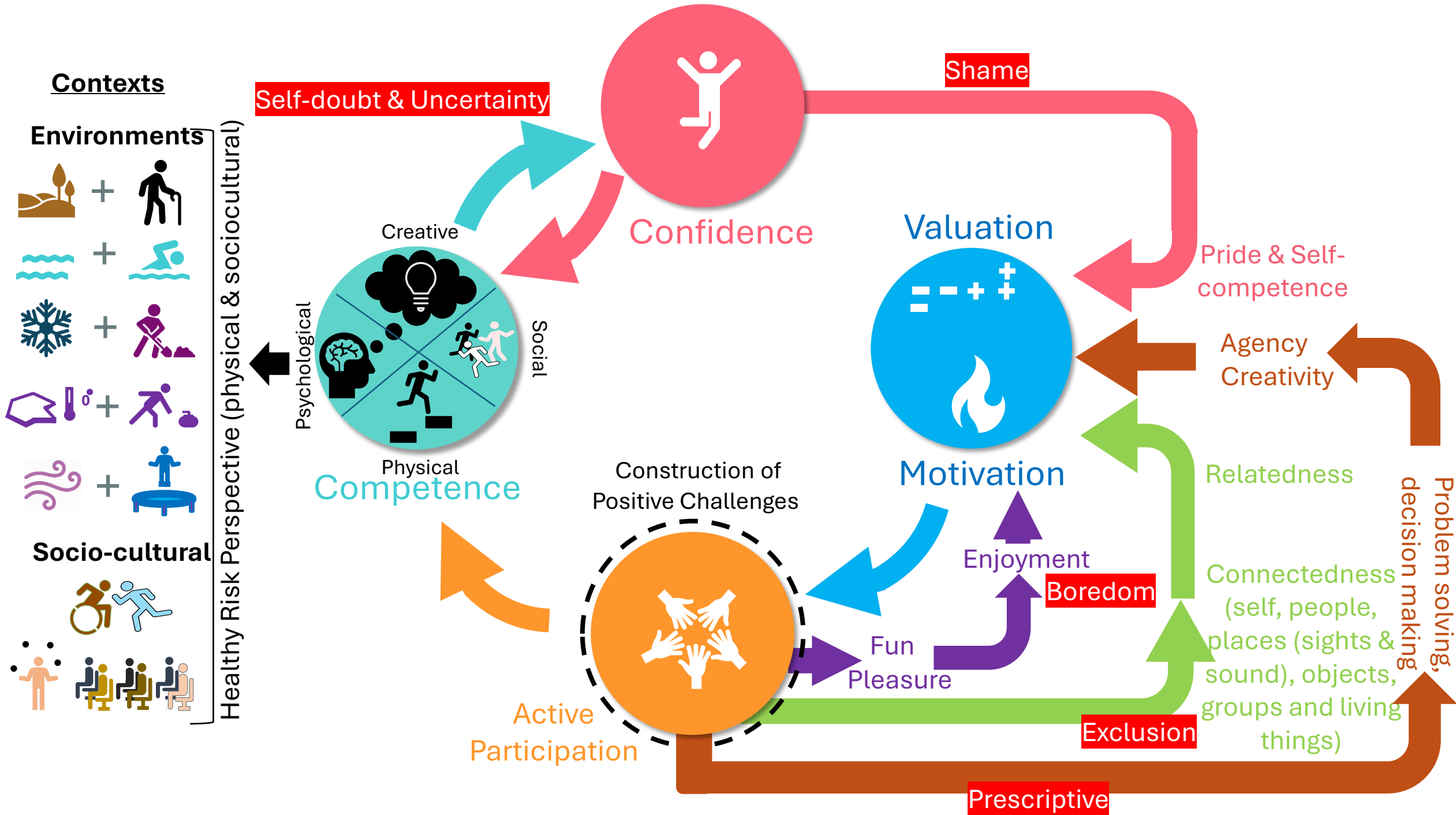


Physical Literacy Enriched Environmental Design

A social innovation engine for creating a durable society.



Psychological

Physical

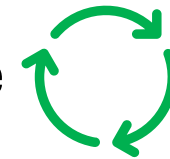
Construction of Positive Challenges



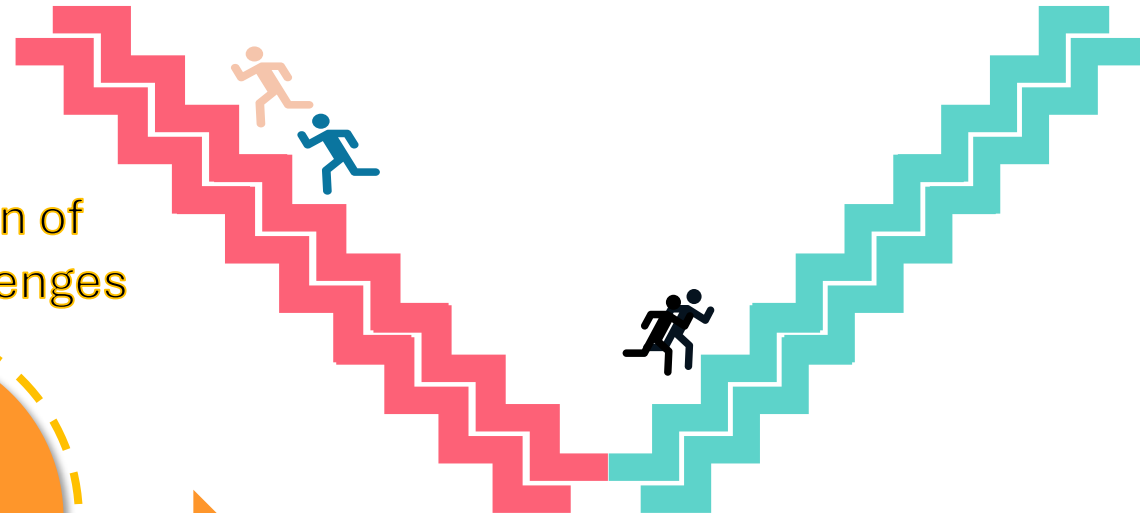
Movement Contexts



Positive Movement Experience



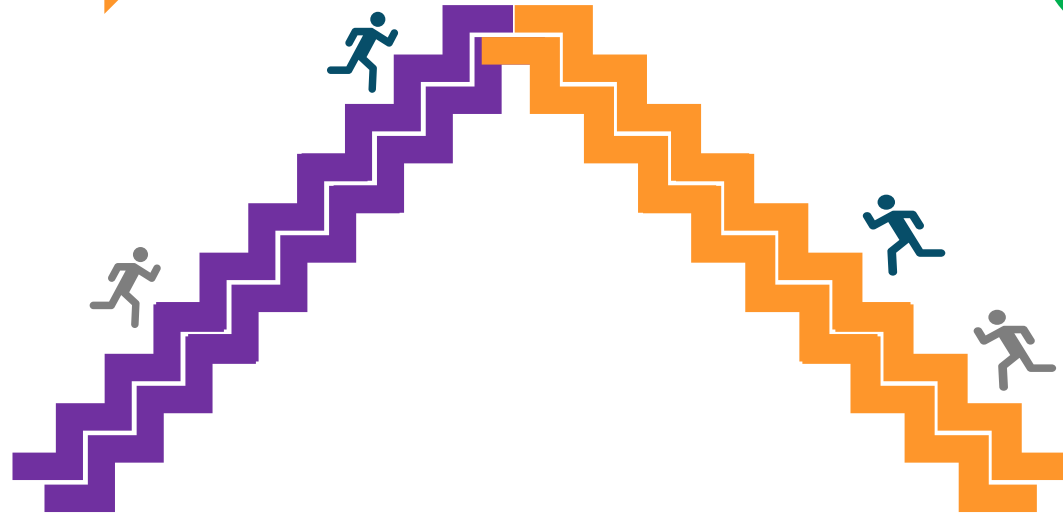
Activated Physical Literacy Engine



RECREATION, SPORT, VOCATION, PLAY, PERFORMING ARTS, ACTIVITIES OF DAILY LIVING

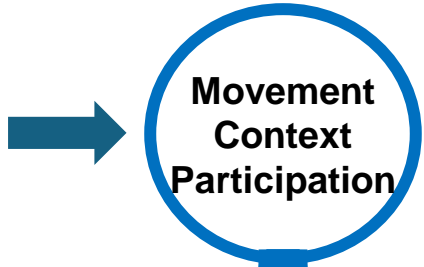


Social



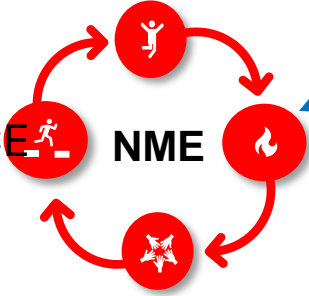
Creative

RECREATION, SPORT, VOCATION, PLAY,
PERFORMING ARTS, ACTIVITIES OF DAILY
LIVING AND EVEN VICARIOUS EXPERIENCES

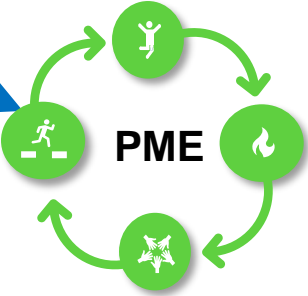


Houser, N.E., Kriellaars, D. (2022) Girls just want to have fun! The competence-confidence-happiness cascade. North American Society for Pediatric Exercise Medicine (NASPEM). Saskatoon, SK. August, 2022. DOI:10.1123/pes.20220-0105

NEGATIVE MOVEMENT EXPERIENCE



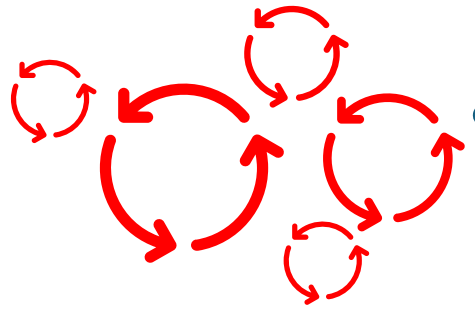
NME



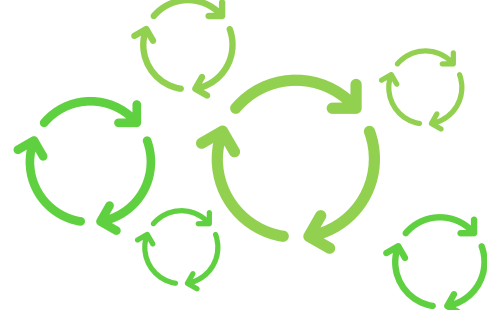
PME

POSITIVE MOVEMENT EXPERIENCE

ACCUMULATION



- net yield



+ net yield

Unhappiness in Physical Activity

Happiness in Physical Activity



**Planning for a positive
user experience by
design of places**

Design for all seasons!



Winter Eyes



Summer Eyes

Physical Literacy Enriched Environmental Design (PLEED)

PLEED Principles

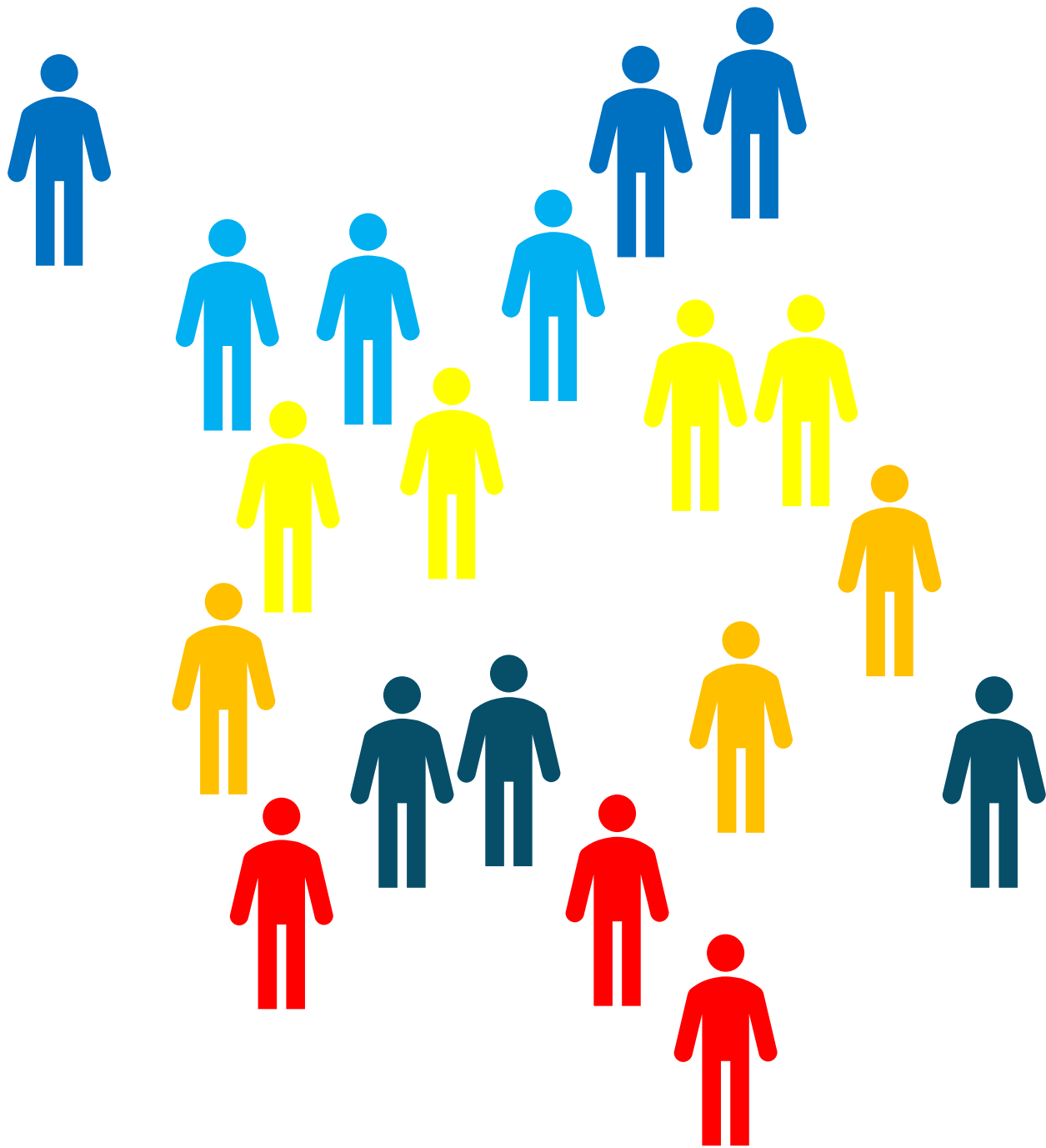
1. A level of challenge for all levels of ability
2. A type of challenge for all interests
3. Movement intersection
4. Movement opportunity
5. Affordances in movement contexts
6. 4 domain “neutral” risk approach
7. Connection



1. A level of challenge for all levels of ability

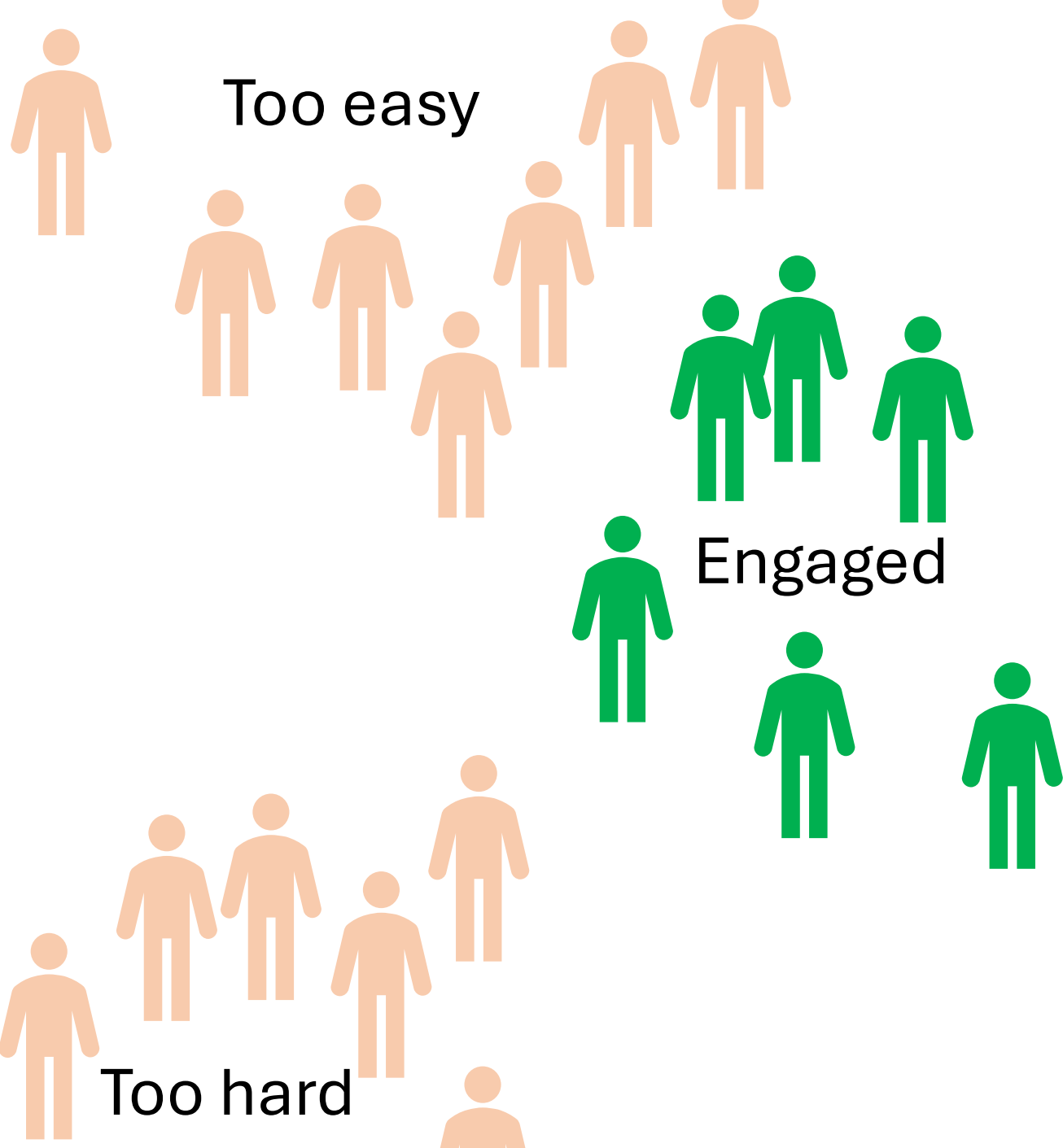
- Developing movement spaces that allow for all individuals to find a level of challenge suitable to them.
- A level of challenge for all levels of ability refers to not only **physical** ability, but also **social, creative** and **psychological** abilities.





Levels of Ability

Too easy



Optimal Challenge Theory





Everyone engages in movement.

Where progressions in social, psychological and creative competencies concomitantly occur, not due to chance, but by **intentional design.**

2. A type of challenge for all interests

- People's interests vary, and if they are unaware of the possibilities they are constrained by awareness.
- Within a movement space, there should be different engagement opportunities that cater to different interests, allowing for all users to participate and have a positive movement experience.



“Belonging”

Developing connections during active participation with people, places, objects, or groups creates relatedness – everyone should have a **movement voice** that can be found, developed and expressed.



3. Movement intersection



- We often design spaces segregated by function, level of ability, or cultural or gender norms.
- Movement intersection is a design approach to foster proximity of many types of movement, to activate the physical literacy engine.





4. Movement opportunity

- In a movement suppressed culture, the simple addition of convenient access to movement opportunities, usually provides increased movement.
- Giving everyone an equal opportunity to move within the many environments in which they interact, which may include prompts/encouragement to engage in movement opportunities



5. Affordances in movement contexts

- Encourage individuals to view spaces with the idea of “how can I use this space” or “what can I use this space for”
- If we set individuals up to view their environment as an affordance, the space can be used in an infinite number of ways, and in a way that each individual chooses.



Designing with an Affordances Mindset

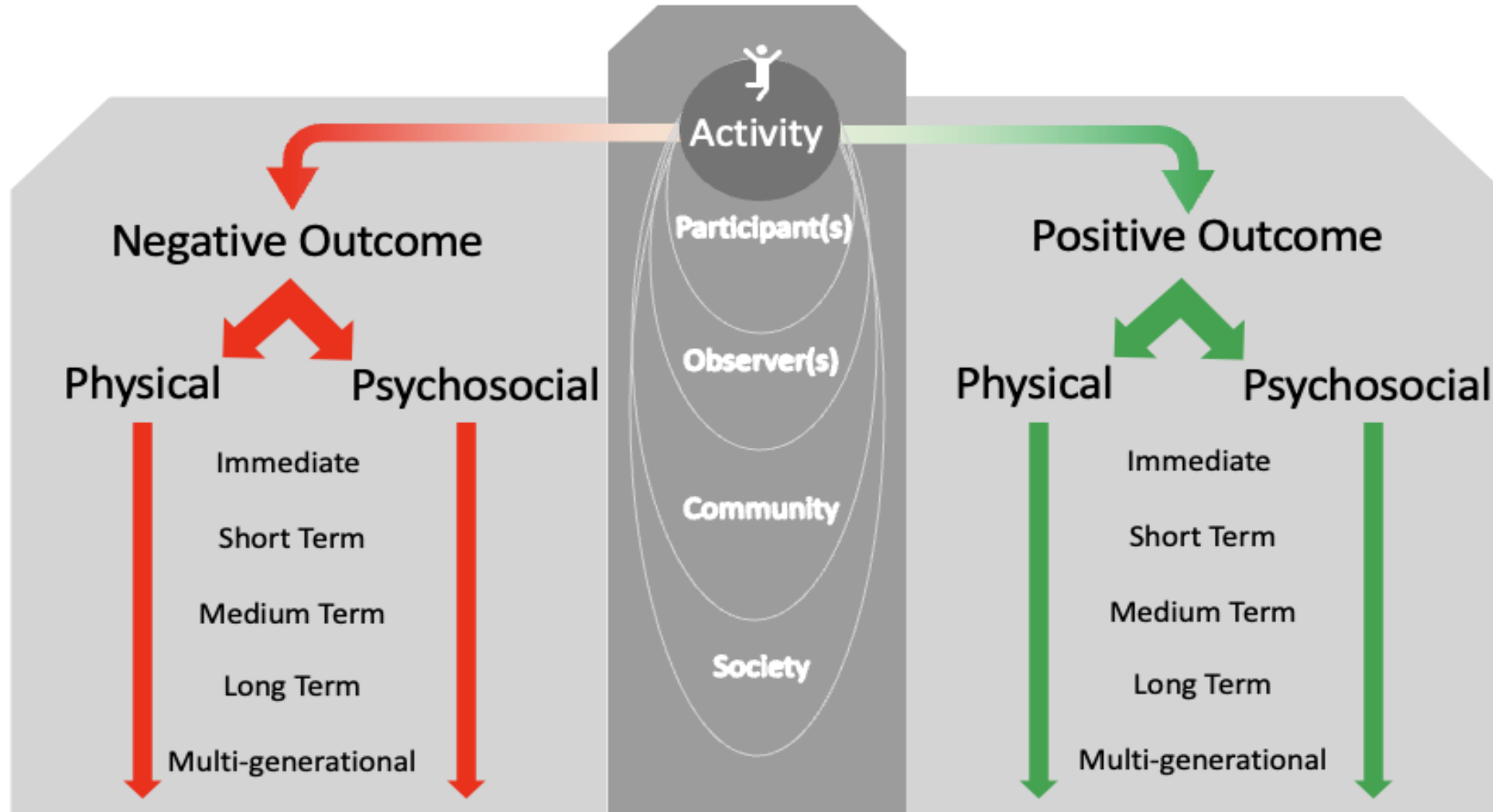
What does this mean?

- Allow for alternative uses of features/equipment OR no primary use
- Shift in mindset to design features to be used as affordances and NOT as a single feature with a single use.
- Viewing the world as affordances means that everything within the designed space/place may have several different purposes or uses

Considerations

- Opportunities for development of agency
- Risk perspective (surplus vs adequate safety)

6. Neutral risk

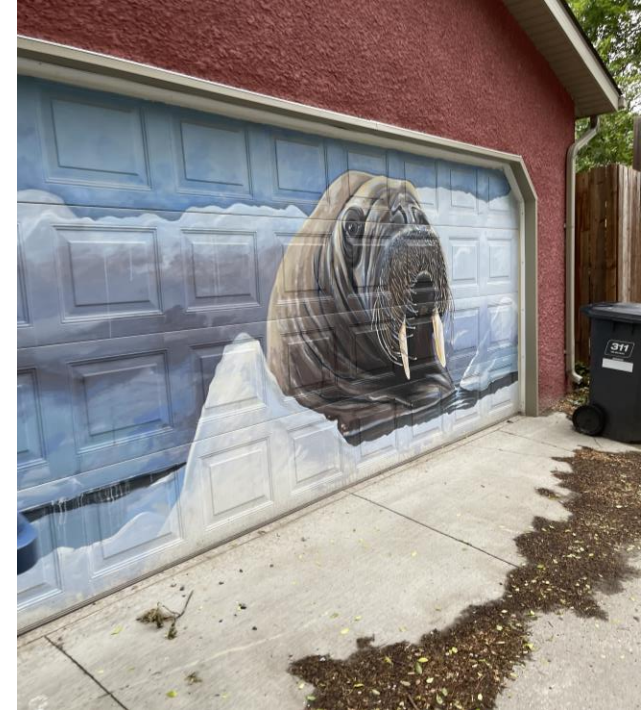
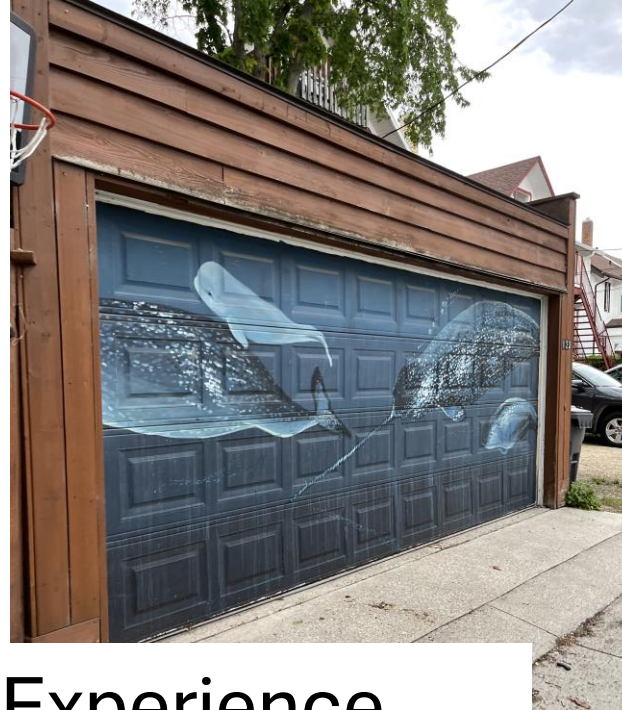
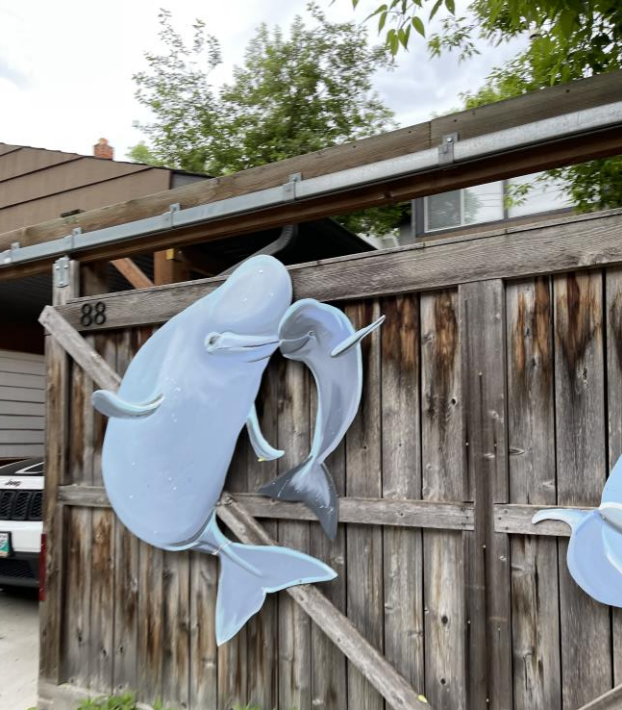


7. Connection

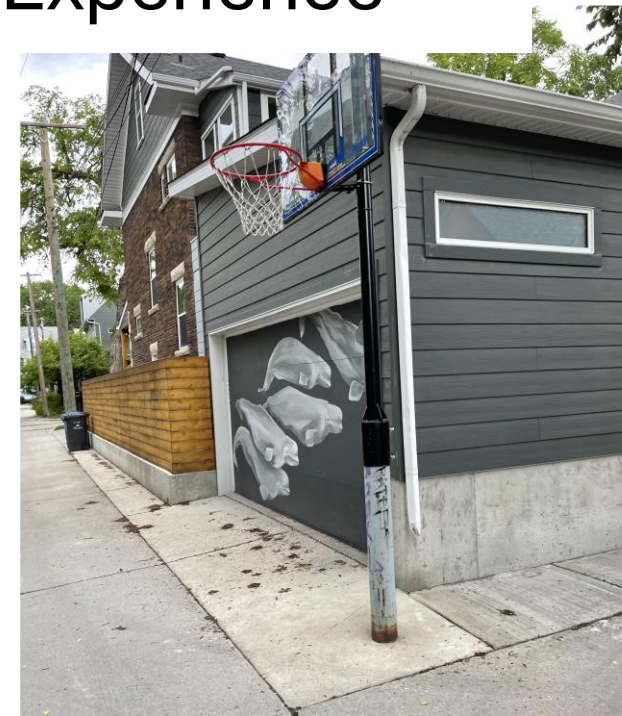
There are various forms of connection that can exist...

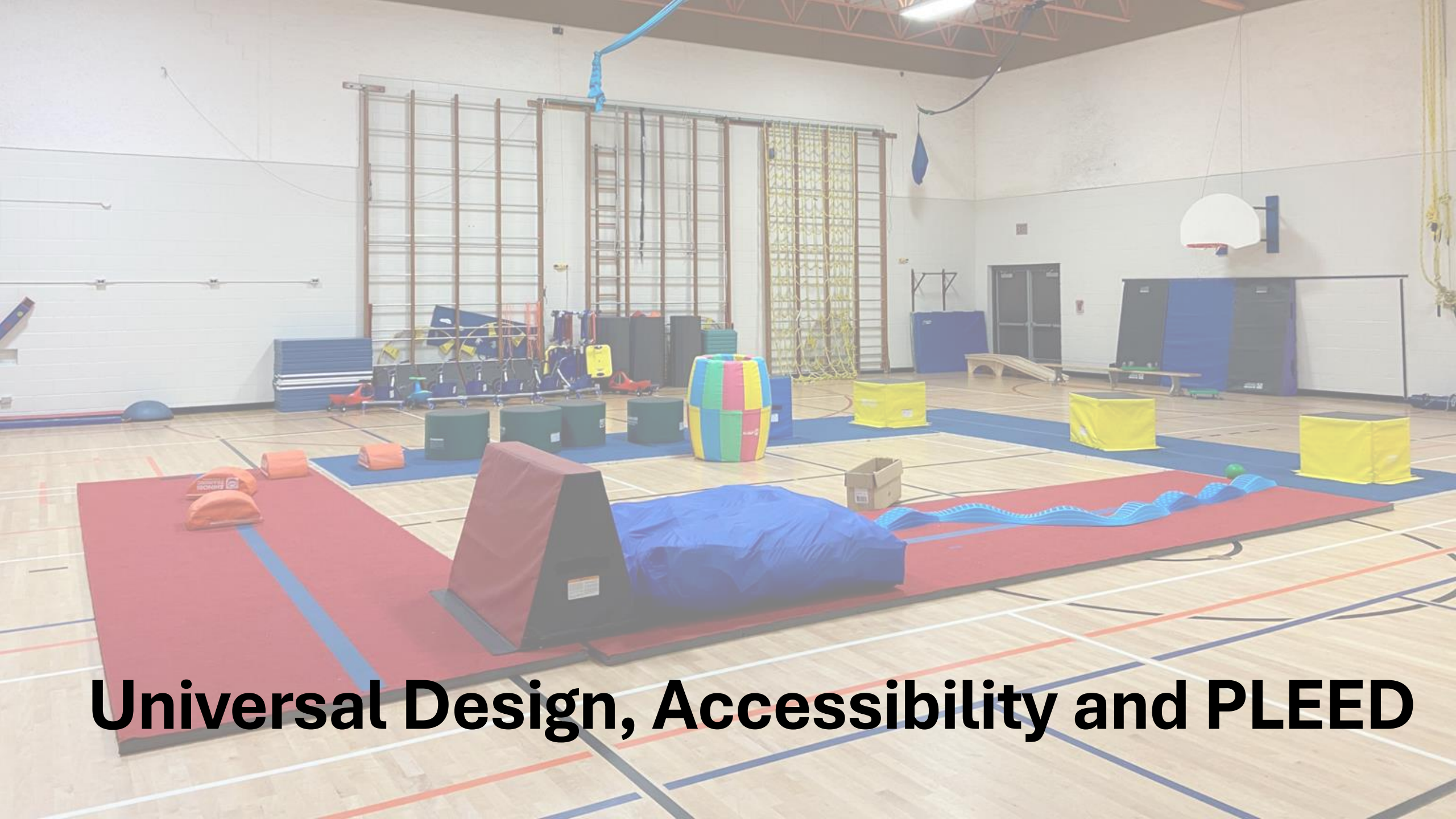
- People
- Places
- Self
- Objects
- Groups
- Other living things





Destination Experience





Universal Design, Accessibility and PLEED



KOOTENAY ADAPTIVE SPORT ASSOCIATION

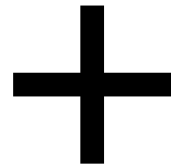
Places + Programs + People... For Everyone

A critical consideration during the design planning phase



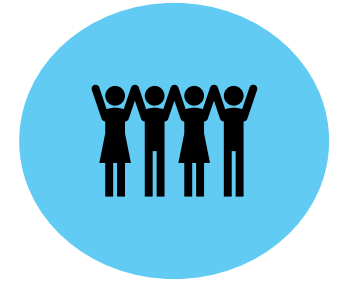
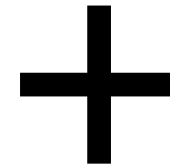
Places

- Physical Literacy enriched environmental design supports a level of challenge for all interests and abilities, and movement intersection.
- Are there different activities available within the same space? Are there more and less challenging variations? What experiences are offered?
- Consider features vs affordances



Programs

- Physical literacy enriched programs support the concurrent development of confidence and competence in various movement contexts to achieve positive movement experiences.
- Through positive movement experiences, these programs aim to develop not only physical competencies but also social, creative and cognitive.
- What programs exist? What programs could be created? What



People

- Consider the users of the space **AND** the people who work within that space (programmers, designers, maintenance staff, educators etc.).
- Who is the space intended for? What different groups of people can the space attract? Who might not come to this space or programs?

Physical literacy

- PPT and papers

