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# A Mechanism of Change for Adventurous Outdoor Learning

Simon Priest

Simon Priest was a university professor of adventurous and environmental outdoor learning in Ontario. Internationally, he has been a Dean, Provost, Vice-Chancellor, Senior Vice President, President, Commissioner, and Advisor to a Minister of Education. He has received numerous awards and accepted over 30 visiting scholar positions around the world in outdoor learning. Now early retired in British Columbia, he spends his time hiking, gardening, researching, teaching, and writing.

Have you ever tried to explain in detail about “what you do in the outdoors or how you do it” to someone who hasn’t yet experienced the seemingly extreme and dangerous adventures of rock climbing, white water paddling, mountain biking, ski mountaineering, canyoning or spelunking? Perhaps you have tried to answer “we go outdoors and the participants learn a lot from nature!” Maybe you can list some of the benefits that commonly accrue or communicate the joy and wonder coming from participants who are deeply immersed in nature. However, you simply can’t explain what the outdoor adventure experience does for people, exactly how it works, or why it is so effective.

This is the exact same dilemma that our profession faces. Outdoor learning has been pushed to the margins by mainstream disciplines – like psychology, education, social work, and others – because they have failed to take us seriously. This is not because we are ineffective or trivial, but because the failure to clarify has been ours. We have not explained the magic of adventure and/

or nature that make our approach so powerfully effective. In this chapter, magic refers to those apparently impossible or unexplained moments that are all too common in adventurous outdoor learning (Hayes & Tremble, 2022).

Throughout this chapter, a model of explanation is offered that describes a piece by piece mechanism of change for adventurous outdoor learning. In the case of adventure, mechanism refers to an established process that systematically transforms a participant’s health. If used properly, this may help explain the magic of our process and its beneficial wellness outcomes.

## **The Black Box**

In science and engineering, the term “black box” refers to the hidden and unknown processes between input and output (Bunge, 1963). Something goes in and something entirely different comes out, but how the process and transformation took place remains a complete mystery.

The first use of the term in our profession comes from Parchem (1975), who likened adventure to electricity by noting we flip a switch to have the light come on, but we don't know what happened in between. Later, Ewert (1983) wrote:

*In essence, we have discovered an educational black box; we know something works but we don't know why or how (p. 27).*

Since then, numerous authors and researchers have peeked inside adventure's "black box" and listed the critically important factors playing a magical role within the "black box." Table 1 summarizes many of the key factors they deemed influential in partially composing outdoor adventure experiences.

### Change

As mentioned by the editors in one of the opening chapters, outdoor learning comes in four

types distinguished by the type of change being sought by the program or participants as summarized in Table 2 (Priest & Gass, 2018).

Recreational outdoor learning programs primarily seek to change the way people feel through eco-tourism and adventure travel. Educational programs mostly intend to change their thinking through primary, secondary, and tertiary schooling. Developmental programs aim for behavioral change, especially in personal growth. Therapy (adventure therapy and/or nature therapy) endeavour to change resistance to assistance, such as opposing the help of others in overcoming addiction, transforming harmful conduct, or rehabilitating away from a life of crime. One key to achieving each desired change lies in the depth of facilitation skills used by practitioners in each program type to assist participants in critically analysing their experiences with reflective practices. These skills and practices will be described in greater detail later in this chapter.

*Table 1: Summary of influential adventure factors by authors.*

<b>AUTHORS</b>	<b>INFLUENTIAL FACTORS COMPOSING THE ADVENTURE EXPERIENCE</b>
Walsh & Golins (1976)	natural, physical & social environments, problem solving tasks, dissonance, adapted by mastery, reorganization (reflection later added in the 1980s)
McKenzie (2003)	activities, physical environment, instructors, the group, service
Baldwin et al. (2004)	activities, real-life learning, challenges, wilderness setting, cooperative group living, active participation, trained leaders, specific preplanned goals
Russell & Farnum (2004)	wilderness, the physical self, the social self
Ferneer et al. (2017; 2019)	wilderness, the physical self, the psychosocial self
Masterton et al. (2020)	nature, the individual self, and the social self
Priest (2023a)	challenges (risk & competence), nature, reflection, clients, group, leader, with a strong therapeutic alliance inside a psychotherapeutic process

*Table 2: Summary program types, change purpose, examples, and recommended facilitation skills.*

<b>PROGRAM</b>	<b>CHANGES</b>	<b>EXAMPLES</b>	<b>FACILITATION SKILLS</b>
Recreation	Feeling	Tourism-based	NONE (these are not necessary, since the activities are enjoyable)
Education	Thinking	K-20 Schooling	BASIC: framing, fundamentals, and funneling to change thoughts
Development	Behaving	Personal Growth	INTERMEDIATE: freezing and funneling to change behaviours
Therapy	Resisting	Rehabilitation	ADVANCED: focusing and fortifying to change resistance to assistance

**Taking apart the model**

The entire model is presented in Figure 1. Subsequent figures examine the individual components of the model. The model is first presented as an overview, so readers may become familiar with its components. It has seven parts and each part is described in more detail along with its corresponding figure throughout the remainder of this chapter. The model is deconstructed, examined independently, and reconstructed with real life examples.

1. the **experiential learning cycle** (ELC): repeated as often as necessary (on far left),
2. the **main mechanism** (yellow) leading to change: seven steps inside the black box,
3. nine **mediators** (white): each acting as an intermediary between mechanism steps,
4. **facilitation** (orange) includes: competence effectance, techniques, and metaphors,
5. five **moderators** (red): each acting on the black box from outside (on far right),
6. seven **inputs** or adventure elements (multi-coloured) that enter the black box (top), and
7. seven **outputs** (colour-coding matched to inputs) that emerge from the black box (bottom) as adventure benefits after each traces its own unique pathway through the seven steps of the main mechanism.

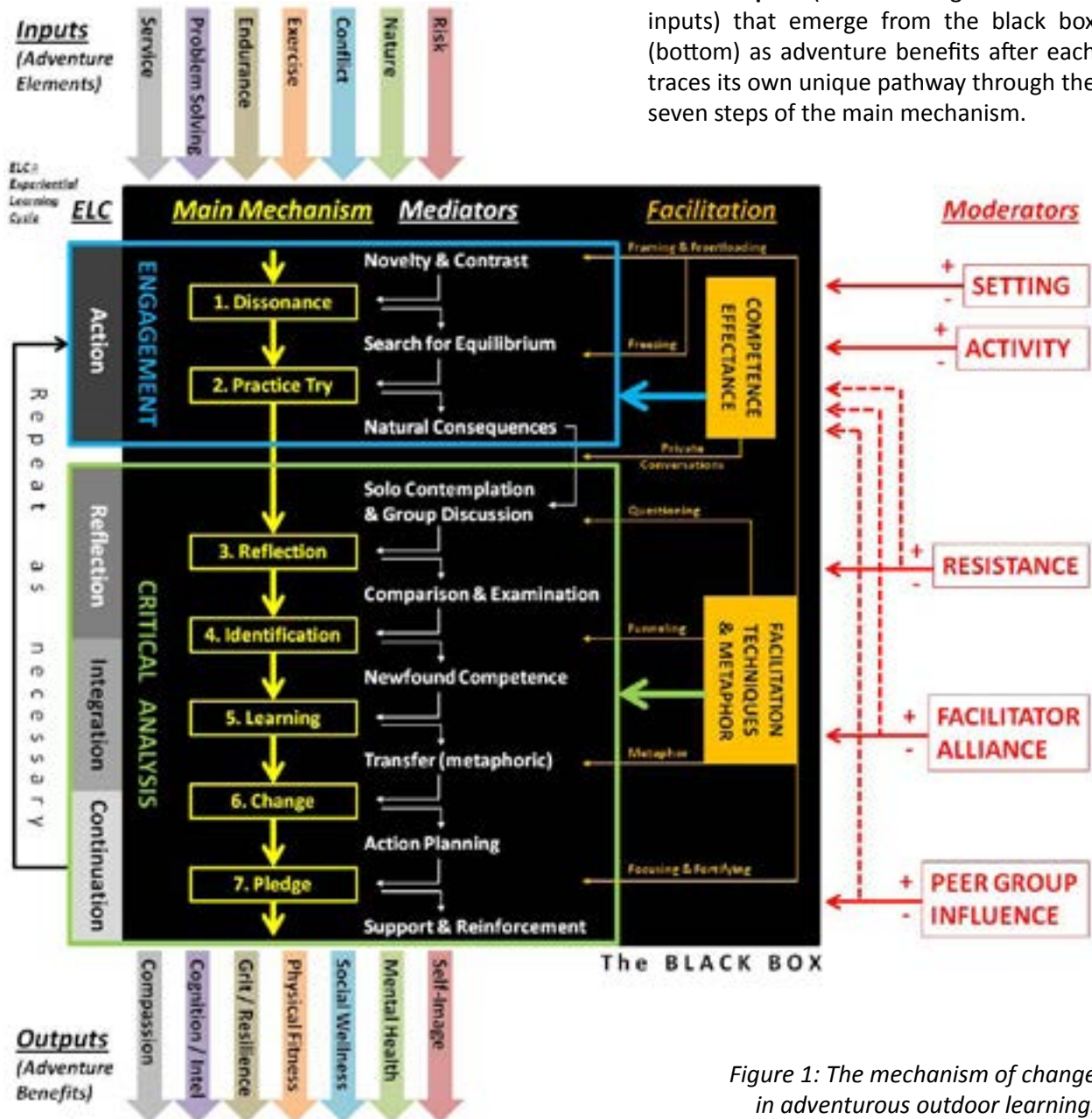
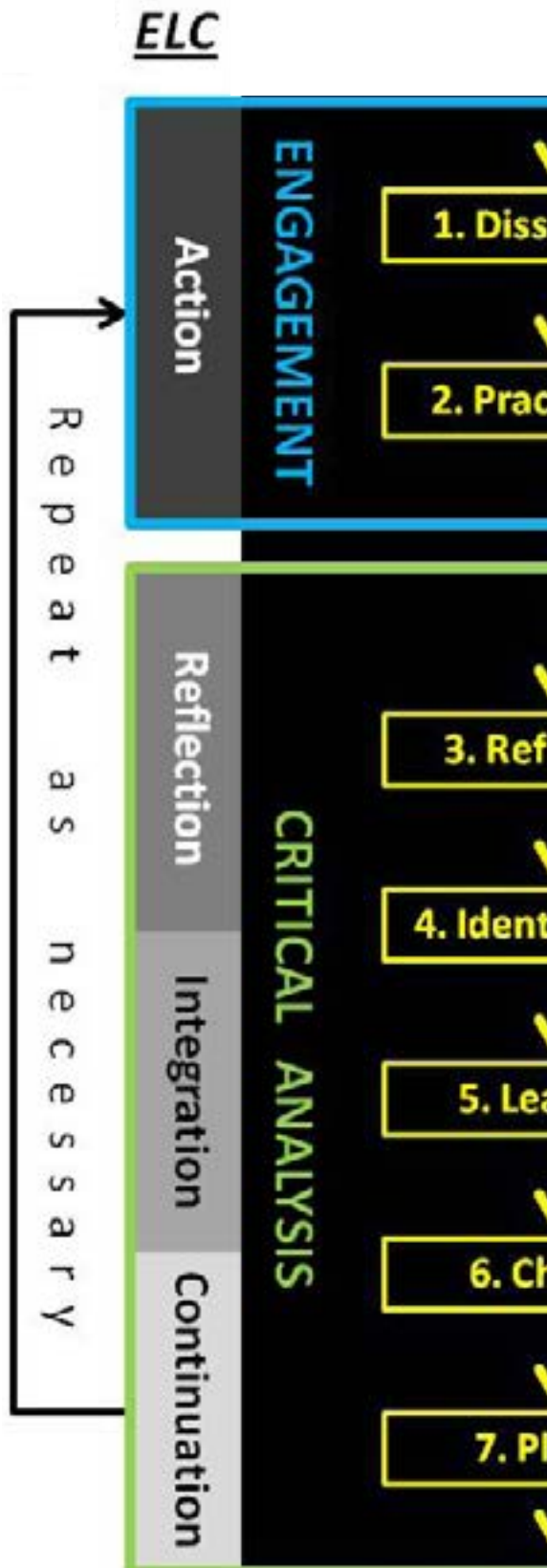


Figure 1: The mechanism of change in adventurous outdoor learning.

Figure 2: The Experiential Learning Cycle (ELC).



In addition, the initial two steps of the main mechanism involve participants' engagements (blue border) in the experiences and the last five steps form the critical analysis (green border) of their personal adventures. The experiential learning cycle (ELC) in the next section repeats iterations of engagement and critical analysis.

### Experiential Learning Cycle

The ELC is a repeating four phase process that forms a philosophical foundation for learning and change in adventure experiences outdoors with nature or indoors without nature (Priest & Gass, 2018). The four repeating phases, as shown in Figure 2, are:

1. **action**: experiencing outdoor adventure activities with varying levels of participant engagement from observer through partial involvement to fully partaking.
2. **reflection**: "looking back on" the experience through debriefing or similar facilitation methods in order to highlight the lessons learned and identify new behaviours, thoughts, and feelings.
3. **integration**: lessons learned, are applied and tested in daily life as changes in behaving, thinking, and feeling, where the transference of learning into change is strengthened by the conscious use of metaphor.
4. **continuation**: new change is maintained through practice and the promise to perform differently, while also being sustained in daily life by strategies to prevent erosion through outside influences and avoid the return to old habits, ideas or emotions.

### Main Mechanism

This mechanism of change is a systematic process that participants progress through in order to obtain transformative outcomes. The main mechanism for this model, shown in Figure 3, has seven steps (Priest, 2023b). In combinations, these steps repeat as necessary and may occur multiple times in a program, single day, or even the same activity. Additionally, individual steps can be skipped or reiterated as needed.

In education, development, and therapy programs, this process is facilitated, but facilitation is not needed in recreation, because the program purpose to change feelings is well achieved by the activities alone. Here are the seven steps.

1. **Dissonance** occurs when participants hold two opposing views in their minds at the same time (Festinger, 1957). A common example involves people who are frozen in position high on a ropes/challenge course. Caught between two equally sensible, but conflicting ideas, their dissonant thought is "I am safe, but I'm going to die!" However, both cannot be simultaneously true.
2. **Practice try** or mastery attempt is an effort to resolve the unpleasant distress of paradoxical dissonance and reach feelings of pleasant eustress (Terelak, 2019). Success or failure (a temporary setback) results.
3. **Reflection** is the examination of one's own feelings, thoughts, and behaviours in the context of a recent experience, where success or setback may result (Kolb, 1984).
4. **Identification** involves recognizing what has improved or increased in personal conceived competence as a result of the recent experience (Klint, 1990). Identification involves comparing the past with the present and/or examining the present and future.
5. **Learning** is a summation and application of what was identified, compared, and examined (Priest et al., 2022)
6. **Change** or participants exhibiting different behaviours, modified thinking, or altered feelings, can result from learning, when the lessons gained from the adventure experience are recognized and demonstrated resulting in new ways of being (Itin, 2001).
7. **Pledge**, or the commitment to continue, involves participants expressing what they will do differently next time, in the next adventure activity, and/or upon return home (Priest & Gass, 2018).

Following the pledge, practitioners will want to present another adventure activity that gives participants the opportunities to apply and test their recent pledges.

Figure 3: The main mechanism.

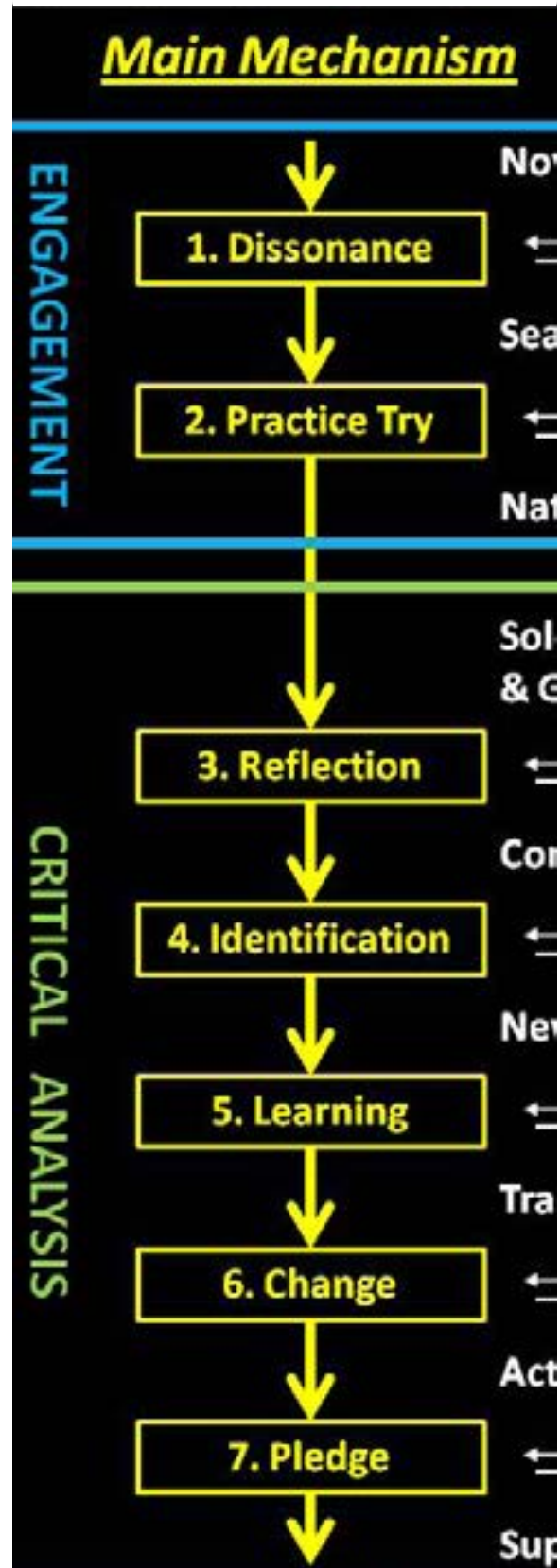
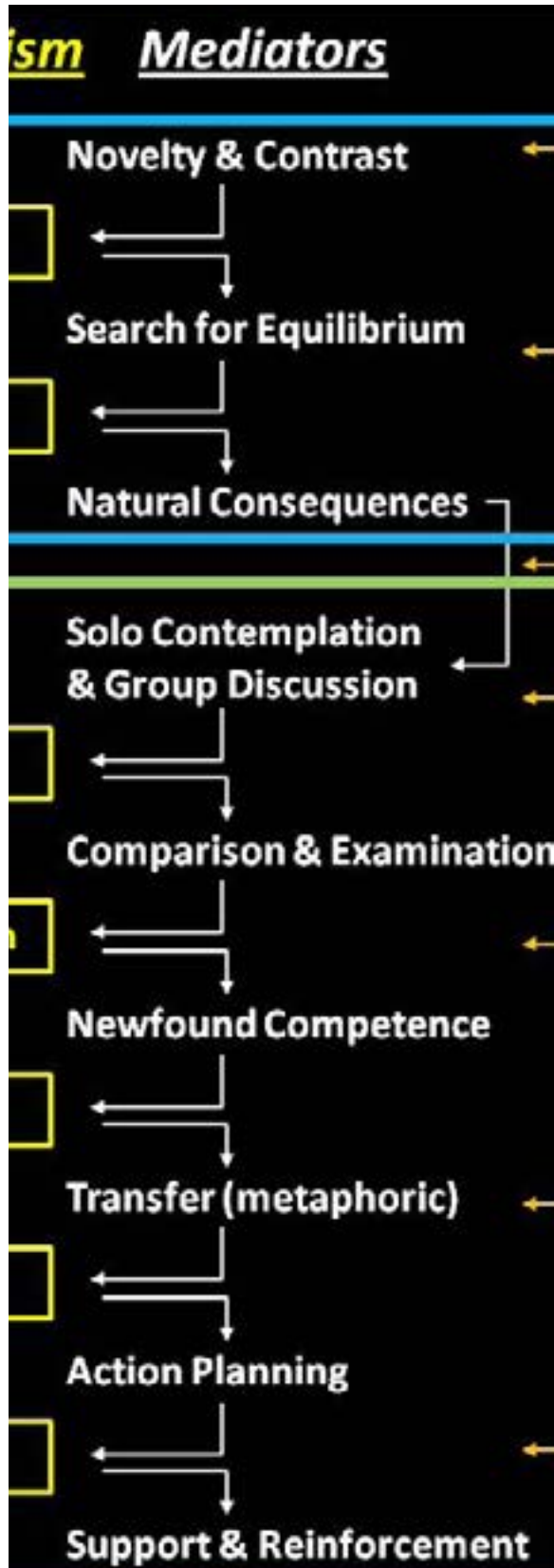


Figure 4: The nine mediators.



### The Mediators

A mediator is an intermediary factor that explains and potentiates the connections between pairs of steps as shown in Figure 4. Nine mediators are hallmarks of high quality programs.

1. **Novelty and contrast** give rise to dissonance (Brown, 2008). For participants, novelty refers to the newness of adventures, while contrast is how different the experience is from daily life. A lack of prior expertise equalizes participants and the unfamiliarity of the interactions prevents them from hiding their true selves (Gass et al., 2020).
2. **Search for equilibrium** comes from participants' reactions and attempts to reconcile their minds' imbalance arising from dissonance (Kumashiro et al., 2008). This need for homeostasis or adjusting to become stable again drives practice tries (McKenzie, 2003).
3. **Natural consequences** (not those imposed by practitioners) offer clear and unambiguous feedback during practice tries and provide ample material for reflection (Russell, 2006). Consequences teach new behaviour and eliminate old ones (Próchniak, 2017).
4. **Solo contemplation** (thinking time alone) and **group discussion** (sharing circles) can be used interchangeably as a way to reflect.
5. **Comparison and examination** are the results of reflection and the precursors to identification (Stremba, 1989).
6. **Newfound competence** highlights the personal gains and perception shifts that participants have made (Klint, 1990; 1992).
7. **Metaphoric transfer** from learning into change works to reverse novelty and contrast by analogously comparing adventures to daily life (Bacon, 1983; Gass, 1985).
8. **Action planning** converts a desire to change into a pledge to be different and details the methods by which the commitment to change will be made (Priest et al., 2022).
9. **Support and reinforcement** aftercare is essential to maintain change in the face of daily living erosion and, since environment partly shapes behaviour, participants can thus avoid relapsing back to their old habits.

## Facilitation

As in Figure 5, competence effectance theory (Klint, 1992) applies to the initial two steps of the main mechanism: engagement. Four types of **private conversations** (Mouse, 2023), held between practitioner and participant, include:

1. encouraging different and more positive feedback from a supportive peer group,
2. examining the outcomes of performances and highlighting those positive pieces,
3. helping them to attribute their temporary setback to external causes, and/or
4. allowing them to see that their internal thinking may be holding them back.

Facilitation techniques (Priest et al., 2022) and the conscious use of metaphor (Bacon, 1983) apply mostly to the last five steps of the main mechanism: critical analysis. However, some facilitation techniques can be used during engagement to improve later critical analysis.

1. **Framing** introduces an adventure activity with fantasy, reality, context or isomorphs.
2. **Frontloading** asks one or two questions before the adventure in order to highlight behavioral change intentions.
3. **Freezing** calls a “time out” to stop action, asks a single provocative question to encourage a change in participant behaviour, and then continues the action.
4. **Questioning** asks a series of unstructured questions allowing a conversation to ramble and explore new issues.
5. **Funneling** asks a sequence of structured questions discovering or confirming issues and moving toward desired changes.
6. **Metaphor** asks participants to find parallel connections between the adventure and daily life, thus increasing transfer.
7. **Focusing** shifts attention from problems to solutions for resistant participants.
8. **Fortifying** strengthens participants’ abilities to address their own resistance in a step-wise sequence of advanced psychotherapeutic methods: clarification, negotiation, confusion, paradox, and double binds.

Figure 5: Facilitation skills.

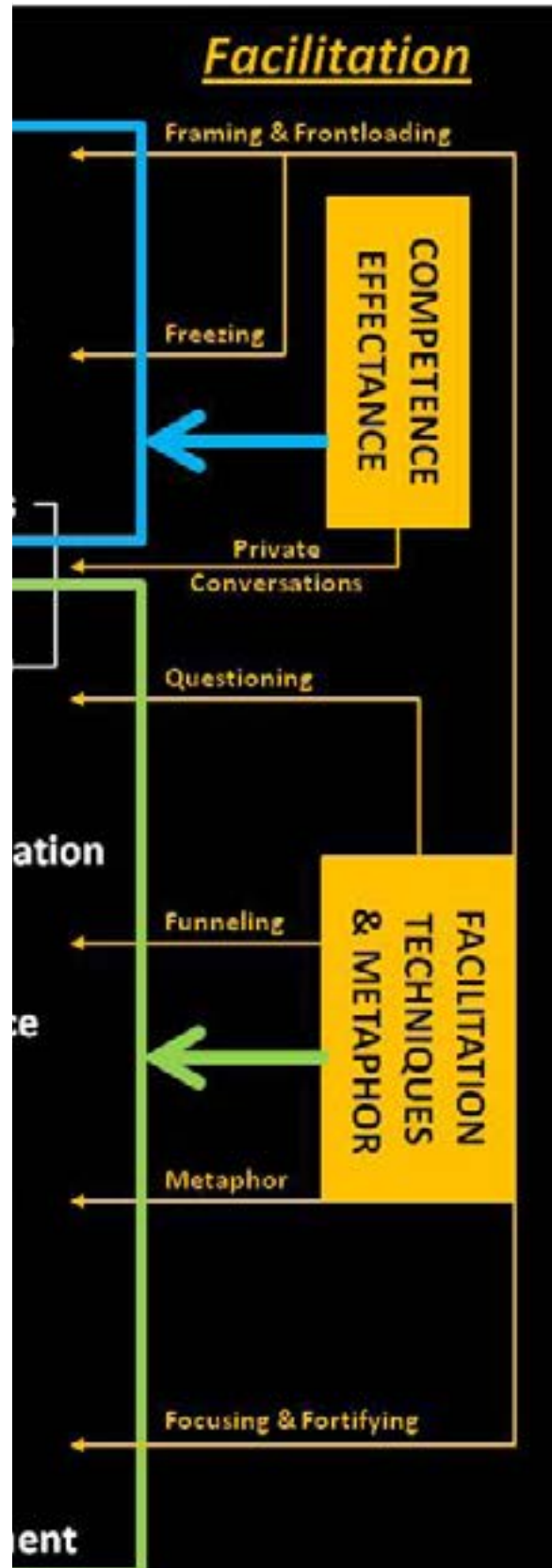
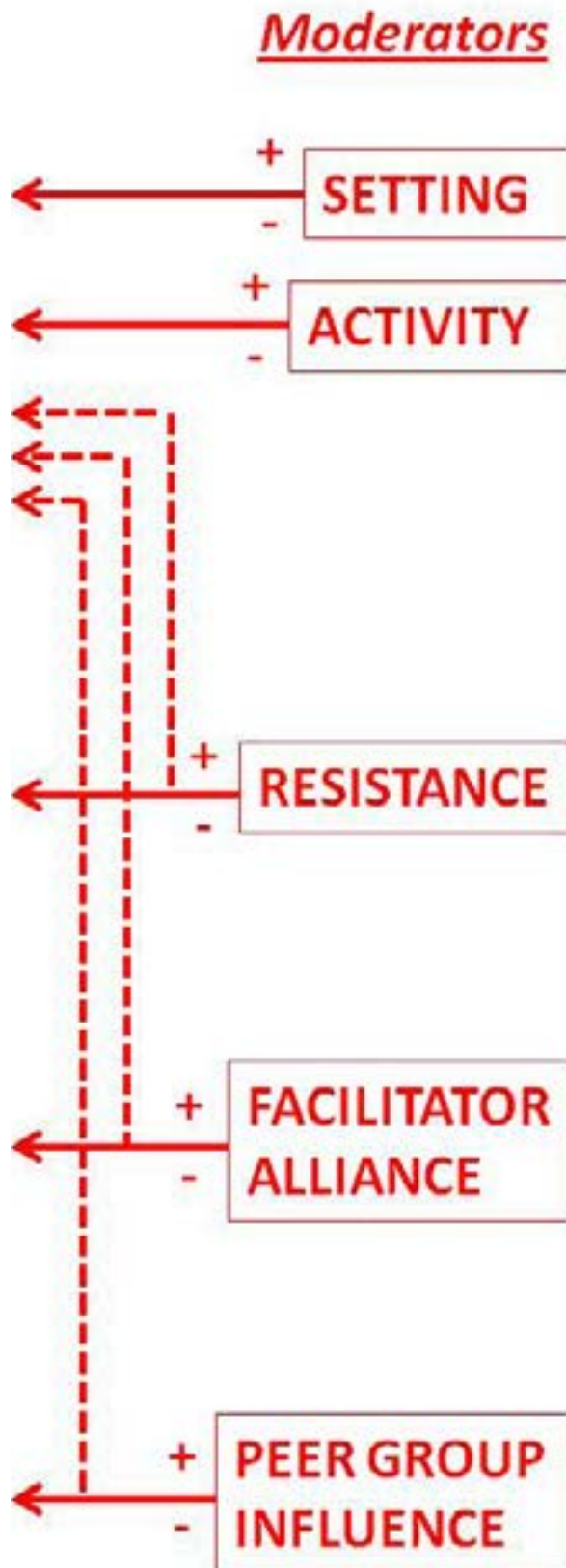


Figure 6: The five moderators.

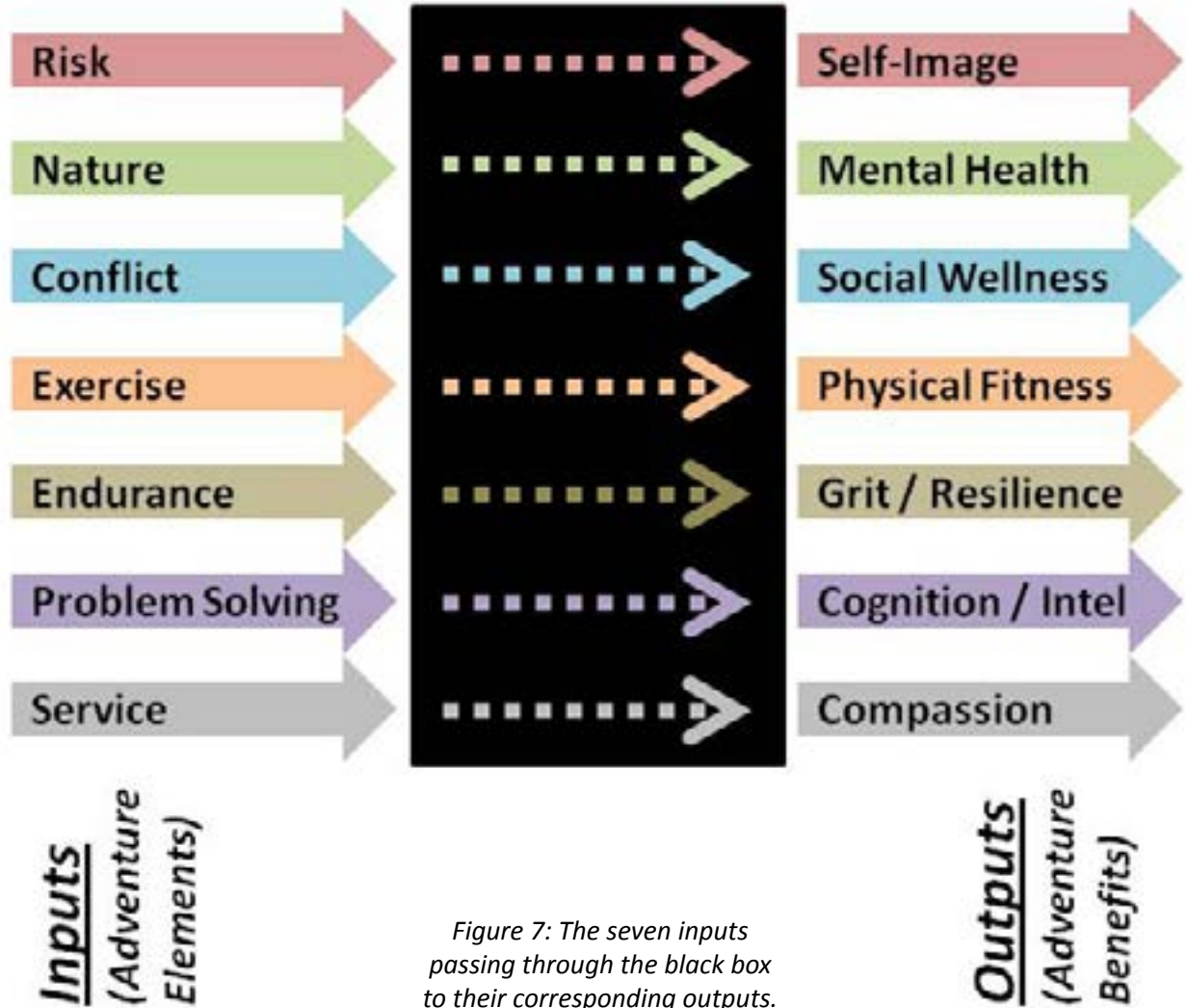


### The Moderators

A moderator is a factor that influences the strength and/or direction of relationships among other factors. In this model, as shown in Figure 6, five moderators activate (+) or inhibit (-) the overall mechanism of change according to participants' comfort or discomfort with each.

1. **Setting** refers to the surrounding environment. If participants find themselves feeling genuinely fearful about the landscape, hungry or fatigued from energy draining exercise, and too hot or cold due to the weather, then they are unlikely to engage. However, if their basic needs are met and they hold a sense of control over their situation, then they may be willing to take part.
2. **Activity** engagement depends on whether a participant feels coerced, panicked, or inhibited by pain. Challenge by choice (Rohrke, 1989) gives them the activated option to select a level of engagement that they want without being forced to perform.
3. **Resistance** inhibits engagement and critical analysis. Participants with unresolved prior trauma or who are mandated by authority to attend may be highly resistant (Fletcher & Hinkle, 2002), while those with support of family or friends, and a desire to change will be willing to join in (Russell, 2003).
4. **Facilitator alliance**, with a practitioner who is seen as competent and trustworthy, will activate involvement and the subsequent disclosure of private information. However, any breach of trust or sign of incompetence can inhibit involvement or disclosure (Gass et al., 2020; Richards et al., 2011).
5. **Peer group influence** acts throughout the model. If participants experience unresolved conflicts or social tension, are criticized by others, or are ostracized from the group, then their propensity to engage and analyze will be compromised. However, if they have status in a cohesive group, share adversity, openly encourage one another, and keep disclosed secrets confidential, then they are likely to enjoy total participation (Ouellet & Laberge, 2023).





#### Input Elements

Adventures are complex experiences that contain many key elements. Some of these (by no means an exhaustive list in Figure 7) are deliberately emphasized and combined in programs.

1. **Risk** taking forms a basis for most challenges.
2. **Nature** is present in outdoor programs.
3. **Conflict** is frequently resolved by the group.
4. **Exercise** is commonly required in activities.
5. **Endurance** is needed for long journeys.
6. **Problem solving** tasks are commonly used in team-building and encountered naturally in the course of meeting new challenges.
7. **Service** learning projects are part of some adventure activities and programs.

#### Output Benefits

Benefits accruing from outdoor adventures correspond to the mechanism's input elements.

1. **Self-image** improves from taking risks and successfully overcoming similar challenges.
2. **Mental health** is the most common benefit of exposure to nature.
3. **Social wellness** and pro-social skills derive from learning to resolve conflict
4. **Physical fitness** is an outcome of repetitive exercise, especially in expeditionary travel.
5. **Grit and resilience** arise from endurance.
6. **Cognition and intelligence** improve with repetitive problem solving success.
7. **Compassion** derives from service learning.

### Putting it all Back Together

Following the above presentation of model components, this section traces the seven unique pathways from input element, through the 7-step mechanism of change, to output benefit (Priest, 2023c). The seven unique pathways are summarized in Table 3. The next section covers putting the nine mediators, five moderators, and eight facilitation skills into practice.

**Risk** taking is a fundamental element of adventure programs and manifests in the activities of climbing to heights, paddling through deep moving water, descending steep slopes, entering dark underground caves and much more. The risks are not just physical, these can include losses that are mental, emotional, and social. Participants are kept relatively safe from all of these losses by risk management systems that also protect psychosocial safety. One innate reaction to perceived risk is the human fear response that causes dissonant thoughts: “I’m quite safe here, but I’m scared I’m going to get hurt.” The risks are perceived rather than real. With support, assistance, and encouragement from their group and occasional prompts or suggestions from a practitioner, they overcome the risks and/or cope with any setbacks along the way. During the reflective debrief, they examine the behaviors that helped overcome the risks and/or hindered their progress. They identify the methods that worked for them and allowed for their astute assessment of risks, and how their perceived competence improved for this kind of risk taking. They learn that they can confidently manage being afraid by applying various coping strategies. They change to more accurately determine risks and pledge to control their apprehensions going forward. They become more confident and courageous. Improved self-image results.

**Nature** can be found as an element of all adventure programs, with the exception of those held indoors. When participants have the opportunity to deeply and mindfully immerse in nature, they are struck by how different they feel: “I’m normally stressed out, anxious, or depressed, but here I feel peaceful and happy.” Repeated

attempts at meditation and contemplation bring greater calm and relaxation. They see how different life in nature without the stimulus of their electronic devices compares to their urban lifestyles. During a reflective debrief, they compare both states (nature v. city) and see a great difference between their usual lives in urban settings and nature immersed in green or blue spaces. They identify tactics they can use to mindfully immerse themselves in urban green or blue spaces and find greater perceived competence with respect to nature immersion. They learn they can relax and shift their moods by being mindful in nature or even imagining to be immersed. They change to practice mindfulness by seeking out nature and pledge to manage their moods in the future by finding time and place for a nature break. Their stress is reduced (Ulrich, 1991) and attention restored (Kaplan & Kaplan, 1989). The result of facilitated exposure to natural ecosystems, sunlight, fresh air, and serene surroundings is improved mental health.

**Conflict** frequently arises from living in small groups, under primitive conditions in the outdoors. These conflicts range from innocent miscommunications, through simple disagreements, to complex arguments, and some of these may deteriorate into violent disputes in some therapy groups (Young, 2023). Participants remark out loud: “We’re told to be team players and trust one another, but I’m better off by myself with everyone for themselves.” Over time, with the guidance of practitioners, the participants repeatedly resolve their minor, and eventually major, conflicts to become a high performing team. During the reflective debrief, they examine the techniques that were successfully applied to resolve conflict and/or those behaviors that created more conflict. They identify their new-found pro-social behaviors and greater perceived competence at conflict resolution. They learn to resolve shared tension and conflict through mediation and/or negotiation. They change to apply these skills at the first hint of friction so that it doesn’t escalate into tension. They pledge to use their new skills going forward. Social health results as their behaviors become pro-social and teamwork further develops.

Table 3: Seven unique pathways traced through seven steps of the main mechanism of change.

<b>INPUT ELEMENT:</b>	<b>RISK</b>	<b>NATURE</b>	<b>CONFLICT</b>
<b>EXAMPLES</b>	Fear of: heights, darkness, water, slippery slopes, closed/open spaces, etc.	Mindful and deep immersion in natural ecosystems: fresh air, sun, quiet, etc.	Small group living in distressful and primitive outdoor conditions
<b>DISSONANCE</b>	They tell me I'm quite safe here (and I think I am), but I'm scared I'm going to get hurt, injured, or killed	I'm always stressed out, anxious, and depressed, but in this nature, I'm peaceful and happy	We're told we are to be a team, with trust and communication, but I'm better off with "every-one for themselves"
<b>PRACTICE TRIES</b>	Repeated tries to successfully overcome the risks from uncertainty and deal with failures	Repetitive attempts to calm down and relax by meditating and contemplating	Recurring efforts to resolve minor and major conflicts and develop further teamwork
<b>REFLECTION</b>	Examine behaviors that helped overcome risk and/or that hindered progress	Compare states: usual life in urban setting and nature immersed in green (plants) or blue (water) spaces	Examine techniques that resolved conflict and/or those that created more conflict
<b>IDENTIFICATION</b>	Methods for astute risk assessment and greater perceived competence	Immersion tactics, mindfulness, and greater perceived competence	Skills for conflict resolution and greater perceived competence
<b>LEARNING</b>	I can confidently manage being afraid by using various coping strategies	I can relax and shift my mood by being (or imagining to be) mindful in nature	I can resolve shared tension and conflict through mediation and/or negotiation
<b>CHANGE</b>	I will accurately determine risks	I will be more mindful in nature	I will apply my new-found social skills
<b>PLEDGE</b>	I will control my apprehension when public speaking	I will effectively manage my moods when I notice them deteriorating	I will use my conflict resolution skills in my family situation
<b>OUTCOME</b>	Intrapersonal growth and pro-self-development (self-efficacy, confidence, self-esteem, risk taking propensity, self-concept, courage, self-calming, clarity around locus of control, etc.)	Rejuvenation and renewal (revival, revitalization, attention restoration, deficit replacement, stress reduction and recovery, etc.)	Interpersonal growth and pro-social development (communication, trust, cooperation, collaboration, supporting others, problem solving, decision making, planning, etc.)
<b>RESULTS IN</b>	<b>SELF-IMAGE Health</b>	<b>MENTAL Health</b>	<b>SOCIAL Health</b>

<b>EXERCISE</b>	<b>ENDURANCE</b>	<b>PROBLEM SOLVING</b>	<b>SERVICE</b>
Play, leisure, expedition journey, active travel, competitive sports	Hardships, arduous travel, persistent difficulties, nagging irritations	Group initiatives and routine tasks in adventures like finding routes or troubleshooting gear	Cleaning, picking up litter, building homes for homeless, clothing and feeding the indigent
They say I am strong enough and fast enough, however, I feel so weak and slow	I can't do this, my body/mind is going to "break" and I need to rest, but I just have to keep going	That can't be solved; there's no way that's possible, yet I've got to find a solution or suffer the consequences	This is a waste of time, let someone else do it, but no one else is going to help this situation or these people
With the support, assistance, and encouragement of peers, they improve over time	Struggle through to completion with resolve, tenacity, and perseverance	Experiment with critical thinking, brainstorming, questioning parameters, and reinterpreting rules	Get to know the people being helped and fully understand what the assistance means to them
Compare past fitness with newly emerging fitness as this improves over time from the effect of training	Compare expectations with achievements, when did more than thought possible	Examine success and failure relative to the thoughts and behaviours that helped or hindered	Examine feelings with respect to helping others and compare past negative behaviour with recent positive example
Greater stamina, agility, strength, speed, balance, flexibility, and perceived competence	Greater fortitude and perceived competence	Smarter with greater perceived competence	Kindness with greater perceived competence
I am getting much stronger and faster	I can do more than I initially imagined	Thinking differently helps me to reach successful solutions	Helping others, receiving thanks (not money), makes me feel good
I am determined to perform well and get fitter	I am willing to persist and suffer through to reach important goals	I am ready to think differently when I meet a challenging problem	I am willing to assist others in this group and perhaps to ask for help
I will make exercise a regular daily habit	I will endure most challenges I find difficult and I will succeed	I will approach my life problems this same way by thinking differently	I will give back to my home community and offer help to others
Gain cardiovascular fitness, boost immunity & overall physiology, improve heart rate & blood pressure, diminish illnesses & injuries, increase life expectancy, reach desired weight or body mass index, etc.	<i>NOTE: Much overlap exists between endurance and exercise. This explains why exercise and endurance are often blended together in adventure programs, especially on wilderness expeditions.</i>	Improved creative, analytical, critical or evaluative thinking and these roles in problem solving, decision making, and exercising sound judgment	An understanding of how past behaviours may have been destructive to society and how these differ from service behaviours that just helped people
<b>PHYSICAL Health</b>	<b>Grit &amp; Resilience</b>	<b>Cognition &amp; Intelligence</b>	<b>Compassion &amp; Empathy</b>

**Exercise**, such as travelling or playing outdoors and journeying on expeditions, involves participants kinesthetically sensing the movement and positioning of their bodies. Early in adventure programs, participants commonly believe they lack the strength, speed, agility, balance, and/or flexibility to perform activities. They are easily exhausted and their dissonance is expressed as: “I can’t do this, I don’t have what it takes, but everyone keeps telling me I can do it.” With the support, assistance, and encouragement of their peers, participants just do it and over time, their stamina improves from a training effect and they notice they are getting much stronger and faster. They change by becoming more determined to perform well in activities that require exercise and so they pledge to make exercise a regular daily habit at home. The outcome is improved physical health with gains in cardiovascular fitness, immunity, life expectancy, and weight loss.

**Endurance** is a common theme in adventure. The arduous workouts and troubling hardships are especially present in remote expeditions, where participants must travel great distances over difficult terrain to reach encampments. When first encountering a difficulty or hardship, people express: “I can’t get there; I’m going to break if I try; I need to stop, but everyone else is trying; I just have to keep moving and following them to get there!” With the encouragement of peers and support of their practitioner, they struggle through some practice tries and persevere to arrive at their destination. On reflection, they compare their expectations of failure with the reality of success and identify that they accomplished more than originally thought possible. They learn that they can do more than they originally imagined and now they know their perceived competence has increased. They change their willingness to endure, and so tackle difficulty and hardship in subsequent activities, consequently reinforcing their competence and pledging to use their newfound resilience when facing trouble in daily life. Enduring these hardships and difficulties builds grit, resilience, and tenacity. Note that the exercise and endurance pathways are somewhat similar explaining why chronic exercise is often used as a hardship.

**Problem Solving** is inherently required throughout adventures and is directly included (group initiatives) or indirectly baked into the activity (route finding). Sometimes, being unable to solve problems is a barrier to transforming life and why people have signed up for the adventure. When faced with a problem, people experience dissonance: “That can’t be solved; there’s no way that’s possible; yet it must have a solution; otherwise why would they give it to us to solve?” As people set about mastering the problem solving process, they start to analyze differently, challenge interpretations of the rules, question the problem parameters, try brainstorming, and offer a few creative answers. Many solutions fail, but provide valuable information on how to improve, while several solutions come close to succeeding. Eventually, unless time runs out, one solution eventually works. In a reflective group discussion, success and failure are analyzed to identify the thoughts and behaviours that were useful or thwarting. Participants learn how to solve problems, think critically, creatively, or analytically and work together effectively. They show more of these talents in the activities that follow and decide to apply their new found cognitive skills and intelligence at home.

**Service** learning projects are more likely to be found in longer programs. When first engaged in service learning, people unfamiliar with the process may think dissonantly and be pulled between two extremes: “I’m not required to do this; it’s going to be a wasted day, when we could have done something more fun, however, no one else is coming to help these folks.” As people attempt their first projects, they get to know the folks they are serving. They get to see what their service means to those folks, and are rewarded with thanks, smiles or tears. In debrief discussions afterward, they reflect on what went well and what did not. They identify the emotions that were associated with the service projects and come to see themselves as helpful to others. Perhaps they even compare their helpfulness to prior times when they have hindered others. They will have learned compassion and empathy through service and changed to being positive toward future service. They pledge to do chores

during the program or perform previously undesirable tasks to aid others back in their town.

Mediators and moderators are discussed in the next section, because these are managed similarly and do not differ irrespective of each unique pathway facilitated. Instead, the individual and collective influence of mediation and moderation remains static with respect to the model and so practitioner enactment is the same throughout.

### Praxis of the Mediators and Moderators

With this knowledge, what should each of us do to enact our craft? In this model, praxis refers to best practices and what practitioners can do to enhance the adventure experience by modifying mediation and moderation. Here are some praxis execution ideas for the nine mediators, the five moderators, and the eight facilitation skills.

#### NINE MEDIATORS

1. **Novelty and contrast:** Select adventure experiences for novelty and contrast. Choose unfamiliar landscapes (wild settings) and uncertain situational demands (adventure activities) as these dissimilarities can result in new and “previously unfamiliar ways of relating” to one another (Loynes, 2017, p. 44) “with new psychological strategies or a fresh sense of identity” (Kimball & Bacon, 1993, p. 26).
2. **Search for equilibrium:** Moving from distressful dissonance to eustressful reconciliation can be emotionally taxing for participants. Support their search for equilibrium by addressing resistant and strain.
3. **Natural consequences:** Avoid imposing rewards and punishment for certain behaviors, like forced marches or food withholding, as used by militaristic “boot camp” approaches. Instead, allow the circumstances and participant behaviors to interact normally, but remain well prepared to deal with any dangers. The person who refuses to wear rain gear gets wet. Partners, who fail to work together, won’t pitch their tent before the rain or can’t light a stove

to cook dinner, so eat a cold meal. Groups mired in dysfunction and conflict, easily get lost and must do extra work to regain their route or are careless with food and equipment and end up going without when they lose either to animals or an early snowfall.

4. **Solo contemplation and group discussion:** either of these options can proceed the other (Stremba, 1989). Both are forms of reflection and can be antecedents to deeper self-analysis. Solo contemplation can clarify and organize thoughts for delivery during group discussion and group discussion can generate interesting topics for deeper consideration in solo contemplation (Priest, et al., 2022). Help by providing some questions to consider in advance.
5. **Comparison and examination:** Be sure to guide participants comparisons of past with present and present with future. Help them to delve into their issues and examine their behaviours, thoughts, and feelings.
6. **Newfound competence:** Be certain to ask questions that highlight participants’ perception of their competence and needs.
7. **Metaphoric transfer:** Establish metaphoric links that draw parallels between the adventure and daily life. Metaphoric transfer can be enhanced through the use of contextual and isomorphic introductions before the activity or by asking “how was this a metaphor for life” after the experience is over (Gass & Priest, 1993).
8. **Action planning:** With greater specificity providing more likely future success, enable participants to write action plans that answer six precise questions.
  - WHAT will you do?
  - WHY will you do it?
  - WHERE will it be done?
  - WHEN will it be done by?
  - WHO will confirm it is done?
  - HOW will they know it is done?”
9. **Support and reinforcement:** Organize checkups and refresher programs to help reduce recidivism (Priest et al., 2022). Address coping strategies and skills before departure to assist with success outside the program (Booth & Neill, 2017).

The absence of any of the above mediators can disrupt the mechanism of change. Adventure activities that are familiar or similar to daily living will fail to generate dissonance. People without an innate desire to reach equilibrium will freeze in position and will not attempt reconciling actions despite abundant encouragement from practitioners and peers. False consequences imposed by a practitioner will simply create conflict between that practitioner and the participants, likely leading to the practitioner's inability to be trusted, a loss of neutrality, and a paralysis to help the group develop. Without solo contemplation or group discussion guided by a practitioner, participants will be left to sort out their own understandings and may not realize reflection, identification, learning or change until many years later. Identification of gains in perceived competence is improbable without the analysis of comparison and examination during reflection. Transfer from learning to change is jeopardized without the careful use of metaphors to add importance and relevancy for participants who will otherwise think the adventure was just meant to be fun and games. Lacking an action plan makes following through on the pledge very difficult. Missing aftercare means participants never get the support and reinforcement of their pledge to change and so erosive forces present in daily living corrode their positive gains from the adventure experience.

#### FIVE MODERATORS

1. **Setting:** Considering the weather, energy levels of the group, and participant relief with the landscape and scenery, can all contribute to greater engagement (Mackenzie et al., 2018).
2. **Activity:** Progressive sequencing of adventures in an order (from simple to complex and/or from easy to difficult activities) which meet participant competence and needs will help tremendously with their engagement (Bisson, 1999; Hirsch & Priest, 2022).
3. **Resistance:** Practitioners will want to do all they can to reduce resistance. Luckily, the inherent motivation of exciting activities is that, once initial dissonance is reconciled, these adventures engage notoriously difficult and resistant participants (Gass et al., 2020; Norton et al., 2014).
4. **Facilitator alliance:** Also known as the therapeutic alliance, this association is believed to have had the largest effect on positive client change during psychotherapy treatment (Smith & Glass, 1977). The same can be said for adventure practitioners and their relationships with participants (Javorski, 2023). Therefore, practitioners should strive to develop groups into teams with genuine relationship building (Ashby & DeGraaf, 1998).
5. **Peer group influence:** Building a team, operating with justice and fairness for all, is not just an objective for the obvious gains in pro-social skills, but teamwork is also the glue that holds everyone together during adverse physical undertakings and while sharing potentially embarrassing personal information.

Disregarding participant discomfort with any of these five moderators could weaken the process. For example, mechanism of change inhibition comes from failing to attend to: weather, energy levels, expressions of fear, feelings of pain or panic, and group issues. Manufacturing consequences, coercing participation, presenting disordered activity series, undermining teams, dissolving trust or alliances, and ignoring resistance also inhibit. Practitioners have a lot to consider and integrate into adventure, while working to increase participant comfort with all moderators in order to strengthen the overall mechanism.

Commonly, practitioners think of **facilitation** as the guided debrief that follows the adventure activity and reflectively sorts out the feelings, thoughts, and behaviours from that experience. However, facilitation is anything a practitioner does before, during or after the adventure to make learning and change easier for the participant. The key to potent facilitating lies mostly in asking effective questions, which get participants to think for themselves, instead of making ineffective statements, that they can choose to ignore.

## EIGHT FACILITATION SKILLS

1. **Framing:** Use mostly fantasy introductions for recreation, reality for education, contextual for development, and isomorphic for therapy. While both contextual and isomorphic present as metaphors of daily life, isomorphic adds the condition that resolution of the challenge must be a parallel to the desired change in daily life.
2. **Frontloading:** When participants are having trouble changing their behaviour after a series of pledges, ask frontloaded questions before the activity that remind them of their commitment and encourage them to exhibit new behaviours within the activity. In the debrief, compare behaviours this time with those in all other activities.
3. **Freezing:** When participants are clearly stuck in a rut and can't seem to change behaviour during the activity, interrupt with a "time-out" and ask a single question that provokes them to change. In the debrief, compare behaviours exhibited before with those after the interruption.
4. **Questioning:** To explore participant issues during a debrief, ask questions that investigate topic areas such as trust, communication, conflict, perceptions, nature, resilience, compassion, empathy and so on.
5. **Funneling:** To shepherd participants to achieve change during a debrief, while also mirroring the mechanism, ask six questions that follow the funnel sequence: replay, remember, affect/effect, summation (learning), application (change), and finally commitment (pledge).
6. **Metaphor:** Create metaphoric introductions to activities or ask for metaphoric connections in a debrief, but rarely do both.
7. **Focusing:** Used with highly resistant clients in therapy, this represents a shift in philosophy and practice from a problem-focus to a solution-focus. Instead of asking what is broken and how can it be fixed, find something that the participants are already doing well and ask them to do more of that.
8. **Fortifying:** Used with highly resistant clients in therapy, this sequence of advanced

psychotherapeutic techniques progresses in sequence from asking a significant other to clarify and negotiating with participants, through genuinely acting confused and applying paradoxical statements or situations, to presenting paired stories that bind behaviours or shift roles into other alternatives. This takes special training.

Learn and practice these skills and techniques with a mentor or experienced co-facilitator who can help improve your praxis. Holding more tools in your facilitation tool kit, means that you can move from recreation programs to education or development programs, and eventually into facilitating therapy programs (Bowen & Neill, 2013) under the proactive supervision of a licensed psychotherapist.

### Conclusion

In addition to the aforementioned mechanism steps, mediators, moderators, and facilitation skills, other (as of yet) undiscovered components and pathways exist. While this model explains much of what happens in adventurous outdoor learning, it does not yet explain the appearance of spirituality or pro-environmental behaviours.

In summary, this chapter has presented an original mechanism of change for adventurous outdoor learning. It has explained each component and traced seven of the many adventure elements through the mechanism of change explaining how each becomes a benefit of overall health. The chapter has also suggested several praxis enactments for practitioners to enhance the change they enable participants to achieve through the model of outdoor adventures.

In addition, this model enables practitioners to become more prescriptive in their programming and practice. Greater quantities of each input element can be added in order to address the unique needs of each participant. By adding more nature or more risk or more endurance, the various dimensions of health can be enhanced and the many benefits of adventurous outdoor learning can be customized and optimized.



Armed with this new information, practitioners are in a unique position to begin explaining what adventure involves, how it works, and why the magic is so effective, with precise elements giving corresponding benefits. In time, the mainstream disciplines of psychology, education, social work, and others will come to accept our profession at the decision making table for compelling treatments and no longer relegate us to the fringe.

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