ROYAL CANADIAN ARMY CADETS

MASTER CADET

INSTRUCTIONAL GUIDE

SECTION 1

EO C525.01 – EXAMINE ELEMENTS OF SAFETY AND RISK MANAGEMENT

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the completion of this self study package are listed in the lesson specification located in A-CR-CCP-705/PG-001, *Master Cadet Qualification Standard and Plan*, Chapter 4. Specific uses for said resources are identified throughout the self study package within the section for which they are required.

Self study packages are intended to be completed by the cadet independently. More information about self study packages can be found in the foreword and preface.

Review the lesson content and become familiar with the material prior to facilitating this lesson.

Photocopy the self study package located at Attachment A for each cadet.

Photocopy the answer key located at Attachment B but **do not** provide it to the cadet.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

A self study was chosen for this lesson as it allows the cadet to examine in greater detail elements of safety and risk management at their own learning pace. This encourages the cadet to become more self-reliant and independent by focusing on their own learning instead of learning directed by the instructor.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the cadet shall have examined elements of safety and risk management.

IMPORTANCE

It is important for cadets to examine elements of safety and risk management as they are important aspects of outdoor leadership activities. At this level, cadets should understand that risk has to be managed in order to offer participants in outdoor activities a safe and challenging environment.

SELF STUDY PACKAGE INSTRUCTIONS

OBJECTIVES

The objective of this self study package is to have the cadet examine elements of safety and risk management.

RESOURCES

- Self study package, and
- Pen / pencil.

ACTIVITY LAYOUT

Provide the cadet with a classroom or training area suitable to complete the self study package.

ACTIVITY INSTRUCTIONS

1. Provide the cadet with a copy of the self study package located at Attachment A and a pen / pencil.
2. Allow the cadet 90 minutes to complete the self study package.
3. Provide assistance as required to the cadet.
4. Collect the self study package once the cadet has finished.
5. Correct the self study package with the self study package answer key located at Attachment B.
6. Provide feedback to the cadet and indicate whether or not they have completed the Enabling Objective (EO).
7. Return the completed self study package to the cadet for their future reference.
8. Record the result in the cadet's logbook and Cadet Training Record.

SAFETY

Nil.

END OF LESSON CONFIRMATION

The cadet's completion of the self study package will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK / READING / PRACTICE

Nil.

METHOD OF EVALUATION

Nil.

CLOSING STATEMENT

Safety and risk management are important aspects of outdoor activities. Preventing accidents, recognizing dangers, and recognizing the importance of the risk management plan as an integral part of the Army Cadet outdoor program allows senior cadets to better appreciate the elements of safety and risk management.

INSTRUCTOR NOTES / REMARKS

Nil.

REFERENCES

A1-010 A-CR-CCP-030/PT-001 Director Cadets 4. (2008). *Water safety orders*. Ottawa, ON: Department of National Defence.

A2-001 A-CR-CCP-951/PT-002 Director Cadets 3. (2006). *Royal Canadian Army Cadets adventure training safety standards*. Ottawa, ON: Department of National Defence.

C2-034 ISBN 978-0-7360-5250-4 Priest, S., & Gass, M. (2005). *Effective leadership in adventure programming (2nd ed*.). Windsor, ON: Human Kinetics Publishing Inc.

C2-152 ISBN 1-898555-09-5 Ogilvie, K. (1993). *Leading and managing groups in the outdoors: New revised edition*. Cumbria, England: The Institute for Outdoor Learning.

C2-250 Leemon, D., & Schimelpfenig, T. (2005). *Risk management for outdoor leaders: A practical guide for managing risk through leadership*. Lander, WY: National Outdoor Leadership School.

C2-257 ISBN 0-87322-944-4 Dougherty, N. J. (1998). *Outdoor recreation safety*. Champaign, IL: Human Kinetics.

C2-268 Centre for Curriculum, Transfer and Technology & BC Adventure Tourism Programs Articulation Committee. (2003). *Risk management for outdoor programs: A handbook for administrators and instructors*. British Columbia: Naomi Cloutier, Bhudak Consultants Ltd.

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Safety and Risk Management

SECTION 1: ACCIDENTS AND SAFETY

Accident Theory
Danger Classification
Danger Analysis
Generalized and Specialized Categories of Safety Controls
Risk Management Skills

SECTION 2: BEHAVIOUR AND ATTITUDE IN RISK MANAGEMENT

Negative Human Factors
Positive Human Factors

SECTION 3: RISK MANAGEMENT PLAN

SECTION 1
ACCIDENTS AND SAFETY

The weather had deteriorated badly. The wind blew horizontal sleet and the group members were drenched and shivering in their cotton T-shirts as the leader pressed on. Base camp was only a few miles away, and although they were tired, the group believed they could make it home. Besides, the camp would have a hot meal waiting and dry sleeping bags to finally rest in. As the skies darkened, the group members fumbled around in the only day pack they had brought with them (on what was to have been a short hike) and found a single flashlight. As the dim beam barely projected their way down the narrow trail, the members stumbled their way back to camp, often falling. Not until several members had been treated for hypothermia did the leader notice that one member was missing: lost on the trail!

RISK IS ESSENTIAL...

Adventure activities involve risk, but so does everything else in life! Danger gives rise to risk, and risk is one of the critical components that make adventure activities popular and successful. Balancing the amount of risk in an adventure activity is a central paradox for Outdoor Leaders (OLs): with too much risk the danger of the experience becomes unreasonable; with too little risk the adventure activities fail to remain adventurous.

The general public considers adventure activities to be dangerous even when appropriate safety procedures are used, typically because they have difficulty differentiating between real and perceived risk. For example, a study found outdoor adventure activities were about 18 times less likely to result in injury than high school football practices or cheerleading and were half as responsible for deaths resulting from motor vehicle accidents for 15- to 19-year-olds.

These statistics do not mean that OLs should be complacent when leading adventure activities. It is critical that OLs minimize risks and injuries while maintaining the value of the adventure experience.

Risk. The chance or possibility of danger, loss, injury, or other adverse consequence.

Risk management. Refers to all the procedures put into effect to reduce the possibility of accidents.

Incidents, or **close calls.** Unforeseen happenings that do not develop into emergencies.

Accidents. Unexpected occurrences that result in an injury or loss. Such losses can be **physical** (eg, fracture or death), **social** (eg, being embarrassed in front of peers), **emotional** (eg, fearing a situation) or **financial** (eg, losing your equipment).

Do you know anyone that has been involved in an accident? What type of loss did they suffer?

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A first step to implementing risk management is understanding how accidents happen in adventure training, and how they can be minimized.

ACCIDENT THEORY

There are risk factors that contribute to the likelihood of an incident. The greater the risk factors that are present, the greater the chance of an incident occurring. Most serious accidents are a result of a combination of risk factors at play, not just one. Obviously one incident could result in an accident, but generally, it is the interaction of all three sources that leads to accidents.

These risk factors fall into three categories:

1. environment,
2. people, and
3. equipment.

Take transportation for an example. Potentially hazardous environmental conditions include an icy road at night. The 15-passenger van fully loaded with a roof rack and a trailer full of equipment would represent the equipment risk factor. Unsafe acts by passengers could be not wearing seat belts and distracting the driver. Unsafe errors by the leader include driving with minimal van-driving experience, driving too fast, and driving while tired. You can see how each of these factors could lead to an accident, but the chance of an accident decreases if these factors are reduced or eliminated.

Can you list other possible environmental risk factors? (consider various outdoor situations)

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Can you list other possible participants or leaders risk factors?
(consider various outdoor situations)

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Can you list other possible equipment risk factors?
(consider various outdoor situations)

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Here is a list of risk factors from the "environment" category:

- altitude
- animals, insects
- animal traps
- avalanche
- cold water
- currents, tides
- deep snow, water
- fallen trees
- illness
- lightning
- loose rocks and boulders
- moving water
- stoves and fires
- strainers in rivers
- vehicles
- visibility
- weather
- uneven, wet or slippery terrain

Here is a list of risk factors from the "people" (participants or leaders) category:

- assumption
- attitude towards risk
- carelessness
- denial
- distraction
- exceeding ability
- failure to follow instructions
- fatigue
- health status
- lack of knowledge or skills
- lack of experience
- overconfidence
- peer pressure
- planning errors
- poor communication
- poor decision or indecision
- poor hygiene
- poor leadership
- rushing to meet schedule
- spilled hot water
- stove fire
- unaware of hazards
- unrealistic schedule
- unsafe speed (fast or slow)

Here is a list of risk factors from the "equipment" category:

- adequacy of equipment (approved equipment, working communication)
- inadequate communication equipment
- inadequately outfitted (eg, clothing or shelter)
- not wearing safety equipment (eg, whistles)

Do you know of situations where you were faced with any risk factors?

What was the outcome of the situation? How could it have been different?

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DANGER CLASSIFICATION

Dangers can be classified as either perils or hazards. **Perils** are the sources of injury or the causes of loss, such as a lightning bolt. **Hazards** are conditions that accentuate the chance of an injury or loss, such as a storm.

The presence of a danger, whether a peril or a hazard, gives rise to risk. For example, the risk of electrocution (accident) is created by two dangers: a storm (hazard) that increases the probability of lightning bolts (peril) striking a person.

By differentiating between perils and hazards and identifying them in the field, you may reduce the chance of your group encountering undesirable risks.

***Activate Your Brain #1*:**

Crevasses (cracks in the moving ice) and seracs (towers of ice moving along with a glacier) are obvious perils to the mountaineer. You may avoid them by skirting the section of the glacier where they are the most prevalent. But when the route goes through such an area, what are other factors you could take into considerations to make your route safer? (Hint: Think about possible hazards.)

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DANGER ANALYSIS

One way to reduce the chance of an accident or to minimize an accident's consequence to acceptable and recoverable levels is to follow the 10-step procedure of danger analysis:

1. **Plan ahead**. Admit it can happen to you. Be ready to deal with almost anything that can happen and keep a humble attitude as a leader. Know what you will do for each potential accident *before* it happens.

"If you think you have it all sorted out, there is always something waiting to spring out to prove you wrong."

- *Leading and Managing Groups in the Outdoors* (2005)

2. **Search for dangerous situations and conditions**. Maintain a continuous search for dangers, remaining vigilant in any situation. Imagine what might happen at any time. This is often accomplished by keeping an eye open for all suspect circumstances and by always being prepared to ask "What if?" When many dangers are present, be extra alert and cautious.

Do you realize how vigilant you have to remain during a:

- field training exercise?
- sports night?
- regular training night?
- community service event?

3. **Point out potential dangers**. Make sure you identify dangers, and bring people's attention to it. For example, if you notice wet and slippery floors, making people aware of it can reduce the likelihood of an accident because recognizing the potential for an accident is often enough to change behaviour.

What are some potential dangers you have encountered during…

- field training exercises?

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- sports events?

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- marksmanship training?

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- regular training?

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In the previous question, have you taken into consideration (this list is not exhaustive):

- the equipment?
- the cadets' actions?
- the cadets' level of training?
- the cadets' abilities?
- the leaders' abilities?
- the location?
- the weather?

4. **When appropriate, remove elements that contribute to dangerous situations.** If drawing attention to the danger does not do it, removing the danger sometimes will. You have to keep in mind that the removal of the danger should not increase the risk of it or another danger from occurring. For example, if you remove a loose rock and it creates an avalanche of many loose rocks, or if you throw the rock carelessly and hit someone on the head, then it may not have been the best solution. You may view the actions of a cadet as dangerous and removing the cadet from the group may be the best solution, as long as this does not put the group or the cadet in greater danger.

5. **Avoid dangerous situations**. If you cannot remove the danger, then attempt to avoid it. This could take various forms such as taking a different route, adopting a new plan or even aborting the activity. Purposeful encountering of dangers is occasionally necessary and sometimes desirable. For example, water fights (horseplay) helping cool people on a hot day during a river trip are good. The danger of a

hot sun helps warm people on a cold winter's day. These potential dangers can be positive, as long as you encounter them in a safe way. For the river example, the participants should have personal floatation devices (PFDs) and sunscreen should be available for people who are dealing with sun exposure.

"If one has to jump a stream and knows how wide it is, he will not jump. If he doesn't know how wide it is, he'll jump and six times out of ten, he will make it."

- Persian Proverb

6. **Identify and classify dangerous situations**. If the danger cannot be removed or avoided, then the danger should be classified either as a peril (source of loss) or as a hazard (condition that influences probability of loss). By being able to classify, you should encounter the perils when hazards are at a minimum, thereby reducing the risk of an accident. For example, if you are travelling in an area of icefall, you should identify that the sun is a hazard that accentuates the risk of icefall and make decisions based on that information.

7. **Assess risk and reclassify danger**. If you cannot avoid the danger, then assess the risk of a potential accident. Reclassify the danger as either environmental (based on the surroundings) or human (based in the group). This allows you to recognize the potential of the two happening at the same time and the potential for accident.

8. **Estimate potential losses**. Assess the number and strength of dangers in the human and environmental categories. Then assess the likelihood of an accident. Keep in mind that some dangers do not combine. For example, lost tent poles and a sunny day in the middle of the summer do not combine. In some other cases, the dangers cannot help but combine. For example, an inexperienced skier and a rocky hillside may be an accident waiting to happen.

9. **Minimize losses**. If an accident is likely but not absolutely certain, then choose a course of action for which the outcome of an accident is more likely to be both acceptable and recoverable. If this means leaving behind climbing protection and ropes to avoid a life-threatening mountain storm, then leave the gear behind and go back to recover it at a later time or just accept that the losses associated with the equipment are only financial and of less value than human lives.

10. **Make appropriate judgment**. If loss from an accident occurs (for example, an injury), make appropriate adjustments (eg, evacuation). Recall that in Step 1 you should have identified possible courses of actions or measures. Once you employ these measures, proceed with appropriate caution, continuing to search for new dangers that may arise and combine with the already existing dangers.

***Activate Your Brain #2*:**

Describe the three categories of factors that may contribute to accidents?

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***Activate Your Brain #3*:**

Explain the difference between hazards and perils.

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GENERALIZED AND SPECIALIZED CATEGORIES OF SAFETY CONTROLS

There is no way to completely avoid risk in the outdoors. The outdoor environment has many natural hazards that we must respect. Often these hazards are beyond the participant's control. However, along with natural hazards are the more controllable hazards associated with flawed judgment, physical and mental inability to perform the activity, inadequate skills of the participant and the leader, poor equipment and so on.

It is the participant who must adapt to the equipment and environment to meet their goals.

A responsible participant has four **general categories of safety controls** to consider:

CATEGORY	DEFINITION
Planning	Envisioning the tasks you intend to pursue outdoors, the hazards of those tasks, and the measures to best control those hazards.
Training	The effort you take to ready your body for the environment and the activity required to meet the tasks while you participate in that environment.
Practicing	The effort you take to gain skill to perform those tasks effectively.
Adapting	Envisioning "what if", considering contingency plans, then using the experience you have gained.

Do you know of an incident that happened where you could assume that one or more of these safety controls was overlooked?

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None of these four controls is subservient to the others, but the last, adapting, primarily determines the outcome of an outdoor activity. One appealing aspect of entering the outdoors is expecting something new but not knowing specifically what it is.

Those who seek to eliminate unnecessary hazards in the outdoors have five **specialized categories of safety controls** to consider:

CATEGORY	DEFINITION
Equipment	Selecting, fitting, practice in using, and maintaining the equipment recommended for the tasks of your outdoor experience.
Teaching	The exposure to and demonstrated compliance with the advice of an expert in the tasks you select.
Facility	Selecting the outdoor environment where you can perform the intended tasks with reasonable understanding and confidence.
Medical Care	A functional awareness of resources for first aid, emergency evacuation, and medical care of injuries and illness experienced while outdoors.
Teamwork	Relying on coordinating with all others who share your intentions to gain the benefit and control the hazards of participating outdoors.

Think about all the training you have received as a cadet. How does that training relate to these categories of safety controls? Which safety controls do you wish you had further developed?

Think about how you could get your subordinates to develop each of these skills.

Keeping expedition training in mind, determine the one **specialized category of safety controls** you believe the Cadet Program has helped you develop the most. How did the program do it?

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Keeping expedition training in mind, determine the one **specialized category of safety controls** you believe you still need to develop. How do you intend to do so?

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RISK MANAGEMENT SKILLS

Last but not least, as an OL, you should possess risk management skills for the particular adventure activities you provide. Examples of risk-management skills include weather interpretation, body temperature regulation, navigation, survival, first aid, and search, rescue and evacuation.

Do you recognize the skills you possess as an effective OL and how they minimize risks? What are they?

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As you read the next paragraphs, **underline / highlight** each individual skill you believe you have.

Weather interpretation. An OL should be able to predict weather using current weather reports, perhaps obtained by radio; their observations of present conditions, including clouds, precipitation, wind speed, wind direction, and temperature; and their familiarity with local prevailing patterns. They should be capable of dealing with weather extremes, especially thunderstorms and lightning.

Body temperature regulation. An OL should be able to prevent and treat hypothermia and hyperthermia, understand human thermophysiology (areas of high heat loss and metabolic effects of substances, such as food and water), and recognize the signs and symptoms of hypothermia (stumbling, incoherence, disorientation, shivering, or no shivering at all) and hyperthermia (headaches, nausea, cramps, excessive sweating, or no sweating at all). Most importantly, they must be capable of treating the different phases of hypothermia and hyperthermia by learning proper techniques of decreasing or increasing heat loss and of warming or cooling victims as necessary.

Navigation. An OL should be able to navigate in the worst possible terrain that they expect to encounter during an adventure activity. This means reading a map, measuring distances by scale ratios and from bar scales; determining grid references; converting among grid north, true north or magnetic north, directions and interpreting colours, symbols, contour lines, and other features. They should be able to use a compass, take map and magnetic bearings, convert between these by accounting for local magnetic declination, travel on that specific bearing, and determine their location. They should be able to orienteer, avoid obstacles, use back bearings, find routes, note checkpoints along the path of travel, contour between points of similar elevation without losing altitude, and choose routes based on expected terrain, vegetation, party strength or other variables.

Survival. An OL should be able to cope with the worst possible conditions if they are lost, injured, or caught out in the elements during an adventure activity—with or without their group. They need to be able to admit they are lost when they are, to keep from panicking, to comfort others, and prioritize needs (in this order): maintain a positive attitude, get shelter, water, fire and food. They should be able to build shelters that are easily constructed, insulated and ventilated; to light fires with wet wood; secure non-poisonous food and water in various settings or manage with limited food supply; and signal for help using international distress and ground-to-air signals.

Lifesaving and first aid. An OL should be able to swim and provide CPR and first aid. You may wish to obtain your certification as a lifeguard and as a wilderness first aid provider or emergency medical technician. Knowing how to use an accident response kit, including a first aid kit, is critical for every OL.

Search, rescue and evacuation. An OL should be able to locate missing people and remove them from danger. They should be capable of designating an appropriate base camp. They should be capable of interviewing

people to obtain pertinent information and recording their comments; performing quick searches of high probability areas such as nearby trails, rivers, or meadows; and performing coarse or fine searches walking side by side through a square grid. They should be capable of constructing stretchers appropriate for carrying, lowering or raising; and lastly, recognizing when the search is beyond their resources and deciding to seek a professional search and rescue team.

Do you recognize the skills you need to develop to be an effective OL and to minimize risks? What are they?

SECTION 2
BEHAVIOUR AND ATTITUDE IN RISK MANAGEMENT

When an accident happens, we tend to look at the obvious cause, such as a storm, an avalanche, or a rough river. Accidents are usually caused by more contributing factors. In outdoor risk management, "human factors" refer to the attitudes, behaviours, habits, state of mind and cognitive limitations that can lead to an incident as well as the positive attitudes and behaviours that can proactively manage risk and reduce incidents. Those factors influence every decision we make in the outdoors.

Here are the human factors we will examine in greater detail.

Negative	Positive
• complacency • overconfidence • distraction • differing perception of risk • risk homeostasis • expectations and peer pressure • schedule and goal pressures • fatigue, stress and performance	• situation awareness • watchfulness • self-awareness

NEGATIVE HUMAN FACTORS

Complacency. After leading an activity many times, the stimulation from its novelty diminishes and you may not be as motivated to be organized and pay close attention to detail. Even though you operate with a higher level of expertise, you may lose sight of the risks incurred by the situation and even be tempted to seek new stimulation. **BEWARE!** If you find yourself thinking about a novel approach, stop and question your motivation. If the motivation benefits the group and offers them a beneficial, but still safe experience, then it may be a good idea. If the idea only benefits you, then maybe you should refrain from carrying out that idea.

Overconfidence. Overconfidence can lead to poor judgment and put people at risk. It may lead people to attempt things they are not ready to do. Thrill-seeking behaviour is inappropriate when the group is at risk. Some OLs take credit for good happenings, internally attributing them to personal skills, and when things go wrong, externally attribute problems by blaming bad weather or faulty equipment. **BEWARE!** Such behaviour can prevent you from taking the first step in danger analysis; you may simply refuse to consider that an accident could happen to you!

Distraction. As an OL, you may do multiple tasks at once (eg, assessing a cadet's performance, watching the weather, making adjustments to keep the group together, wishing a cadet was faster, thinking about what your schedule will be when you get back to camp, and agonizing over indigestion from that spicy chilli omelette in that ration pack you had for breakfast). **BEWARE!** The human brain can only process so much information at one time. No one is immune to distraction. Some experienced climbers have forgotten to tie a knot even though they have done it thousands of times. Be aware when you are multi-tasking and take a moment to sort and prioritize where your attention should be.

Think about all the things you may do at once when on regular training at your corps. List some of them. Which of those actions require particular attention?

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Differing perception of risk. Each person has their own perception of risk. When a situation is familiar, it is perceived to be less risky. If a situation is new, dramatic, dreadful, or difficult, we perceive it as risky. Adventure activities often are viewed as risky by beginners. OLs have come to know many adventure activities so well they see them as acceptable. **BEWARE!** That difference in perception is important to understand. A beginning skier may struggle to control their speed on a gently-angled slope while an expert zips down three times as fast while pulling on their gloves. To be a good leader and risk manager, you must empathize with a cadet's anxieties. Their apprehension affects how they perform. If you cannot alleviate some of the anxiety by instruction or guidance, then you must modify the activity. When you overlook others' perception of risk, you may put them or the group in danger.

Risk homeostasis. This is the theory that each of us maintains a tolerance of risk to the same level. **BEWARE!** That means that if other parameters are added, we have a tendency to adapt to those devices and adjust our behaviours to maintain that level of risk. For example, seatbelts or air bags in a car have the effect that people drive faster or exhibit other risky behaviours. People adjust their target risk level to the new technology. This theory also applies to adventure training, as people adjust their actions because they have a cell phone available or because a computer reported there would be no avalanche.

Expectations and peer pressure. The expectations others have for us, the expectations we have for ourselves and the pressure resulting from it can have a negative impact on the decisions we make. **BEWARE!** When people are in groups, particularly when they are inexperienced, they tend to make riskier decisions than when they are by themselves. This can sometimes be seen in novice group members when they are reluctant to express their fears, especially when courage is socially desirable, and they go along, participating in higher risks than they would on their own. It is acceptable to say you do not know or that you cannot finish a route and have to turn around. It is essential to know when to stop and adjust priorities and schedules. That is true leadership. Even leaders have their limits.

Have you ever observed a situation where this phenomenon has happened? How do you think the people under pressure felt? What would you have done in their situation?

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Schedule and goal pressures. Rushing to get back when the final destination is in sight or setting a schedule and obstinately sticking to it are dangerous habits. **BEWARE!** When you attempt to maintain a time schedule —despite falling behind—or see that the end is in sight, you may forget to point out dangers to others or may encounter dangers that you might normally put more energy into removing or avoiding. You must resist the temptation to give in to peer pressure and not allow the goals of getting home to a warm shower or a hot meal to become more important that appropriate practices. Have the flexibility to turn back from a peak ascent without reaching the top if threatening clouds move in or your group is hiking slower than expected.

Fatigue, stress and performance. Our strength, stamina, mental and emotional health, and immune responsiveness decline if we are tired, malnourished, or under stress. **BEWARE!** We are more susceptible to injury when we become tired or hungry. One study shows that injuries during outdoor adventure activities tend to occur late in the morning or late in the afternoon. A study of injuries on National Outdoor Leadership School (NOLS) courses showed that half of injuries occurred during the first 10 days of an expedition. The belief is that stress and exertion at the start of trips, combined with the situation's novelty, led to injuries. If you are leading a group of cadets, you may need to coach them on stress's impact on their physical and cognitive faculties, their expedition behaviour, leadership, judgment and decisions. They may need to be reminded that it is okay to ask for help. On a successful team, people can say when they are hungry or tired. It is not a character flaw to acknowledge your needs. It's a measure of wisdom and maturity to say, "I'm exhausted. Can you take over?"

POSITIVE HUMAN FACTORS

Situational awareness. By being alert to and aware of your surroundings, of unusual circumstances and of peers, you develop situation awareness. It is the ability to perceive reality accurately. It is a continuous interpretation of what is happening around you and with your team.

Here is a little exercise to develop your skills of situation awareness.

***Activate Your Brain #4*:**

Determine what actions should be taken if you observed the following clues:

Clue #1: Cadets are not working together. They have lost focus.

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Clue #2: You are experiencing a bad "gut feeling".

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Clue #3: Cadets start demonstrating a lack of vigilance. Cadets get distracted, develop tunnel vision and miss the hazards.

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Watchfulness. Watchful OLs should think through "what-if" scenarios even when travelling over easy terrain or calm water. What if someone went overboard? What if someone got injured here? Who has the communication equipment? Simply going through this exercise allows leaders to better prepare and focus during anxious times.

Self-awareness. Leaders who are self-aware have learned from experience what their abilities and limitations are. They know themselves well enough to recognize their bad habits, as well as their strengths. Reflection is a valuable tool toward developing self-awareness. It helps us recognize what we learned from our experience. Reflection can be done through dialogue, debriefing, journals and feedback. Strong teams allow the free giving and receiving of feedback. This should be done honestly and respectfully.

Do you recognize your strengths as an OL? What are they?

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Do you recognize your weaknesses as an OL? What are they?

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SECTION 3
RISK MANAGEMENT PLAN

Do you remember the first step in danger analysis?

RISK MANAGEMENT PLAN

A risk management plan is more than safety checklists. It is systematically analyzing your operations for potential risks or risk exposures and then establishing a plan to reduce such exposures.

A risk management plan has four phases:

1. analyzing risks and determining approaches to control risks;
2. obtaining policy statements from the policy makers;
3. establishing the desirable operational practices and formatting them into a plan; and
4. implementing the plan.

Various documents exist to regulate adventure training in the Cadet Program. They offer guidance for risk assessment and procedures that have to be followed during various adventure training activities. Two commonly used ones are:

- A-CR-CCP-030/PT-001, *Water Safety Orders* and
- A-CR-CCP-951/PT-002, *Royal Canadian Army Cadets Adventure Training Safety Standards*.

RISK MANAGEMENT IN THE ROYAL CANADIAN ARMY CADET PROGRAM

Risk management is an approach embedded in the culture of the Cadet Program which stresses the responsibility of all members to reduce accidents, injuries and property damage during authorized activities. The national risk management oversight body for Army Cadet Expedition training is the National Expedition Risk Management Oversight Committee (NERMOC). It was established by the Directorate of Cadets and Junior Canadian Rangers (D Cdts & JCR) as an advisory body to guide expedition training within the Army Cadet Program by:

- helping embed a risk management culture through risk education, high level controls and procedures;
- analyzing policies related to expedition training and recommending changes in regulations, policies and practices;
- consulting subject matter experts, as required, to understand current industry standards and practices;
- liaising with various government agencies to share best practices; and
- reviewing and reporting annually regarding data of incidents, accidents and near misses captured in the National Expedition Database.

***Activate Your Brain #5*:**

Summarize how risk is managed in the CCO.

Risk management is practiced to prevent fatalities and reduce injuries within Army Cadet Expedition training. The risks are analyzed and the practices and procedures are reviewed to ensure their effectiveness.

Risk is managed through the application of four control approaches:

- **Retention.** Retention is the acceptance of the risk associated with an activity being conducted.
- **Reduction.** Reduction is the employment of risk mitigation to reduce the risks associated with a particular activity (eg, restricting cadets from abseiling when it is raining, restricting instructors from modifying gear technical specifications, or canoeing when lightning is present).
- **Transference.** Transference shifts the responsibility to another agency, usually providing specialist skills or capabilities (eg, civilian provider of specialist training).
- **Avoidance.** Avoidance is choosing to not offer or to discontinue an activity because of the risk associated with the activity.

***Activate Your Brain #6*:**

What are the four phases of a risk management plan?

Risk is managed at various levels of the Cadet Program. The following table contains a breakdown of everyone's responsibility, from the national level all the way to the cadets' level.

WHO	RESPONSIBILITIES
The Directorate of Cadets and Junior Canadian Rangers (D Cdts & JCR) (National Authority)	• establish policy for activities and risk management for these activities; • develop national policies and standards; • review training for deficiencies and rectify problems; • communicate with the Army Cadet League of Canada; • establish and maintain a national database of statistics on incidents, accidents, and near misses; • develop an accident response investigation process; and • provide a forum to exchange Army Cadet Expedition activity information and best practices and to review risk management regulations, policies and practices within the CCO.
Regional Cadet Support Unit CO (RCSU) (Regional Authority)	• manage and administer the support required to conduct cadet activities; • enforce safety policies (eg, instructor to cadet ratios); • approve cadet corps activities; • ensure qualification and certification of instructors; • provide logistical support to the Corps Program; • qualify and re-qualify instructors; • ensure supervision of all cadets activities; • investigate accidents; • ensure reporting of incidents, accidents and near misses; • develop location specific standard operating procedures (SOPs); • communicate with the provincial branch of the Army Cadet League of Canada; and • ensure Regional Cadet Instructor Schools (RCISs are where CIC Officers receive their qualifications) deliver related courses.
Cadet Corps CO	• ensure that risk management is practiced when conducting cadet activities.
Officers	• disclose the risks associated with activities to cadets, parents, volunteers, and staff; • adhere to all safety regulations, policies and practices; • operate within the scope of their training, qualifications and certifications; • maintain certifications and logs; • report activities; • report and document incidents, accidents and near misses; • know personal limitations of self and group; and • perform duties to the best of their ability.
Cadets	• disclose injuries, and medical problems regarding their ability to participate in an activity; and • abide by all safety regulations, policies and practices.

Due diligence. An important concept in risk management. It is defined as the exercise of reasonable care in the performance of duties. To demonstrate due diligence, an individual must demonstrate they did all that any reasonable person would have done in the same circumstances to avoid a foreseeable risk of harm to life and limb. In exercising due diligence, individuals:

- behave in a reasonable manner;
- prepare for risks that a thoughtful and reasonable person would foresee; and
- respond to risks and incidents immediately.

Activate Your Brain #7:

What are the four control approaches used to manage risk in the CCO?

_____

_____

_____

_____

Risk management is an ongoing analysis that has elements embedded in all aspects of an activity:

1. **Planning.** Potential hazards shall be identified and acknowledged before proposing an activity. The planning phase should include the following considerations:

"A goal without a plan is just a wish."

- Antoine de Saint-Exupery

   - **What?** What are the needed skills for the activity? Is a pre-training activity required to ensure that participants have the proper skills? What is the length of the activity? Does the activity require a certain level of fitness?
   - **Why?** Is the activity consistent with the aims of the cadet movement? If the activity cannot be linked to one of the aims of the Army Cadet Program, the activity should not be conducted.
   - **Where & When?** On what type of terrain will the activity take place? What is the season? At what time of day will the activity begin and end?
   - **How?** Are staff trained for this activity? Is the appropriate equipment available and in good condition? Will a staff member accompany the cadets at all times?
   - **Who?** What type of cadets will attend the activity (age, phase level)? Will their age, gender, diversity, emotional readiness, etc. impact the activity? Are there regulations preventing anyone from doing the activity?

2. **Assessing Risk.** The activity plan shall be assessed to determine the level of risk associated with the activity and the steps proposed to mitigate that risk. The risk assessment should be based on considerations, such as:

   - What is the activity?
   - Who will be conducting the activity?

- What are the hazards?
- Who might be affected by them?
- What regulations, policies, and procedures are in place to lessen risks?
- What safety / control measures need to be in place to reduce the risks to an acceptable level?
- Can the safety / control measures be implemented?
- What steps will be taken in an emergency?

Risk assessment is a decision-making process used to identify risks and ways to reduce them. Officers have to decide what the potential risks are, how to diminish them, and what level of risk is acceptable to them when conducting activities.

A risk assessment is prepared several weeks before an activity, but since last minute information or unplanned situations may occur, the officer in charge (OIC) needs to adapt the risk assessment as required, which could include situations, such as (but not limited to):

- a change in the weather forecast;
- equipment or required training site is no longer available; or
- an instructor who is unavailable to conduct the activity.

Officers must be prepared to consider cancelling an activity when the situation has changed, both before conducting the activity and during the conduct of the activity. Parents and other staff members may well question the decision, but ultimately the safety of cadets must not be put in jeopardy because of external pressures.

3. **Modifying the Plan.** Where the plan involves a risk beyond what the organization is willing to undertake, the plan shall be modified and re-assessed.

"Just because something doesn't do what you planned it to do doesn't mean it's useless."

- Thomas A. Edison

4. **Conducting the Activity.** During the activity unanticipated hazards shall be recognized and the plan modified to ensure a suitable balance of risk and mitigation of risk is maintained.

***Activate Your Brain #8*:**

Explain the four phases during which risk management is ongoing.

Congratulations, you have completed your self study package on EO C525.01 (Examine Elements of Safety and Risk Management). Complete the following exercise and hand the completed self study package to the Training Officer / Course Officer who will record your completion in your Master Cadet logbook.

FINAL EXERCISE

Cadet's Name: _____ Date: _____

1. Explain why risk is essential.

2. Generally speaking, and in your own words, describe the procedure of danger analysis.

3. There are many factors that could lead to bad decisions. Explain **five** of them.

4. Determine who is responsible for each of the following statement. Check the appropriate box or boxes (there can be more than one per row).

	Cadets	**Corps Officers**	**Corps CO**	**Regional Authority**	**National Authority**
Practice due diligence.					
Report incidents.					
Keep parents informed of risks.					
Deliver courses to qualify CIC officers.					
Ensure risk management is practiced.					
Offer support to cadet units.					
Investigate accidents.					
Adhere to safety policies, regulations and practices.					
Report activities.					
Establish national policies for cadet activities.					

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ACTIVATE YOUR BRAIN ANSWER KEY

Activate Your Brain #1:

Crevasses (cracks in the moving ice) and seracs (towers of ice moving along with a glacier) are obvious perils to the mountaineer. You may avoid them by skirting the section of the glacier where they are the most prevalent. But when the route goes through such an area, what are other factors you could take into considerations to make your route safer? (Hint: Think about possible hazards.)

You should deal with them by also considering the hazards associated with the perils. Temperature, which of course varies with the time of day, sunlight, and other climatic conditions, is a hazard that increases the likelihood that the ice will move as it warms up. Experienced mountaineers attempt to avoid the risk of injury from the peril of moving ice by choosing the correct time to encounter that peril–when hazards are minimal.

Activate Your Brain #2:

Describe the three categories of factors that may contribute to accidents?

The three categories of factors are:

Environment: Anything to do with the environmental factors, eg, weather, terrain, fires.

People: Anything to do with either the leaders or the participants, eg, their decisions, their actions, their mistakes, their assumptions.

Equipment: Anything to do with the equipment, eg, whether it is inappropriate, inappropriately fitted, not worn.

Activate Your Brain #3:

Explain the difference between hazards and perils.

Perils are the sources of injury or the causes of loss, such as a lightning bolt. Hazards are conditions that accentuate the chance of an injury or loss, such as a storm.

Activate Your Brain #4:

Determine what the actions should be if you observed the following clues.

Clue #1: Cadets are not working together. They have lost focus.
Clue #2: You are experiencing a bad "gut feeling".
Clue #3: Cadets start demonstrating a lack of vigilance. Cadets get distracted, develop tunnel vision and miss the hazards.

#1: Review your mission and goals.
#2: Intuition is a profound sense. Trust your feelings. Investigate what is going on.
#3: Stay watchful and alert. Stop the group. Check on food and water needs. Focus on being aware.

Activate Your Brain #5:

Summarize how risk is managed in the CCO.

Risk management in the CCO is attained by maintaining high level controls and procedures, by continuously analyzing policies, regulations and practices. That can be done by consulting with experts and by keeping current with what is being done in various government agencies. Incidents, accidents and near misses are also reviewed.

Activate Your Brain #6:

What are the four phases of a risk management plan?

The four phases of a risk management plan are:

- analyzing risks and determining approaches to control;
- obtaining policy statements from the policy makers;
- establishing the desirable operational practices and formatting them into a plan; and
- implementing the plan.

Activate Your Brain #7:

What are the four control approaches used to manage risk in the CCO?

The four control approaches used to manage risk in the CCO are: retention, reduction, transference, and avoidance.

Activate Your Brain #8:

Explain the four phases during which risk management is ongoing.

Planning. During this stage, which happens before proposing the activity, potential hazards shall be identified and acknowledged. Considerations should include: What? Why? Where and when? How? Who?

Assessing risk. When the activity plan is defined, it shall be assessed to determine the level of risk associated with the activity. Considerations should include: What? Who? What are the hazards? What regulations exist? What regulations are needed? What steps will be taken in case of an emergency?

Modifying the plan. If the risks are beyond what the organization is willing to risk, the plan shall be modified and re-assessed.

Conducting the activity. During an activity, hazards will be recognized and modifications will be made as necessary.

FINAL EXERCISE ANSWER KEY

1. Explain why risk is essential.

Risk is present in all aspects of life. Risk is one of the critical components that make adventure training popular and successful.

2. Generally speaking, and in your own words, describe the procedure of danger analysis.

People should always plan ahead and try to determine what could happen before it happens. Then, they should always keep searching for dangers by continuously asking themselves "What if?". When a danger is identified, it should be pointed out to others. When possible, the source should be removed, or at least avoided. If it cannot be removed or avoided, then it should be analyzed. You should wonder what the odds are that the danger will cause an accident, what the losses could be and try to make the decision that will minimize those losses.

3. There are many factors that could lead bad decisions. Explain **five** of them.

The answers should include five of the following:

- **Complacency.** Leading activity many times, may be tempted to seek new stimulation.
- **Overconfidence.** Can lead to poor judgment and put people at risk. It may lead people to attempt things they are not ready to do.
- **Distraction.** Doing multiple things at once.
- **Differing perception of risk.** After doing something many times, it doesn't look as risky anymore.
- **Risk homeostasis.** Our risk level adapts to the situation.
- **Expectation and peer pressure.** Can have negative impact on decisions made. In groups, people tend to make riskier decisions than when they are by themselves.
- **Schedule and goal pressure.** When people try to maintain a schedule or see the end in sight, they might react differently to danger.
- **Fatigue, stress and performance.** May impair judgment and decisions.

4. Determine who is responsible for each of the following statement. Check the appropriate box or boxes (there can be more than one per row).

	Cadets	Corps Officers	Corps CO	Regional Authority	National Authority
Practice due diligence.	√	√	√	√	√
Report incidents.	√	√	√	√*	
Keep parents informed of risks.		√	√		
Deliver courses to qualify CIC officers.				√	
Ensure risk management is practiced.	√*	√*	√	√*	

	Cadets	Corps Officers	Corps CO	Regional Authority	National Authority
Offer support to cadet units.				√	
Investigate accidents.				√	
Adhere to safety policies, regulations and practices.	√	√	√		
Report activities.		√	√		
Establish national policies for cadet activities.					√

Note: Remember that the CO is also a corps officer.

* These checkmarks are open to discussion.

ROYAL CANADIAN ARMY CADETS

MASTER CADET

INSTRUCTIONAL GUIDE

SECTION 2

EO C525.02 – RECOGNIZE INDIVIDUAL BEHAVIOUR DURING AN EXPEDITION

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the completion of this self study package are listed in the lesson specification located in A-CR-CCP-705/PG-001, *Master Cadet Qualification Standard and Plan*, Chapter 4. Specific uses for said resources are identified throughout the self study package within the section for which they are required.

Self study packages are intended to be completed by the cadet independently. More information about self study packages can be found in the foreword and preface.

Review the lesson content and become familiar with the material prior to facilitating this lesson.

Photocopy the self study package located at Attachment A for each cadet.

Photocopy the answer key located at Attachment B but **do not** provide it to the cadet.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

A self study was chosen for this lesson as it allows the cadet to examine in greater detail individual behaviour during an expedition at their own learning pace. This encourages the cadet to become more self-reliant and independent by focusing on their own learning instead of learning directed by the instructor.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the cadet shall be expected to recognize individual behaviour during an expedition.

IMPORTANCE

It is important for cadets to recognize individual behaviour during an expedition as they will interact with a variety of individuals, whom will have specific wants and needs. Understanding the differences between individuals will allow the instructor to better address their wants and needs and therefore ensure a better experience for everyone.

SELF STUDY PACKAGE INSTRUCTIONS

OBJECTIVES

The objective of this self study package is to have the cadet recognize individual behaviour during an expedition.

RESOURCES

- Self study package,
- Highlighter, and
- Pen / pencil.

ACTIVITY LAYOUT

Provide the cadet with a classroom or training area suitable to complete the self study package.

ACTIVITY INSTRUCTIONS

1. Provide the cadet with a copy of the self study package located at Attachment A and a pen / pencil.
2. Allow the cadet 90 minutes to complete the self study package.
3. Provide assistance as required to the cadet.
4. Collect the self study package once the cadet has finished.
5. Correct the self study package with the self study package answer key located at Attachment B.
6. Provide feedback to the cadet and indicate whether or not they have completed the Enabling Objective (EO).
7. Return the completed self study package to the cadet for their future reference.
8. Record the result in the cadet's logbook and Fortress Cadet Training Record.

SAFETY

Nil.

END OF LESSON CONFIRMATION

The cadet's completion of the self study package will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK / READING / PRACTICE

Nil.

METHOD OF EVALUATION

Nil.

CLOSING STATEMENT

It is important to recognize individual behaviour during an expedition. Understanding your own behaviour will allow you to understand your reactions in various situations and to understand our subordinates' reactions, needs and wants. That will give you the opportunity to develop an atmosphere in which everyone feels respected and therefore an atmosphere in which everyone can learn and grow as individuals.

INSTRUCTOR NOTES / REMARKS

Nil.

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Individual Behaviour During Expedition

Section 1: DIFFERENCES BETWEEN BOYS AND GIRLS
Section 2: EXPEDITION BEHAVIOUR
Section 3: CASE STUDIES

SECTION 1
DIFFERENCE BETWEEN BOYS AND GIRLS

There are basic core differences that differentiate girls and boys, other than the obvious physical differences. However, it is always important to recognize that wide variation exists within any generalization and the same is true for gender. While it is helpful to know these differences, ultimately, knowing each girl or boy is the goal.

Sensitivity to and awareness of gender needs and gender differences can make a huge difference in an expedition or outdoors experience. Girls are affected by some situations and boys are affected by completely different situations.

Understanding some basic physiological differences allows leaders to offer both genders a pleasant outdoor experience. Consider things such as:

- Boys need to replenish calories and water more frequently than girls because of their fast-burn bodies.
- Girls will want to know how to dispose of feminine hygiene products, and that there will be sensitivity to their need for privacy and their self-consciousness about this issue.
- Having separate girls' and boys' discussion groups before heading out to the bush can be very helpful. Ask each group to discuss things like: Are there needs for just boys / girls that we should be aware of / sensitive to?

Do you know of differences in the ways boys and girls think? …act? …learn?

_____
_____
_____

COGNITIVE DEVELOPMENT

The actual maturation of parts of the brain as well as some cognitive predispositions are determined by gender and the hormones that influence the growth of the neurological system *in utero* and throughout life. There are some clear gender differences at this point. In general, the cognitive predispositions or strengths specific to each gender are shown in the following table.

How do YOU learn?

_____
_____
_____

It is important to understand that individuals of each gender are capable of doing everything that is listed in the table below, but often prefer, or are better at, what is listed for their own gender.

Also, there is a crossover of about 20% in gender style. That is, about 20% of girls have the thinking / learning style that is the male stereotypic and about 20% of boys have the thinking / learning style that is stereotypic of females. This makes teaching and motivating a complex task.

In the table below, determine the predisposition / strength that applies to you best. Were you correct in your predictions of how you learn?

GENDER	PREDISPOSITIONS / STRENGTHS	DESCRIPTIONS
Female	Detailed Thinking	When given directions, girls remember the details better; boys get the gist or the idea. Girls are better at following their sequence of tasks; boys are better at getting to the goal.
Male	General or Global Thinking	
Female	Hearing and Listening	Girls remember more of what they hear and can listen for longer uninterrupted times than most boys. Boys remember better when they see or look at something while they are listening.
Male	Seeing and Watching	
Female	Language and Talking	Girls are more verbally facile and detailed. They like to express their thoughts and feelings and often do so in more detail than boys. Boys would rather do than talk. They'd rather see an instructor show how to tie a knot while they have the rope in their hands, rather than hearing about it first, or worse, reading about it.
Male	Doing and Showing	

Activate Your Brain #1:

Assign the following actions with the appropriate predispositions / strengths.

Boys may have their backpacks in the van faster, but the girls have everything they need in them the first time. _____

If you recite a list of things to put in a backpack, most girls remember it. Boys remember the first and last things, but not much in the middle of the list. If they see the stuff they need to pack, they remember it better. _____

Girls do not mind reading manuals to put things together or watching the instructor passively for a while; boys prefer to assemble and learn by doing.

_____

The major implication is that different strategies and techniques are usually easier or more comfortable for one group that the other. Therefore, the leader should use multiple instruction and/or motivation techniques so that both genders' needs and preferences are equally met.

Activate Your Brain #2:

Knowing this information, how would you approach the task of explaining to a group (with boys and girls) the items to be brought on an expedition?

_____

_____

_____

Here are some tips to deal with these differences:

- Try to offer options for the same task. Journals are a great example.
- When asking participants to do a multi-step complex task, predetermined groupings may be helpful. In that way, those that are good at details and sequential thinking (often girls) can work with the more action-oriented, trial-and-error doers (often boys) and, together, cover all aspects of the task.

EMOTIONAL DEVELOPMENT

Brain research indicates that the centre of emotions functions somewhat differently in males and females. Again, there is a lot of variation between human beings regardless of gender.

While both males and females feel positive emotions equally, females are slightly more inclined to feel fear and anxiety when confronted with conflict and challenge than males—sometimes as much as four times more. The male of the species feel fear and anxiety too, but at a much lower level, and challenge and conflict can cause an adrenaline and testosterone reaction that converts to aggressiveness, movement or sometimes anger.

Based on experience, how do boys and girls react when they are being teased?

_____

_____

_____

In social interaction terms, if a girl is teased, she often becomes hurt and avoids. If a boy is teased, he often becomes angry and confronts. Girls more often use language to deal with their emotions; boys tend to act out. Their differences are often hard to see in a new group. Both girls and boys can become quiet at the beginning, when they are upset. Over a period of time, anger can build in boys, and anxiety and avoidance can build in girls.

Here are some tips to deal with these differences:

- Any extreme negative emotion has a potentially contagious effect. In some situations, it is good to separate highly emotional, volatile, or "short-fused" individuals into separate groups. More than one of these types per group would swing the overall productivity and culture of the group. For positive emotions, the inverse is true: spread the wealth in terms of the thoughtful, reflective, or peacekeeping individuals for emotional balance of the group.
- Remember that girls, and some boys, just genetically feel higher levels of fear for the same situation. Taking a step-by-step approach, "Just put your foot on this rock", or a buddy approach, "Ann will do it with you", can diminish high levels of fear. A logical approach has little or no impact on high levels of fear.

SOCIAL DEVELOPMENT

All human beings are social animals. Adolescents care about how they are perceived and accepted by their peers, and even by adults. This means that the words and actions of superiors are powerful motivators and shapers of behaviour. But perhaps slightly more powerful in terms of impact on the adolescent, are the words and actions of other adolescents. It is both harder and easier when most of the adolescents in a group do not know each other. It causes some to act out more, searching for their niche. More boys than girls do this. It causes some to retreat more while they size up the situation. More girls than boys do this. On the other hand, since everyone is new to each other, everyone has a clean slate and their social baggage and reputation can be set aside, which can be quite freeing. The key for the leader is to make the most of melding the group and shaping the culture quickly.

Activate Your Brain #3:

Fill in the blanks.

1. Adolescents care about what their superiors say, but they care even more about their _____'s opinions.
2. As a leader, it is important to create a proper _____, to ensure that the group develops as a team as quickly as possible.
3. When placed in a new group, adolescents have a tendency to _____ while they size up the situation.

Having said all of this, girls tend to be slightly more connected and like to operate in duos or groups more than boys do. This often translates into more cooperative learning. For boys, while they enjoy such things as team sports, they are also very motivated by competition and individual performance.

Fitting in and being perceived as competent, capable, and cool is a need for all teenagers. A task, a place to be, and someone to be with are basic social needs. Any kind of social isolation or social exclusion needs to be dealt with immediately. It cannot be said strongly enough: social needs of the adolescent are at the core of their existence.

Here are some tips to deal with these differences:

- At the beginning of an expedition with a new group, give assigned places for everyone: a space to sit at meeting, meals, etc. However, keep switching who sits next to / spends time with whom the first few days. This cuts down the feelings of "finding your place" or feeling left out.
- Social isolation almost always causes negativity for the individual and the group. Social isolation rarely clears up on its own. If you see this beginning to develop, change your tactics and begin to assign working duos, for example, to improve the problem. Also, most budding social isolates are doing something to influence this condition. Private conversations that address this directly are very important.

SECTION 2
EXPEDITION BEHAVIOUR

Expedition behaviour is the attitudes, values and practices that make up the culture and style of a group and determine how effective its leadership, teamwork and communication will be.

Being in the outdoor setting may bring out the best in some people and the worst in others. Good or bad expedition behaviour often determines a group's destiny even more than technical and physical strength. Positive expedition behaviour makes for fun, enjoyable and successful trips.

What are behaviours that you appreciate during an expedition?

_____

_____

_____

What are behaviours that you dislike during an expedition?

_____

_____

_____

When participants are thrown in a group, they are thrown into a "group". This is different from being part of a "team" which must be built by the leaders. Here are some guidelines on how to build a team:

- Don't assume your group members will be able to work effortlessly together. Clarify your trip or course goals, roles, responsibilities and decision-making styles in advance for both routine activities and emergencies.
- Make time early on in the trip to describe your vision of teamwork and expedition behaviour; the mission, goals and style of expedition. This open conversation should carry through during the expedition.
- Briefings should be a routine, regular part of the trip. Before an activity, when a plan changes, at the beginning of the day or before a challenge are some examples of when a briefing could take place.
- Model the behaviour you expect from your subordinates.
- Create an atmosphere in which cadets feel free to ask questions, advocate their ideas, and share their feelings. The participants have to feel like their questions, concerns, and fears are respected and taken seriously.

What are ways in which you can create such an atmosphere?

_____

_____

_____

You can create such an atmosphere by:

- letting your team know you care about their thoughts by periodically checking in with them;
- giving them the authority to speak up;
- listening to their responses;
- not interrupting or talking over them;
- not giving sarcastic or condescending responses;
- not rushing through a discussion, and giving the impression that they have nothing to contribute;
- making eye contact;
- asking: "Are you getting enough direction from me about what you need to be doing?";
- saying: "If anyone disagrees, please speak up;"
- being aware that silence can be mistaken for agreement.

Think about an instance where you were faced with a leader who did not create a favourable atmosphere for the group. What do you believe they did wrong? How could they have corrected the situation?

_____

_____

_____

_____

FEAR

What situations creates fear in you? How do you react when facing such situations?

_____

_____

_____

Fear is a very normal reaction for anyone faced with an emergency which threatens any of their needs.

In humans and animals, the purpose of fear is to promote survival. Acceptance of fear as a natural reaction to a threatening situation will lead to purposive rather than random behaviour and in this way will greatly increase chances for survival. In the course of human evolution, the people who feared the right things survived to pass on their genes. In passing on their genes, the trait of fear and the response to it were selected as beneficial to the race.

How a person reacts to fear depends more on themselves than on the situation itself. It isn't always the physically strong or constantly optimist person who most effectively handles fear; timid or anxious persons may respond to fear more coolly and effectively under stress with a resulting better chance for survival. Fear must be recognized, lived with, and if possible, utilized to advantage.

Factors increasing fear are mainly helplessness and hopelessness. Some of the factors most frequently reported to decrease or help control fear are:

- having confidence in your equipment;
- having confidence in the technical ability of your immediate superior; and
- concentrating on the job to be done.

John Leach, a survival psychologist, described a wide range of behaviour, linked to personality types, that was exhibited by people facing death and disaster. What he found was that:

- 10-15% responded rationally: could reason things out, make a plan, were in focus.
- 70% were stunned: wanted orders / instructions, were unable to plan or unable to help themselves.
- 10-15% exhibited behaviour inappropriate to the situation: screaming, weeping, freezing, ignoring instructions.

One hopes no OL ever has to face such a death / disaster situation, but it gives some indication of what to be prepared for in group behaviour in that event. Whenever possible, prior training in emergency procedures (eg, canoe / kayak capsize) was found to make a big difference in the ways individuals might react.

***Activate Your Brain #4*:**

What are the two main factors that increase fear?

_____

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UNKNOWN SIGHTS AND SOUNDS

There is a lot going on under the cloak of darkness. Mammals of all shapes and sizes are on the move, hunting, mating, even fighting. In various regions, cactus flowers bloom, snakes travel, toads sing, northern lights flash, wolves howl, and turtles migrate en masse from sea to land. The dark world, we so often ignore, is an ocean of activity and intrigue.

Fear of the dark spans many cultures and thousands of years. Our ancient ancestors weren't at the top of the food chain and didn't want to become a midnight snack, so they probably stayed in.

People are spooked easily at night. They hear a sound, can't see what made it, so they get scared. A small rodent rooting around in the leaves can sound like a big, fat bear.

Experiencing the many sights, sounds and smells at night gives people a different view of night activity. Being able to understand what is going on at night gives people the chance to appreciate the complexity of the activities that keep happening, even in the dark.

In terms of unknown sights and sounds, what are things you will do on your next overnight outdoor activity so your cadets have a more positive experience?

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WASTE MANAGEMENT

Some cadets experience fear in regards to their "natural output needs". A great book that deal with the subject is "*How to shit in the Woods*" from Kathleen Meyer. The book covers all the topics related to this natural need.

It is important as an OL that you discuss this aspect of outdoor living with your group. It is a natural function and everyone should feel as comfortable as possible when they have to "use the bathroom." Topics such as where and how to dig a hole, what to do when you cannot dig a hole, concerns that apply to women only (feminine hygiene products or how not to pee on your boots), or even what to do when you do not have access to toilet paper have to be discussed.

As an OL, you have to cover all the essentials so that everyone feels comfortable. It is rather unhealthy to keep all the feces inside, so make sure everyone feels comfortable letting it all out!

In terms of waste management, what are things you will do on your next overnight outdoor activity so your cadets have a more positive experience?

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ANXIETY

Think about key moments in your cadet career (eg, first training session, cadet camp, first drill lesson, being a staff cadet, going on an exchange, abseiling, expedition, competitions, teaching lessons, calling drill commands). How did those moments make you feel? Do you remember experiencing anxiety? When? How did you react?

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Do you take time to think about how your subordinates feel when they are faced with new experiences? Do you think they feel the same as you did?

Anxiety refers to an emotional state characterized by a sense of fear, apprehension, sometimes agitation, and often vigilance. For many, it produces numerous physical symptoms such as sweating, heart palpitation, shaking, hyperventilation, and tightness and pain in the chest. Sometimes, there is an overwhelming feeling of being out of control, and a feeling that danger, or even death, is imminent.

Anxiety can cause participants to become more closed and withdrawn. Leaders may see participants who used to be active, retreat during group sessions, fail to make eye contact and seem to want to be alone. Some may become so withdrawn that they are very uncooperative and non-communicative. On the other hand, anxiety can cause other participants to talk and interact excessively (eg, it might also include pressured speech, and intrusive, even inappropriate behaviours.)

The concept of perceived risk is highly linked to anxiety. The level of risk or challenge offered to the participants has to be appropriate for them. Creating a perception of risk in outdoor programs is seen as desirable and often essential to be successful growth and change in participants. If perceived risks of a situation are too high for a participant, the impact can be counterproductive at best, and damaging at worst. This can be a difficult situation, as leaders with good intentions may misjudge the impact on participants, or may not be able to assess the participant's level of anxiety and threat.

FAILURE

Think of situations in which you believe you have failed. How did you feel? How did you react?

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Thomas Edison (1847–1931) is credited with the invention of the electric light bulb. When asked about his numerous experimental failures, he said: “I have not failed 700 times. I have not failed once. I have succeeded in proving that those 700 ways will not work. When I have eliminated the ways that will not work, I will find the way that will work.”

"Many of life's failures are people who did not realize how close they were to success when they gave up."

- Thomas A. Edison (www.quotationspage.com/quote/1977.html)

Most of us believe we're judged by our successes and failures, and that there's some disgrace associated with “failure.” Most of us fear failure because we do not want to risk feeling incompetent, useless, and foolish. However, it is important to look failure in the eye and try to understand why it happened.

It is often said that we give up on our dreams just one moment before they are fulfilled. Persistence seems to be the key, as is a very clear idea of what we wish to achieve. Remember, once you decide to give up, you have also given up on your chance of succeeding.

A GREAT WAY TO FAIL!

If we look around us, we see many examples of peoples' failures bringing value to our lives. In 1938 Roy Plunkett, a research chemist at DuPont's Laboratories, "fell upon" Teflon®, a surface coating whose applications now range from the aerospace industry to the kitchen.

Other examples of "failures" becoming hero products:

- Dynamite,
- Velcro®,
- Cellophane, and
- Post-it® Notes.

Focusing on the past and worrying about the way things have turned out is not a productive use of your creative energy. You cannot change the past. Reflect on what you can do differently next time. By knowing where you went wrong, you can actively avoid it next time around.

Here are some things to avoid when you are facing failure:

You worry you look like a fool. Failing often means that we expose our vulnerabilities and feel a bit foolish. However, if you keep from trying new things, you will not fail, but you will not succeed at anything either. Remember how good you felt when you took a risk and it paid off.

You take it personally. Failure is not about "you". None of us get everything right all of the time, but it does not mean we are not successful human beings.

You focus on failure. If you focus on failure, it creeps into your subconscious mind as a goal, and you find yourselves creating the conditions for it to happen. To avoid this, discipline yourself to focus on the positive outcome so that your success is manifested, not your failure.

You will not change your approach. If your approach is not working, try something else.

You lose patience. At times, we seek short cuts or compromises when we are unable to reach our goals. Do not reduce your goals in response to your impatience. If you really want to achieve a goal, keep your eye on it and remember that discipline, dedication, and determination are necessary.

In the list of reactions to avoid when you are facing failure, **highlight** the ones that you need to improve for yourself, and put a **checkmark** beside the ones you have observed some of your cadets doing. Reflect on how you could have helped those cadets better deal with failure.

"Success is the ability to go from one failure to another with no loss of enthusiasm."

- Sir Winston Churchill (www.quotationspage.com/quote/2087.html)

SECTION 3
CASE STUDIES

DECEPTION

Scenario: *A group of students on a wilderness-based experiential course were having a hard time learning the fundamentals of emergency first aid. They were not taking the lessons seriously and wanted to go climbing instead, claiming that first aid was not very important or difficult to learn. The instructor of the group had the assistant instructor sneak into the woods where she feigned a severe accident. Cosmetic devices were used to give the injury the look of an actual accident. Hearing her screams, the students ran over and were confronted by a scene of trauma that shocked many group members and impeded them into taking action. Several minutes later, the students realized that the accident was staged. The instructors debriefed the group on the importance of first aid and several group members expressed their appreciation of the feigned accident. One member of the group was extremely angry that she had been deceived by the instructors*.

What do you think about this approach?

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The scenario points out an ethical issue in experiential education that deserves some attention by leaders: the use of deception as an educational tool. To deceive a person or group of people means to mislead that person or group into believing that something is true, that is, in fact, not true.

Here is one of them: Suppose Cadet Kelly is extremely angry at Cadet Rose, wants to fight cadet Rose and asks where Cadet Rose can be found. Suppose you deceive them about where he is. Clearly it is his expressed interest to find him.

How would you feel about having deceived Cadet Kelly?

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In a sense, your act of deception violates Cadet Kelly's interest to find Cadet Rose. However, you could reply that you did not deceive him to hurt him, but rather to protect him from doing something that works against his interest once he is not furious anymore.

Drawing from the previous example, an argument can be made that the wilderness leader was acting deceptively only to achieve educational goals.

There are many views on the use of deception in experiential education. Here are some questions that allow you to determine your opinion on this ethical issue:

- Is it right to deceive your subordinates in order to obtain good educational aims?
- What if what someone thinks what is in their best interest is not in fact in their best interest? What if someone wants something different than what they need?

- If the student / teacher relationship is based on trust, how would a student trust that the teacher will not continue to deceive them continuously?

Sissela Bok (*Ethical Issues in Experiential Education*, p. 59) offers criteria to test whether an act of deception is right. One of them is for those using deception to ask themselves if they would object to this act if it were done to them.

Describe a situation where you or an instructor used deception as an instructional tool? How do you feel about it?

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SECRECY

Scenario: *A group of students on a wilderness-based experiential education program are planning their final expedition route. The topographic maps are laid out and the group has settled on a tentative route. Before going on the expedition the students must have the route approved by their instructors. The head instructor studies the proposed route and notices that the students will end up bushwalking through a mosquito-infested swamp for a significant period of time. The instructor refrains from mentioning this fact and approves the route. Upon the completion of the expedition, the students angrily confront the instructor and demand why he did not inform them of the swamp. The instructor replies that his withholding of the information was done only in order that the students encounter a consequence of their route finding, and that had he told them what he knew, they probably would have missed a valuable learning experience*.

What do you think about this approach?

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The issue of secrecy in experiential education is closely related to the issue of deception but it is slightly different. Where a deceptive act is one deliberately designed to induce people into believing that what is false is true, the secretive act is simply the withholding of information and not the distortion of information. Deception is active by nature and secrecy is passive by nature.

The whole issue of secrecy is complicated by the different ways in which secrecy manifests itself. For instance, in the example, secrecy was used as an educational tool for the goal of having students come to know what they did not know before. Another example could be the issue of having assured someone you would keep a conversation secret and confidential.

Teachers often times embrace ignorance on the part of the students. It is common to find outdoor leaders working with students' ignorance as a strong ally in the process of learning.

In the dialogue "Meno", Socrates describes his process of teaching geometry to an ignorant boy:

Socrates: At the beginning the boy did not know [...]. Nor indeed does he know it now, but then he thought he knew it and answered boldly, as was appropriate - he left no perplexity. Now however, he does feel perplexed

(confused). Not only does he not know the answer; he doesn't even think he knows. Isn't he in a better position now in relation to what he didn't know? So in perplexing him, have we done him any harm?

What do you think is the better situation of the two:

Someone who is not perplexed because they not realize that they do not know.
Someone who is perplexed because they realize they do not know.

Socrates: ***Do you suppose then that he would have attempted to look for, and learn what he thought he knew, though he did not, before he was thrown into perplexity, became aware of his ignorance, and felt a desire to know?***

Reflect on the comment in bold from Socrates.

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Socrates did not try to eliminate the slave boy's ignorance as quickly as possible with a quick lesson. Socrates refers to the attempt to bring someone into realization of their own ignorance as "the numbing process". Socrates said "Whenever we push a student into perplexity rather than simply informing him, we are keeping our knowledge secret from him until he is ready for that knowledge." In other words, it could be said that perplexity is a necessary condition for the experiential approach to happen at all.

The motive behind the keeping of a secret seems vital here. The leader has to use secrecy to achieve a good end. Unfortunately, some leaders withhold information to gain the psychological upper hand over their cadets. Such use of secrecy can be dismissed as immoral rather easily, because the secret is held, not to make teaching more effective, but to raise the low self esteem of the leader.

Describe a situation where you think secrecy was used in an **appropriate** manner.

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Describe a situation where you think secrecy was used in an **inappropriate** manner.

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The issue of secrecy and a promise to keep secrets becomes ethically interesting when the promise to keep a secret involves possible or probable harm to others. One way of approaching that issue is to make a distinction between making promises of secrecy that can be kept and making promises of secrecy that cannot be kept. For instance, when asked by cadets for a pledge of secrecy, the leader has the alternative to a simple yes or no. Instead, he could tell the cadets that he or she will honour the secret only if it does not harm others.

ENVIRONMENTAL CONCERNS

Scenario 1: *Sammy was a first year cadet. During an overnight field training exercise, Sammy had an accident in which he soiled his pants and his sleeping bag. He was crying when he explained the situation to his officer. He asked if he could clean up in the stream. Realizing that complying with Sammy's wishes would probably result in some human waste entering the stream, the officer was faced with an ethical dilemma. Should they respect Sammy's wishes or should they follow the rules of minimum impact and deny Sammy's request?*

What would you do if you were in the officer's position?

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The subject of environmental ethics is so broad and complex that it cannot be all covered. The issue looked at here is of when environmental value conflicts with a human value. This issue is directed to people who are already convinced about the worth of environmentally sound practices but who are nevertheless confronted with conflicts of values between human concern and environmental concerns.

Three positions can be taken:

1. The instructor says that it is never acceptable to pollute a stream even a little bit.
2. The instructor might take the opposite view and reason that given the good consequences for Sammy and the minor negative consequences to the stream's purity, that the right thing to do would be to grant Sammy's request.
3. The instructor may try to determine the degree of potential harm and benefit to both Sammy and other people (eg, farmers who use the stream's water) and act accordingly. Sammy's interests might well lose out to the interest of other people in this scenario.

To prevent such situations, leaders could determine beforehand what their actions will be, and make the participants aware of those decisions, so they can prepare accordingly.

These cases demand that the leaders use judgment to make a decision. To be rational, the judgment has to be made with clear understanding of what the levels of benefit and impact probably are. The leader cannot clearly know the benefits to Sammy washing up in the stream, but they certainly can have an idea of the benefits. The same applies for the impacts on the environment.

The judgment must reflect weighing of the competing values and of the possible benefits to the cadets and potential impact on an environment that other people (not on the scene) value being minimally impacted.

INDIVIDUAL VS GROUP BENEFIT

Scenario: *Cindy was a 17 year-old girl on a 23-day expedition course. She was in a group of nine other students from many different areas of Canada. From the beginning of the program, Cindy had been having problems with the physical aspect of the course due to the fact that she was quite overweight. She could not hike very far with a backpack without becoming thoroughly exhausted. As the course progressed, the group figured out ways to help Cindy, like distributing her load among the other, stronger group members. When Cindy first came on the course, her attitude had been terrible. She was belligerent and resentful of the abilities of the other students. As time went on, her attitude improved considerably and she began to show signs of dramatic psychological and interpersonal growth. She was becoming an accepted member of the group.*

Sandy and Rachel were in the same group with Cindy. Both had been athletes in college and high school and both were physically fit. Neither of them had ever dealt with serious fear or pushed their limits to the utmost and that was why they had come on the expedition.

On day 15 of the course, the group was scheduled to do a climb of a large, snow-covered mountain. The day before the climb was to begin, the instructors got the group together and explained that it was going to be a difficult climb but one that many other groups had successfully climbed. During the discussion, several of the group members, following the leadership of Sandy and Rachel, asked Cindy if she would consider staying at the base camp that day, as it seemed clear that Cindy would be unable to complete the climb. The instructor pointed out that, as a safety matter, if one person had to turn back, then the whole group would have to turn back. A long discussion ensued and the group was unable to reach a consensus of what to do. The group was evenly split on whether Cindy should attempt the climb, with Cindy being very clear about her desire to attempt the climb. Therefore, the group asked the instructor to make the decision for them and everyone agreed to abide by the instructor's decision.

How would you approach this situation?

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The conflict in value between Cindy, Rachel and Sandy and the rest of the group is typical of the conflict between individual and group benefits that leaders frequently encounter.

In the case of Cindy versus the group, the instructor could try to resolve the conflict in a psychological way, by trying to show the group that the real testing of their limits would lie in their ability to adapt to Cindy's limitations.

The instructor could try and change people's perception of the situation. For example:

- They could make the students believe that the real testing for them would be in learning to delay or deny their own gratifications and learn the difficult lesson of compassion for Cindy.
- They could make Cindy believe that what she really needed to do was learn the lesson of compassion for her fellow students who had already sacrificed so much for her benefit. They could make Cindy realize that her beliefs about what was in her own best interests were mistaken.

Granted that would be convenient, it is not always going to happen that way. Suppose that no one wants to change their minds. Suppose, also, that what Cindy believes is in her best interest really is in her best interest and that **no amount of persuasive skill from the instructor will resolve these conflicts of value**. This is where the ethical issue presents itself.

There are many ways to look at this:

- Maximize the greatest good for the greatest number (Utilitarian concept in ethics). This would justify requiring Cindy to stay in base camp to allow the rest of the group to complete the hike.
- Take those with the highest abilities and ensure that they go as far as possible to achieve the highest benefit. By allowing the most capable to achieve a high level of benefit, everyone else benefits from these high achievers' great contributions.
- Cast the issue as a question of fairness. That would imply answering questions such as: Given all the sacrifices made by the group to Cindy, is it fair for to allow Cindy to attempt the climb, knowing that her

participation would likely preclude any of the other students from finishing? Similarly, is it fair to deny Cindy her wish just because the others were claiming their due?

One way of dealing with the fairness is by addressing it as the students enter the program. When students enter a program and agree to function by their rules, then they are obliged to obey those rules.

For example, someone who joins a football team is obligated to follow the rules. If during a game they drop the ball, and look at the referee with a plaintiff gaze to get the ball back (and affirm that their self-esteem depends on it), there would be no question as to the fairness of the situation. The rules apply. It would be unreasonable if the ball was returned to them.

A similar reasoning process could be applied to the example with Cindy. If the goal of the program was to allow all of the students to test their physical limits, then it would be unfair to the rest of the group to deny them access to the same challenges enjoyed by Cindy exclusively. On the other hand, if the goal of the program was to have every activity, at least attempted by every member of the group, then Cindy should be permitted to attempt the climb.

As originally formulated, the conflict between Cindy and the group was presented without reference to any previously agreed-to rules. No one had agreed to a rule therefore, no one knew about what moral principles should guide them in their resolution of the conflict.

This points out the necessity that leaders in outdoor education ought to spend considerable time formulating the goals of their program.

Activate Your Brain #5:

If a group of 20 cadets is going to a high ropes course **as a means for personal development**. The group has 200 minutes (average of 10 minutes each) to enjoy the course. If a cadet is experiencing extreme fear and has been on the course for over 20 minutes, how should the instructor react?

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Activate Your Brain #6:

If a group of 20 cadets is going to a high ropes course **to have fun and have a chance to try the course**. The group has 200 minutes (average of 10 minutes each) to enjoy the course. If a cadet is experiencing extreme fear and has been on the course for over 20 minutes, how should the instructor react?

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In general, this issue is extremely complex. Judgments made by leaders have to be based on some standard of fairness and justice. They also have to be prepared to offer rational arguments in support of their decisions.

Decisions that are equally difficult are made on a regular basis at your cadet unit.

Think about what YOU would do if:

Five thousand dollars have been donated to your unit. You can invest it in many different areas. The biathlon team needs skis, the sport equipment at your unit needs some updating, the band needs 2 glockenspiels and a snare drum, and finally the administration officer needs a new computer / printer. How do you decide?

You are planning an expedition for your senior cadets. What level of difficulty are you going to offer the cadets for the hike portion? Challenging for some or challenging for all (knowing that some cadets will not be able to complete all of it)?

Congratulations, you have completed your self study package on EO C525.02 (Recognize Individual Behaviour During an Expedition). Complete the following exercise and hand the completed self study package to the Training Officer / Course Officer who will record your completion in your Master Cadet logbook.

FINAL EXERCISE

Cadet's Name: _____ Date: _____

1. How can fear be minimized? How can you help cadets deal with fear when outdoors?

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2. Describe the following concepts and how they are used or how they affect experiential education.

   a. Secrecy:

_____
_____
_____

   b. Environmental concerns:

_____
_____
_____

   c. Individual vs. group benefit:

_____
_____
_____

3. Describe which situation has made you learn the most valuable lesson and why.

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_____
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ACTIVATE YOUR BRAIN ANSWER KEY

***Activate Your Brain #1*:**

Assign the following actions with the appropriate predispositions / strengths.

Boys may have their backpacks in the van faster, but the girls will have everything they need in them the first time. Detailed thinking / General or Global Thinking

If you recite a list of things to put in a backpack, most girls will remember it. Boys will remember the first and last things, but not much in the middle of the list. If they see the stuff they need to pack, they will remember it better. Hearing & listening / Seeing & watching

Girls do not mind reading manuals to put things together or watching the instructor passively for a while; boys prefer to just begin to assemble and learn by doing. Language & talking / Doing & showing

***Activate Your Brain #2*:**

Knowing this, how would you approach the task of explaining to a group (with boys and girls) the items to be brought on an expedition?

When explaining the items that are meant to be packed for an expedition, the leader could show each item while saying the name as well as giving a written checklist. This hits the hearing and listening strength of most girls and the seeing and watching strength of most boys. It also gives a back-up strategy for those who forget the details or are easily distracted.

***Activate Your Brain #3*:**

Fill in the blanks.

1. Adolescents care about what their superiors say, but they care even more about their peer's opinions.
2. As a leader, it is important to create a proper atmosphere to ensure that the group develops as a team as quickly as possible.
3. When placed in a new group, adolescents have a tendency to retreat while they size up the situation.

***Activate Your Brain #4*:**

What are the two main factors that increase fear?

Factors increasing fear are mainly helplessness and hopelessness.

Activate Your Brain #5:

If a group of 20 cadets is going to a high ropes course **as a means for personal development**. The group has 200 minutes (average of 10 minutes each) to enjoy the course. If a cadet is experiencing extreme fear and has been on the course for over 20 minutes, how should the instructor react?

Activity as a means implies that the activity itself is serving as a vehicle to another goal. The activity itself is not the focus. In this case, the high ropes course is designed as a mean to human growth and development. The goal of the course is to provide a setting where groups can learn lessons of trust, group cohesiveness, conquering of fears, and increased willingness to take calculated risks. If a particular cadet takes a very long time to complete the course, due to extreme fear, then the other cadets are forced to wait and, at times, forfeit even attempting the course. In this scenario, it is arguable to most participants can attain most of the educational goals without everyone completing or even attempting the course. The cadet slowly dealing with his fear on the course is learning the lesson of courage and their belayers below her are learning the lessons of patience and compassion. This is a situation in which the leader needs to highlight the lessons learned through the situation and bring the cadets to that realization.

Activate Your Brain #6:

If a group of 20 cadets is going to a high ropes course **to have fun and have a chance to try the course.** The group has 200 minutes (average of 10 minutes each) to enjoy the course. If a cadet is experiencing extreme fear and has been on the course for over 20 minutes, how should the instructor react?

Activity as an end means that the doing (or at least the attempting) of the activity, is primary and that the activity provides its own end. This group is going to a high ropes course only because they want to have fun and have an adventure, not because they want to attain personal growth goals. With groups like these, the instructor faced with a slow cadet should evaluate the situation differently. In this case, fairness would be to provide every participant with an opportunity to attempt the course. Access to the course being the primary goal, the instructor should approach the situation with that in mind.

FINAL EXERCISE ANSWER KEY

Cadet's Name: _____ Date: _____

1. How can fear be minimized? How can you help cadets deal with fear when outdoors?

   Individuals better control fear better when:

   - they have confidence in their equipment;
   - they have confidence in the technical ability of their immediate superior; and
   - they concentrate on the job to be done.

   To diminish the level of fear in their participants, there are many things leaders could do. Here are some examples (**other answers could be correct**):

   - gain the trust of their subordinates (by acting safe, by keeping them informed, by being calm);
   - thoroughly explain situations or things that may create fear (such as noises, sounds, waste management); and
   - emergency training (eg, fire drills, evacuations, capsize drills).

2. Describe the following concepts and how they are used or how they affect experiential education.

   a. Secrecy:

      Where a deceptive act is one deliberately designed to induce people into believing that what is false is true, the secretive act is simply the withholding of information and not the distortion of information. Deception is active by nature and secrecy is passive by nature. It may be used as an instructional tool to have students learn something they did not know before, as a communication tool, or as a way of withholding information learned about someone while on a course.

   b. Environmental concerns:

      The issue of environmental concerns arises when environmental value conflicts with a human value. That can be represented by the need to have a fire, to wash in a stream or to take an off-trail route because of an emergency. (Other examples could be cited.)

   c. Individual vs. group benefit:

      This issue arises when an individual's benefit is different from the rest of the group. This conflict may arise because of different levels of physical ability, technical ability or fear per example.**(Other answers could be correct.)**

3. Describe which situation has made you learn the most valuable lesson and why.

   Answers will vary.

ROYAL CANADIAN ARMY CADETS

MASTER CADET

INSTRUCTIONAL GUIDE

SECTION 3

EO C525.03 – ANALYZE SITUATIONS USING RISK MANAGEMENT STRATEGIES

Total Time: 90 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the completion of this self study package are listed in the lesson specification located in A-CR-CCP-705/PG-001, *Master Cadet Qualification Standard and Plan*, Chapter 4. Specific uses for said resources are identified throughout the self study package within the section for which they are required.

Self study packages are intended to be completed by the cadet independently. More information about self study packages can be found in the foreword and preface.

Review the lesson content and become familiar with the material prior to facilitating this lesson.

Photocopy the self study package located at Attachment A for each cadet.

Photocopy the answer key located at Attachment B but **do not** provide it to the cadet.

PRE-LESSON ASSIGNMENT

Nil.

APPROACH

A self study was chosen for this lesson as it allows the cadet to examine in greater detail risk management strategies at their own learning pace. This encourages the cadet to become more self-reliant and independent by focusing on their own learning instead of learning directed by the instructor.

INTRODUCTION

REVIEW

Nil.

OBJECTIVES

By the end of this lesson the cadet shall be expected to analyze situations using risk management strategies.

IMPORTANCE

It is important for cadets to analyze situations using risk management strategies as they may have already had and / or will have to make decisions in the outdoor setting. The outdoor setting offers so many challenges, and drawing from others' experience will help the cadets when they are facing their own situations.

SELF STUDY PACKAGE INSTRUCTIONS

OBJECTIVES

The objective of this self study package is to have the cadet analyze situations using risk management strategies.

RESOURCES

- Self study package, and
- Pen / pencil.

ACTIVITY LAYOUT

Provide the cadet with a classroom or training area suitable to complete the self study package.

ACTIVITY INSTRUCTIONS

1. Provide the cadet with a copy of the self study package located at Attachment A and a pen / pencil.
2. Allow the cadet 90 minutes to complete the self study package.
3. Provide assistance as required to the cadet.
4. Collect the self study package once the cadet has finished.
5. Correct the self study package with the self study package answer key located at Attachment B.
6. Provide feedback to the cadet and indicate whether or not they have completed the Enabling Objective (EO).
7. Return the completed self study package to the cadet for their future reference.
8. Record the result in the cadet's logbook and Fortress Cadet Training Record.

SAFETY

Nil.

END OF LESSON CONFIRMATION

The cadet's completion of the self study package will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK / READING / PRACTICE

Nil.

METHOD OF EVALUATION

Nil.

CLOSING STATEMENT

Safety and risk management are an important part of outdoor activities. Being able to analyze situations and learn from other leader's positive and learning experiences is an important tool for an OL. The decisions of an OL have great impact, hence the need to develop decision-making, judgment and analytical skills.

INSTRUCTOR NOTES / REMARKS

Nil.

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Analyze Situations Using Risk Management Strategies

SECTION 1: JUDGMENT
SECTION 2: DECISION MAKING
SECTION 3: CASE STUDIES

SECTION 1
JUDGMENT

When OLs head into the outdoors, they encounter "risk" at every turn. It can be anything from a stream that is bigger than expected, weather that has changed, or a group member who ignores instructions. A good leader makes decisions that minimize harm and maximize the positive experience. Such a leader is an effective "outdoor risk manager".

The outdoors is filled with uncertainty. Many situations have information that is either missing, vague, or unknown. Consider these examples:

1. The fragility of a rock climbing hold.
2. The avalanche probability.
3. Obstacles downstream on a new river during high water.
4. Reactions to risk by group members.

When facing such cases, judgment is indispensable. To be an effective OL, your strength must lie in your ability to make accurate decisions in those uncommon situations.

Do you think judgment can be developed? _____

Why or why not?

_____

_____

_____

THE JUDGMENT CYCLE

We can view judgment as a cycle of three reflective processes: inductive, deductive and evaluative. Let's look at each closely.

Inductive reflection creates general concepts from specific experiences. For example: if every insect you have encountered has bit you, you may come to the conclusion that every insect bites.

Deductive reflection makes specific predictions based on general concepts. For example: if you know that one general characteristic of birds is to lay eggs and you see a specimen (unknown to you) that is laying eggs, you would deduct that that specimen is a bird.

Evaluative reflection is used to analyze the accuracy of the prediction, and then we use this analysis as a new specific experience to help us define the general concept or refine the base of experience. For example, if your prediction was incorrect (insects), then you need to identify why it was wrong (not all insects bite) and use that evaluation to modify your concept of insects. Similarly, if your prediction is correct (bird), then you need to identify why it was right (also has a beak and feathers) and use those facts to reinforce what you already know about insects and birds.

***Activate Your Brain #1*:**

What are the three types of reflection? Explain.

#1 _____

_____

#2 _____

_____

#3 _____

_____

DEVELOPING JUDGMENT

Sound judgment is a lot like memory capacity. It cannot be taught, but it can be developed and improved to an optimal level for any OL. Developing judgment lies not in regurgitating facts memorized for tests, but in reasoning. As an OL, you must concentrate on processing information rather than on memorizing it. You must discard memorization in favour of three-way reflection: induction, deduction, and especially, evaluation.

"A leader with limited knowledge and superior judgment is better than one with vast knowledge and little judgment."

- *Risk Management for Outdoor Leaders* (2005)

All too often, OLs forget to evaluate successful actions and instead analyze only those that failed. **Evaluating successes is as important as evaluating failures.** However, the idea that we "learn from mistakes" does not justify making errors. No matter what happens, you should spend time reflecting on negative and positive outcomes because you can learn from both.

Try the following suggestions to help improve your judgment:

In the following list, **check off** the items that you are currently applying or have applied in the past. **Circle** the ones that you intend on applying in the near future.

- Listen to the rules and the exceptions to those rules.
- Gather as much information as possible from lectures, historical case studies, and the horror stories of other leaders.
- Observe other leaders and how they use judgment.
- Develop a questioning attitude and inquire about the predictions others make.
- Recall personal near misses and share them openly with others.
- Consider the analysis of personal mistakes made by others.
- React, either verbally or in writing, to uncertain situations posed by other leaders.
- Keep a logbook of experiences and a judgment journal, reflecting on those experiences.

- Get experience at every opportunity: never turn down any reasonable chance to lead.
- Take a group of peers on an expedition and ask for their honest feedback.
- Undertake practical internships with several programs, always asking someone to observe you and give advice.
- Become an apprentice to an expert leader and have this mentor guide you and pass on responsibility in a gradual manner.

Above all, evaluate and thoroughly reflect on every experience.

PROBLEM SOLVING

The leader had a problem to solve: what would be the best way to portage a heavy load of two packs and a canoe on a long, rock trail around a Class Five rapid in the most appropriate amount of time? His solution was to carry the canoe on the top of his head and the two packs on his body. This solution worked really well until he became tired and wanted to rest. When he tried to take the canoe off his head, he slipped and stumbled off the trail, rolled down a hill, and struck his head on a small rock.

The assistant leader provided first aid and then put a group member in charge of monitoring the unconscious leader's vital signs. The group still had one day to paddle before it could get out to a helicopter landing site. The assistant leader sent two of the strongest paddlers ahead to get help sent to the helicopter landing site, and now she had a problem to solve: what would be the best way to evacuate this victim by water?

Sometimes the solution to a little problem can create bigger problems. Although the leader's solution to the initial problem was appropriate, his solution to the subsequent problem of needing to rest was not.

Problem solving is finding answers to both simple and complex questions.

Problem solving is determining what needs to be done to make the situation become what you would like it to be. It closely relates to decision-making and judgment. Decision making is choosing between options to obtain the most probable option from a collection of possible ones.

There are three phases to problem solving: the assessment, analytical, and creative phases.

Assessment phase. In the assessment phase, you recognize a problem. If at any given moment you do not recognize a problem, then you have to stay alert to potential problems. As soon as you recognize a problem, you are obliged to enter into the analytical phase of the model.

Analytical phase. The analytical phase consists of five steps. They are:

1. Determine the part of the problem (the heart) that is going to be the most difficult to overcome.
2. Determine the desired outcome to success.
3. Identify solutions to the problem.
4. Determine the best one.
5. Execute it.

Creative phase. The creative phase becomes necessary when answers to questions in the analytical phase are negative or when problem solving stalls. These six creative techniques may prove useful:

1. **Brainstorming.** Openly expressing any idea that comes to mind without fear of criticism by other group members. The atmosphere has to allow people to share suggestions, no matter how unusual or weird,

without anyone else putting them down. The uninhibited sharing of ideas can spark creative new ideas in others.

2. **Extended effort.** Encouraging group members not to give up too quickly. By waiting through any pauses or dry spells, groups find that ideas generated later in the process prove to be the most creative and, occasionally, the most useful.

3. **Attribute listing.** Identifying the characteristics of any idea or piece of the problem. Listing attributes, such as abilities, limitations, strengths, weaknesses, or required resources, helps to draw connections and formulate relationships among the ideas generated. People may combine these characteristics to generate new ideas.

4. **Forced relationships.** Comparing and contrasting ideas with an eye for creating new ideas by altering old ones. Often it is a forced substitution, combination, adaptation, modification, enlargement, reduction, reversal, or rearrangement that leads to these new ideas.

5. **Deferred prejudice.** Requiring that people remain open to generating new ideas instead of settling on the first one that sounds good to them. By providing ample time and freedom from bias, you provide opportunity to enlarge the pool of generated ideas. You can make better choices from a large number of ideas.

6. **Judgment.** Using judgment to balance the need to generate creative ideas with the time restrictions dictated by the problem. Necessary when the process is delayed due to lack of information (which might compound the problem).

Once you have executed a solution, you have the final responsibility of evaluating whether the solution works. If it does not work, then you must repeat the cycle.

***Activate Your Brain #2*:**

What are the three phases of problem solving?

#1 _____

#2 _____

#3 _____

Explain two creative techniques that you find particularly interesting.

#1 _____

_____

#2 _____

_____

***Activate Your Brain #3*:**

Discuss three ways in which you could develop your judgment.

#1 _____

_____

#2 _____

_____

#3 _____

_____

CASE STUDY: THE MOUNT HOOD TRAGEDY

The Mount Hood tragedy is a classic example of what can happen when a leader is not fully prepared and makes an error in judgment.

Highlight the decisions that you find are questionable in the following case study.

On Monday, May 18, 1985, a group of 20 people left the parking lot of Timberline Lodge at 0300 hrs to climb Mount Hood, Oregon, expecting to return in the afternoon of the same day.

The group consisted of 15 students of the Oregon Episcopal School in Portland; Reverent Thomas Goman, an instructor in the school's "Base Camp" wilderness program and the leader of the trip; Marion Horwell, also a faculty member at O.E.S. but an inexperienced climber; Ralph Summers, a guide from the Pacific Crest Outward Bound School hired as "Technical Consultant" for the trip; Dee Zduniak, another Outward Bound instructor who wanted to familiarize herself with the program; and the mother of one of the students.

For two days prior to the climb, the weather had been unsettled and there had been new snowfall. A storm had been predicted for Monday, and the group had left the parking lot under overcast skies.

The group left the parking lot at about 0300 hrs. The weather was windy and cold, and progress was slow. One of the students, a diabetic, turned back to the lodge together with her mother. By 0500 hrs, the rest of the group arrived at their first rest stop, Silcox Hut, at which point they were already one hour behind schedule.

Over the next few hours, several breaks were taken, but progress continued to be slow and four more students turned back. The group became divided because Horwell was moving very slowly and complaining of dizziness. At 0800 hrs, the group reached the top of Palmer Lift, with the weather continuing to be windy and cold with two layers of clouds. One student apparently was feeling nauseous, and during the 20-minute break at Palmer Lift, several students considered turning back, but decided to carry on after discussion with the leader.

As the climb continued, markers were placed every 60 m (200 feet), and the 3000-m (9 300-foot) bench mark, located below an area called the Hogsback, was reached at approximately 1100 hrs. Both Timberline Lodge and the summit could be seen at this point.

About half an hour after, once again resuming the climb, Dee Zduniak decided to turn back because of beginning snow blindness (a recurring injury from the previous winter). At that time, the weather started to change; the clouds were lowering down to the summit.

By the time the group had reached the Hogsback, the visibility was only about 15 m (50 feet), and the temperature was dropping. At this point, several members of the group were having difficulties, and the two leaders discussed turning back; Thomas Goman decided to make one more effort upward, and Ralph Summers deferred to Thomas Goman's leadership.

Leaving their packs at the Hogsback, the group continued on, with the weather continuing to deteriorate. Ralph Summers was in the lead, but soon lost contact with the rest of the group, which was spreading out. When he went back to them, he told Thomas Goman that they should turn back, which they did. It was now about 1400–1500 hrs, and they had been climbing for 11 hours.

By the time the group had made their way back to their packs at the Hogsback under whiteout conditions, one of the students, Patrick McGuinness, was exhibiting signs of hypothermia. He was placed into the one available sleeping bag and given hot liquids. Efforts to rewarm the student continued for an hour until 1600 hrs, at which point Summers and one of the stronger group members started down with McGuinness, followed by the rest of the group.

Weather conditions had by now become severe, with winds of 25 kph (40 mph), deep snow, and visibility of less than 3 m (10 feet). The steps made on the way up were blown in, and route finding became difficult. Thomas Goman gave directions from the rear of the group to keep left, and at a point where two of the sticks were found, Ralph Summers asked for the compass to be passed to the front and found it set to 160 degrees. He later said he had assumed that this was to avoid heading into a nearby canyon under the stormy conditions.

No more markers were found after this point. Soon the group encountered steep, crevassed terrain, and Ralph Summers became confused as to their location. Just before reaching this area, Thomas Goman had fallen over and required assistance to get up again.

At this time (about 1900 hrs), Ralph Summers halted the group and suggested that considering their situation they should dig in for the night rather than continuing, to which Thomas Goman assented. Summers then proceeded to dig a cave with his snow shovel (the only one carried by the group) with some assistance from Goman, while the rest of the group huddled under a tarp with McGuinness in the sleeping bag.

After about one or two hours, Ralph Summers felt that it was critical to get everyone inside the cave without further delay. Both leaders were hypothermic by the time they entered the cave. The packs had to remain outside, as the cave was only 1.8 m by 2.4 m by 1.2 m (6 feet by 8 feet by 4 feet) high, but even so the interior was extremely cramped and could not hold the entire group all at once. It was hard to keep circulation going, stay warm, and breathe sufficient fresh air during the night. The only ground insulation was a space blanket provided by one of the students, and there was no extra clothing, food, water, or a stove, since all the packs had remained outside.

Throughout the night, the entrance got snowed in and had to be kept open. People took turns leaving the cave for fresh air. Sometime during the night, the shovel was lost outside, and some people lost hats, mittens and boots.

By morning, the storm was even worse and Ralph Summers decided that he had to attempt to get help: "We had lost the ability to take care of ourselves; I felt I needed to let them (the people he knew would be down below) know of our situation." Thomas Goman was in too poor a condition at this point to respond to this decision, and Summers set off two hours after daybreak accompanied by one of the stronger students, equipped with the compass and one ice axe.

At sun-up Tuesday morning, a comprehensive rescue effort involving various government agencies, the military, and volunteer rescue groups was underway but was hampered by the continuing storm.

At about 0900 hrs, Ralph Summers and the student arrived at Mount Hood Meadows, 1.25 km (two miles) east of Timberline. Throughout Tuesday, rescuers were thwarted by high winds and snowdrifts, and the search had to be called off for the night because of hazardous conditions caused by the bad weather.

Later that night, the weather finally cleared and the search resumed on Wednesday morning with the first light. At 0600 hrs, a helicopter spotted three bodies in the snow. When rescuers arrived, they were identified as three students belonging to the missing group and were airlifted to Emanuel Hospital in Portland immediately. They were all extremely cold with body temperatures between 6°C and 15°C, and efforts to revive them were unsuccessful.

Throughout Wednesday and Thursday, searchers combed the mountain's south and southeast faces, but the snow cave was not found. In the late afternoon on Thursday, with another storm approaching and 20 minutes before the search was to be called off for the day, a rescuer probing the edge of a crevasse at the 2500-m (8 300-foot) level felt something soft, dug through four feet of snow and found the entrance to cave. In it, the climbers were lying stacked on top of one another. Some of them had their eyes open and were breathing, but others showed no vital signs, and all were in a state of profound hypothermia.

The rescuers hauled each of the climbers out of the cave with extreme caution and stretchered them to waiting helicopters, in which they were flown to different hospitals in the Portland, OR area. Using cardiopulmonary bypass machines, doctors tried to raise their body temperatures by warming their blood and returning it to their bodies.

Of the eight people found in the cave, six, including the two teachers, did not respond to attempts to revive them and died shortly afterward. Two of the students survived, but one of them had to have both legs amputated a few days later as a result of extensive tissue damage.

List some of the things you believed went wrong.

_____
_____
_____
_____
_____
_____
_____
_____
_____

A panel of five medical and mountaineering safety experts was assembled to convey an inquiry of the accident. By the end of July, the investigators submitted their report.

Do you believe the following factors had an impact on the situation's outcome? How?

Equipment:

Level of supervision:

Leadership:

Weather:

Digging a cave:

Here are some of the conclusions that were drawn from the investigators:

1. Equipment such as heavy boots, sleeping bags and snow shovels was insufficient.
2. The leaders did not carry a topographical map of the area or an altimeter; one of the leaders kept his watch and one of the two compasses carried by the group in his pack and consequently did not use either.
3. The ratio of leaders to students (1: 8.5) was considered unacceptable by the panel.
4. The weather report (received by both leaders) had reliably forecasted a several-day storm, with the only variable being the arrival time of the main front.

5. The decision to turn back should have been made much earlier. At Palmer Lift, given the time of day, the weather, and the deteriorating condition of the group, the prudent course of action would have been to descend with the entire group. Past that point, the human and environmental conditions clearly indicated that this was the time to turn around.

6. One of the primary causes in this accident was the need to try to stick to a schedule (because the event could not be rescheduled at a later date).

7. It would have been better to continue the descent (even if it meant dragging the hypothermic student with a climbing rope) because the condition of the other members of the group likely deteriorated further as a result.

8. The decision to not search for route markers would have only been appropriate if the route was well-known or the compass bearing correct. By keeping visual or tactile contact with the rock on the right, a descent in the correct direction would have been possible even in stormy conditions.

9. The decision to stop and dig a cave was "only acceptable under the circumstances at the moment". It would have been better to continue down as fast as possible. The value of the snow cave was limited because of the loss of equipment, other members of the group not digging, and not continuing survival protocol within the cave."

What can you learn from this situation?

The chain of events and decisions that led to this tragedy seems easily traced, but while undoubtedly basic rules of outdoor safety were broken, the way someone views a situation from a warm cozy office room is much different than the way someone views a situation after many freezing hours of extreme exertion and anxiety.

SECTION 2
DECISION MAKING

DECISION MAKING

The avalanche that had buried a student was small in comparison to some of those the head leader had seen in 10 years of ski patrol experience. Nonetheless, there was absolutely no sign of the student anywhere. Four hours earlier, the head leader's group of three novices had left the remaining 12 students of the skiing class with two other leaders. The two subgroups (4 and 14, respectively) were making their way to a common meeting place by different routes. With four hours of daylight left, the head leader's group of four was about two hours from the road head when the avalanche struck. The head leader began recalling the events immediately leading up to the accident.

The group of four had been travelling on the ridge top and was descending a leeward slope to reach and follow the valley floor below. The leader had pit tested the snow slope's substructure and determined it to be stable. Although they were above tree line, no old slice paths or running cracks had been noticed. Before descending, they had taken all the necessary precautions. Each had removed their straps on skis, poles and packs to prevent these items from dragging them under in the event of an avalanche. All had zipped up their layers of clothing, and put their hats and mittens on to keep themselves warm. Each had placed covering handkerchiefs across their mouths and nostrils to prevent possible snow inhalation. So as not to expose more than one person to danger at any time, they moved across individually and planned to rest only at points of relative security. The leader had gone first, planning a careful path from safety point to safety point. Given the beginning nature of the ski touring class, no one had been issued avalanche chords or radio beacons (these were rare and expensive years ago when this accident happened).

Whump! The small slab avalanche had suddenly let loose under the student's feet and thundered down the slope past the leader. The other two skiers saw the student discard a pack and attempt to swim "ferrystyle" to one side of the avalanche, but powerfully it turned the student over and over again, progressing downhill forcibly. Once the snow had settled, there was nothing but pristine silence. From a distance the other skiers could not discern the fate of their friend. From their viewpoints, no one could see any visual clues that might lead them closer to the buried skier. They could only hope that as the avalanche had slowed, the student had made a last ditch effort to gain the surface or at least make an air pocket in front of his face. The leader surveyed the slope for further danger and then assembled the remaining two students above the debris area at the last spot they had clearly seen the student. After briefly pondering the problem, the leader explained that speed and accuracy were of the utmost importance: the longer the student remained buried the lesser the chances of recovering the student alive! The leader realized the obvious problem was to how best to find the student ALIVE and thus faced making a series of very difficult decisions.

1

[1] *Note*. From *Effective Leadership in Adventure Programming* (2nd ed.) (p.274), by S. Priest & M. Gass, 2005, Windsor, ON: Human Kinetics Publishing Inc.

Using one of the creative techniques, come up with two possible options the leader may have had.

_____

_____

_____

_____

Decision making is choosing the most probable option from a collection of possible ones. The process involves diverging, or building a range of several options, and then converging, or narrowing that range to select the best option.

DECISION-MAKING METHODS

Making decisions is necessary at several steps of the problem-solving process.

REMINDER

In the problem-solving process, there were many decisions to be made:

- heart of the problem,
- desired outcome,
- best possible solutions, and
- best probable solution from a wide range of possible solutions.

Divergence

The wider range of options generated through divergence, the better. As you know, the creative phase of the problem solving model contains several techniques that effectively diverge options.

In the avalanche example, there were many options identified by the leader:

1. Seek a professional search and rescue (SAR) team.
2. Meet up with the other subgroup to gain their assistance.
3. Perform a hasty search with the two remaining students.
4. Perform a coarse-probe search, for example, move forward 70 cm, probe once 2 m deep with ski poles.
5. Perform a fine-probe search, for example, move forward 30 cm, probe three times 2 m deep with ski poles.
6. Wait for help to find them once they become overdue.
7. Split the subgroup further, send one student for help while the leader and the other student search.

Given enough time, a group could easily enlarge the list of options.

List two more options that could be considered.

_____

_____

_____

_____

Convergence

This is generally the most difficult part of decision making. You must discriminate the best option from among many options.

A five-step method exists to narrow the field:

- gathering;
- weeding out;
- organizing;
- weighting; and
- choosing.

Gathering. It involves collecting all pertinent information to the problem. You have to gather and sort things as facts (what you know as true), assumptions (what you think is true) and constraints (possible barriers to success).

Weeding out. It involves removing those options that are clearly inappropriate. Reducing the number of options, considering the information you have gathered, makes it more manageable.

Organizing. It involves ranking the three or four remaining options. Compare two options at a time rather than all options at once. The fewer options to choose from, the easier and more efficient choosing becomes. Ordering enables you to examine any situation from its component decisions, making the overall situation more manageable.

Weighting. It involves considering the positive, neutral, and negative aspects of each option at each decision.

Choosing. It involves choosing the preferred option.

For example, picture yourself as a bicycle trip leader. As per Figure 1, you are located in campsite number one and you want to make it to campsite number two. You have to balance risks with bike pleasure.

You determine that eight options are available to you (convergence).

Then, you have to collect information about all your options (gathering). After gathering information, you eliminate (weeding out) a few options. After finding out about heavy construction on one route and going through a marsh on another one, you drop those two options, which means you are left with six different options (six routes) to choose from. The six routes are mapped out in Figure 2.

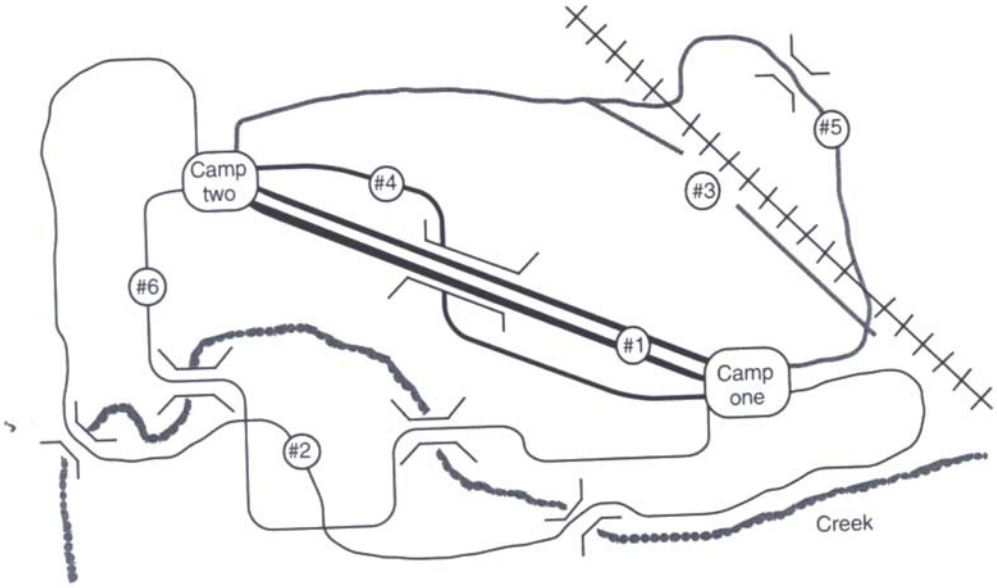

Figure 1 Possible Routes for Bicycle Trip

Note. From *Effective Leadership in Adventure Programming (2nd ed.)* (p.285), by S. Priest & M. Gass, 2005, Windsor, ON: Human Kinetics Publishing Inc.

To compare, you should organize the facts and assumptions you have gathered, as per Figure 2.

Qualities	Route #1	Route #2	Route #3	Route #4	Route #5	Route #6
Dangers	No shoulder	Bridges	Walk by rail	Underpass	Rail crossings	Bridges
Concerns	Straight	Winding	Missing bit	Straight	Steep hill	Straight
Road type	Highway	Bike path	Back road	Highway	Back road	Farm road
Traffic	Extreme	None	Light	Heavy	Light	Moderate
Terrain	Gentle grade	Flat	Hilly and flat	Gentle grade	Mtn pass	Flat
Surface	Paved	Hard-packed	Gravel	Paved	Dirt	Paved
Distance	24 km	80 km	48 km	32 km	56 km	64 km
Key points of interest	Non	Scenic	None	None	Nice views	Scenic

Figure 2 Route Characteristics

Note. From *Effective Leadership in Adventure Programming (2nd ed.)* (p.285), by S. Priest & M. Gass, 2005, Windsor, ON: Human Kinetics Publishing Inc.

Since the number of options is large, you may reduce it by applying some additional criteria, such as avoiding vehicle fumes or hills and seeking paved surfaces or scenery.

The qualities are typically organized around the following themes:

- advantages, benefits, and points of interest;
- disadvantages, negatives and other dangers; and
- general qualifiers, such as costs, distances, road type, terrain, and surface.

You do not have to include all themes in a comparative table, but to be the most effective, you should consider all the available information and evaluation criteria. For example, alternatives are often overlooked variables to any consequences that might result if you select an option and put it into action.

You could decide to mentally cross out the entries that are equivalent. You may decide that crossing two bridges is equivalent to a rail walk or that the nice view compensates for the steep hill. Once there are only a few entries left, you may find it easier to compare and make the best possible decision.

SECTION 3
CASE STUDIES

Select **one of the two** case studies and answer the following questions:

CASE STUDY # _____
TITLE: _____

1. Which decisions do you find questionable?

2. What would have been good moments to stop and wonder "What if?" before moving on?

3. How does this make you look at the preparation of adventure training differently?

4. What are some elements that you will now consider when preparing an activity?

5. Do you have extra comments in regards to the applicable case?

Congratulations, you have completed your self study package on EO C525.03 (Analyze Situations Using Risk Management Strategies). Hand your completed package to the Training Officer / Course Officer who will record your completion in your Master Cadet logbook.

CASE STUDY #1 : THE TIMISKAMING TRAGEDY

Ever since I've known Ian Harling, since we worked for the same camp over a decade ago, he's been oblivious to discomfort. He's the kind of guy who wears shorts in the winter. Who doesn't notice black flies. The kind who, when he fell a few years back and broke his arm, said it felt "a little sore." He is a person who quite literally cannot stand still. Like now, as Harling scans the mile of whitecaps separating us, and our canoes, from where we want to be, one meaty calf is pumping like a piston. He's game for the crossing, a part of him is, I can tell.

But a part of him also is not.

It's the summer of 1998; 20 years since Harling almost died, on a similarly rough stretch of water, in the pivotal, unforgettable accident that claimed a dozen of his young schoolmates' lives and changed the complexion of canoeing for good.

Timiskaming. An imposing wedge of exceptionally deep water on the border of Ontario and Quebec—the name in fact means "deep water" in Algonquin—this lake, flanked in many places by sheer cliffs, runs an incredible 85 miles, north-south, before funnelling into the Ottawa River.

St. John's Anglican Boarding School operated on the principle that hardship breeds character. It was a gruelling regiment, bordered, on either side of the school year, by marathon month-long canoe trips. Many St. John's students had done poorly in the public school system, been labelled "problem kids." Harling was no different. St. John's brought out a better side of him. By the end of the 1977–78 school year, his grades had gone from 50s to 80s. Such improvements—and Harling was far from the only one to excel in the St. John's environment—were celebrated on June 10, 1978, during the customary year-end barbecue. That same evening, the boys, none older than 14, were piled into a couple of awaiting vans, the backs of which had been lined with mattresses for the overnight haul that would take them some 160 km (250 miles) to the North. When they awoke, they were on the banks of the Ottawa River, a few miles South of Timiskaming.

It began as a beautiful day, despite the cramped quarters of the van, Harling says, he had slept fairly well, and after a couple of sandwiches was ready to hit the water. He was pumped for this trip. Because of the skill and eagerness he'd shown on a previous trip, he'd been picked as bowsman—a coveted role—for the No. 2 canoe, sterned by teacher Peter Cain, a husky veteran of five long trips with the school. Brigade leader Richard Bird, who helmed No. 1, had a similar number of long trips under his belt.

The boys were in good hands, and the weather was ideal. "Gorgeous, sunny, not much wind," is how Harling recalls the conditions. The four canoes quickly reached Timiskaming. By lunch, when they stopped for some more sandwiches and a quick nap, they'd already covered about 12.5 km (20 miles).

They would do only 6 more (10 more).

Shortly after lunch, the trip leaders decided to cut across the lake. Although the crossing was only a mile, the wind had picked up, coming from the south, and the No. 4 canoe, sterned by Neil Thomson, the least experienced leader, had started to lag behind. The waves weren't "anything outrageous," says Harling. "In fact, it was funny because we were out on Lake Winnipeg the year before in waves three or four times the size." But for Thomson, who had in fact never steered a war canoe before, they were too much. The canoe spun broadside to the waves and went over.

This, in itself, wasn't really a cause for panic: it was still sunny, all the boys wore life jackets, and three canoes were still upright and within hearing range. But a couple of circumstances would quickly turn what should have been a routine rescue into a nightmare.

The first was an almost unbelievable stroke of bad luck: a second canoe—the No. 3 boat, sterned by university student Mark Denny—capsized right on the heals of Thomson's. Denny had seen Thomson's boat flounder and alerted the rest of the brigade. When he turned his own canoe to lead off the rescue, a crew member moved, and the waves—now pounding laterally—tipped them.

The second factor had been there all along but was just now becoming brutally obvious: the temperature of the lake. It was early June, on Timiskaming. Deep Water. In the inquest following the accident, it was estimated that the lake that day hovered just a degree or two over 50 (10°C): both Sorenson and Harling maintain that it was closer to 40 degrees Fahrenheit (4°C). Life jackets meant nothing after an hour—even less, for young boys—in these conditions.

For Harling, the ensuing events are something of a blur. His canoe, and Bird's, took on as many of Denny's crew —which was closest to them—as they could and hurried them to shore. There they deposited the soaked boys, as well as a few of their own crew members, and headed back out. The waves were getting worse—"hitting from all angles," he says. Enough so that the veteran Bird, while attempting to haul the remainder of Denny's crew, suddenly dumped as well. Harling and Cain anchored the only rescue boat left.

Unable to even see the boat of Thomson by this point, they rushed to the closer two. Denny, a slight 20-year-old, had been in the water a long time. Harling recalls someone—perhaps Bird—cautioning not to take the delirious Denny into the canoe, to tow him in instead.

"Unfortunately, Mark Denny actually crawled into our canoe," says Harling. "But his hypothermia was so severe that he stood up which caused us to dump. So now all four canoes were in the water."

Harling and another boy attempted a splash-out of their boat, surprisingly managing to get the massive canoe upright and mostly emptied. But the waves were getting higher, and when another kid grabbed the gunwale, it rolled right back over. It was then that Harling decided, on his own to swim for shore which was about 70 m away. He just barely made it. He vaguely recalls reaching out to grab a rock, then slipping back in. Apparently he was pulled out by someone, who he believes was Peter Cain. Then he passed out.

"I woke up a little while later—I have no idea of time—and I was alone. Found a little alcove in the rock and went in and stayed there, fell back asleep, woke up again." Eventually I decided to look for others, though he had no idea really where to start. Luckily, he picked the right direction. After just 15 or 20 minutes he spied a column of smoke from a campfire. As he approached, rounding a bay, he came across three boys lying dead on the shore, each of whom he recognized immediately. He later learned that CPR had been attempted, and failed. He walked into the camp. He was the last boy to do so.

A full night passed before anyone in the outside world had an inkling of what had happened. Early the next morning Gary Smith, a helicopter pilot en route to Ottawa, caught sight of two overturned canoes on the shore, with a pair of bodies caught in the rope trailing from them. He spotted the other two canoes drifting a few kilometres away.

Sorenson says he had just finished serving breakfast to guests when the chopper made a forced landing at his lodge. He urged Smith to fly to Ville-Marie to alert the police. In the meantime, Sorenson set off in his boat to the spots Smith had mentioned. At each he found only bodies, five in total. One was that of Mark Denny; the rest were children. "To see such young kids, 12 and 13 years old, it was a shock," recalls Sorenson.

A police boat from Ville-Marie arrived next, loading several of the bodies. Sorenson, who knew from the number and size of the canoes that there had to be more kids somewhere, resumed his search of the area. Returning to the lodge after one unsuccessful sweep he encountered Smith again, who said he'd just seen something on the shore. Sorenson gunned his boat in that direction.

The survivors—15 boys and 3 leaders—had spent the night crowded around a bonfire, comforting each other, praying. The day before, they'd knocked down a couple of trees and built a large H, on which they draped their orange life jackets. Harling can't recall anyone crying. His state is best described, he suggests, as "just incredibly intense"—determined to come through it all, to live.

The black flies were horrendous. "I got eaten alive, especially when I passed out," Harling says. "But you got to a point where you just gave up on the bugs and didn't really notice them anymore." You had to forget hunger,

too. He and his fellow students were each given a meagre handful of granola, because a lot of the food had remained with the canoes, and the leaders had no idea how long it would be before anyone came to there aid.

When Sorenson saw the campfire smoke, he knew he was in the right place. But by this point, in a kind of perverse reprise of the previous day, the weather had again turned nasty. Nastier, in fact.

The police boat bearing the first load of victims never did make it to Ville-Marie. Overloaded with four cops and several dead bodies, it plowed too low into a bank of waves, had its windshield knocked out and sank. Luckily, two men who were building cabins along that desolate flank of the lake saw all this happen and responded to the macabre scene.

Harling says the scariest part of the whole Timiskaming experience was the ride in Sorenson's boat to his lodge. The camp owner concedes that it was a hairy trip. "We were bucking real hard, North, into three-foot waves. It was probably a 30-mile-an-hour wind." He made two trips in these turbulent conditions, and brought all the survivors safely to his side of the lake.

In the interim all the bodies, in a concerted effort by locals, had been found. They now lined Sorenson's dock, draped in blankets. It was a sight from which Sorenson and the St. John's staff tried to shield the survivors, but Harling says he saw them anyway. The boys were herded quickly into the lodge, where they were warmed, fed, tended to. The all slept together that night in a single room.

The surviving boys were finally flown out to join their frantic mothers and fathers. Harling went last. He'd watched his fellow students systematically get whisked away in floatplanes. Finally it was his turn—and his turn would be in Smith's helicopter.

"It seems weird to say, but I thought that part—getting to ride in a helicopter by myself—was really cool," says Harling. He was after all, still a kid.

St. John's was roundly criticized in the aftermath of the tragedy for forcing boys to behave like men. Harling did grow up fast following the accident, but he also held on to his mischievous, playful spirit. He would say that St. John's even nurtured this. He, like most of the other survivors, went back to the school the following year. Yes, St. John's lived on; it would be another eight years before the Claremont facility closed its doors. It was the parents who saved the school. Even those who lost children closed ranks. Outside observers didn't understand it, but those devastated people still credited St. John's with giving their children the best chance they had ever had to succeed.

Harling, for one, never stopped canoeing. The very next year, as a 14-year-old, he paddled with St. John's from Thunder Bay to Winnipeg, crossing the Grand Portage. Trips were scaled back, but they did continue. After he graduated from the school, Harling still volunteered for trips as a leader, because he "wanted to give something back." Since leaving the St. John's and camp worlds, he contents himself with yearly canoe trips with friends.

Debate still rages over where, precisely, things went wrong on the Timiskaming trip.

For your benefit, fill out the case study questionnaire and then read the rest of the case study.

The event was described as a series of judgment errors that, together, added up to catastrophe: the fact that the boys and leaders had little sleep the night before, and had little to eat that day: that one leader, at any rate, should not have been steering a canoe: that weather and water conditions weren't thoroughly anticipated.

The coroner's report found no justification for criminal charges but essentially made the same points; that the trip was hastily mounted, and unreasonable as a whole. "We feel that for boys from 12 to 14 years of age, this entire expedition constituted an exaggerated and pointless challenge," it stated.

Sorenson, who knows the lake well, says he still thinks of it as a freak accident." He often finds himself playing the game of "what if." What if they had just kept to the Quebec side? What if…?

Harling blames, if anything, the water temperature. "They should have known. But, as I say that, how many times have you gone out in early June on a canoe trip? All the time, and so have I."

So here we are on this Rocky Point. Ian's wife, Lisa, is back at our canoes, as is my common-law wife, Andy. It's a beautiful day, and the water looks manageable, if rough.

Twenty years later. A turbulent vista.

"I say we just wait it out," he suggests.

CASE STUDY #2 : ADAM'S STORY

Lessons Learned II

By Kay Landis, with the assistance from Phil Dzialo

In the summer of 1998, Adam Dzialo was 12 years old. Blond haired, blue eyed, wiry, and athletic, he was a boy who loved sports and was good at everything he played. In baseball, he was an all-star. In hockey, he was the goalie who stopped five penalty shots in a row to lead his team to victory. He enjoyed soccer. He excelled at golf. When he wasn't playing a sport, he was at a sports camp. "He was in perpetual motion," says Phil, Adam's father.

Adam's family had a busy summer planned for him that year. He was signed up for six sports camp, including Team Adventure, an outdoor program run by the local community college. The Team Adventure brochure promised "five days of fun and excitement!" featuring a ropes course, rock climbing, canoeing, hiking, a river crossing, and one overnight camping trop. No previous experience was required; participants needed only to have an eagerness to learn new skills and an interest in having fun.

Adam was the 13th boy to sign up for the Team Adventure camp that week. The program was normally limited to 12 participants, as the brochures and advertising stated, but the director was willing to bend the rules and raise the cap to allow Adam and a 14th boy to enrol. The program had a new van, with greater capacity, and the director felt the leaders could handle the two extra youths.

Team Adventure. Team Adventure was an adventure program for kids (ages 12 to 15) run by Adventures Unlimited, a non-credit community education program of Greenfield Community college (GCC). Adventures Unlimited was well-established and had been successfully running custom outdoor courses for youths since 1991. Team Adventure was in its second season.

Team Adventure was managed by a part-time director and staffed largely by graduates of GCC's Outdoor Leadership Program (OLP). The two programs (OLP and Adventure Unlimited) maintained separate offices and reported upward to different college administrators, but they shared equipment and a certain symbiosis of purpose. The OLP academically prepared graduates to lead entry-level adventure outing and services and Adventure Unlimited offered OLP students and graduates employment opportunities as instructors and trip leaders. Adam's camp was run by two of these graduates, Patrick and Heather; the program director was also a graduate. Partly because these programs shared equipment, Adventures Unlimited was able to keep its costs down and offer its courses at substantially lower rates than most commercial programs.

The Team Adventure activities were designed to introduce participants to a different type of outdoor skill or experience each day. The kids had the opportunity to complete a ropes course, climb a rock face, canoe a river, and practice a river crossing, then finish up with a Thursday night campout and a Friday summit hike. On many of the earlier trips, however, participants complained about the Friday hike; it just wasn't exciting enough. Heather and Patrick had asked for permission to alter the itinerary for the group and try a river swimming and rescue drill instead. Permission was granted.

And so the itinerary for Adam's group was modified. The hike to the summit was scheduled for Thursday, and on Friday there would be a hike to Deerfield River where the group would engage in "river activities".

River Activities. Everything went fine on days one through four. The boys all did well on the ropes course, the rock climb, and the canoe trip. On Thursday night, they camped overnight at Mohawk State Forest. The trip leaders described the group as very strong and Adam as aggressive and athletic.

On Friday morning, the group broke camp and headed for the river, stopping briefly along the way to get the water release time. The Deerfield's flow is controlled by scheduled water releases from New England's Fife Brook dam, and Heather and Patrick wanted to times their activity so they could finish before the full force of water hit the group. Before the release, the Deerfield is only a shallow stream. Afterwards, it rises gradually and progressively as a bubble of water makes its way down the riverbed. Boaters time their trips to coincide

with the release, when the water is at its highest and fastest. Swimmers or waders, however, often want to avoid that increased flow.

Friday's release was set for 10 a.m. It would take a few hours for the bubble to reach the site where the day's activities were planned, so the instructors felt no need to rush. After obtaining the release time, the leaders stopped the group for lunch, discussed how to read water with the students, and fit them with life jackets. They tested each jacket by attempting to lift it over the boy's head. At just 90 pounds, Adam was a little small for an adult-sized jacket, but it passed their test, and they decided it was an acceptable fit.

The site the leaders had chosen was Class I rapid with a cobbled bed, a place where the river narrows, then drops gently, creating a two-foot wave. The Safety Code of American Whitewater determines that Class I rapids have "fast-moving water with riffles and small waves… few obstructions, all obvious and easily missed with training. Risk to swimmers is slight; self-rescue is easy" (AWA 1998). It seems like an excellent choice for a swimming and rescue drill, and indeed had been used for this kind of activity many times by multiple organizations.

On the bank, the group split into two teams. The swimmers went upstream with Patrick while the rescuers (eg, rope throwers) went downstream with Heather. They stopped about 200 feet apart.

Upstream, Patrick provided a briefing for the swimmers, explaining where to swim (near the middle of the river), the proper position (feet up and pointing downstream), how to grab the throw bag, and what to do if the throw bag missed (swim to shore). It had been predetermined that before each boy went, Patrick would look both ways and give a thumbs-up sign to Heather, to indicate he was ready. When Heather returned the sign, the swimmer would be free to go.

Downstream, Heather explained the proper use of throw bags to her group and positioned two rescuers neat her side, along the bank. The plan was that if the first throw bag missed the swimmer, the second boy would throw his bag. After a swimmer finished his turn, he would join the rescuers. After a rescuer threw his line, he would hike upstream to join the swimmers; this way every participant would have a chance to experience both roles. The boys were not required to participate in the swim, and a few opted out. But all those who wanted to try it took a turn, and all completed the exercise without incident.

At 1:25 pm, the leaders brought the group together again. Patrick had to drive one of the boys upstream to meet his mother at a prearranged pickup point. He would be gone about ten minutes. A second boy volunteered to go with the two. Heather said she felt comfortable continuing the exercise in Patrick's absence, so some of the boys went back upstream with the rescuers. The signalling system would be the same, but the boys decided for themselves when to enter the water.

By this time, the full release of the dam had arrived. Commercial rafts began to appear, carrying guides and clients. Two boats had already gone by. A third came up just as Adam was preparing for his swim. The guide asked if the boys wanted to go first, and they said no, they would rather wait. The guide ran the drop, then spun his boat around to face upstream so his guest could watch.

What happened next was described by the guide and is summarized in the investigative report: "Adam was floating in a seated position, feet low and head up. He waved to his friends downstream, then appeared to stand up. His body flipped over and disappeared under water. His arm came up once or twice as he struggled… [and perhaps] the back of his head appeared for a split second" (Wallbridge 1998).

Just before Adam went under water, one of the boys with Heather asked her a question about the timing of the throw-rope toss. She glanced away from Adam for a brief moment. When she looked back, Adam was gone. In his place was an orange and yellow object bobbing in place under the water at about midstream.

The rescue. With the frantic cries from Adam's teammates ringing in her ears, Heather ran upstream along the shore and tried to swim out to the boy. The current forced her back downstream. A fourth raft came along

momentarily, and the guide tried to grab Adam as he went by. But Adam was too deep, and the water was too strong. He missed.

During the next few minutes, 21 boats in two groups (running close together) all came upon the site. Assessing the situation quickly, several of the rafting guides pushed their boats to shore, discharged their passengers, and joined the rescue operation. Several attempted to wade out Adam. All were swept away by the current. Some of the guides then tried to create a human chain to reach the boy, but the current was too strong. More than five minutes had passed since Adam went under.

Next the group created a "tag line". Several guides and dozen of raft customers were used as anchors, holding onto a rope that stretched from shore to shore. Rescuers moved hand-over-hand toward Adam, facing upstream. Several guides were able to reach Adam, and while maintaining a hold on the rope with one hand, they reached under the water with their free hands. One guide was able to get a firm grip on Adam's life jacket. He let go of the rope, pulling as hard as he could with both hands. He was able to pull the life jacket free, but Adam's foot remained lodged. Adam had now been under the water for 15 to 20 minutes.

Because there was too much slack in the tag line, which allowed rescuers to get dragged under the surface of the water, trees were added to the onshore anchor systems and additional ropes were used to pull the tag line taut. Finally, four men attached a raft to the line across the river and manoeuvred it as close as they could to where Adam was trapped. A fifth man threw them a rescue bag and used it to pull the boat into a better position. One of the men in the raft reached down more than two feet into the water. With his own face submerged, he pulled Adam's head to the surface. He started rescue breathing while two others worked to pull Adam free. It took all their strength, but at last they were successful.

Meanwhile, Patrick had returned, several people had called 911, and emergency personnel had already arrived on the scene. Within minutes Adam was transferred to an ambulance, carried to a nearby heliport, and flown by helicopter to Bay State Medical Centre. He had been under the water for 25 minutes.

The first three Months. After the first 72 hours, the doctors told Adam's parents that he would live. However, they held out very little hope for a full recovery. Adam had suffered from "anoxic encephalopathy" as a result of the near drowning; the neuromuscular system that controls movement had been damaged. Doctors, at that time, said that Adam would not walk—or talk—again.

Adam spent six weeks in Pediatric Intensive Care and several more at the Connecticut Children's Medical Centre. His parents never left his side. He was finally able to return home in September—nearly two months after the incident—still unable to move or speak.

For your benefit, fill out the case study questionnaire and then read the rest of the case study.

Investigator Report. Walbridge (an investigator hired by the College) concluded that Adam's near drowning was a case of foot entrapment, brought on by a combination of factors, including poor swimming technique and bad luck. The following excerpt from his report (1998) describes what can occur in this type of situation:

Foot entrapments result not from controlled wading, but from thrusting your foot blindly to the bottom when floating or swimming. You won't always catch your foot, but if you do, you are going to be out of balance. Once your foot is caught in deep fast water no one is fast enough to pull their foot out or strong enough to stop the current from pushing their body under water.

Walbridge's report found no fault with the suitability of the activity, the site or any of the equipment. It was "an excellent choice for a river swim and throw-bag drill… the last place any of us would have expected to encounter a foot entrapment," he wrote. The drill themselves were "an expected part of a well-designed whitewater training program" because they taught swimmers how life vests and proper body position could keep them safer in moving water. "In an area with many fast-flowing wavers, that's an important lesson in water safety that could

save lives". The investigator also opined that a better-fitting life vest, a different kind of footwear, or a helmet would not have made much difference in the outcome. More effective instruction, he concluded, is the only thing that might have increased the odds for Adam.

Although the Team Adventure instructors are confident that they warned the students not to stand up, adults who met with the students during a counselling session reported that the boys were not familiar with the term "foot entrapment" and did not understand what had happened to Adam, suggesting that the activity orientation regarding the risks and proper techniques was not as thorough or effective as it should have been. The split briefings, which likely made it difficult to ensure that each student had received proper instructions, might have contributed to missed communication. And it was "probably a mistake" to continue the drill after Patrick left the group, according to Walbridge's report (1998). With Patrick gone, the student-to-staff ratio was 12:1, which is twice the commonly accepted industry standard of 6:1 (for supervision of this type of activity), and twice what the program had promised parents in its promotional materials. With no instructor upstream to coach the swimmers, there could be no reminder of the hazards or proper swimming technique as they entered the water. "Many whitewater safety rules are counterintuitive" noted Walbridge, "and floating rather than standing up is one of these. Adults and kids who panic in current may attempt to stand despite instruction. … The warning not to stand may need to be reminded several times to sink in."

In the end, Walbridge concluded that the accident had no single cause. Poor technique combined with inherent risk resulted in an entrapment. Admittedly, the activity could have been better organized, could have been better instructed, and could have had a better student-to-instructor ratio. But there is a "random element of uncontrolled risk" in all outdoor activities, and it was this risk that was to blame for Adam's injuries.[2]

[2] From Lessons Learned II: *Using Case Studies and History to Improve Safety Education* (pp. 5–30), by D. Ajango, 2005, Eagle River, AK: SafetyEd: Safety Education for Outdoor and Remote Work Environments.

ACTIVATE YOUR BRAIN ANSWER KEY

***Activate Your Brain #1*:**

What are the three types of reflection? Explain.

Inductive reflection creates general concepts from specific experiences.

Deductive reflection makes specific predictions based on general concepts.

Evaluative reflection is used to analyze the accuracy of the prediction, and then we use this analysis as a new specific experience to help us define the general concept or refine the base of experience.

***Activate Your Brain #2*:**

What are the three phases of problem solving?

The three phases of problem solving are:

1. Assessment phase
2. Analytical phase
3. Creative phase

***Activate Your Brain #3*:**

Discuss three ways in which you could develop your judgment.

Answers may include:

- Listen to the rules and the exceptions to those rules.
- Gather as much information as possible from lectures, historical case studies, and the horror stories of other leaders.
- Observe other leaders and how they use judgment.
- Develop a questioning attitude and inquire about the predictions others make. Recall personal near misses and share them openly with others.
- Consider the analysis of personal mistakes made by others.
- React, either verbally or in writing, to uncertain situations posed by other leaders.
- Keep a logbook of experiences and a judgment journal, reflecting on those experiences.
- Get experience at every opportunity: never turn any reasonable chance to lead.
- Take a group of peers on an expedition and ask for their honest feedback.

- Undertake practical internships with several programs, always asking someone to observe you and give advice.
- Become an apprentice to an expert leader and have this mentor guide you and pass on responsibility in a gradual manner.