FEAR Outdoor Play LESS!: Managing Risk in Natural Environments

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Allen Cooper, MPP, JD, Director of Learning, National Wildlife Federation
Patty Belmonte, Executive Director of the Hands On Children's Museum in Olympia, WA
Molly Bloom, Assistant Director, Visitor Experience, Discovery Museum, Acton, MA
Session Outline:

- Types and Benefits of Risky Play in Outdoor Settings - Rebecca Colbert
- How to Develop Risk Management Protocols for Outdoor Play - Allen Cooper
- Risk Management Scenario Exercise
- Lessons from the Outdoor Discovery Center - Patty Belmonte
- Lessons from Discovery Woods - Molly Bloom
- Questions/Discussion
What is Risky Play?

Thrilling and exciting forms of play that involve a risk of physical injury.

The risk can be real or perceived.

Within risky play, children experience ‘scary-funny’ feelings, the ambiguous emotional shifting back and forth between negative and positive emotions, pushing their limits and thereby strengthening physical and emotional skills (Sandseter, 2009).
# Categories of Risky Play in the Outdoors

*(Sandseter, 2007 and 2009)*

<table>
<thead>
<tr>
<th>Categories</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Heights</td>
<td>Danger of injury from falling</td>
</tr>
<tr>
<td>High Speed</td>
<td>Uncontrolled speed and pace that can lead to collision with something or someone</td>
</tr>
<tr>
<td>Dangerous Tools</td>
<td>Can lead to injuries and wounds</td>
</tr>
<tr>
<td>Dangerous Elements</td>
<td>Where children can fall into or from something</td>
</tr>
<tr>
<td>Rough-and-Tumble</td>
<td>Where the children can harm each other</td>
</tr>
<tr>
<td>Disappear/Get Lost</td>
<td>Where the children can disappear from the supervision of adults, get lost alone</td>
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Play at Great Heights

Sub-Categories
Climbing
Jumping from still or flexible surfaces
Balancing on high objects
Play at High Speed

Sub-Categories
Swinging
Sliding and sledding
Running and chasing
Bicycling
Skating and skiing

InterActivity 2019: Fear Outdoor Play LESS!: Managing Risk in Natural Environments
Play with Dangerous Tools

Sub-Categories
- Cutting tools: Knifes, saws, axes
- Strangling tools: Ropes etc.
Play with or near Dangerous Elements

Sub-Categories
- Cliffs
- Deep or icy water
- Fire pits
Rough and Tumble Play

Sub-Categories
- Wrestling
- Fencing with sticks etc.
- Play fighting
Getting Lost or Disappearing

Sub-Categories
Go exploring alone
Playing alone in unfamiliar environments
Framing Risk as the Reciprocal Relationship Between the Environment and the Individual
(Sandester, 2009)
Characteristics of the Environment and the Individual
(Sandesteer, 2009)
How Does Risky Play Contribute to Healthy Development?

Risky Play Affords Young People the Opportunity to:

- Develop new skills and abilities
- Cope with and manage uncertainty
- Face challenges and build environmental mastery and physical prowess
- Develop feelings of autonomy, competence and relatedness
- Build resilience and the foundation for happiness as they face life’s challenges

If they are never allowed to experience discomfort, how do children develop physical skills, learn to regulate their emotions, extend themselves in social relationships or persevere in the face of cognitive challenges? (Niehues et al, 2013)
References/Resources


A Brief History and Future of Nature Play Area Risk Management

Allen Cooper, MPP, JD
National Wildlife Federation
The desire for safety stands against every great and noble enterprise.

Cornelius Tacitus, Roman historian (55-120 AD)
"The sandbox is safe, and it's even safer without the sand."
Once upon a time...
Then adults decided to make things more interesting...
Result: Risk management through regulation for injury avoidance

• Standards for manufactured play equipment (ASTM)
• Guidelines for playground design and inspection (CPSC)
• Regulation of fall zones, impact attenuation surfacing
• Attempt to eliminate entrapment, impalement, and entanglement hazards
The Dirty Dozen
12 Playground Hazards

National Recreation and Park Association
6 Trip Hazards
Trip hazards are created by play structure components or items on the playground.

Common trip hazards often found in play environments include:
- Exposed concrete footings
- Abrupt changes in surface elevations
- Tree roots
- Tree stumps
- Rocks

7 Lack of Supervision
The supervision of a playground environment directly relates to the overall safety of the environment. A play area should be designed so that it is easy for a parent or caregiver to observe the children at play. Young children are constantly challenging their own abilities, often not being able to recognize potential hazards.

Parents must supervise their children at all times on the playground!

DID YOU KNOW?
It is estimated that over 40 percent of all playground injuries are directly related to lack of supervision.
Nature play to the rescue!
What is ‘dangerous’ and what is ‘safe’?
What is a ‘hazard’?
What is a risk?

Risk is a combination of the severity of injury that might result from a hazard, the likelihood of that injury occurring, and the exposure to that hazard.
Risk literacy
Risk literacy is the ability to recognize hazards, evaluate risks, and manage risks.
Risk Analysis

Risk analysis considers the developmental benefits of risk alongside the likelihood and severity of harm that might result.
A play area has two goals: “to offer children and young people challenging, exciting, engaging play opportunities, while ensuring that they are not exposed to unacceptable risk of harm.”

“Good risks and hazards in play provision are those that engage and challenge children, and support their growth, learning and development...Bad risks and hazards are those that are difficult or impossible for children to assess for themselves, and that have no obvious benefits.”

Managing Risk in Play Provision: Implementation Guide
David Ball, Tim Gill, and Bernard Spiegel
Liability standards in nature

- Generally speaking the law considers it open and obvious that hazards are present in nature and that individuals are expected to look out for themselves, and requires no modification or signage.

- In many states, recreational use statues explicitly limit liability for landowners who make land available for recreational use.
Design and liability standards in a nature play area

Design standards (ASTM and CPSC) only apply to manufactured play equipment (whether of natural materials or not)

BUT

The same standard of care for liability purposes applies in natural play areas
The likely standard of care in a nature play area: negligence

The manager of a nature play area will have a duty to remove dangers that are not open and obvious to the intended user and that present a risk of injury above what is acceptable to society.
Kids are also expected to exercise reasonable caution appropriate to their age
Generally, there is no legal duty to prevent kids from climbing trees because risk of fall is open and obvious. There would be, however, a duty to trim unstable branches.
Managing risk for your Institution
Be clear about purpose: what is your mission?
Define your *risk appetite*: What risks do you need to take in order to achieve your mission?
Define your *risk tolerance*: what risks are unacceptable at this time?
Analyze Risks: Severity, Probability, Exposure
Manage risk in accordance with accepted standards and practices for the setting and activity
A Risk Management Protocol for Nature Play and Learning Areas
Step 1: Determine applicable design standards (if any) and standards of care in your jurisdiction

Considerations:
• Type of institution (park, school, childcare center)
• Public or private?
• Applicable regulation or case law
• Existence of recreational use statute
Step 2: Engage your insurer or risk manager

Deemed unsafe by an insurer’s inspector
Step 3: Conduct a Risk Assessment and eliminate hazards presenting unreasonable risk of harm.

Considerations:
• Potential for falls
• Head entrapment
• Protrusions
• Stability
• Entanglement
Step 4: Conduct a risk assessment of natural features within a designated play area
Step 5: Develop an inspection routine

• Inspect all relevant potential hazards
• Conduct at a reasonable frequency
• Include observation of children at play because kids are play innovators
Step 6: Document and evaluate all incidents
Step 7: Maintain records of inspections and incident reports coupled with regular staff evaluations and recorded responses.
Step 8: Communicate with play area users
Hands On
Children’s Museum

Safe Danger
Examples &
Lessons Learned

Patty Belmonte, Executive Director
About Hands On
Olympia’s Downtown Waterfront

- 1+ hours to Seattle; 2 hours to Portland
- City size 51,000; MSA 275,000
- Budget $3.9M
- 315,000 Annual Visitors
- 119,000 Free/Reduced Admissions
Located on the tip of Puget Sound
3 Projects – Inspired by water & nature

- Children’s Museum & Outdoor Discovery Center
- LOTT WET Center – The Science of Wastewater
- East Bay Public Plaza & Reclaimed Stream
East Bay Public Plaza 250’ Interactive Stream
Fed with Class A reclaimed water

First in State approved for immersion in reclaimed water
East Bay Plaza Stream Risks

Use At Your Own Risk

- The stream is for wading only. Children must be supervised.
- Diapers must be swim diapers or have protective covering
- No pets in the stream
- No loud or drink within 10 feet of the stream
- No running, rough play, or throwing rocks
Museum Outdoor Discovery Center Concept

Promote Physical & Mental Well-Being by

• Connecting young children to nature
• Providing seamless indoor outdoor play
• Providing “Safe Danger” experiences
Seamless Indoor Outdoor Play
Loose Parts, Sand, Sticks & Insects!
Welcome!

Outdoor Discovery Center

WSECU

A “Going Wild” National Pilot Site

The Outdoor Discovery Center is a nature playspace. Explore at your own risk.
Recreating a Puget Sound Beach
Natural Materials from Washington Coast
Puget Sound Beach
Promotes Discovery & Independence

Getting Up High
• No Fall Zone
• Balancing
• Sharp Edges & Rough Wood
Driftwood Fort Building
On the Beach
Driftwood Fort Building

Dangerous Elements
- Loose logs & sticks
- Unstable structures
- Sand & rocks

Promotes problem solving, planning, cooperating & negotiating, tinkering, making, physical activity
Adding the Mud Kitchen
New Ways to Solve Problems & Persevere
Gravel Dig & Rocks

Safe Danger
Dangerous Elements
- 4-5’ high rocks - No fall zone
- Alpine stream
- Loose stones
Hike & Trike Loop

Going Fast

• It’s not level or straight!
• 4’ elevation means trikes go fast!
• Padded Light Bollards
Programming for Risk Experiences
Fire Rescue Spectacular Event

Emergency Vehicles
The Unexpected
Ladder Truck Rains
“Safe Danger” – Falling
Playing with Fire
Using Dangerous Tools Outdoors
Soldering Safety

- Follow all directions carefully!
- Store soldering iron in stand when not in use.
- NEVER touch the metal tip.
- Metal transfers heat - ANY metal on the project may be hot!
Loose Parts Prototyping
Shelter Building & Egg Investigation

- Bamboo Branches
- Sticks & Stumps
- Large & small rocks
- Alpaca wool
Loose Parts & Risky Play?

Allergy Alert: Alpaca Fiber is used in this project.

Splinter Kits On Demand!
Structure Building Leads to Art Making
Adding Acorns & Ramps
Along with milk and veggies, kids need a steady diet of rocks and worms. Rocks need skipping. Holes need digging. Water needs splashing. Bugs and frogs and slimy stuff needs finding.

Thank you!
“Just Right” Risk:
Examples and lessons learned

Molly Bloom
Asst. Director, Visitor Experience
About Discovery Museum
Site Context
Discovery Woods Goals

- Support documented need and benefits of outdoor play, nature explorations, and stewardship development
- Provide a gateway to nature
- Create a ‘hook’ and infrastructure for year-round experiences
- Be inclusive and accessible
Advisors – Visitors, partners, experts

• Evaluated our existing outdoor programs
• Did a brief visitor survey to show interest
• Assembled the Natural Connections Accessible Treehouse Advisory Committee which included:
  • Discovery Museums staff
  • Treehouse designer and builder
  • Landscape Architect
  • Project evaluator
  • Community Partners
  • Accessibility Advisors
  • Environmental Community of Practice
• Submitted grants for Natural Connections Treehouse
• Sought funding to pilot outdoor programs
Planning for Discovery Woods
Piloted Outdoor and Nature-based public programs
Dirtopia, Fairyborough, Tree Walks, Great Hill Conservation Land Walks and more!
Planning for Discovery Woods

Piloted Outdoor, Nature-based After-school programs

Partnered with a neighboring after-school program and a local environmental educator to host 3rd and 4th grade students. Students engaged in weekly explorations of the Great Hill Conservation Land that adjoins the museum’s campus in multi-week Spring & Fall Sessions.
Planning for Discovery Woods

Front End Evaluation

To collect visitor information on their:
• incentives and/or barriers to outdoor play and nature exploration
• interest and design preferences for the treehouse and outdoor space
• ideas and activities that could happen in Discovery Woods and beyond

Focus groups with museum members provided valuable insight and informed the design of visitor surveys

Museum staff and volunteers conducted visitor surveys over 9 months (3 seasons)
Comfort with their child . . .
Activities for their child . . .
Discovery Woods

Expanding Accessibility

- Accessible features in Discovery Woods
Discovery Woods

Note: Not all elements are visible on this rendering, but are labeled to show approximate location.
Welcome to Discovery Woods!

Please check in at the museum to get your admission sticker
Welcome to Discovery Woods
an outdoor playscape about nature play and choosing to take “just right” risks.

- Please get an admission sticker inside the museum.
- As you explore, please help your child make choices that are right for their age and ability.
- Surfaces may be slippery from rain, snow, or ice. Please wear appropriate footwear.
- Please help us keep the area clean by eating outside of Discovery Woods in the designated picnic areas.
SOME OF THE PLAY FEATURES ON THIS HILL ARE CHALLENGING, ESPECIALLY FOR CHILDREN UNDER 6

PLEASE SUPERVISE YOUR CHILDREN
Caution: these stairs can be challenging.

Please wear appropriate footwear and walk carefully.
MUD!
FIRE-MAKING
FISH MIGRATION
Slide Hill
Adventure Hill
Options and ‘just right risk-taking’