

# Planning & Risk

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### Affective outcomes of adventure programming

- Newfound confidence
- Improved self concept
- More willingness to take risk
- Increased logical reasoning
- Greater reflective thinking
- Diminished fear of uncertainty
  - Enhanced leadership
  - New ways to cooperate
- More effective communication skills
  - Greater trust in others
- Increased sharing of decision making
  - Diminished conflicts
  - Improved problem solving
  - Enhanced leadership

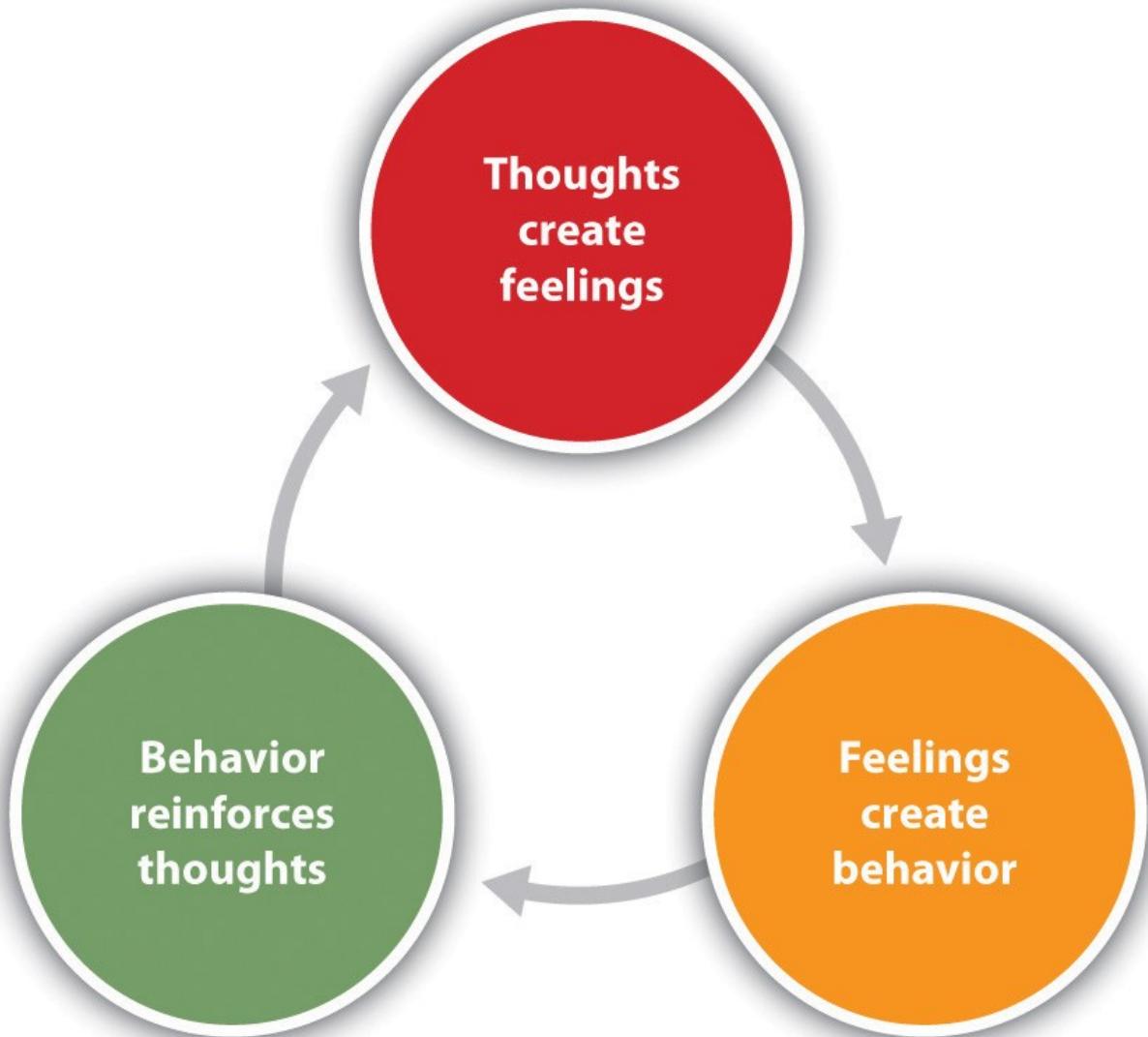


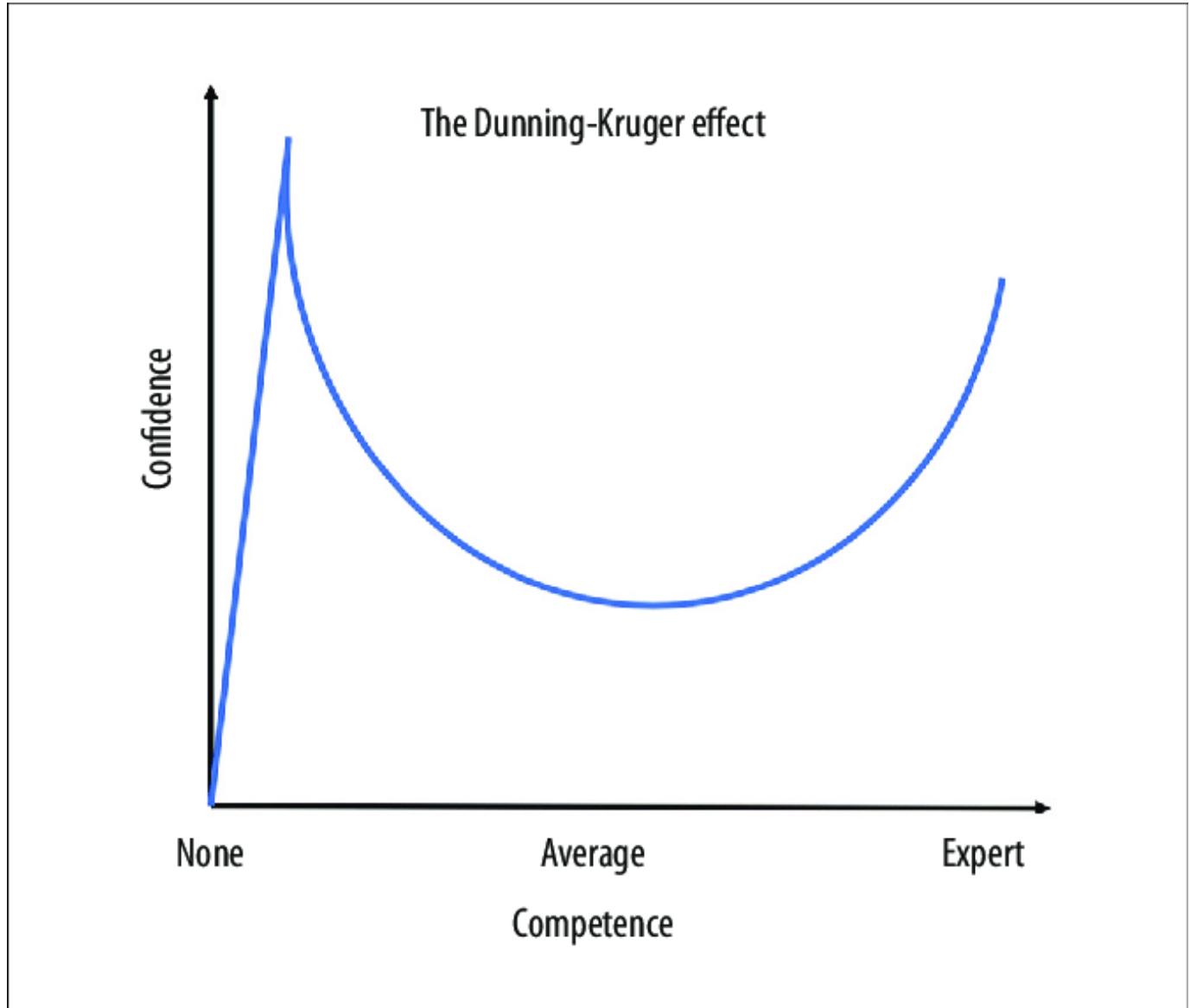


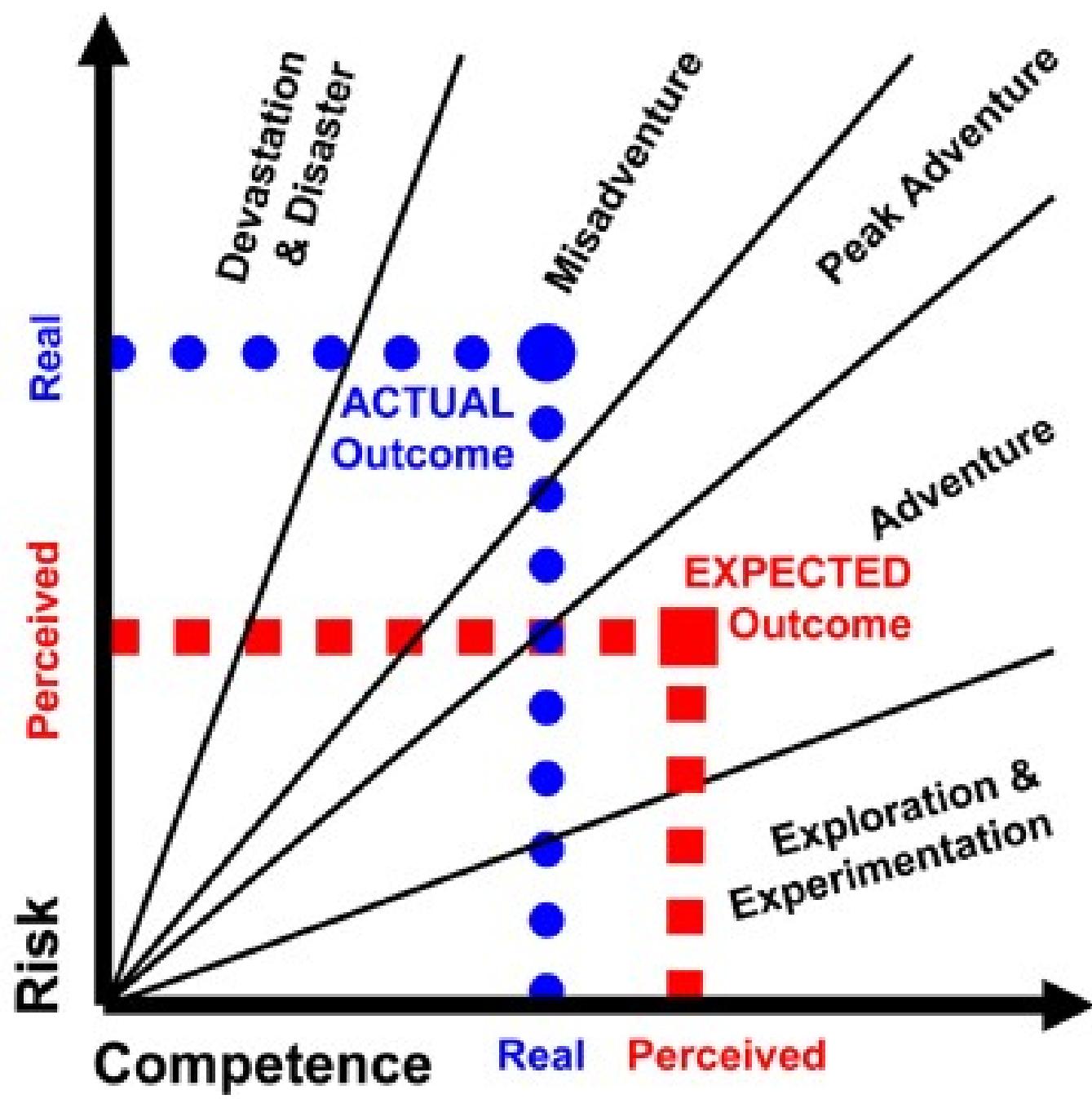
Fear is a mind  
killer



- “You can have the best gear in the world but still make bad decisions”
- Your physiological state will affect the tactical decisions you make
- .

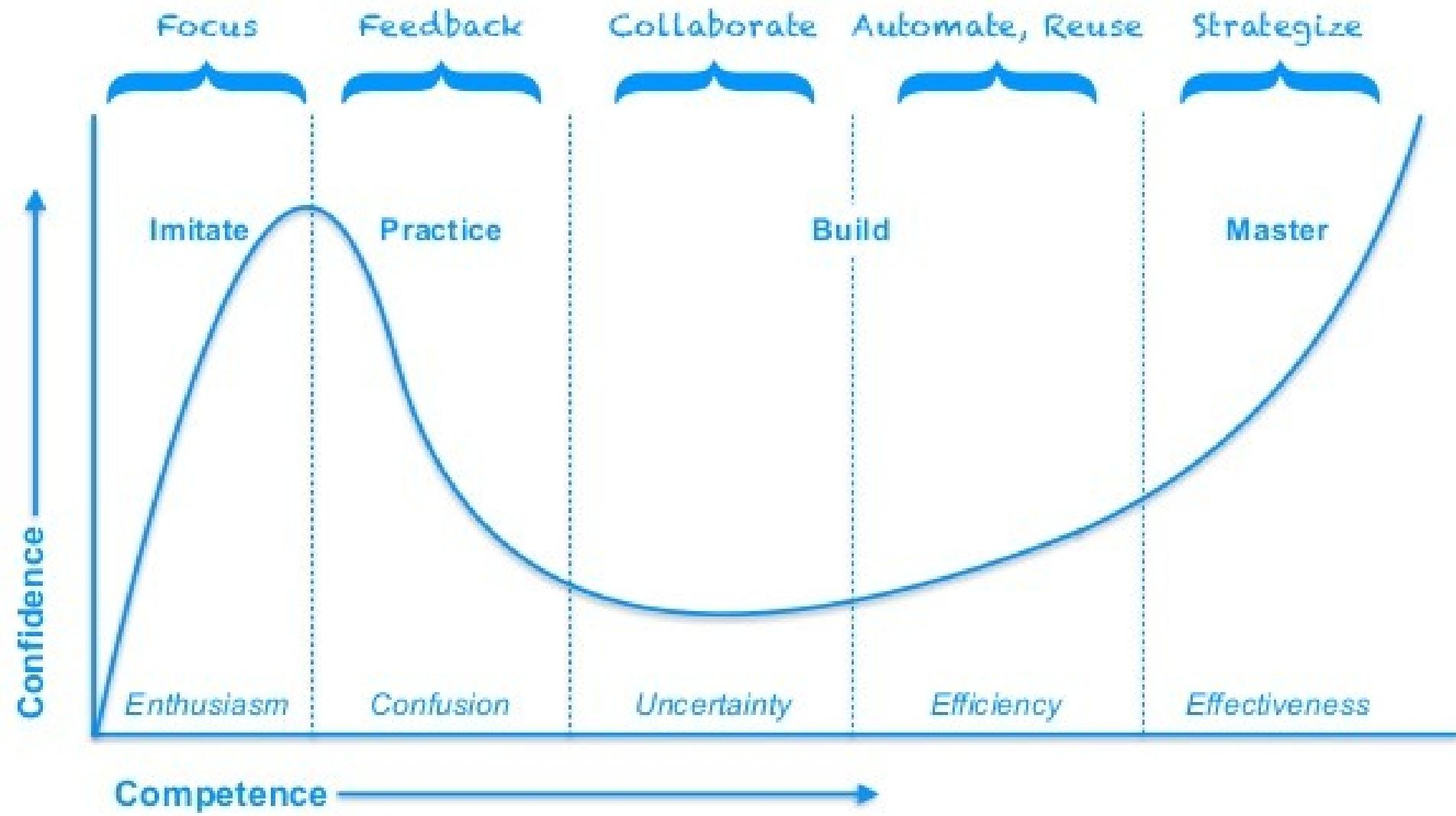






# The Perceived Fear Scale (PFS)

1	Slight discomfort
2	
3	Butterflies in the stomach, accelerated heartbeat
4	
5	Sweating hands, impaired temperature regulation (hot flushes/chills) and breathing pattern, dry
6	mouth
7	Imperfect coordination, tremor and muscle
8	rigidity, feeling of despair
9	Loss of fine motor control, various physical
10	disfunctions



C.L.A.P.S

**CLAPS stands for**

Communication,  
Line of Sight,  
Anticipation/ Avoidance  
Position of Maximum Usefulness  
Stop

**Communication** seems simple, but, of course, it's not. Groups get spread out. Voices don't carry in the wind.

Plans get forgotten. Changing weather, summit fever, fatigue, and adrenaline get ignored. Hikers caught in a meditative reverie wander past trail junctions.

Communicate early and often. Use systems that apply when voices don't work: whistles, hand/paddle/ski pole/ice axe signals, and agreed-upon steps if the group

Keep your communication simple when the going is tough. Use simple commands like left, right, centre, stop, wait, scout, group. Anything more complicated can wait until your group is in a place they can stop, talk, and relax a bit

## L IS FOR LINE OF SIGHT

Hikers disappear around bends. Paddlers drop into a rapid and are gone from sight. Climbers are invisible the next rappel down. And the more focused everyone

is on what they're doing, the more their bubble of awareness shrinks.

You only know if someone's in trouble if you can see them, but it's rare to be able to see the whole group at the same time. Your job as leader is to manage line

of sight. In challenging conditions, each person should be in the line of sight of someone else, and a stop should be triggered if that breaks down. You should be

able to have line-of-sight for crux moves, maintaining direction, or seeing if someone is struggling.

## A IS FOR ANTICIPATION / avoidance

What could go wrong? What's most likely? I recently watched a group of skiers descend a steep curving hill. If one person fell, they'd likely fall in a blind corner,

where the next skier down could instigate a pileup. Sure enough, that's exactly what happened: fortunately everyone was just embarrassed.

On a whitewater rapid, I remember capsizing on a surf wave, only to roll up to find my friend Alan next to me, ready for a rescue had it been necessary; he'd seen

it coming. Use your experience to predict what could happen before it does.

Avoidance do I need to go there or go it avoid it? Do I want to go there for the challenge or training purposes if so anticipate what can go and prepare for it. Rescue kit throw rope etc

# P IS FOR POSITION OF MAXIMUM USEFULNESS

Be where you need to be most of the time. Contrary to popular opinion, it's not always at the front of the group, though that may seem like the place a "leader"

should be. Leading from the front makes sense when your skill is needed to establish the route up a rock face. Being at the front can also allow you to set a pace

that maintains communication.

But when you're in the front, you have to continually turn around to maintain your line of sight, and your pace may be fast enough that you accidentally spread

the group out too much. And the slowest, most fatigued, most nervous, and most unskilled members will be at the back, where you're farthest away and least

likely to know that a problem is developing. Unless you have a second leader in the back, being up front may not be best.

Position of Maximum Usefulness also varies with the sport. On trails and in whitewater, the lead/sweep position usually works well. But sea kayaking in windy

conditions, the position of maximum usefulness is usually downwind: the "catch" position in the event of a capsize. On long tours in open water, or cross-country

hikes, it's usually to the side where you can see the whole group.

Above all, Position of Usefulness should include one critical thing: don't make yourself the second victim. I've seen leaders, in an attempt to be ready to help

someone else, put themselves in the line of rockfall, out-of-control skiers, breaking surf, or runaway kayaks.

## **S IS FOR STOP**

Stop look around, stop and have regular breaks and refuel, if something goes wrong stop and take stock of the situation before rushing in.

## Why do incidents happen?

In 2004 Ian McCammon wrote a paper which detailed his investigation into the human factors that contributed to 715 recreational incidents taking place between 1972 and 2003

McCammon suggested that the common factor in all the incidents that he studied was the mental shortcuts that we use to speed up our decision-making process in everyday life known as heuristics

Examples that employ heuristics include **using trial and error, a rule of thumb or an educated guess.**

***Last time we did this Canyon it was safe and easy.***

We use these mental shortcuts every day in our life so that we don't have to process too much information for our routine tasks, however if we apply these shortcuts to an environment as dynamic and individual as the outdoors, we can quickly become misled by them and make mistakes.

***I check these anchors last time we abseiled here.***

McCammon categorized these common processes, referring to them as the **heuristic traps**. These are summarised briefly in the following slides



## •Familiarity

If we know the venue well, we assume that it will always be the same and we behave and do things the way we always have done. Since we know the venue well, we are also more likely to expose ourselves to more risk than those who are there for the first time.

- Consistency**

Continuing with the plan because it is the plan.  
Here we might follow-up on one bad decision with  
another, continuing down this path simply  
because it was our original intention and we feel  
we must see it through to the end.

## •Acceptance

As humans, we have a need to be accepted by our peers and this has a strong effect on our behavior and decision-making. McCammon suggests that we are far more likely to take risks if we believe that those around us will accept us.

- Social facilitation**

If we are being watched (or filmed) then we are more likely to expose ourselves to higher risks than we would otherwise.



- Scarcity of resource**

If we perceive that our resource is rare (e.g. water levels), then we will take higher risks because of this. If we have travelled a long way to get to our venue or we don't have many opportunities to take part in our chosen activity then we will push ourselves in a more dangerous way than we would if we had these conditions regularly.



- The halo effect**

Simply put, we are more likely to take risks in the presence of an expert. However, McCammon suggests that the issue lies in who we see as an expert and that we may be drawn into this trap due to someone's personality and our own perceptions of them rather than being guided by their actual experience and/or qualifications.

- Being aware of McCammon's heuristic traps is one thing, but activity trying to avoid falling into them is another thing.
- Avoidance starts with effective planning, gathering up to date information from a variety of resources and making good decisions right from the start. Try to come up with a range of options for your day out , what is our ideal plan?
- However, do we have options that are less risky should such things as water levels be higher than expected?
- Do we have a 'safer' and 'safest' plan? Bearing in mind that our safest plan might be to go at all.

Good communication is also critical to avoiding an incident occurring. We want to create an environment where everyone can contribute to a successful trip. By having appointed (or self-appointed) leaders, we risk creating a culture of ‘followership’ and we can quickly fall into the trap of the Halo Effect mentioned above. Yes, we might have people who take more of a lead role, but we should be empowering our team to help with decisions, to feel able to question any decision made and ultimately take responsibility for themselves as much as possible.



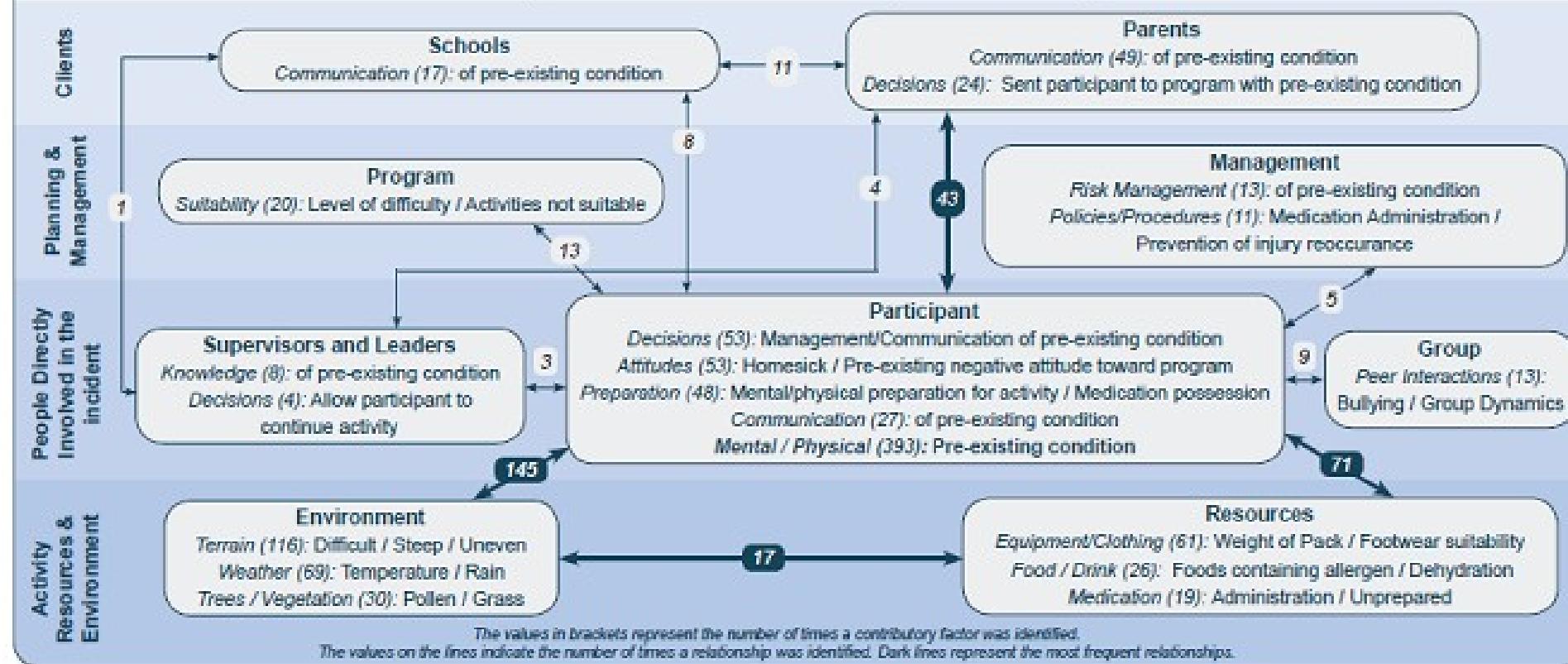
## Pre-existing health conditions are associated with 18.8% of all incidents in the National Incident Dataset

The figure below shows the most frequently identified contributory factors, and relationships between factors, associated with incidents involving a pre-existing condition.

### Example pre-existing conditions

Illness:	Psychosocial:	Injury:
• Asthma	• Anxiety	• Muscular
• Allergies	• Depression	• Sprain
• Cold & Flu	• Trauma	• Fracture
• Migraines	• Behavioural Issues	• Blister
• Menstruation		• Ingrown Toenail

Note: No contributory factors identified at the Government, Education and Regulation Levels



• Removing risk completely isn't something that we can do with 100% certainty and in some cases an incident could be completely unforeseen. We need to be observant for the moments that can be seen and strive to make decisions that will have a positive impact on the outcome of the trip. Many issues in the outdoors arise when the group is mismatched with the environment, and we should be mindful of this when we are planning our time out.

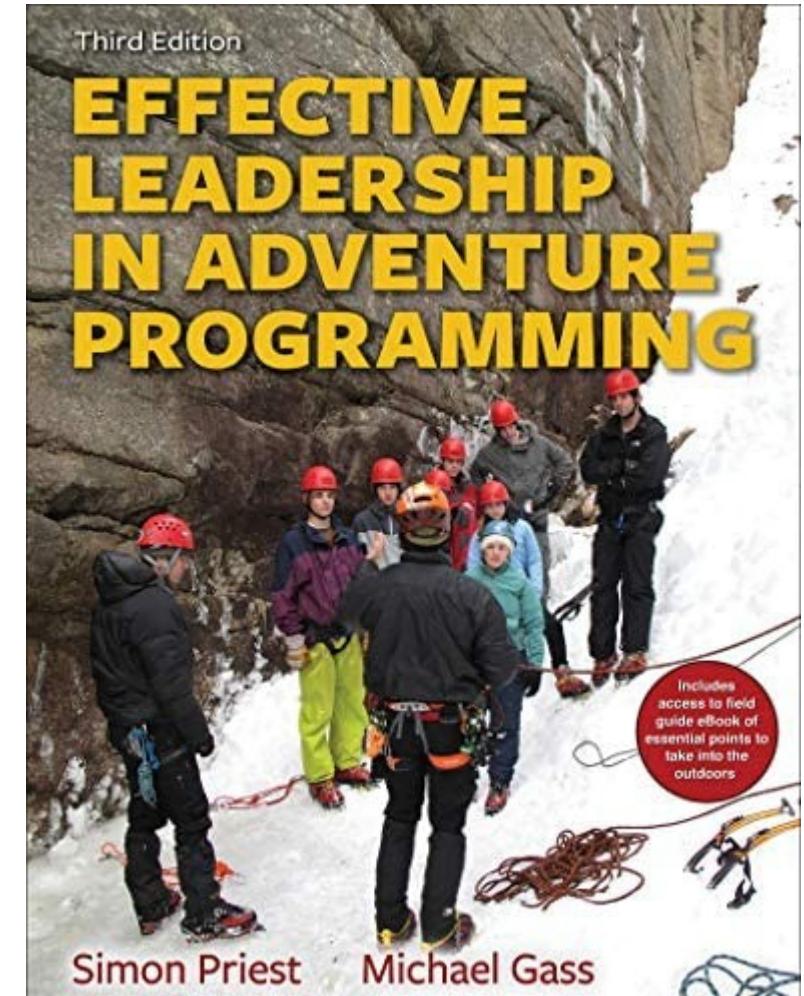
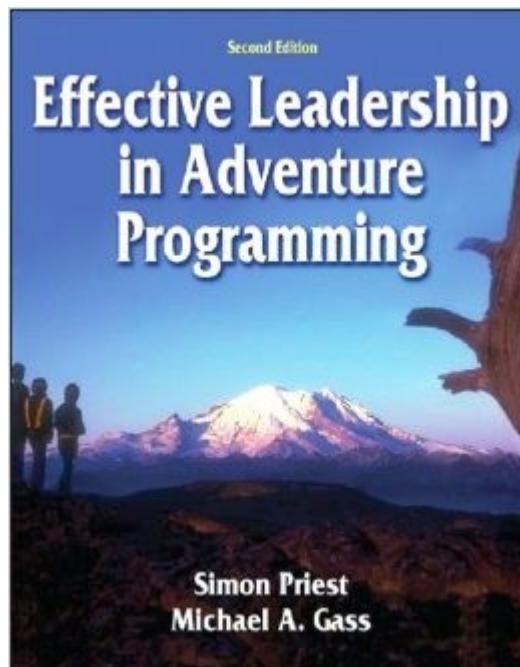


## Further Reading

NOLS National Outdoor leadership School.  
<https://www.nols.edu/en/>

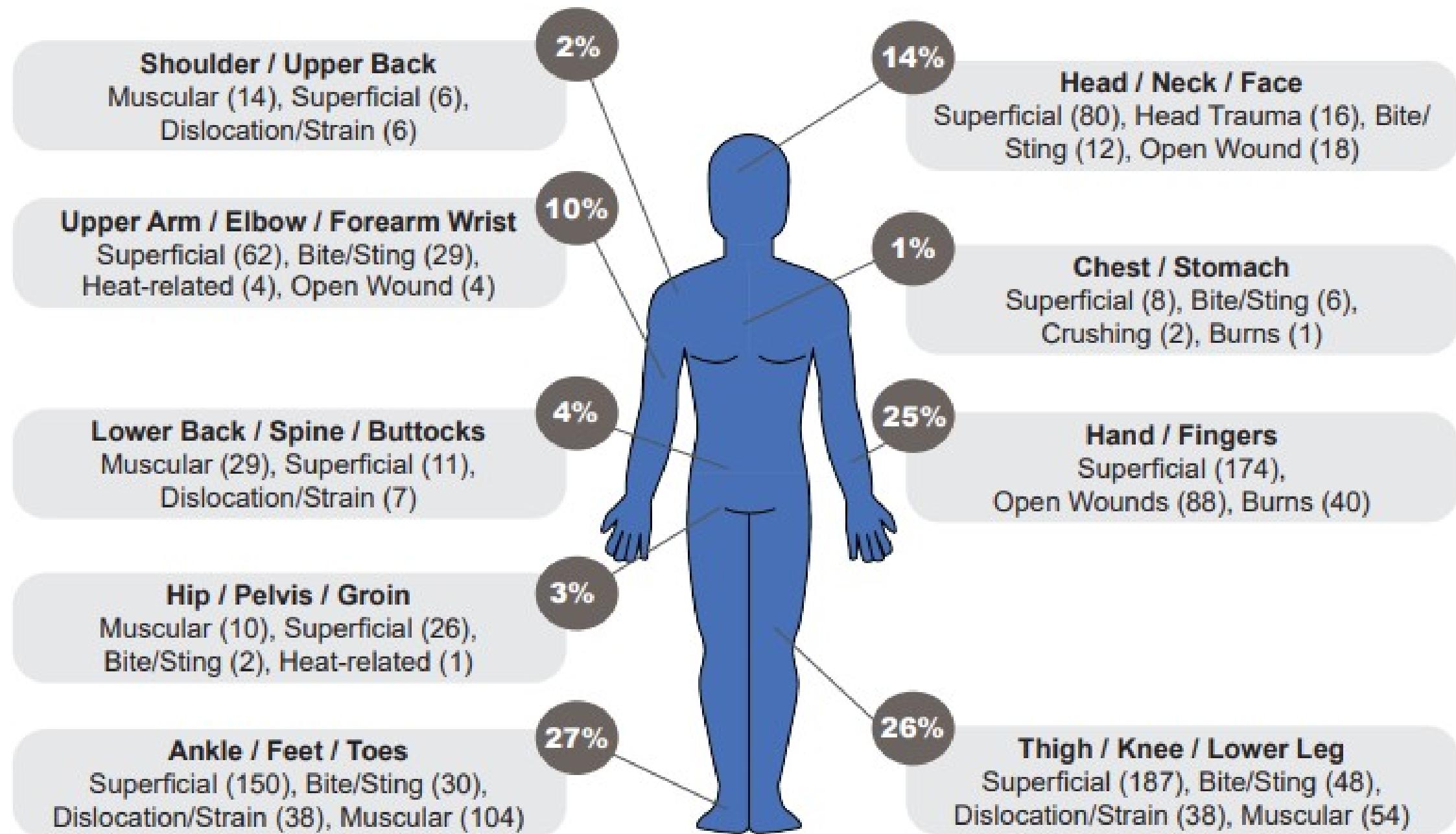
Outward bound

<https://uploadsproject.org/>



This table compares the age groups of participants involved in incidents to the total number of participants across all programs.

Participant age	Participants involved in incidents	Participants involved in all programs
0-5 years	5	173
6-12 years	672	45,687
13-17 years	1,653	58,292
18-29 years	16	2,409
30-49 years	1	1,468
50+ years	4	331
Not Reported	52	4,122



## Summary Data

Incidents reported  
**2125**

Program Participation Days  
**224,060**

*Calculation is based on program length  
and number of participants*

Incident Rate  
**9.5**

*Incidents reported per 1000  
program participation days*

## Incident Rates Per Incident Type

**6.3**  
Injury



**2.1**  
Illness



**0.5**  
Psychosocial



**0.1**  
Equipment



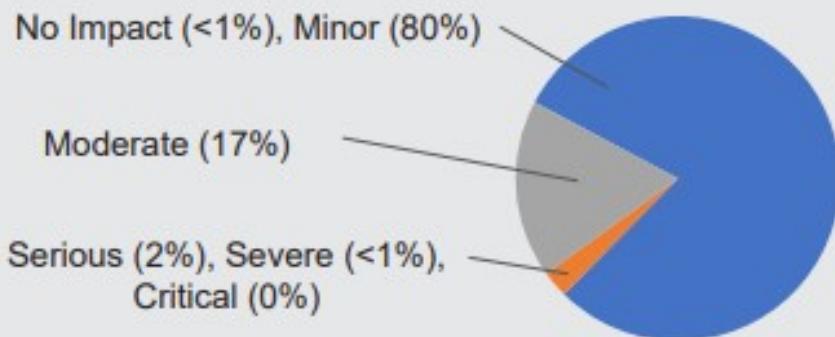
**0.7**  
Near Miss



*Number of incidents reported per 1000 program participation days*

## Severity Ratings

This pie chart shows that 80% of incidents with adverse outcomes were minor in severity. Meaning that the majority of incidents resulted in short term impact and/or received localised care (e.g. first aid).



## Activity Incident Rate

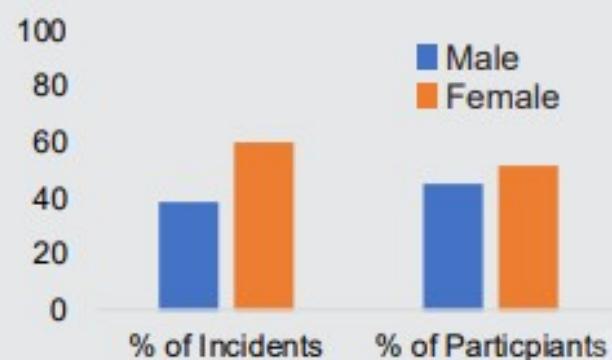
Number of Incidents per 1000 activity participation days

Walking/Running	10.6
Wheel Sports	6.7
Curriculum-based Activities	3.8
Camping (Tents)	3.6
Free Time	3.2
Fresh Water Activities	2.7
Campcraft	2
Salt Water Activities	1.4
Beach Activities	1
Travelling/Logistics	0.9
Teambuilding Games	0.8
Harness: Outdoors	0.8
Camping (Residential)	0.4
Archery	0.2

## Breakdown of Incidents by Gender

The graph shows the proportion of male and female participants involved in incidents and program participation.

Participants categorised as Other represented <1% of the reported participants involved in incidents and program participation.



## **Why are near miss incidents important?**

Critical

11 (8%)

*Near misses provide insight on potential incidents, and contributory factors and relationships associated with incident causation. Continuing to report and analyse near misses can help identify proactive incident prevention strategies to mitigate the likelihood of adverse outcomes.*

## Incidents in the Outdoors: Weather Related Incidents

Weather was identified as a contributory factor in **724** of the 5904 incidents in the National Incident Dataset.

Activities mostly affected by weather:

Walking/Running | Camping Tents | Curriculum-Based Activities  
Wheeled Sports | Freshwater Activities

### Types of Incidents

**Near Misses (Potential Severity)** (snake encounters, navigating through adverse weather, muddy/slippery terrain, unsecured equipment, falling debris, lightning strike)

**Injury** (superficial, heat-related, muscular, bite/sting, nose bleeds, leeches)

**Illness** (heat-related, nausea/vomiting, headache/migraine, cold/flu, respiratory, allergic reaction, fatigue)

**Psychosocial** (anxiety, behavioural management, distress, panic, group morale)

**Equipment** (equipment not suitable for conditions)



### The most frequently identified contributory factors associated with weather related incidents

#### Management:

##### Policies / Procedures & Risk Management

Packing list was not suitable for climate | Risks of fire & lightning not managed

#### Program: Scheduling / Suitability

Time of year | Activity not suitable for adverse conditions

#### Leader: Knowledge / Decisions

Storm was not expected | Decision to proceed with activity in adverse conditions | Perception of weather severity | Route & condition affected decision making

#### Group: Peer Interactions

Participants living in close proximity | Low morale due to weather

#### Supervisor: Mental / Physical

Fatigue | Allergies | Physical fitness

#### Participant: Mental / Physical

Fatigue; Dehydration | Acclimatisation to weather | Pre-existing conditions or disposition to nose bleeds, migraines, or yeast infections

#### Resources: Equipment / Clothing

Wet Clothing or Footwear | Inadequate sun protection | Inadequate clothes for adverse conditions

#### Environment: Terrain

Exposed to the elements | Sandy | Dusty | Muddy | Slippery | Wet | Steep

#### Environment: Animals / Insects

Snakes | Leeches | Ticks | Ants

#### Australian National Incident Dataset

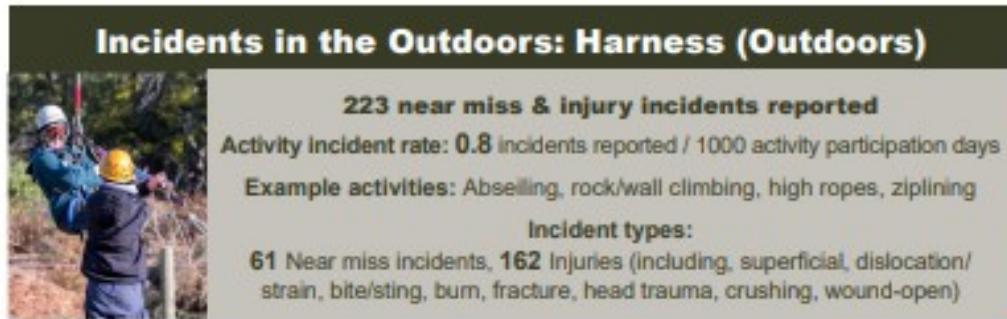
September 14, 2018 to November 4, 2020

Scott McLean, Lauren Coventon, Caroline Finch, Paul Salmon

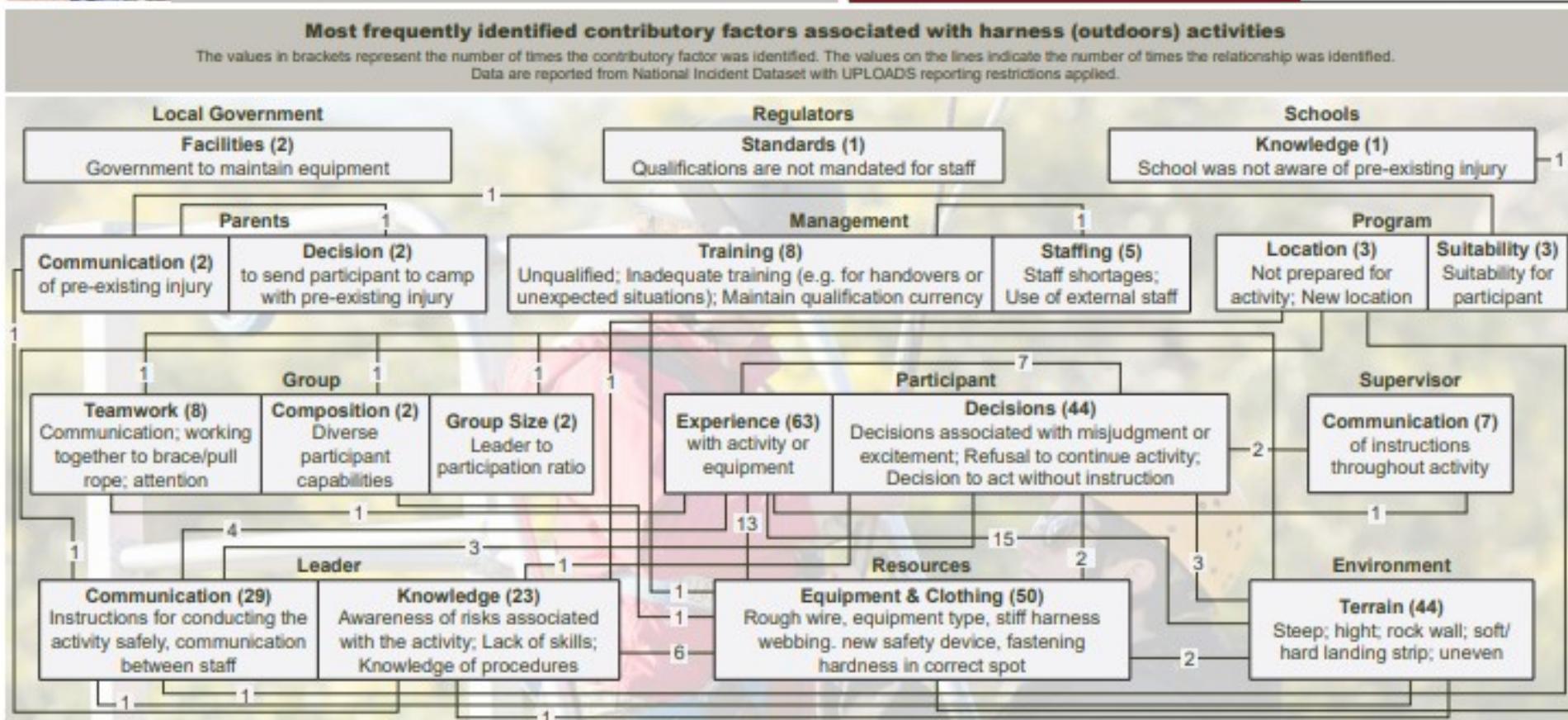
#### UPLOADS

Understanding and Preventing Led  
Outdoor Accidents Data System  
[wwwuploadsproject.org](http://www/uploadsproject.org)





Severity level and consequence	Number of incidents by severity	
	Near miss (Potential Severity)	Injury (Actual Severity)
No Impact (Negligible)	1	-
Minor (Short Term Impact)	18	131
Moderate (Short to Medium term effects)	12	27
Serious (Medium to long term effects)	13	4
Severe (Serious long term effects or permanent disablement)	12	-
Critical (Certain death or fatality)	5	-





## Adventurous Activities Practice Note

Topic:	Safety	AAPN 2021/001
Discipline:	All Vertical Disciplines	31 August 2021
Audience:	All Vertical Practitioners in NSW	
Compliance:	Mandatory for all Scouts NSW Members	ACTIVE
Currency:	Current until 31 December 2021 or when included in Procedure	

### 1. Risk Management

#### Risk Assessments:

- 1) A risk assessment must be prepared for all adventurous activities.
- 2) A Standard Risk Assessment has been prepared for abseiling activities.
- 3) The **Activity Risk Assessment** for an abseil activity is developed by adjusting the Standard Risk Assessment considering activity specific risks and mitigations.
- 4) Apply updates using strikethrough and underline to provide clarity on any changes in your **Activity Risk Assessment**.
- 5) The **Activity Risk Assessment** must be discussed with your activity approver (RCA in all cases).
- 6) You must review your risks for any "on the day" changes.
- 7) All leaders on an activity must be briefed on risk assessment and must sign to indicate they understand the risk assessment.
- 8) The Standard Risk Assessment can be found at <https://www.nsw.scouts.com.au/members-services/training-and-activities/adventurous-activities/>

### 2. Youth Competencies

#### Youth Program Abseiling Activity Guidelines:

- 1) Review the document "Youth Program Abseiling Activity Guidelines".
- 2) Comply with this Guideline when planning abseiling activities.
- 3) Ensure that Youth members only undertake activities when they are competent to do so.
- 4) The Guideline can be found at <https://www.nsw.scouts.com.au/members-services/training-and-activities/adventurous-activities/>

### 3. Releasable Systems

#### Hard Locking Releasable Abseil Line Systems:

- 1) Releasable systems are preferred for abseiling activities.
- 2) Releasable abseil systems must be hard locked unless the activity context requires an alternative system for safety. Hard locking of releasable systems is considered normal practice. Where site, activity context, or safety require a Releasable Abseil Line System not to be hard locked, this variation must be included in your **Activity Plan** and **Activity Risk Assessment**.
- 3) A Mule and Overhand is considered an appropriate locking system. It is recommended practice to clip the loop from the Overhand, to the abseil line or the anchor.

A handwritten signature in black ink, appearing to read "Walter Waerner".

Walter Waerner  
State Leader Vertical Activities

A handwritten signature in black ink, appearing to read "Kenton Jurgs".

Kenton Jurgs  
State Commissioner Adventurous Activities



