

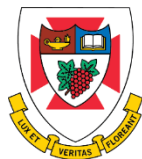
# Alternative Environment Activities in PHE: More Important Now than Ever!

**PHE Canada Spotlight Series**

**Wednesday, June 10, 2020**

**Dr. Nathan Hall (University of Winnipeg)**

**Dr. Brent Bradford (Concordia University of Edmonton)**



**THE UNIVERSITY OF  
WINNIPEG**



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OF EDMONTON**

# Land Acknowledgement

*We would like to acknowledge the land on which we work, study and live. Since this presentation is being held online, a singular land acknowledgement does not capture the richness of our distribution across various locations in Canada and beyond.*

*The University of Winnipeg is located on the traditional lands of the Anishinaabeg, Nêhiyawak, Oji-Cree, Dakota and Dene peoples on Treaty 1 Territory and homeland of the Métis Nation.*

*Concordia University of Edmonton is located on Treaty 6 Territory and the traditional meeting place and home of many Indigenous Peoples, including Cree, Saulteaux, Blackfoot, Métis, Dene and Nakota Sioux.*

*We respect the diverse histories, languages, and cultures of First Nations, Métis and Inuit communities who continue to enrich this land, on which we live together.*

# Who We Are!



Thank you to our research colleagues:

Dr. Dan Robinson (St. Francis Xavier University)

Dr. José da Costa (University of Alberta)

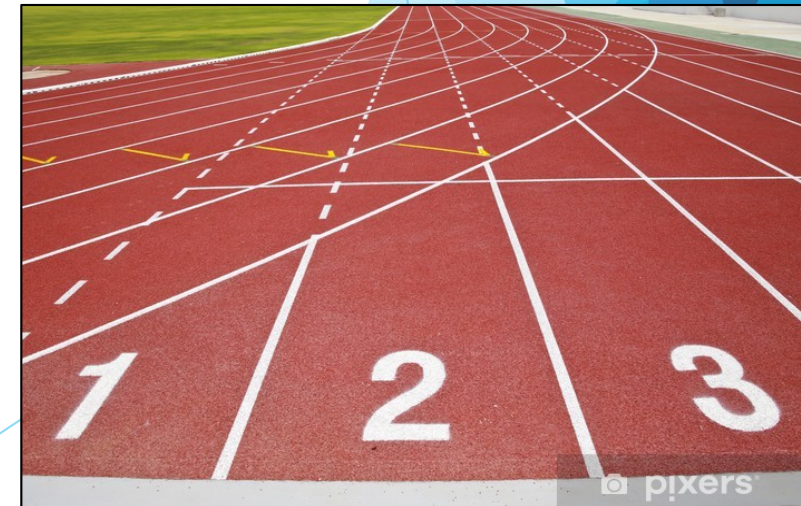
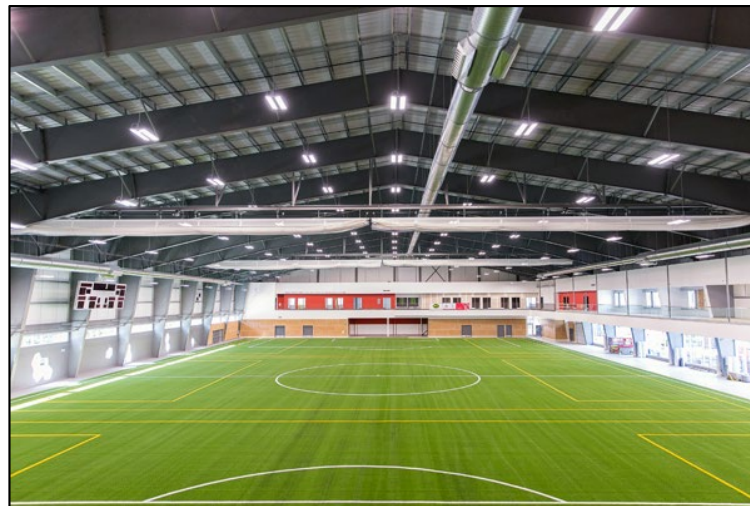
# Webinar Presentation Outline

- Define what we mean by AEA's
- Explain the importance of AEA's
- Identify some common and lesser known AEA's
- Share our research on teacher embracement of AEA's
  - Inclusion of AEA's – Statistical Findings
  - Barriers to including AEA's
- Discuss strategies to make inclusion of AEA's easier
- Provide examples of AEA's ideal for specific grade levels
- Allow time for questions and answers



# What do we Mean by Alternative Environment Activities (AEAs)?

Physical activities that are not restricted in scope to the traditional uses of gymnasiums, sports fields and running tracks



# Survey: Use of Available Space

1. How many people live within a 10 minute walk of a park?  
How many have visited it in the past year?
2. How many people live within a 10 minute walk of a community center, pool or skating rink?  
How many have visited it in the past year?
3. How many people have bike paths or hiking trails in their neighbourhood or close by?  
How many have used them in the past year?



# Availability and Use of AEA's

- Well over half of all Canadians have access and live in close proximity to parks or other public recreational facilities

(Canadian Fitness and Lifestyle Research Institute [CFLRI], 2011)

- These locations offer an abundance of physical activity opportunities
- Less than half of Canadian children and youth use community amenities that are available to them to be physically active (CFLRI, 2011)



# Why is Physical Activity in Alternative Environments so Important?

- Common part of our day to day lives
- Easily accessible
- Health benefits to being outdoors
- Teaches comfort in these settings
- Educational (beyond PHE)

(Hall & Bradford, 2016)





# Why AEA in PHE?

- Overemphasis of sport at expense of other sorts of movement domains (Kirk, 2006; Robinson et al., 2016)
- Contemporary PHE curricula call for more balanced and inclusive programs (O'Connor et al., 2012; Penny & Jess, 2004)
- Need to consider what factors might enable or limit PHE teachers' attention to other possibilities
- Recommendations and/or requirements for including AEA in all PHE curriculum documents in Canada (Kilborn et al., 2016)



*The Biggest Risk is*

**KEEPING KIDS  
INDOORS**

2015

The ParticipACTION Report Card on  
Physical Activity for Children and Youth



**PARTICIPACTION**



*The Biggest Risk is*  
**KEEPING KIDS  
INDOORS**



## Kids are more physically active when they play outside:

- Ontario preschoolers spend twice as much time being active when play is outdoors.
- Students take 35% more steps in P.E. class when class is held outdoors.
- Canadian kids aged 9-17 who play outside after school get 20 more minutes of heart-pumping activity per day, and are three times more likely to meet the Canadian Physical Activity Guidelines.

# Other Reasons to Include AEA's in PHE Programs

- Facilities and spaces exist, but students need to be introduced to them:
  - understand the opportunities they provide
  - comfortable & knowledgeable about being active in these places
- Lack of available gymnasium or field space
- COVID 19 - Physical distancing requirements!!



# Returning to School: The Critical Role of AEA's

- As students return to school in the near future, AEA's will play a critical role in the PHE learning environment: [Return to School PHE Canada Guidelines](#)

- Allow for physical distance
- Non-confined spaces (pg. 13)
- Equipment (pg. 12)
- Student learning / mental health



COVID-19 Pandemic:  
Return to School  
Canadian Physical and  
Health Education  
**GUIDELINES**

This is a living document and as the situation continues to evolve and health policy recommendations update, so too will this document. The guidelines that follow represent the current place and time of our circumstances.

Latest update: Tuesday, May 26th, 2020

# Specific Examples of AEAAs



# Examples of AEA's that are Well Known and Enjoyed in Canada

- Ice Hockey
- Skating
- Swimming
- Camping
- Walking/Hiking
- Rock Climbing
- Canoeing/Kayaking
- Biking (Mountain/Road)
- Skiing (downhill/X-country)
- Snow Boarding
- Golf
- Snow Shoeing
- Fishing
- Tobogganing



# Examples of AEs that are Less Commonly Known and Enjoyed in Canada

- Animal Watching
- Rock Climbing/Rappelling
- Skydiving/Bungee Jumping
- ATV/Dirt Bike
- Horseback Riding
- Sledding & Dog Sledding
- Spelunking/Caving
- Water Skiing/Wake Board
- Rowing/Dragon boating
- Stand-up-paddle boarding
- Skateboarding
- Orienteering
- Geo-caching
- Archery
- Sailing/Boating
- Wind surfing & Kite Surfing
- Surfing
- Snorkeling and Scuba
- Ski-Doo/Sea-Doo
- Disc Golf





# Survey: Inclusion of AEAs?

Throughout the school year, do you include AEAs as part of your PHE program?

Never | Rarely | Commonly | At least once a week

Do you think that your provincial PHE curriculum requires you to include AEAs as part of your PHE Program?

Yes | No



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# Our Research Team's Focus on AEA's

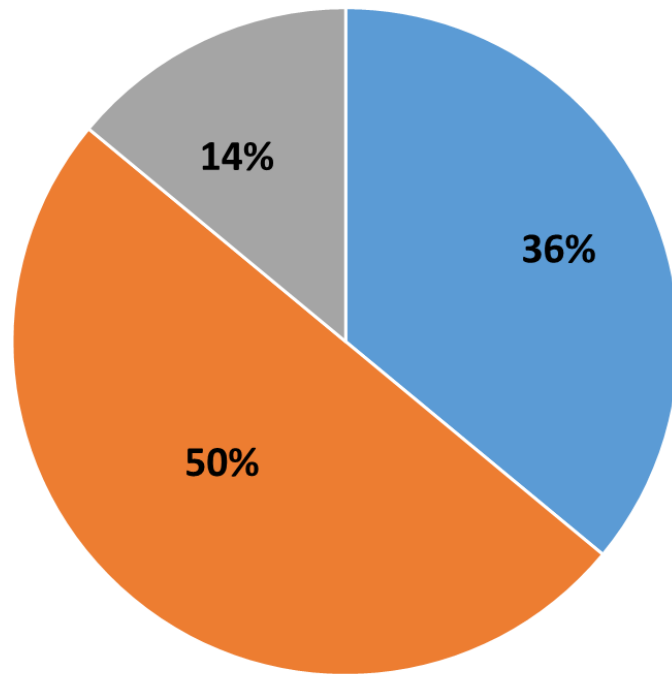
# Teacher Embracement of AEA's (Canada)

- Descriptive study using an on-line survey
- Gain an understanding of how much PHE teachers in Canada embrace the idea of AEA's in their PHE programs
- Sample = 225 PHE teachers from Alberta and Manitoba



# Teacher Embrace of AEA's (Canada)

## Inclusion of AEA's in PE programs

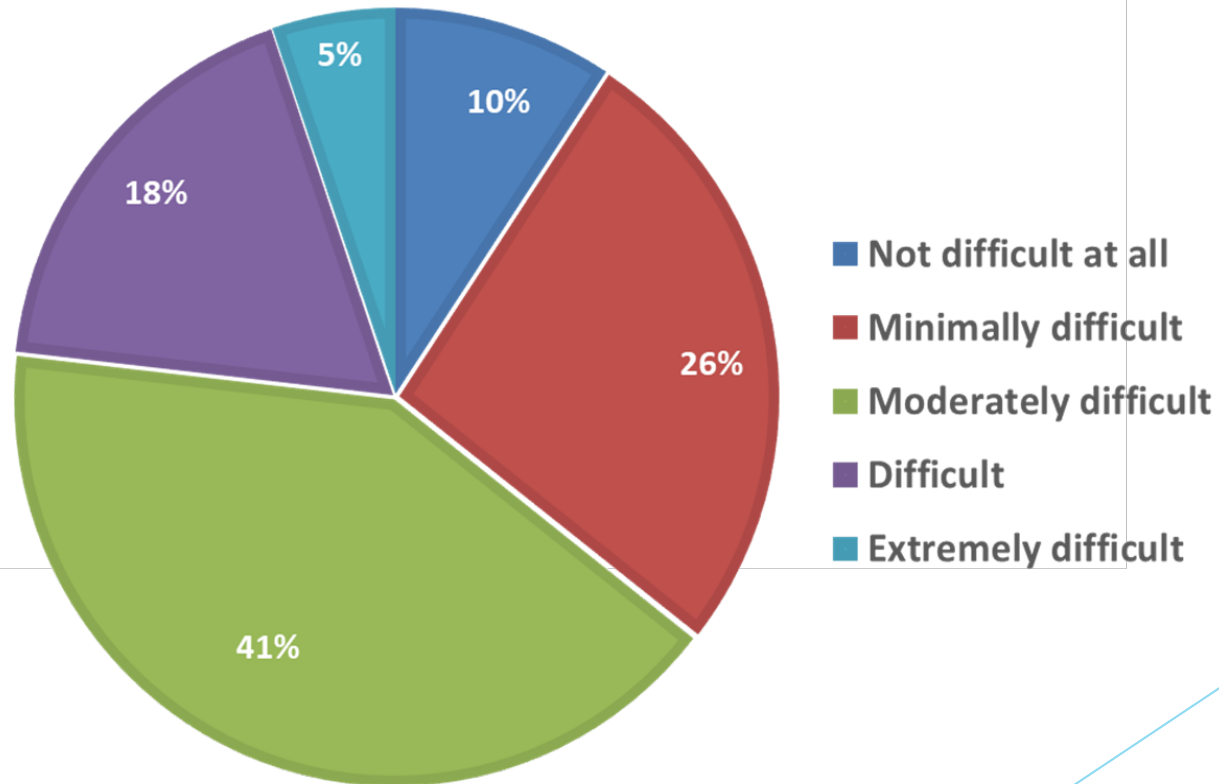


■ Rarely ■ Often ■ Constantly being included throughout the entire year

\* 25% of the participants were unaware of curricular requirements to include AEA's

# Teacher Embracement of AEA's (Canada)

## Perceived Difficulty of Including AEAs in a PE Program



# Survey: Inclusion of AEAs?

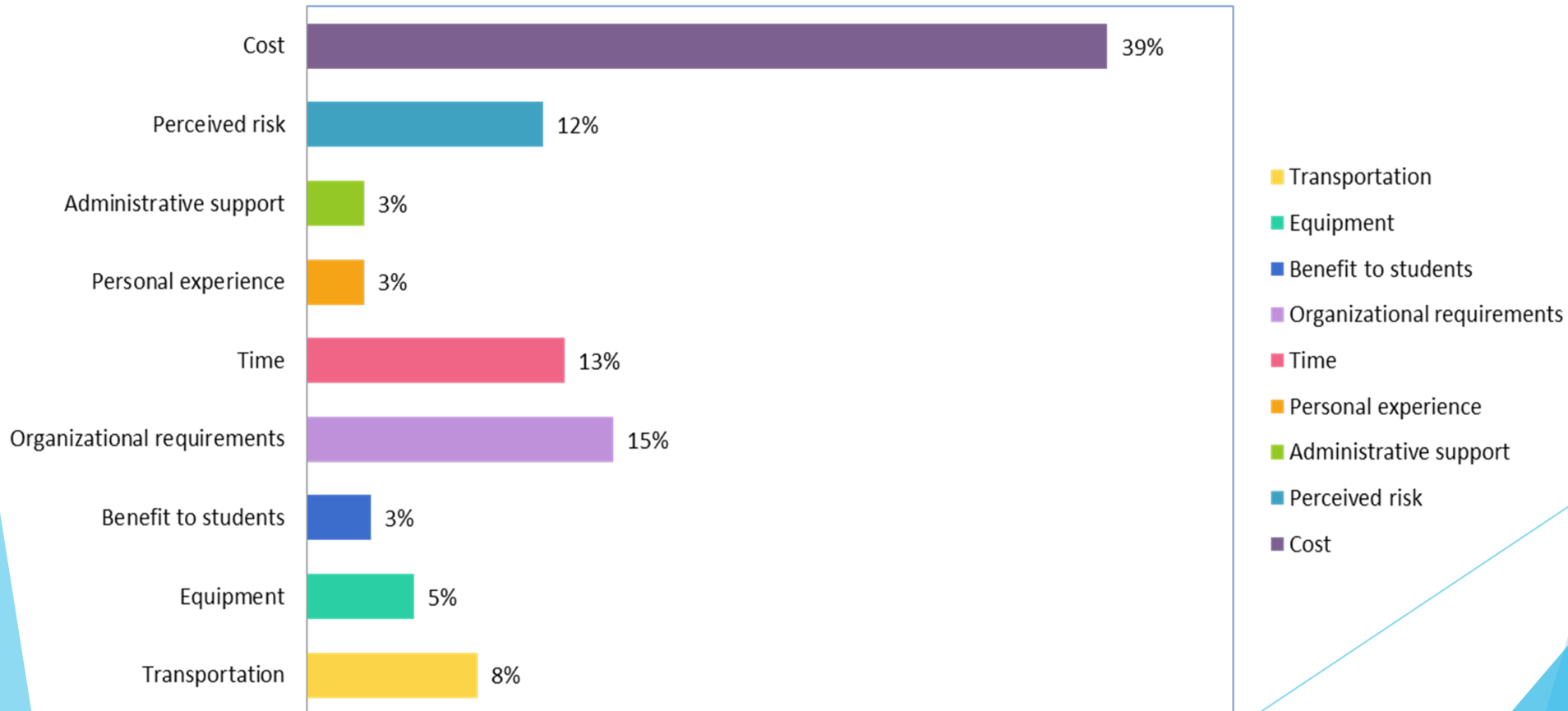
Which of the following do you personally feel is the biggest reason STOPPING you from including AEAs in your PHE program?

- Time
- Organizational Requirements
- Cost
- Associated Risks
- Personal Knowledge/Experience
- Transportation
- Other



# Teacher Embracement of AEA's (Canada)

## Factor Perceived as Most Important When Deciding Not to Include Alternative Environment Activities



# Teacher Embracement of AEA's (Canada)

**Perceived Barriers.** When sharing perspectives on perceived barriers, participant responses related to 'cost' included:

- *I think it is a wonderful idea ... exposing our children to alternative environment activities is very beneficial. However, I teach at a very small school where cost is always a major factor.*
- *I think it is beneficial, but is difficult to include due to scheduling, cost and risk.*
- *I don't think it is pushed at all, actually – again, lack of funding. I think alternative environments are important to expose students to activities they might otherwise not be able to try, or not even know it existed. A way to reach some students who are not sports-related (which is still a large part of what is taught in PE, because it is easy financially!).*
- *... cost, liability/insurance and the organization of them due to these make them time consuming and difficult to set up.*
- *To promote an awareness of the availability of diverse physical activities as many of these choices are costly and limited in a small community.*



# Teacher Embrace of AEA's (Canada)

How beneficial do you feel including AEA's in a PHE program is to the students?

- *Our youth are suffering from nature deficit disorder. They are craving nature but don't realize it until they are in the wilderness. Let's put those phones and video games away and go on a real adventure!*
- *Activities that are low cost and accessible to most families are beneficial because there is a greater chance that a student will adopt it as a lifelong activity/sport.*
- *I think it is very important for students to experience alternative environments. Some children do not gravitate towards physical activity in general or do not enjoy the traditional avenues of physical activity. Through alternative environment opportunities, peers have new chances to bond and experience each other while also becoming more aware of their own self as they learn new activities, participate in team-based activities, and discover the world outside the school proper.*
- *To be able to expose students at a young age to a variety of activities that they may not have an opportunity to pursue outside of the classroom is hugely beneficial to their school experiences. It offers them a chance to discover new activities, unfamiliar to them, that may spark their interests and instill a desire in them to pursue it outside of school.*

# Teacher Embracement of AEA's (Canada)

## Participants thoughts about why AEA's are a part of the PHE curricula:

- *To expose students to a wide range of possibilities for being active with the objective of individuals finding an activity they may pursue throughout life and be active for life.*
- *Many of these are activities that are not team sport activities, and many people continue to do well into adulthood. These are the activities that keep people physically active throughout their lives.*
- *I believe they are put into place so that all students can have a chance to try things that they could pursue and enjoy as a lifelong activity – not just the typical "athlete." Also, I believe that more movement types they are exposed to, the more physically literate they will become.*
- *Students need to learn how to be active away from the gym. The more options and experiences they have the better chance they'll do the activities again on their own time.*
- *Being outdoors has many positive effects including mental health and well-being. Students spend too much time indoors and need to be taught what they might do outside that is active and fun.*
- *One, to reach a wider range of students with a wider variety of activities. Two, to encourage students to be active without having to play traditional "sports".*

# Comparison of AEA's in Ireland vs. Nova Scotia

- Compared PHE teachers on both sides of the Atlantic
- Similar low cost AEA's (e.g., hiking, orienteering) were most commonly employed in both locations
- Significant differences were found for the following:
  - teachers in Ireland were more likely to see cost as the biggest barrier
  - teachers in Nova Scotia were more likely to cite organization as the biggest barrier; have completed professional development related to AEA's; believe school leaders support AEA's inclusion



# General Strategies to Make Inclusion of AEA's Easier

- Offer dedicated AEA-related PD learning opportunities that not only discusses the many potential AEA's available, but also practical strategies to lessen the common barriers that block the way for implementation (e.g., ways to decrease costs)

## **Practical Strategies:**

- search for AEA's that require minimal or no associated costs, equipment, and/or transportation requirements (e.g., string orienteering, snow shelter building)
- discover ways to share related costs for AEA 'specialized' equipment between schools (e.g., archery sets, snow shoes, compasses)
- develop relationships with external organizations (e.g., paddling organizations, curling associations) that can deliver equipment to schools dissolving any transportation costs (e.g., inline skating, skateboarding)

# Practical Suggestions

## Types of Learning Environments, Examples, and Teaching Considerations

Type	Examples	Teaching Considerations
Land	<ul style="list-style-type: none"><li>• Orienteering</li><li>• Cycling</li></ul>	<p><b>Communication</b></p> <ul style="list-style-type: none"><li>• Explain the activity and cost to school administrators (obtain school approval)</li><li>• Contact the organization, facility, and transportation company (arrange a date &amp; time)</li><li>• Complete consent forms (including administrator's signature)</li></ul> <p><b>Instruction</b></p> <ul style="list-style-type: none"><li>• Consider student knowledge and skill level</li><li>• Consult the relevant safety guidelines document</li><li>• Ensure volunteers understand their roles</li></ul> <p><b>Differentiation</b></p> <ul style="list-style-type: none"><li>• Consider modifications for students with special needs</li><li>• Provide off-site instructors with information about students with special needs</li><li>• Attend to the variety of developmental levels of all students</li></ul> <p><i>* For all AEs be sure leader is carrying appropriate first aid kit</i></p>
Water	<ul style="list-style-type: none"><li>• Canoeing</li><li>• Swimming</li></ul>	
Ice/Snow	<ul style="list-style-type: none"><li>• Cross-Country Skiing</li><li>• Curling</li></ul>	
Air	<ul style="list-style-type: none"><li>• Diving</li><li>• Climbing Walls</li></ul>	

# AEAs Ideal for Elementary School: Small Wheels Activities

## Why include?

- Great for developing balance and coordination

## What is required? Where is it possible?

- Scooters, skateboards, rollerblades | School tarmac (indoors if need be)

## Strategies/Considerations for:

- Stations work well | Students choose | Lunchtime or after school program

## Available Resources:

[https://www.physicaleducationupdate.com/public/How to Add Add Inline Skating to Your PE Curriculum.cfm](https://www.physicaleducationupdate.com/public/How%20to%20Add%20Add%20Inline%20Skating%20to%20Your%20PE%20Curriculum.cfm)

<http://www.dropintoskateboarding.com/teach.php>



# AEAs Ideal for Elementary School: String Orienteering

## Why include?

- Easily include fitness & movement skills
- Allows for cross curricular connections  
(e.g., measurement; geography)

## What is required? Where is it possible?

- String, paper, map, possibly compass | Any outdoor space; possible indoors

## Strategies/Considerations for:

- Any season | Student groups do course together | Considerable set-up

## Available Resources:

\* Our Orienteering hand-out (Bradford & Hall):

<https://www.ocin.org/OldSite/patspages/sarko/young/stringo.html>



# AEAs Ideal for Elementary School: Tobogganing

## Why include?

- Introduces students to enjoyable PA in winter environments
- Terrific for teaching safety and injury prevention

## What is required? Where is it possible?

- Sleds, toboggan | Snow covered hill with no hazards (e.g., trees; parking lots)

## Strategies/Considerations for:

- School set of sleds | Defined areas for down & up
- Safety checklists

## Available Resources:

[https://www.edu.gov.mb.ca/k12/cur/physhlth/out\\_of\\_class/checklists/tobogganing.pdf](https://www.edu.gov.mb.ca/k12/cur/physhlth/out_of_class/checklists/tobogganing.pdf)





# AEAs Ideal for Middle School:

## Hiking

### **Why include?**

- Simple to organize | Efficient to deliver | Minimal or no cost
- Easy to incorporate cross curricular connections (e.g., historic landmarks)

### **What is required? Where is it possible?**

- Comfortable footwear | Navigation tool | Any outdoor space

### **Strategies/Considerations for:**

- Any season | Team teaching (lead & sweep) | Urban hiking (stairs are key)

### **Available Resources:**

[http://www.pelinks4u.org/naspeforum/discus/messages/1239/Hiking\\_Backpacking\\_TilipDouglas-Reid-2776.pdf](http://www.pelinks4u.org/naspeforum/discus/messages/1239/Hiking_Backpacking_TilipDouglas-Reid-2776.pdf)

# AEAs Ideal for Middle School: Golf Type Activities

## Why include?

- Develop target/aiming related skills
- Easily adaptable for various movements

## What is required? Where is it possible?

- Target (e.g., hula hoop) | Projectile (e.g., disc; exercise ball)
- Any outdoor space | Designated spaces (e.g., mini-golf; disc golf; driving range)

## Strategies/Considerations for:

- Allow students to create holes | Teach proper etiquette

## Available Resources:

<https://www.pecentral.org/lessonideas/ViewLesson.asp?ID=1965#.Xtx2AMB7IPY>

<https://www.youtube.com/watch?v=g9aqCBqUciE>



# AEAs Ideal for Middle School: Snow Shoeing

## Why include?

- Introduces students to enjoyable PA in winter environments
- Terrific for teaching safety and injury prevention
- Helps develop fundamental movement skills

## What is required? Where is it possible?

- Snow shoes | Warm clothing | Any outdoor space with considerable snow

## Strategies/Considerations for:

- School set of sleds | Defined areas for exploration | Safety checklists

## Available Resources:

<https://www.snowshoemag.com/2010/11/08/snowshoeing-201-snowshoeing-pedagogy/>



# AEAs Ideal for Secondary School: Kayak / Canoe / SUP

## Why include?

- Helps develop comfort with water based activities
- Coordination, balance, muscular endurance

## What is required? Where is it possible?

- Paddles, watercraft | Lake, pond, rivers, large pools

## Strategies/Considerations for:

- Rivers are more challenging | Teaching water safety is common in curricula
- Can be costly | Seek help from local paddling clubs

## Available Resources:

<https://ilovephysed.weebly.com/canoeing.html>

<https://www.cdc.gov/healthyschools/bam/cards/canoeing.html>



# AEAs Ideal for Secondary School: Geo-Caching

## Why include?

- Easily include fitness & movement skills
- Allows for cross curricular connections (e.g., measurement; geography)

## What is required? Where is it possible?

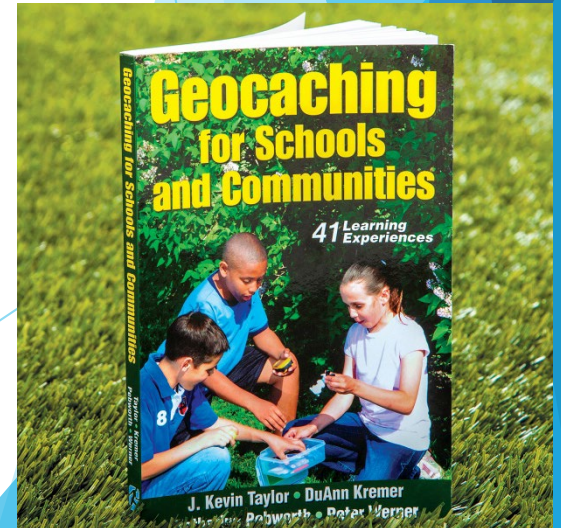
- GPS units (smart phones are an option) | Any outdoor space

## Strategies/Considerations for:

- Student groups complete the activity together (ideally with an adult)
- Set of GPS units shared within a school division

## Available Resources:

<https://www.pc.gc.ca/en/docs/pc/guide/geocache>



# AEAs Ideal for Secondary School: Curling

## Why include?

- Helps develop comfort travelling/balancing on ice
- Introduces students to enjoyable PA in winter environments
- Terrific for teaching safety and injury prevention

## What is required? Where is it possible?

- Sheet of ice | Brooms | Curling rocks (e.g., milk jugs)

## Strategies for:

- Create a sheet of ice on the playing field
- Fill up a bunch of milk jugs with water (and freeze)

## Available Resources:

<https://www.ocin.org/OldSite/patspages/sarko/younggo/stringo.html>



# Summary

## Implications of Our Research Findings to Date

- we need to do a better job educating PHE teachers on the role of AEA's and their place in PHE curricula
- dedicated PD regarding AEA's is one of the only teacher characteristics significantly associated with increased PHE teacher embracement of AEA's
- cost is the greatest perceived barrier to embracing AEA's, but not all AEA's are associated with a high cost
- time may actually be the most difficult barrier to overcome and leadership support may be vital to addressing this

# Summary

- If PHE teachers embrace AEA's and we can find ways to reduce the perceived barriers to including these activities
- AEA's have the potential to provide extremely beneficial educational experiences
- There may never have been a more appropriate time for increasing the embracement of AEA's in PHE programs!





# Related Literature

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**Thank You**  
**for joining us today!**

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