaars & Drew Mitchell
Physical Literacy Pillars
(Competencies, Contexts, Journey, Power)

Effective Physical Literacy Policy for
Public Health, Recreation, Sport &
Education Sectors

Movement Competencies
(Pillar 1)

Movement Contexts
(Pillar 2)

The Journey of Movement
(Pillar 3)

Power Structures of
Movement
(Pillar 4)

New Foundation Definition
Physical Literacy – “The ability to move with confidence and competence using all the physical assets one has at their disposal at any given point in time across varying contexts. Physical Literacy involves a continuum of learning by enabling individuals to achieve their goals, to develop their knowledge, movement and potential, and to participate fully in their community and wider society.” (Adapted from UNESCO Literacy Definition, 2004)
The value of physical education (or physical literacy) has proven its worth to the extent that recognition, and often requirement, is exacted for graduation from grammar and high schools.

Games, climbing, walking, dancing and manual occupations such as carpentry, building and so on, all conduce to physical literacy: that is to a disciplined command over the body.

God gave the child the instinct to play; man must provide the playground. Public schools are responsible for physical literacy as well as mental literacy.

The public schools are as much responsible for physical literacy as for mental literacy. Physical illiteracy is on an decrease in this country. In the future it will be increasingly more difficult for boys and girls to live physically well and to keep fit.

We must prepare for physical literacy as well as for mental literacy. A physically fit America becomes more necessary with modern mechanical inventions.
Learning to move is just as important as learning to read and write.
Quality Physical Literacy Experiences

- Increase awareness (kinesthetic and spatial)
- Increase competence in movement skills
- Increase competence in sequence movement skills
- Increase competence in modifying skills for circumstances
- Increase the repertoire of movement skills
- Decreased asymmetry from right to left
- Increase competence in decision making in movement skill selection
- Increase confidence
- Increase motivation
- Decrease social inhibition
- Increase comprehension of movement terms
- Lead to increased participation leading to increased fitness and performance
- Lead to increased participation leading to improved mental and physical health

- PLUS if you deliver PL you can achieve fitness
ACTIVE PARTICIPATION

MEANINFLY PARTICIPATE

SAFETY

THRIVE
Physical literacy is a journey not a destination. Let’s equip our children for the journey!
Confidence
Motivation
Participation
Competence
Successes
Failures
Talent!

Free Play
Participation
Creativity
Ownership
Motivation
Older adult

Competency Progression

Awareness & First Contact

Youth

Fundamentals

Awareness & First Contact
Durability by DESIGN

“The ability to endure”
--- Ability to Participate ---

• Endure training, endure in sport, and life

• Includes both MENTAL and PHYSICAL characteristics

• Is a positively framed concept

• Is an inclusive term
  – Fitness & exercise
  – Physical literacy
  – Motor control
  – Biomechanics
  – Nutrition
  – Sleep, rest, recovery and regeneration
  – Psychological
  – Injury prevention
  – Awareness and hazard detection
  – etc
Physical inactivity and bone.
Performance Enhancement

PL ENRICHED CORE
Movement Preparation
CORE PROGRESSIONS

Level I
- **Front Plank:** Start position: On hands and knees. Move forward until the body is straight from head to toes. Continue on knees, then progress to feet.
- **Superman (Elbow to Knee):** Start position: Assume the Superman position, with knees on the ground and arms extended. Lower one knee to the ground while keeping the body straight.
- **Reverse Push-Up:** Start position: On hands and knees, arms outstretched. Push up, then lower the body to the ground.
- **Side Plank:** Start position: On side, with hips stacked. Keep the body straight.
- **Roll-Up:** Start position: Lying on back, arms extended. Roll up, then lower to the ground.

Level II
- **Side Plank:** Start position: On side, with hips stacked. Keep the body straight.
- **Superman (Elbow to Knee):** Start position: Assume the Superman position, with knees on the ground and arms extended. Lower one knee to the ground while keeping the body straight.
- **Reverse Push-Up:** Start position: On hands and knees, arms outstretched. Push up, then lower the body to the ground.
- **Side Plank:** Start position: On side, with hips stacked. Keep the body straight.
- **Roll-Up:** Start position: Lying on back, arms extended. Roll up, then lower to the ground.

Level III
- **Side Plank:** Start position: On side, with hips stacked. Keep the body straight.
- **Superman (Elbow to Knee):** Start position: Assume the Superman position, with knees on the ground and arms extended. Lower one knee to the ground while keeping the body straight.
- **Reverse Push-Up:** Start position: On hands and knees, arms outstretched. Push up, then lower the body to the ground.
- **Side Plank:** Start position: On side, with hips stacked. Keep the body straight.
- **Roll-Up:** Start position: Lying on back, arms extended. Roll up, then lower to the ground.

**PROGRESSION:**
Start at Level I, try all nine exercises for 10 seconds, and increase each level. Progress to 15, then 20, 25, and finally 30 seconds. Again, only adding when needed.

For every 30 seconds consecutively (15-30, 20-30, 25-30, 30-30), move on to the next level.

Suggested frequency is once daily, 3 to 5 times per week. A maximum of twice daily, 7 days per week.
Self-rated Importance of “Skill Based” Literacies
n=31,200 Canadian Children

Very Important

Read/Write
Math
Movement

School
Family
Friends
School
Family
Friends
School
Family
Friends

95% CI

2.8

3.0

3.2

3.4

3.6

Not so important
Kick a ball (Proficiency, mean 95% CI)

Boys, n=2938
Girls, n=2835

My Personal Best, 2014

KICKING COMPETENCE

Curricular Expectation

Boys, n=2938
Girls, n=2835
Motor Competence in Curricular Linked Skills
(n=5773, My Personal Best, 2014)
Confidence in Performing Activity

Confidence in activity (mean 95% CI)

Boys, n=2938
Girls, n=2835
HAPPINESS and PHYSICAL ACTIVITY

UNHAPPINESS THRESHOLD

95% CI. I believe that being physically active makes me happier.

Sex

Female

Male

UNHAPPINESS THRESHOLD

Age

5 6 7 8 9 10 11 12 13
Movement Vocabulary

Gender

Movement Skill/Task

Balance walk forward
CREATIVITY
Creativity

Obligatory features

Discordance, Exploration Driven, Permission, Opportunity

Convergent: Prune to Solve

Divergent: Grow Ideas

Deep Knowledge: Fertile Ground
You can embed the process of creation inside the concept of constraint based learning which can then provide a fertile ground from which to spawn and refine ideas.
In the setting where this creative process takes place, one needs to remove the barriers to permit the freedom and desire to explore.
Durability

“The ability to endure”
--- Ability to Participate ---

• Endure training, endure in sport, and life

• Includes both MENTAL and PHYSICAL characteristics

• Is a positively framed concept

• Is an inclusive term
  – Fitness & exercise
  – Physical literacy
  – Motor control
  – Biomechanics
  – Nutrition
  – Sleep, rest, recovery and regeneration
  – Psychological
  – Injury prevention
  – Awareness and hazard detection
  – etc
Movement Preparation

Objectives

1. enhance performance
2. enhance durability

using well established scientific based principles of training the physiology and psychology of the player, and rooted in concept of physically literacy.
How is MP different than warm-up?

• Initially, we used warm-up and cool-down approaches to prepare body for immediate action (game or training) – literally warming the body in the early years

• Then we progressed to dynamic warm up which really focused on prepping both the muscles (heart and skeletal) and brain for immediate action

• Term “neuromuscular” training arises to recognize this.

• MP is a term which embodies both warm-up and dynamic warm-up concepts (brain and muscle training), but also adds the dimension of **accumulating** benefit. MP is not just for the immediate activity.
• Young female soccer players are at 4-6 x greater risk of ACL injury than their male counterparts (Filipa et al., 2010; Hewett et al., 2010).

• In non-contact ACL ruptures:
  • females are more than twice as likely to injure the ACL of their non-dominant side as their dominant side
  • 2-3 times more likely to injure their non-dominant side ACL than are males (Brophy et al., 2010)

• Males show no significant relationship between lower limb dominance and ACL injury in non-contact incidents

# MOVEMENT PREPARATION

## DYNAMICS

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**Color Coded Levels 1,2,3**

*Adv progressions to Level 4 and 5*

## ACCELERATIONS

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## CORE

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Basic progression info for each component

Each Component title is a link to an annotated PPT file (cues, why, etc)

Links to PDFs:
- Coach’s Handbook
- Athlete Info
- Parent Info
- Physicalliteracy.ca
1. Run a square (Slider)
2. Run there and back (Slider)
3. Run, jump, then land on two feet (Slider)
4. Crossovers (Slider)
5. Skip (Slider)
6. Gallop (Slider)
7. Hop (Slider)
8. Jump (Slider)
9. Overhand throw (Slider)
10. Strike with stick (Slider)
11. One-handered catch (Slider)
12. Hand dribble stationary & moving forward (Slider)
13. Kick ball (Slider)
14. Foot dribble moving forward (Slider)
15. Balance walk (heel-to-toe) forward (Slider)
16. Balance walk (toe-to-heel) backward (Slider)
17. Drop to ground & back up (Slider)
18. Lift and lower (Slider)
WHAT WE ARE

MAKE THE JUMP.

WHAT WE WANT TO BE
Motor Control Errors

- Motor Control Error 1
  - Brain fails to ask the muscles to perform a task
  - Brain failure
  - Sequencing error – special form of error 1

- Error 2
  - Muscles can not generate enough force despite appropriate neural input
  - Muscle failure
Sequencing Error

• When asymmetry exists, the participant usually has a preference for performance based upon the asymmetry
• Participant when presented with decision to perform a movement will often chose based upon preference
• When circumstance is created where the correct choice in movement is opposite the preference, a selection error will take place
• EG
  – Should cut right to avoid collision
  – Preference is to cut left based upon performance and self-efficacy
  – Cutting left results in collision
Fatigue and Motor Control

• Fatigue is implicated in injury
• Traditional approaches seek to improve endurance to limit fatigue
• Movement preparation attempts to “teach” “how to move in the face of fatigue”
• Use of movement preparation drills after a fatiguing bout
  – Must reduce speed initially as this is a new layer of complexity
Movement Preparation Study

- An movement preparation program for provincial and Canada games team level soccer players (ages 12 to 18) was implemented.
- Movement preparation was embedded into "conditioning" sessions integrated into practice by coaches.
- The sessions involved dynamic warm-up, ladder drills, pylon drills, sprints, single legged exercises, as well as core and gluteus medius exercises motion control exercises.
- The basis of the injury prevention program was repetition-based learning of primary forms of pivoting/cutting movements observed in soccer competitions (required movement vocabulary).
- The goals of the drills were to maximize proficiency in cutting maneuvers, and minimize right to left asymmetry.
Movement Preparation Study

• There was a **high level of adoption** (100%, 10 teams) and compliance (average 3x/week use) by coaches. Over 160 participants were engaged in the program for two seasons. 120 participants served as control (no MP intervention) for two years.

• All athletes were evaluated every 2-3 months for CV fitness, 40 m sprint, core, and lower body power. **Significant and substantial improvement in all fitness and performance measures.**

• Drill based proficiency assessment revealed substantial right to left asymmetry in females, as well as lower overall proficiency than males at start. Drills improved proficiency for cutting maneuver in both males and females, and dramatically reduced asymmetry in females.

• The ACL injury rates were less than half (2.1%) of the rates (7.5%) in control without movement preparation, and lower than published rates (5%). (P < 0.05)
Movement Vocabulary

• **Movement vocabulary** is the total number of movements that a person is competent in.
• The term, movement repertoire, is identical in meaning to movement vocabulary.
• Fundamental movement skills would represent a small proportion of the repertoire of movements that a person possesses, but arguably essential for life.
• To participate in any physical activity, movement vocabulary is required.
• Movement vocabulary is the gateway to physical activity, since the absence of the requisite skills prevent participation.
More than just sport

• Teaching movement skills is essential for participating in life. A child with competence in a diverse movement vocabulary can choose to participate in activities not only in sport but in:
  – Recreation
  – Vocation
  – Performance arts
  – Activities of daily living
Many folks focus on “form” or “technique” in movement execution. Form is important, but it is also critical to have the student understand the words that describe movement.

Children need to know what the difference is between such terms as hop, jump, leap etc.

Children are very good mimics and they often DO NOT understand the words that describe movement.

It is vital that you use methods to assure their comprehend movement terminology. It is very difficult to play a piano without knowing the notes. It is just as difficult to participate in activity without knowing movement terminology!
Repetition based learning with knowledge of results.

- The human nervous system is adept at learning tasks/skills when provided with repetitions of the movement when there is “knowledge of results”.
- If a child is moving down an movement or agility ladder, they know if the movement is correct by the footwork required, so with each successive pass down the ladder, they typically reduce errors in execution by knowing the results of their own performance (self-monitoring).
- With objectives and feedback, the brain can self-correct movement with repetitions.
- This creates a robust nervous system capable of dealing with variations in movement circumstances.
- Providing instructional cues can facilitate the learning process but not at the expense of repetitions to hone the nervous systems ability to generate the movement.
Learning at Speed

• People learn best when the movement speed is reduced or the skill is broken down to its component parts.

• Have the participants execute movement at slower speeds, then progress the speed as execution errors reduce over repetitions.

• Of course, when you increase speed, accuracy will reduce (errors increase), so you need to give them time (reps) to adjust to each new speed.

  “Accuracy first – speed second”
Peer Pressure

- Peer pressure should be controlled.
- Having a single line up with children waiting and watching each other execute skills is generally not conducive for children to learn. This creates a situation of social inhibition of movement.
- Create shorter lines (or no lines) so that many are moving at once – this creates anonymity. This also creates more repetitions.
- Create multiple stations so that “observers” are minimized.
- Ultimately, performance of movements in front of others needs to be progressed (the audience effect), but initially it can be counter-productive for learning.
Time Pressure

- When running activities it is important to control time pressure so that the participant does not “feel” rushed.
- If time pressure is present (*apparent or perceived*) then the ability to learn a new skill is minimized.
- Example
  - If children are lined up to use a piece of equipment, it is important that the person executing in the equipment doesn’t feel as if they need to vacate the space for the next person – especially during learning.
  - Leaders should set up enough time for all participants to perform multiple repetitions of the skill without time pressure during the initial movement skill acquisition phase (20 to 100 repetitions).
A simple tenet of teaching can be stated as


This approach does not need to be employed all the time but in certain cases it is appropriate.

Briefly **explain** the skill – don’t walk through every step, state the basic objectives and a feature or two. A child can typically only focus on one element.

Have a **demonstration** of the skill with a few repetitions. Doesn’t have to be expert just have the basic features.

**Observe** children executing the skill (low time and peer pressure please)

Provide **corrective cues** after they execute as you walk about, don’t single a child out for correction.
Cueing during movement – a faux pas

• When a person is learning a new task, they REQUIRE their higher brain centres to learn.
• IF you prompt or cue during the movement you are diverting their attention away from learning!
• With each successive repetition the person refines their ability to perform of the movement – so errors in execution normally decrease over time with repetition.
• If you provide feedback of results of execution, the person can often learn the skill without cues.
• If you provide cues, provide them after execution.
• When someone has acquired the skill – meaning it is automatic, they are ready to receive instructions during movement OR layer on another movement with the newly learned skill.
Mimicry?

- Children are excellent mimics. It is very appropriate to allow and use mimicry as a method to enhance skill acquisition.
- This does NOT mean having an expert perform at full speed and have children attempt to copy – it means having someone that can execute the movement slowly and the other follows along – like line dancing.
- If you have an expert performance that can inspire children, but it is not a great learning method.
Inclusion and selection

• Setting up stations that children rotate among can be a useful technique for a variety of reasons.
• One is that if children have the option to select the starting station (within limits), then this indicates an inclusive approach – choice.
• This initial choice can instill motivation to participate. Further by allowing choice, this creates ownership in the circumstance, which further instills commitment.
• Having a variety of activities gives each person a chance to have activity they enjoy and are challenged at their level.
• Creating a situation where each person can be challenged at their level is critical! It takes time to design a circumstance, where each person can have a challenge especially when a group has various levels of competence.
Almost ALL of the fundamental movement skills can be acquired without ANY specialized equipment.

- For example, throw and catch practice stations can be created with any ball or bean bag, or even crumpled up paper.
  - One can use bins or even hoola hoops as targets.
- Many lower limb movements can be cued with floor tape or existing lines.
- The focus should be on achieving repetitions of movement where the participant is aware of whether they are successful in execution – knowledge of results.
Small sided games with purpose

• There are many excellent games online and on DVDs.
• Most of the games have been designed for fun, for increasing activity, and increasing social cohesion (cooperation), etc.
• Many of these games can be physical literacy enriched by changing the environment or facilitating elements of physical literacy – like comprehension of terms, or execution of skills bilaterally.
• There are many ways of enriching games so they achieve many purposes without taking away the fun.
Confidence

Confidence is built on a road with fun and challenge complete with failures and successes.

• Lesson plans needs to be designed to enhance confidence. It is insufficient just to have fun.
• The session must have a challenge that can be overcome.
• Failures need to occur for ultimate success. Failure is part of success!
• Children need a safe place to allow failures, but need as many or more successes to progress – appropriate challenge.
Right and Left Symmetry

• Interestingly we often think of throwing, as pitching a ball with our dominant hand.

• Throwing and catching skills are used in sport, in recreation, in vocation (toss a hammer), in activities of daily living. There are VERY few instances of pitching that actually exist in life, but you can’t avoid throwing & catching with both hands in this world.

• Teaching the basics of throwing an catching are critical for participating in life – for both hands.

• This applies to almost all skills for the upper and lower body! Kicking, cutting, balancing, dodging, etc.
Peer pressure can work against learning, not in all cases but in many.

Juggling is a great example.

– If you tried to teach two or three ball juggling, you would get a few people practicing with many bystanders very quickly.

– However, if you had people pair up and use one bean bag per person, the number of repetitions increases, the number of participating people is retained! You will get hundreds of repetitions without judgment, but still having fun and complete with a challenge.

Having a juggling show can be a good way to graduate in audience effect. Remember it is vital to progress audience so people feel comfortable performing/moving in front of others.
WHAT DOES IT MEAN FOR ATHLETES?
WHAT DOES IT MEAN FOR SPORT FEDERATIONS?
WHAT DOES IT MEAN FOR SPORT RECREATION?
WHAT DOES IT MEAN FOR SPORT EDUCATION?
WHAT DOES IT MEAN FOR SPORT PARENTS?
WHAT DOES IT MEAN FOR SPORT HEALTH?
WHAT DOES IT MEAN FOR SPORT HEALTH CARE?
Physical Competence

Land
Water
Ice
Snow
Air

Movement Competence

Confidence

Psychological

Motivation & Enjoyment

Participation

Behavioral

The Physical Literacy Cycle
PHYSICAL LITERACY

- Confidence / Motivation
- Movement Competence: Land, air, water
- Knowledge / Understanding
- Positive Affect: Fun, happiness, enjoyment

Physical Activity

Physical & Mental Well-Being