EDUCATION

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Goals

After completing this module, participants will:

1. Understand the meaning of the terms education, outdoor education, environmental education, interpretation, and syllabus
2. Understand the components of a complete curriculum
3. Understand educational methodologies including experiential education, adventure-based learning, inquiry-based learning, and progression
4. Understand approaches for designing education content appropriate for different learner characteristics
5. Understand differences between training colleagues and instructing young people
6. Understand concepts and best practices for supporting diversity, equity and inclusion in outdoor programs
7. Be able to create a complete, well-developed written outdoor education curriculum and syllabus
8. Be able to write a lesson plan and effectively deliver the lesson

Subject Matter Information

INTRODUCTION

Outdoor leaders are called to be many things—among them, counselors, safety managers, logisticians, and educators. The role of the educator is one of both great complexity and great reward.

In the pages that follow we'll explore education principles and concepts such as ‘curriculum,’ look at the nature of learners, and connect equity and outdoor education.

A number of word and phrase definitions are provided here. It's worth noting that words are defined by users, not by dictionary publishers or government authorities. Words may have different meanings to different people, with different groups, or in different contexts. If the person sending a message and the person receiving the communication both understand a word to have a certain meaning, then for them that's the meaning. In other circumstances, a different meaning may apply.

PRINCIPLES AND CONCEPTS




Education

What is education?

We can understand education as **the process of learning, in which learners acquire knowledge, develop skills, gain abilities, and clarify values**.

Let's define these four types of outcomes of education—knowledge, skills, abilities and values—and give an example of each in the outdoor education setting.

Knowledge: This refers to information obtained by experience, investigation or study.

> In the outdoor context: Knowledge of campsite and hiking trail locations and features.

Skill: a learned competence, developed over time with training and practice. Skill development may also require certain abilities, like able hand-eye coordination in becoming a skilled race-car driver. Skills include time management, surgery, and parenting.

> In the outdoor context: Effectively facilitating a group discussion about group dynamics.

Ability: a capacity (to do something), often with an inherited or innate component in addition to a learned component; like dexterity, or ability to distinguish red from green.

> In the outdoor context: The ability to lift a canoe out of the water during a canoe-over-canoe rescue.

Value: how much something is prized or held in regard; preference for action/outcome; view of right and wrong.

In the outdoor context: Attaching importance to following Leave No Trace principles.

Education experiences exist on a spectrum of formal to informal.

In **formal education**, learning activities are conducted within academic institutions such as K-12 (primary/secondary) schools and universities and feature instruction by career professional specialist educators. Formal education experiences often include standardized testing and grading. They lead to a diploma, certificate or degree.

Informal education describes learning activities taking place outside of academic institutions, for example in daily experiences, on-the-job training, and settings such as museums, zoos, nature centers, conferences, and independent training institutions. Informal education experiences typically do not result in the awarding of an academic degree.

Outdoor education often takes place in an information education context.

Education experiences likewise exist on a spectrum from self-led, through facilitator-guided, to directed by a teacher.

Experiential education, where learners engage in experiences from which they construct their own meaning, is an example of facilitator-guided learning. Lecture presentations, where a teacher is seen as the source of knowledge and the learner as the recipient of information, is an example of didactic, teacher-led education.

Many high-quality education experiences, including outdoor education, use approaches from across this spectrum. For example, an outdoor educator might give a presentation about how to use a stove, and then over following days let learners experiment, under decreasing levels of supervision and guidance, with using the stove to cook various food items.

Outdoor Education

We can understand outdoor education to simply be **education in or about the outdoors**.

Outdoor education activities often occur partly or wholly in the out-of-doors. But outdoor education can take place in a classroom, online, or in other contexts.

Environmental education, where learners build capacities to foster environmental sustainability, can be a part of outdoor education.

Adventure education, where structured challenges are used to supp
ort learning outcomes, and experiential education, where learners have and reflect on experiences, can also be a part of outdoor education.

Outdoor recreation—non-work activity done in the out-of-doors for fun, relaxation, or refreshment of the spirit—has different outcomes from outdoor education. Recreational activities, however, can be embedded in outdoor education experiences—and vice versa.

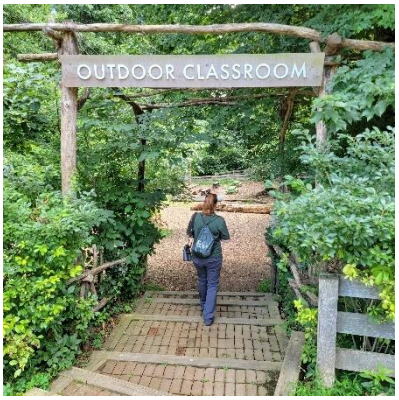
Outdoor education outcomes can include:

- Learning about the out-of-doors (for example, natural history and ecology),

- Life skills and other human development outcomes, such as self-confidence, teamwork or resilience,
- Religious or spiritual objectives, or
- Development of technical outdoor activity skills such as boating, climbing, or skiing.

Individuals who provide outdoor education experiences may be referred to as an instructor, trip leader, naturalist, guide, (natural resource/heritage) interpreter, trainer, or by other terms.

Environmental Education



Environmental education is a learning process designed to lead to a sustainable and equitable future.

Environmental education increases people's knowledge and awareness about the environment and its associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action.

For detailed information on environmental education, see WEA's *Educational Component 4: Environmental Integration* document.

Interpretation

Interpretation is communication about characteristics, significance and histories of natural and cultural sites and objects.

Interpretation, sometimes referred to as natural resource interpretation or heritage interpretation, often takes place in settings such as parks, historic sites, zoos, nature centers, and museums.

Curriculum

Introduction

A curriculum is a plan for learning. All good educational experiences can benefit from a well-established curriculum—whether deliberatively crafted and carefully documented, or on the other end of the spectrum, existing as a loose set of ideas in one's head.

Although outdoor education is typically characterized as a type of informal education, outdoor leaders who wish for the activities they facilitate to be as effective as possible will find that thinking through and documenting their curriculum in advance is an important and useful investment. The proposition that "the mountains speak for themselves" is no longer held to be credible; instead, a thoughtfully developed and comprehensive learning plan will help outdoor leaders achieve their aims.

A comprehensive curriculum—for any type of education experience—has three principal components:

- Goals
- Lesson Plans/Activity Plans
- Assessment

Goals establish the aims of the outdoor education experience. Lesson plans or activity plans are developed to meet those learning objectives. And assessment tools are employed to see if the learning activities were effective in leading towards those goals.

In addition, a curriculum is informed by educational methodologies that are applied to the development and implementation of these three curricular elements. These methodologies include experiential education, adventure-based learning, inquiry-based learning, and incorporating the idea of progression, including the concept of constructivism.

Finally, a syllabus is a useful adjunct to a curriculum, outlining the sequence of major learning activities.

Let's look deeper at these constituent parts of a complete and comprehensive curriculum.



Goals

When developing educational activities, establishing goals comes first.

Once the overall purpose of conducting educational activities has been determined, identification of specific learning activities to meet those goals can be done. Assessment tools used to see if the learning activities were effective in reaching those goals can then be established.

Simply deciding on activities, without a prior sense of how they could help learners meet pre-established goals, and without making a plan for determining whether or not the activities were effective in leading to achievement of those goals, does not represent educational best practice.

Learning aims can be sorted into categories. For example, some educators draw a distinction between goals, as broad, over-arching aims, and objectives, which are seen as specific, measurable sub-categories of a given goal. This can be a useful way to describe educational outcomes; however, here, for the sake of simplicity, we will treat the terms 'goal' and 'objective' as synonymous.

Learning goals should generally be established with respect to the four types of outcomes of an educational experience: knowledge, skills, abilities and values.

Consequently, goals can be framed as follows:

- Learners will understand…
- Learners will develop skills in…
- Learners will have the ability to…
- Learners will value…

Knowledge, skills and abilities are relatively straightforward to measure objectively. Values, or attitudes, are more complex to assess, but can be evaluated indirectly or subjectively.

Let's look at an example to see goal-setting in action. We'll use as an example a five-day hiking and rock climbing outdoor education trip with a group of young people.

The educational goals for this trip include building psychological resilience in participants, and also increasing inclination towards and skill in collaboration with others. (In addition to resilience and collaboration, the program may have other goals, but here we'll just look at these two aims.)

In following sections we'll see how other curriculum elements such as an activity plan and assessments incorporate these learning objectives.

Lesson Plans/Activity Plans

A lesson plan (sometimes referred to in informal education as an activity plan) is a description of how a learning activity may be conducted.

Lesson plans include three essential elements. These are descriptions of:

1. Intended learning outcomes,
2. Learning activities, and
3. Assessments of learning outcome achievement.

A complete learning unit—in outdoor education, often framed as a course, program or trip—has a set of goals, activities, and assessments. The same is true for a specific lesson or activity that is part of a complete (often multi-day or multi-week) learning unit. In the case of a lesson plan, the learning outcomes may be more specific, the learning activities smaller-scale, and the assessments could potentially be briefer and more informal.

The learning activity itself can be further divided into several sections:

- **Introduction.** Here the activity is outlined to participants. Participants have the opportunity to connect the activity to prior knowledge, and build enthusiasm for engagement in the activity.
- **Lesson Body.** Here learners engage in activities such as investigation, discussion, and experimentation, as well experiencing presentations from an instructor.
- **Conclusion.** Here educational outcomes are reinforced and assessed. Key information can be summarized; post-activity debriefing and transference occurs.

Lesson plans can take many forms—from descriptive illustrations, or ideas in one's head, to carefully written documents.

A well-developed lesson plan often contains core elements including:

- Lesson title
- Age or other characteristics of intended audience
- Time expected to complete the activity
- A brief description of the activity components, in the intended sequence
- Materials used in the lesson

Comprehensive lesson plans may also include items such as:

- Learning locations
- Correlations to standards or standardized outcomes
- Safety considerations
- Reference materials

- References to other, linked, lesson plans that may precede or follow this learning activity

Some written lesson plans include space to document comments about how the lesson went, so that potential improvements in lesson design can be incorporated into future lesson plan versions.

An example of a lesson plan template follows. The recommended sequence of establishing the goals of the learning experience before determining how goal achievement will be evaluated, and the specific activities to be conducted, is emphasized.

The specific lesson plan format that works best for your context may be different from this example.

Lesson Plan

Name: **Group:** **Date:**

Activity Title:		
Participant Age(s):	Activity Length:	Activity Area(s):
Materials	Re-usable/ Equipment:	
	Non-reusable:	
References & Resources:		
Safety Considerations:		

Step 1: Outcomes

Outcomes *Knowledge, skills, abilities or values developed during the activity:*	

Step 2: Assessment

Assessing Outcomes Achievement *Describe how outcomes achievement will be evaluated*	

Step 3: Learning Activity

Intro: ___ minutes	
Body: ___ minutes	
Conclusion: ___ minutes	
Notes	

The content of lesson plans should reflect the choice of learning approaches, such as experiential education or inquiry-based learning, to be used in the activity.

A detailed lesson plan format such as the example above is well-suited for relatively structured outdoor learning experiences, such as at an outdoor school, outcomes-focused summer camp, environmental learning center, or training course. Extended outdoor expeditions featuring long travel days without formalized lessons may have relatively long periods without structured activities designed using lesson planning principles.

A lesson plan, like any other plan or business process, goes through a process of development and continuous improvement throughout its existence.

The activity is then delivered again, evaluated, and further improved.

Let's now return to our example program—a five-day hiking and rock climbing program with youth—and see what a lesson plan for this program might look like. You'll recall that the program has as learning goals to develop psychological resilience and improved openness to and skill in collaboration.

The lesson plan here is a half-day rock climbing session. This activity is highly experiential, and so has fewer specific learning activities than one might see in a field science session or fast-paced skills training of similar length.

Some outdoor educators may run a rock climbing session without first writing up a lesson plan, instead relying on their mental knowledge of how to lead a rock climbing activity, and by referring to a field instructor handbook for reminders on contents of safety briefings or the like.

However, writing out a complete lesson plan can, especially for those without extensive experience managing institutional rock climbing sessions, help outdoor educators think through in advance what they wish to do, and in what sequence, to help ensure the most educationally effective experience.

Lesson Plan

Name: Freida Fungi **Group:** Midvale **Date:** 2023-05-01

Activity Title: Half-day rock climbing

Participant Age(s): 14-15 Activity Length: 4 hours Activity Area(s): Granite Wall

Materials	Re-usable/ Equipment: 3 toprope climbing sets, rescue pack
	Non-reusable:

References & Resources:

Instructor Handbook

Safety Considerations:

Standard policies & procedures for climbing

Step 1: Outcomes

Outcomes *Knowledge, skills, abilities or values developed during the activity:*	Participants will have a positive attitude regarding encountering challenges. Participants will see the value in trusting and receiving support from others.

Step 2: Assessment

Assessing Outcomes Achievement *Describe how outcomes achievement will be evaluated*	1. Participants will be invited after climbs and during the post-activity debrief to share how the climbing activity influenced their attitudes towards challenge and working collaboratively with others. 2. Participants will complete the pre-test/post-test evaluating resilience and collaboration at the end of the program.

Step 3: Learning Activity

Intro: 45 minutes	1. Welcome, site tour: introduce activity; set boundaries, safe zone, fall zone. 2. Helmets & harnesses. 3. Safety briefing (see standard briefing in field handbook). 4. Toneset/goal-setting. Encourage expanding comfort zone. Perceived vs. real risk. Discuss communication with belayer, asking for support from group. 5. Belay school.
Body: 165 minutes	• Participants climb, abseil/rappel and belay (with back-up staff belayer). • During climbs and abseils, participants are encouraged to persevere, problem-solve, and ask for support (or quiet) from their belayer and group members while on the rock, in challenge by choice environment. • After climbs/abseils, as staff are available, participants will be invited individually to process their experience, and discuss what helped them persevere when they got stuck or scared, and what was effective for them in asking for support from their belayer or other group members. • For instance, participants may be asked how they found the resilience to continue, after getting stuck part way up a climb, or how they effectively worked with group members to ask for encouragement, quiet, advice about finding footholds, etc. • All participants should have the opportunity to attempt multiple single-pitch climbs—either straightforward or challenging, their choice—abseil, and to belay. • In addition to considering issues of resilience and teamwork, participants will be encouraged to enjoy themselves and have fun.
Conclusion: 30 minutes	Debrief questions may include: • What happened on the rocks for you today? What was significant for you? • Why was that significant for you? • How does your experience working through challenges today influence how you might approach future challenges at home, work or school? • How does asking for, receiving or giving the support you requested from your belayer or group members, or gave to climbers, influence how you might collaborate with others in the future to help achieve goals? • Who belays you in your life? Who do you trust to support you? • If you consider the rock wall to represent a challenge in your life, how does your taking on the challenges of climbing and abseiling—regardless of whether you completed any climbs or abseils—influence your attitude about taking on other challenges in life?
Notes	Calibrate debriefing questions to the mood and engagement of participants.

Assessment

Assessing the impact of the activities you facilitate is essential for understanding if your education work is effective. The only way to know if your efforts are actually achieving the outcomes you intend is to perform an evaluation of whether or not the aims you established in advance have actually been met.

Evaluation instruments—from a handful of guiding questions that can be raised during a casual debrief, to a scientifically accurate written survey tool developed by assessment professionals—should be established before activities are conducted. They should link to the learning goals and activity plans also previously established.

Evaluating outcomes of educational programming can become complex and expensive. Smaller outdoor education programs don't always have an in-house evaluation team or the resources to hire academic specialists in outcomes assessment. In these situations, unless sophisticated evaluation systems are required by a funder or otherwise, keeping evaluation structures simple is an appropriate practice.

When designing evaluation systems, a good place to start is to ask two leading questions:

- Who wants to know the results of evaluation work? Who is the consumer of this information—the client? The organization's marketing or fundraising department? Program designers? Financial donors?
- What do they want to know? The marketing department might want heart-warming anecdotes, whereas a philanthropic institution may seek objective or scientifically ac curate data.

A note on terminology: there are no universally agreed-upon distinctions between the terms 'assessment' and 'evaluation' in the education context. Although education specialists assign different meanings to the terms, we will treat them here as synonymous.

What to evaluate

An organization can choose to gather information in several different categories:

1. **Outcomes achievement.** This is perhaps the most common subject for evaluation activities. Outcomes achievement asks: did learners acquire knowledge, develop skills, gain abilities, or clarify values, as described in the documented educational outcomes for our activities? This is sometimes known as "summative" assessment: when you add up our pre-established goals, all the activities to lead to achieving those goals, and our evaluation efforts, do we find that the sum of all our work has led to our learning objectives being met?

2. **Education process quality.** Is our curriculum well-designed and skillfully delivered? Are there improvements we can make in how we present and facilitate learning activities? This is sometimes known as "formative" assessment—evaluating how the education program overall is formed, including appropriately sequencing activities, maximizing learner engagement, effectively using pedagogical techniques, appropriately matching activities to participant interests and needs, and the like. Formative assessments can be conducted during or at the end of an educational experience.

3. **Non-education elements.** This refers to evaluating business processes, logistics, operational, and customer service aspects of the program. These can include pre-experience communications, food service quality, suitability of equipment and accommodations, safety management, and leader sensitivity to participant concerns, among others.

Evaluation information can be gathered from program participants, staff, stakeholders (such as land managers), and, for group programs, the leadership of the client group.

Subjective and Objective Data

Two principal types of information can be gathered in the evaluation process: subjective and objective data.

Subjective information typically involves judgment or interpretation, and may or may not be reliable. For example, learner self-reports of changes in attitude or values are subjective, and might not be accurate. An evaluation of written materials such as an essay or journal entry often involves subjective evaluation.

Objective data is observable and often credible and reliable. Evaluating whether or not a group successfully hikes or paddles from point A to point B by the end of the day is a relatively

objective process. Test scores on written multiple-choice exams can give relatively objective data, if factors such as learning disabilities, language comprehension, and biased test design are controlled for.

While objective data is easier to point to as reliable, many human development outcomes such as self-confidence, compassion, and team skills rely on subjective assessments. Many outdoor programs employ a mix of objective and subjective data analysis in their evaluation activities.

Scales of Evaluation

Evaluation can be conducted at scales both small and large. At the end of the half-day rock climbing activity described in the lesson plan above, a relatively informal summative evaluation of outcomes was conducted, through a group discussion.

Each lesson can also be formatively evaluated by the outdoor leader while it's being conducted or after it has been completed, and notes made about how to adjust the lesson plan to enhance the activity's effectiveness the next time it is conducted.

At the end of the week-long outdoor program of which the climbing session was but a small part, a separate evaluation of the entire multi-day outdoor experience is held. This might take the form of participants or group leaders filling out a written document evaluating both educational effectiveness as well as customer service satisfaction and other process outcomes.

Approaches to Evaluation

There are many ways to design and conduct evaluations. We'll describe a selection of options below.

Outcomes assessment options include, among others:

- **Pre-test/post-test instruments**, where a characteristic (such as attitude towards challenge) is measured before and after an outdoor program to evaluate change that occurred during the program. A retrospective pre-test/post-test, where characteristics before and after the program are measured only at the end of the program, may be a more reliable instrument.
- **Observation of behavior.** Examples include whether or not an individual was observed to facilitate a discussion skillfully, or follow procedures appropriately.
- **Review of work product.** This could take the form of evaluating writing or other forms of expression.
- **Self-evaluation and peer evaluation.** Information from these evaluations may be highly subjective. While they can provide useful information, particularly to the participant who is the subject of the evaluation, they may not be a source of reliable information that is suitable for use in making important conclusions such as whether a person deserves to be awarded a credential certifying that the bearer holds certain capacities such as technical skills.
- **Written examinations**, such as multiple-choice tests. These may help objectively evaluate knowledge, but are less useful when assessing skills, abilities or values.

Participant engagement is sometimes used in evaluation systems. This might take the form of noting whether a person was physically present during the entire program experience, or participated fully in learning activities. Caution should be applied when considering using engagement in evaluation schemes. In an outdoor skills training course, for instance, it might be possible for a person who misses certain presentations to still demonstrate achievement of learning outcomes, even if they were not present for all activities.

The most convincing evidence of outcomes achievement as a result of participating in an outdoor program would likely come from a randomized controlled trial (RCT) including multiple follow-ups over many years, with the results published in a widely well-regarded peer-reviewed journal, and replicated by additional studies. This is extremely expensive and so is generally unrealistic.

If scientifically accurate, reliable and valid information is required, an evaluation specialist should be retained to develop a suitable survey system. Gathering valid and reliable data is expensive and not often an option for less well-resourced outdoor education organizations.

Outcomes assessment and process (formative assessments) may also be conducted by surveying individuals (verbally or through written questionnaires) during or at the end of an activity or an entire program.

An example of a simplified retrospective pre-test/post-test instrument is below. This is provided to participants in our example program which had goals of fostering resilience, and enhancing interest and skill in collaboration, in its participants.

In this survey, items 1, 4 and 6 have to do with resilience. Items 2, 3 and 5 pertain to collaboration. (By asking multiple questions regarding the same factors, and mixing the questions up randomly, higher-quality results may be generated.)

Please rate the following statements by circling a number from 1 to 5 (both on the left-hand column and on the right-hand column).
1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Before the program						**After the program (now)**				
1	2	3	4	5	I persevere when things become difficult.	1	2	3	4	5
1	2	3	4	5	More can be accomplished when we work together.	1	2	3	4	5
1	2	3	4	5	I am successful at working with others.	1	2	3	4	5
1	2	3	4	5	I enjoy working to overcome challenges.	1	2	3	4	5
1	2	3	4	5	I can contribute positively to a team.	1	2	3	4	5
1	2	3	4	5	Adversity can make me stronger.	1	2	3	4	5

An example of a program-end evaluation administered at the conclusion of a course, program, trip or other experience is below. This combines numerical rankings with open-ended narrative responses. Questions are primarily formative—rather than providing information about outcomes achievement, they focus on process components such as food service, risk management and general customer satisfaction.

Evaluation

Name (optional): _____ Program/Group: _____ Date: _____

Please indicate your response to each statement by marking the circle that best represents your view.

		Strongly Disagree	Disagree	Some-what Disagree	Neutral	Some-what Agree	Agree	Strongly Agree
1	The course met my expectations.	○	○	○	○	○	○	○
2	Pre-course communication was adequate.	○	○	○	○	○	○	○
3	The instructors were high quality.	○	○	○	○	○	○	○
4	Safety was well managed.	○	○	○	○	○	○	○
5	Equipment was appropriate and in good condition.	○	○	○	○	○	○	○
6	Food was adequate and nutritious.	○	○	○	○	○	○	○
7	Course activities were appropriate.	○	○	○	○	○	○	○
8	I would recommend this course to others.	○	○	○	○	○	○	○

Please respond to the following.

1. Please describe the most successful aspects of the program.

2. Please comment on specific areas of the program that need improvement.

3. What was your impression of the staff? Please comment on your instructor's strengths and weaknesses.

4. Do you feel the course goals were successfully achieved? Yes No Explain:

Methodologies

Methodologies refers to the educational approaches used in the design and delivery of the learning experience. They are simply good principles for education. There are many different approaches; new ones are being developed. Older approaches are being adapted, are being combined with others, or fall out of favor.

Approaches to learning are ever-evolving, and often have both proponents and critics. In addition, applying any approach skillfully takes training and practice. Educators should carefully consider which approaches to use and how to employ them, and stay attentive to further advances in the theory and practice of learning.

Career professionals in formal education may be exposed to myriad educational methodologies. We will summarize four different educational approaches here that are commonly used in outdoor education contexts. These are:

- Experiential education
- Adventure-based learning
- Inquiry-based learning
- Progression (including constructivism)

Experiential Education

Experiential education can be understood as a methodology in which educators purposefully engage with learners in direct experience and focused reflection. Certain ways that learners encounter an experience and go through a period of processing that experience make the activity one of experiential education.

Educators often draw a distinction between experiential education and didactic teaching where the teacher transmits specific information to students, often with heavy use of lecture presentations. In experiential education, the facilitator is not seen as the authoritative source of knowledge, but as a

leader who makes available selected and structured experiences. The learner then has those experiences, and, with some guiding by the facilitator, makes their own meaning—constructs their own knowledge—from that experience.

Experiential education programming can and often does have a relatively small amount of didactic instruction. For instance, in a rock climbing experience, the facilitator will give detailed instruction about safety procedures before permitting individuals to climb and belay. However, unlike a formal classroom-based experience dominated by lectures, textbook reading, and writing, in experiential education, transmission of information by the educator by lecture or related means does not predominate.

The table below describes some generalized differences between experiential education and academic didactic teaching approaches.

Experiential Education	Didactic Teaching
Facilitator makes available experiences and guides processing the experience	Teacher is the source of knowledge
Learner is in control, directs the experience	Teacher is in control, directs lessons
Learner creates their own unique meaning and information from experience	Student is the passive recipient of information
Long-term retention of learning	Learning from listening and rote memorization may be short-lived unless reinforced
Learners gain relatively fewer points of information	Can transmit large amounts of information in a short period of time
Learning experiences often personally profound, powerful and high-impact	Meaning and impact of learning experience may be great or minimal
Focus is on discovery by learner	Focus is on transmission of information by teacher
Learners are often highly psychologically/emotionally engaged	Learners may be unmotivated or disengaged

Experiential education has its place in the milieu of educational approaches; so does didactic teaching. Each has its own benefits and areas where it is most suited for use. Experiential education works well to provide impactful learning experiences which can foster the development of characteristics such as self-confidence, affinity for the outdoors, technical skill or critical thinking skills. Didactic teaching excels at sharing a high volume of data rapidly, and is an important and valuable way to provide instruction on academic subjects.

In practice, experiential education and didactic teaching are often combined, in proportions dependent on the context, to achieve an optimal learning experience. For example, a lecture on land navigation with map and compass be followed with a demonstration of taking a bearing. Participants then practice the skill in isolation, taking a single bearing. Then, learners apply it in context, taking and following bearings repeatedly while navigating off-trail for a period of multiple days. During this process learners might become disoriented or be lost for hours or days, due to making navigation errors, but the educator permits this to happen (within limits of safety and schedule). Eventually group members use their navigation skills to identify their location and continue their expedition.

The outdoor education context is well-suited to experiential learning. However, a large proportion of outdoor educators have many years of experience as a student in didactic teaching settings, and are more familiar with academic approaches to instruction than with experiential methodology. Consequently, it's important for outdoor program managers and field staff to avoid excessive lecturing, and to invest in systems, curriculum guides, training and support to help ensure sufficient and skilled application of experiential education processes.

Models of Experiential Education

A variety of models illustrating elements in the experiential education process have been developed.

There is no one model that is the best for all learning circumstances. What model may be optimal depends on who is using the model and the purpose for which it's being applied.

For example, an academic theoretician may create a complex and sophisticated model involving many steps. The model may be highly comprehensive, but may be too complicated for informal educators to effectively use in the field. Instead, outdoor leaders might prefer a simpler model with just a few easy-to-remember steps.

The simplest model of experiential education has two steps:

- The learner has an experience
- The learner, guided by a facilitator, reflects on the experience, thereby drawing meaning from it.

Some might split the "reflection" component into two pieces: reflecting on the experience, then transferring the learning to future activities:

- The learner has an experience
- The learner reflects on the experience
- The learner transfers thoughts or conclusions to other parts of life

Others might split the "reflection" component into three elements: reviewing what occurred, thinking about why what occurred was significant, and then considering how this information can be applied to other parts of life. This is popularized as the "what, so what, now what" sequence of debriefing:

- The learner has an experience
- The learner reviews what happened
- The learner considers why this may be significant
- The learner applies their realizations or conclusions to other parts of life

A fifth step comes before the experience: framing the experience by discussing the activity and introducing metaphors: today while rock climbing, consider the rock to be an obstacle in your life, and consider how you approach climbing the cliff to inform you about how you approach other life challenges. We'll also ask you during the debrief about how you worked effectively with your belayer, who held your safety rope during the climb, and ask you to consider your relationship with those who 'belay' or support you in life.

Infinite variations of splitting steps apart or lumping them together are possible.

A Learning Cycle for Experiential and Inquiry-Based Learning

A five-part learning cycle offers a model that combines experiential education, inquiry-based learning, and constructivism (linking prior knowledge to current lessons). The learning cycle is employed in field science education with youth, including by those who use resources from the University of California's Better Environmental Education, Teaching, Learning & Expertise Sharing (BEETLES) project.

The steps in this learning cycle are: Invitation, Exploration, Establishing Meaning, Application, and Reflection.

Invitation

- Facilitators engage the learner, get them interested, and generate curiosity about the subject at hand.
- Facilitators offer a question, a challenge, or an observation. They encourage learners to make observations and ask questions.
- Facilitators help learners access relevant prior knowledge, and encourage learners to discuss connections with prior knowledge or experiences. Facilitators then adapt activities based on information from learners regarding their prior knowledge and experience.

Exploration

- Learners engage in guided exploration of items, places, ideas. Learners are challenged to find meaning, answer questions, and create understanding.
- Facilitators employ minimum instruction and support maximum learner initiative.

Establishing Meaning

- Also referred to as Concept Invention.
- Learners make connections and create new meanings.
- Facilitators support learners to draw their own conclusions. They provide feedback and direction only when necessary, and as little as possible.

Application

- Learners apply information to new contexts, through activity or discussion.

Reflection

- Learners extend their thinking on the subject through discussion, writing, or drawing. Learners make further connections and construct new understanding. When this is completed, the process can begin again.

Experiential Learning Cycle—Kolb

A similar model is the four-part experiential learning cycle described by David Kolb. The four parts of this cycle are: Concrete Experience, Reflective Observation, Drawing Conclusions (Abstract Conceptualization), and Active Experimentation.

Once these steps are completed, the cycle begins again.

Concrete Experience

- Learners are directly involved in an experience.

Reflective Observation

- After being actively engaged in an activity or project, the learner asks questions and discusses the experience with others.

Drawing Conclusions (Abstract Conceptualization)

- The learner, through the earlier process of reflection on the experience, draws conclusions, makes realizations, or otherwise creates meaning from the experience.

Active Experimentation

- Learners re-engage with an activity, testing their conclusions or new understandings in a real-life situation. This helps to refine learner knowledge and help the learner see its relevance, supporting long-term retention of new knowledge.

The model is essentially a commonsense way of explaining how people have been learning for millennia: have an experience, think about it and draw conclusions, then use that new information to influence how one acts in following experiences.

An example for a participant (student) in the outdoor education context might be:

- **Concrete Experience:** Make recommendations assertively and early on in group decision-making conversations
- **Reflective Observation:** Get feedback from group members that that leadership style feels bossy and unwelcome
- **Drawing Conclusions:** Decide to do more listening, and let others suggest courses of action more
- **Active Experimentation:** During group decision-making moments, listen more and talk less

Other experiential learning models exist. The Plan-Do-Check-Act continuous improvement management model used in business administration is one of many others.

Adventure-Based Learning

Adventure-based learning, or adventure education, is an approach to learning that employs challenge and uncertainty in its methodology.

In an adventure education experience, learners are confronted with carefully selected novel obstacles or problems.

Learners often experience a certain amount of stress or 'disequilibrium' as they encounter these challenges. Learners then work individually or cooperatively with others to address the obstacles.

As learners successfully meet the structured challenges they encounter, they may experience a feeling of accomplishment, and their sense of self-efficacy (empowerment) may increase.

A positive attitude to future challenges and confidence that they can be overcome can be fostered by processing the adventure experience to promote generalization and transfer of the outcomes of going through the adventure activity to future experiences.

Adventure education methodology is often used in tandem with experiential learning principles during outdoor education experiences.

Inquiry-Based Learning

Inquiry-based learning is an educational approach that focuses on helping learners pose questions, then conduct investigations to answer their own questions.

Inquiry-based learning (IBL) can make educational experiences more interesting, engaging, memorable and meaningful for learners.

IBL can engage learners' natural curiosity, foster team skills through group investigations, and integrate science, art, and culture in a multi-disciplinary process.

IBL, like other education methodologies, takes extensive training and practice to facilitate skillfully. Learners must be guided to generate suitable questions that can realistically be answered with available resources. Facilitators should know when and how to make appropriate suggestions, guide investigation activities, and provide just the right amount of information.

IBL is well-suited for many, but not all, outdoor education experiences. The learning cycle for experiential and inquiry-based learning described in the Experiential Education section above can be used as a framework for integrating inquiry-based learning into outdoor experiences.

Progression

The idea of progression in education refers here to three concepts:

1. Intentionally connecting learning activities to learners' prior experiences and previously gained knowledge,
2. Thoughtfully sequencing learning activities to effectively build on each other, and
3. Guiding learners through a sequence of cognitive processes.

Constructivism

The concept of connecting educational experiences to students' lives is sometimes referred to as constructivism. Linking learning activities to the lived experience of learners increases learner engagement—the psychological investment one has in the learning experience—and helps make those learning activities more meaningful and effective.

For instance, in environmental education programming, educators can take the time to research and understand environmental issues in the learners' home community. Exploring these issues can make the educational experience more engaging, relevant and effective.

A learner from a temperate climate may be more likely to develop environmental citizenship skills through exploring an environmental issue like clean air or green space in their home community, compared to through exploring tropical rainforest habitat destruction, if they have never been to the tropics.

Connecting educational activities to learners' prior experiences enhances educational effectiveness because research indicates that a fundamental part of how people learn is by connecting new information and experiences to information and experiences they have encountered in the past.

When an educator shares learning material, they often have an idea of the meaning of that learning material. However, learning theory suggests that each learner creates their own meaning from engaging with information or educational experiences.

The lesson the learner takes from interacting with that learning material is unique to them, and may be different from the meaning the facilitator associates with that material, or the lessons or conclusions other learners make from the information or experience.

This happens because learners construct new knowledge by relating it to the unique set of prior knowledge they have.

Constructivism is a tool used in the educational technique known as scaffolding, where supports—such as connecting new educational content to previous knowledge or experiences—help the learner construct new knowledge and meaning.

Let’s look at a couple of examples.

First: two secondary school students learn that their class is going to attend an outdoor camp, where they will be spending time hiking outdoors.

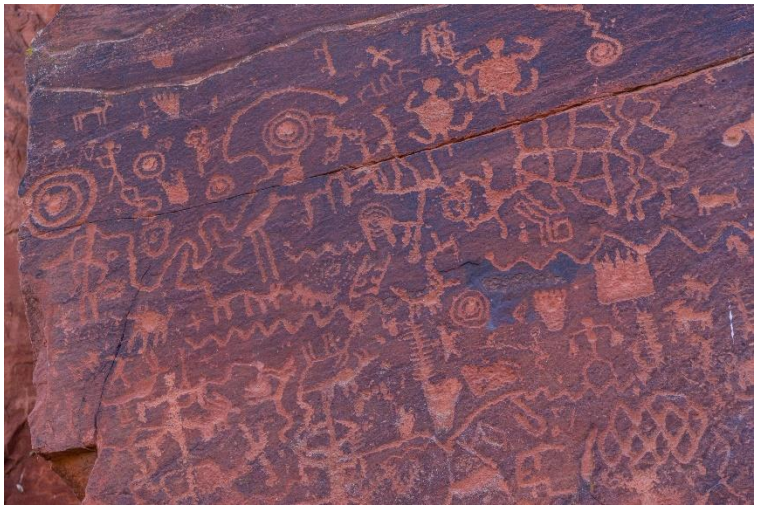
One student, who has experience engaging in outdoor recreation activities with their family, eagerly awaits this opportunity, and while there, enjoys hiking on trails, studying natural phenomena, and enjoying the natural landscape.

Another student is a recent refugee from a low-income country with a history of authoritarian rule. When they hear the word “camp,” they think of refugee camps, where people may be placed against their will, and the dangerous, unsanitary and difficult conditions there. In their culture, the out-of-doors is principally a place where one goes for food, and where dangerous animals such as venomous snakes exist: not a place for recreation or education. This learner feels uncomfortable and out-of-place at the outdoor education camp, and is less likely to gain the benefits of group bonding and environmental education while there.

In our second example, a group of individuals on a hike see petroglyphs (rock carvings) made hundreds or thousands of years ago. Some of the petroglyphs have recently been defaced. The group leader explains the history of petroglyphs in the area, and the need to protect them from further damage.

Depending on their prior experience, group members may experience this as:

- Merely interesting, but unrelated to their experience of art and culture, and really not that important
- A powerful emotional and spiritual connection to their ancestors and to the group member's ancestral lands
- A searing example of social injustice, where the lives and stories of indigenous people are literally erased by colonizers



How can you apply constructivist technique to make outdoor learning experiences effective?

First, educators can recognize and respect that they can offer information and experiences, but that learners will create their own unique knowledge and understanding from them.

Second, educators can take time before facilitating an educational activity to understand learners' prior knowledge and experiences, and then adjusting the activity based on that information.

For the group member for whom 'camp' and 'outdoors' don't have positive, educational or recreational connotations, the educator can initiate conversations—well before the trip—regarding why outdoor education camp or outdoor school experiences are offered, and what the activities and venue are like. An organization offering outdoor camps could respond institutionally by coordinating meetings with parents and guardians to explain what the trip is about, and to discuss safety measures and benefits of the camp experience. A brief familiarization field trip to the site for learners and their parents/guardians could be offered prior to the multi-day outdoor experience, to help prepare them for a successful learning experience.

With the group experiencing the petroglyphs, the educator could inquire—before starting the hike—about group members' experiences with art from their culture and other cultures. The group leader could ask about participants' experience of the intersection of art and social justice.

By doing so, the educator can shape how the hike and petroglyph encounter are presented. And researching learners' prior knowledge in advance can also help the educator guide discussions after exploring the petroglyphs to help learners connect meaningfully with the rock art, explore their personal connection to the rock art in a psychologically safe environment, and have a constructive conversation about equity and inclusion regarding cultural expression, native or aboriginal lands, and in outdoor spaces.

Sequencing

The idea of sequencing is simply that learning activities are most effective when they are planned and delivered in an intentionally developed series.

Rather than delivering a random assortment of games and lessons, a well-designed outdoor education experience presents activities that build on previous activities, in a thoughtfully developed arc that intentionally leads to achieving pre-established learning outcomes.

This means that educators must employ discipline and intellectual rigor in composing the sequence of activities they offer, and that education managers must provide field staff with the planning time, training, and other support needed to make this happen in a consistent and effective way.

An educator who has built a well-developed sequence of education activities, each one building on the previous one in meaningful ways, can answer the following questions:

- Why does this activity come after the experience that precedes it?
- Why is the experience that comes immediately after this activity scheduled to take place then?
- How do all your planned learning activities build upon each other to culminate in achieving your planned educational outcomes?

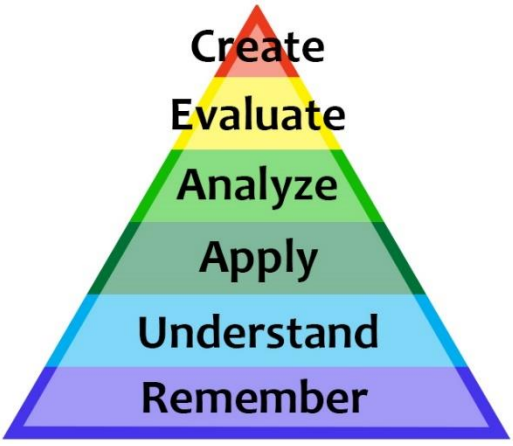
The idea of intentional sequencing can also be applied to organizing learning activities to generally follow the experiential learning and inquiry-based learning cycles described above. Sequencing can also be applied in developing environmental education progressions, where ecological concepts and environmental sensitivity are addressed before introducing environmental issues, which is then followed by fostering knowledge of and skill in using action strategies.

Bloom's Taxonomy

Bloom's taxonomy is a hierarchical classification of cognitive processes, from the simple to the most complex. The list of thinking processes, originally published by Benjamin Bloom and others in the 1950s, was revised in 2001.

The revised taxonomy lists six increasingly sophisticated ways of processing information:

Remember: ability to recall memorized facts
Understand: ability to explain concepts
Apply: ability to use information in real situations
Analyze: ability to compare and contrast ideas
Evaluate: ability to assess ideas for quality and usefulness
Create: ability to use information to make new ideas



Learning is most effective when educators support learners to process information through all levels of this

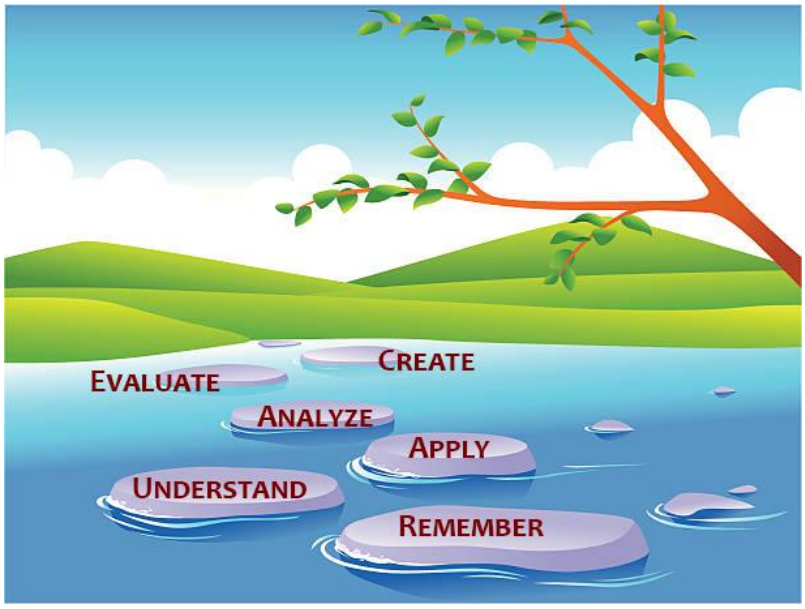
classification: from understanding the data, to being able to critically evaluate it and apply it in context, to using the information in new and generative ways.

Here's an example of Bloom's revised taxonomy applied to the idea of securing food in the campsite from animals, and cleaning up loose items like articles of clothing around camp that might get wet or blown away, before going to bed at night.

- **Remember:** recall being told to ensure the campsite is tidy before going to bed
- **Understand:** explain the benefits of securing food and loose items in the campsite before bedtime
- **Apply:** proactively protect food from animals and scattered gear/clothing from heavy wind and rain
- **Analyze:** compare securing camp standards to Leave No Trace practices, general camp safety procedures, and land manager regulations
- **Evaluate:** describe liabilities and benefits of tidying camp in various situations (e.g. different weather forecasts, in different wildlife habitats)
- **Create:** establish and execute a plan for organizing, managing and achieving personal tasks and life goals back at home

Educators can use questions, discussions, and other approaches in curriculum design and delivery to help learners process a concept through these levels of thinking.

As with most models, rigidly following the sequence in linear fashion is not intended or recommended; learners may move back and forth, skipping or repeating steps as they choose.



Learners can hop around from step to step in any sequence, during their learning journey.

Other Methodologies

There are many other methodologies an educator can consider for use in outdoor education contexts. Service learning is an example. In service learning, participants engage in thoughtfully framed community-based service projects, and then process their experience in support of developing compassion, resilience, civic responsibility, or other qualities. (This is distinguished from participating in community service, which is sometimes administered as a punishment for wrongdoing, and without the appropriate framing and debriefing can be devoid of educational value.)

A multitude of other methodologies, such as cooperative learning, problem-based learning, and project-based learning, exist. All methodologies require the investment of training and practice to be used skillfully, so educators with limited professional development opportunities should restrict the educational techniques they seek to employ accordingly.

Syllabus

A syllabus is an outline of the topic or activities of an educational experience, often describing them in chronological order. A syllabus may also include learner expectations or assignments.

A syllabus is an adjunct to core curricular materials: goals, lesson plans or activity plans, assessments, and methodologies.

Syllabi are useful to provide a summary overview of the activities in the educational experience's schedule. They can also illustrate progression.

Syllabi can vary in their level of detail. They can be represented in text format using bulleted or numbered lists, in a calendar-based design, or in other ways.

An example of a syllabus for a five-day outdoor education experience for young people follows. In this case, a school group composed of students and adult chaperones engages in team-building and environmental education activities while camped in a national park.

The syllabus illustrates major activities such as hiking and rock climbing, as well as shorter evening experiences and logistical elements such as arrival, departure, and mealtimes.

A summary syllabus in calendar format follows the detailed schedule.

Day One

Themes: exploration & fun

11:30 am: Group arrives

- Course Director welcome
- Land acknowledgement
- Safety overview
- Staff introductions
- Large group ice-breaker activity
- Small group activities: name game, introductions; set up tents
- Course Director meeting with chaperones

12:15 pm: Lunch

1:00 – 5:00 pm: Discovery day hike

- Environmental education themes: exploration, discovery, fun, positive experiences in the out-of-doors (environmental sensitivity, attitudes & values)
- Inquiry-based exploration of natural features & phenomena
- Teachable moments—trailside organisms
- Sensory awareness games

5:15 pm: Dinner prep, free time

6:00 pm: Dinner

7:00 pm: Evening Program

- Campfire, skits/games & songs
- Lorax skit

8:15 pm: Trail group time

- Debrief the day; discuss tomorrow's schedule, camping logistics/practices

9:00 pm: Prep for bed

9:30 pm: Lights out

Day Two

Themes: nature, culture, empowerment

7:30 am: Breakfast

8:00 am: Pack lunches

9:00 – 5:00 pm Rock climbing

- Climbing and respect for traditional owners of the land
- Introduction to geology

- Toneset: discovering inner strengths through challenge
- Climb, abseil, belay
- Debrief: bringing trust & perseverance to other areas of life (self-efficacy)

5:15 Dinner prep, free time

6:00 pm: Dinner

7:00 pm – 9:00 pm: Evening Program

- Night hike in trail groups. Exploration of natural history & ecology. Native/aboriginal relationships to the land.
- Debrief the day, discuss tomorrow's schedule, prep for overnight backpack

9:00 pm: Prep for bed

9:30 pm: Lights out

Day Three

Theme: environmental issues

7:30 am: Breakfast

8:00 am: Pack lunches

8:30 am – noon: Talus cave scramble

- Explore cave formed by huge boulders (talus) in canyon bottom
- Explore role of floods in forming talus cave
- Discuss links between flooding, heat and drought due to climate change on one hand, and threats to plants and animals, and to ecosystem services helpful to people, on the other

1:00 pm: Overnight backpack trip

- Pack overnight gear and begin multi-day hike
- Hike to backcountry campsite; set up camp
- Evening discussion: environmental issues at home, and in this park

Day Four

Theme: action strategies

7:30 am: Breakfast

8:00 am – 5:15 pm: Hike

- Continue trail loop, returning to basecamp site in afternoon
- Field science explorations, cultural interpretation as appropriate
- Brief solo time & structured journaling

5:15 pm: Dinner prep, free time

6:00 pm: Dinner

7:00 pm – 9:00 pm: Evening Program

- Campfire
- "Town Hall" environmental issue decision-making role play. Students assume various stakeholder roles and discuss pros/cons of installing solar panels in parks and preserves: cleaner energy, but harmful to sensitive wildlife and habitat. Individuals engage in mock vote.
- Conclusion: discussion of civic engagement options to support environmental sustainability

Day Five

7:30 am: Breakfast

8:00 am: Take down camp & pack up

8:45 am: Running-relay review game

9:30 am: Group departs

Day 1	Day 2	Day 3	Day 4	Day 5
Themes: exploration & fun Group arrives 11:30 Discovery day hike Evening Program: Campfire, songs, skits ▲: Basecamp	**Themes: nature, culture, empowerment** Rock climbing adventure Evening Program: Night hike ▲: Basecamp	**Theme: environmental issues** Talus cave scramble Backpack Evening: environmental issues ▲: Backcountry site	**Theme: action strategies** Return from backpack Evening: Campfire, Town Hall ▲: Basecamp	Pack up Group departs 9:30

In the summary-style syllabus in calendar format above, nightly camp locations are indicated by green tent icons.

In both syllabi, progressions can be seen:

- Progression from day hiking and climbing to multi-day backpacking
- Progression of environmental education activities: from developing environmental sensitivity and learning natural history and ecology, to exploring environmental issues and building knowledge of and skill in action strategies to address those issues

Learners

Outdoor educators are most effective when they understand the characteristics of the learners they work with, both individually and as a demographic group, and take those qualities into account when designing and facilitating educational activities.

(Educators may be familiar with the term 'differentiated instruction,' which refers to customizing educational activities to individual learners' interests, capacities, and learning needs.)

Here we'll discuss four concepts that can be considered in paying attention to characteristics of learners to help make outdoor education experiences as effective as possible:

- Connecting to prior knowledge
- Age-appropriate experiences
- Culturally appropriate experiences
- Learning styles

Connect to Prior Knowledge

Earlier, in sections on lesson planning, constructivism, and experiential education learning cycles, we discussed the importance of accessing learners' prior knowledge.

Educators may have better outcomes when they invest in advance in learning about the prior knowledge and experiences their learners have, adapt their education activities to account for them, and intentionally and systematically connect their lessons to learners' prior knowledge.

Age-Appropriate Experiences

Nine-year olds have different learning needs from 14-year olds. Outdoor educators working with school groups, camps or other programs serving young people may work with primary schoolers one week, and teenagers the next. The curricula for working with these different age groups be different from each other, in order to reflect those different learning needs.

Similarly, a wilderness expedition targeted to university students cannot automatically be offered to adult learners in their 30s, 40s or beyond, without making adjustments to take into account the differing characteristics of each participant demographic.

A sample of generalized characteristics of nine to 11 year old learners compared to 12 to 15 year old learners follows.

Children from 9 to 11 years old:
Have strong imaginations
Have limited ability to engage in extended, strenuous physical activity
Can develop concepts from concrete data, but making abstract conclusions from abstract data is harder
Are curious and eager to explore, when the situation welcomes it

Are capable of understanding environmental issues, but complex issues like global warming may be overwhelming

Children from 12 to 15 years old:
May be self-conscious, and are sensitive to acceptance by group members
Have increased willingness to engage in extended discussions, including on abstract topics
Increasingly resist direction from adults (though supervision is still important)
Have increased attention span and ability to work on sustained projects

Some outdoor programs offer stationary or moving "solo" experiences where participants are by themselves. Others provide independent travel experiences where participants backpack, paddle, or otherwise travel through the out-of-doors without direct supervision from their leaders, who may be some hours or kilometers away.

In these cases, whether and how these experiences occur should be calibrated to the age of participants, and an ongoing assessment of the maturity level of group members and the amount of responsibility they are likely able to hold.

Outdoor educators working with adult learners should take into account how the needs and interests of adults different from those of young people.

A list of generalized characteristics of adult learners follows.

Adult learners:
Value autonomy and control: want to set their own learning goals, and make choices about how they achieve them
Want to hear the reasons why behind a request for action, rather than be told to do something
Want to be apprised in advance of scheduled activities
May not like to be told what they should get out of an experience
May resist direction from group leaders, especially those younger or with less life experience than themselves
Wish to be related to as a peer, even if they lack relevant technical outdoor skills or local knowledge
May learn less rapidly than young people, and respond poorly to time pressure
May be more resistant to change
May be less tolerant of customer service issues and operational glitches
May have a greater interest in physical comforts (such as thick sleeping pads)
Bring deeper wisdom and knowledge to the group

Culturally Appropriate Experiences

Culture refers to the beliefs and values held by a group of people, and which influence the behavior of members of the group.

Outdoor educators commonly have individuals from a number of cultures as participants in an outdoor experience they lead. This is the case even if members of the locally dominant group (in terms race, religion, ethnicity, national origin, or other characteristics) are in the majority.

Educators are most effective when they have the capacity to work effectively with individuals of different cultural backgrounds, or when the cultural context of the educator differs from the cultural norms of the participant group.

We'll briefly describe a selection of different cultural dimensions and how they might influence outdoor education programming.

Teacher-Student Relationship

In some cultures, the teacher is respected as the source of knowledge. It is considered rude to challenge the teacher, or question the content or delivery method of their teaching. If there is something a learner does not understand, they may not ask for clarification, even if invited to do so. In other cultures, the opposite is true, and educators expect learners to ask questions, and welcome disagreement with the group leader.

Related to this, if the outdoor leader is seen as doing something that is ineffective or unsafe, learners may not speak up about it, as doing so would be seen as disrespectful. In other cultures, group participants will not hesitate to raise complaints.

Repeatedly asking learners if they have questions may be seen as culturally inappropriate in some cultural contexts, and a sign of good teaching in others.

Similarly, calling on individual learners to answer a question can be seen as offensive and culturally inappropriate in some cultures. In others, singling out a learner to respond to a discussion prompt or give their opinion is considered good practice.

Perspectives on Teaching and Learning

In some cultures, lecturing and rote memorization are expected forms of teaching and learning. Encouragement to think creatively and independently, or draw one's own conclusions, may not be well-received. Elsewhere, experiential education, inquiry-based learning, and an enterprising curiosity are valued.

Aims of Outdoor Education

In some cultural contexts or political regions, outdoor education is seen as a way to build resilience in youth, in support of the national defense, for example from external military threats. Outdoor adventure programs are infused with elements of military training.

In other cultural environments, outdoor programming has distinctly different objectives, such as fostering environmental sustainability or supporting economic development (through training leaders in adventure tourism and outdoor recreation).

And in some groups, such as communities of refugees or immigrants from low-resource communities, the concept of the outdoors as a place to build resilience through challenge may be seen as misplaced. Individuals from these communities may have experienced extreme and prolonged hardship in their life, and time in nature would be valued for respite, with no need for the experience of additional challenge.

Outdoor Education and Religion

In some settings, outdoor education is seen as non-religious or potentially anti-religious, for example when multi-day programs are planned to run over weekends when some persons would normally participate in religious observances.

Elsewhere, religious beliefs about male-female hierarchy and roles, and gender identities, may have a significant influence on how outdoor education programs are conducted.

Likewise, respecting religiously sacred sites, omens, or spirits, and seeking permission from supernatural entities prior to travel to certain outdoor locations, is important in some cultural contexts, and largely absent in others.

Outdoor Education and the Family

In some cultures, it's normal for young people to engage in outdoor recreation or outdoor education programs by themselves, without other family members present.

In others, outdoor activity typically happens with the family. In this context, allowing a pre-teen or teenage person who identifies as a girl to join a non-girl-only group for an overnight outdoor experience would not be seen as the norm, and may result in parent/guardian resistance.

Learning Styles



Contemporary research suggests that individuals learn best when they have the opportunity to experience a variety of approaches to education: visual, auditory, kinesthetic, and so on.

Recent research findings support the idea that all persons learn from educational activities experienced through a variety of teaching or learning modalities. This is the case, even though individuals may have different preferences regarding approaches to teaching and learning.

The idea that one's preferred learning style is the primary way one can learn is no longer considered an accurate representation of how people learn. Instead, outdoor leaders should provide programming that learners can experience through a variety of modalities.

Learning modalities such as visual, auditory or kinesthetic should be employed when they best fit the subject matter, learning objectives, and environmental context. A learning modality should not be selected on beliefs about learner's preferred learning styles.

There is no credible evidence that learning styles exist. However, learners are different from each other--for example, in innate capacities, interests, background knowledge, and the potential presence of learning disabilities. Outdoor leaders should take those differences into account when designing and facilitating learning activities.

Training Peers Vs. Instructing Youth

Training adult peers is different from instructing young people.

Peers, such as colleagues, want to be—and should be—treated as equals, in many respects. They may experience frustration if the peer trainer acts aloof or superior on a training experience when trainees are struggling with something, such as navigation or deciding where to camp for the night.

Some differences between training peers and instructing young people:

Instructing	Training
Open outcome--more process than product; outcomes differ with student needs	Defined outcome--trainees need to know x, y, z
Disequilibrium	Equilibrium (comfort)
Few instructor-defined standards--fewer rules is better (e.g. may be okay to zigzag down the river)	Handbook full of previously defined standards (e.g. need to know efficient paddle strokes)
Goal: students learning about themselves: self-confidence, teamwork, respect for environment, compassion.	Goal: trainees learning how to instruct: teaching progressions, group dynamics, responding to student behaviors, risk management
Students seldom teach	Trainee expertise is often used
Attempt to form students into cohesive group without instructors	Colleagues collaborating to create outdoor education experiences for students
Instructors often provide motivation to learn	Trainees already motivated to learn
Students evaluate instructors	Trainers evaluate trainees also
Transference to home	Less transference--direct use of tools and knowledge

Special Section: Diversity, Equity and Inclusion in Outdoor Education

Considerations of diversity, equity and inclusion in outdoor education are gaining in visibility, and outdoor professionals should have the knowledge, skills, abilities and values to effectively support DEI efforts in this work.

DEI is a complex topic. Although this Special Section includes important details, additional guidance will help outdoor professionals create equitable and inclusive environments. A select set of references are provided in the For Further Information section, and outdoor leaders are encouraged to take advantage of other resources as well.

In this section, we'll cover basic principles and terms relevant to equity work. We'll discuss how inequity and exclusion show up in outdoor programs and in society generally.

We'll then address why issues of DEI are important, and explore some of the complexities of this work.

Next, we'll explore ideas on why inequity exists--and persists.

And we'll end with a look at what outdoor program administrators and field staff can do to make a more just world.

Basic Principles

Let's take a look at common terms used in discussing issues of diversity, equity and inclusion. We'll follow that by some hows, whys and complexities of DEI work.

Terms

Definitions of terms used in considering issues of diversity, equity and inclusion are fluid. There is little universal agreement on how best to describe concepts, and understandings of concepts are continuously evolving.

A variety of different names and acronyms are used in considering issues of diversity, equity and inclusion. In addition to those three terms, others, such as equal opportunity, belonging, access, and justice, are used.

The explanations below can be considered working definitions for the purpose of this discussion.

Diversity

We can consider diversity to mean "being composed of a variety of elements or qualities." In the DEI context, we recognize the because of these differences, persons wrongly experience systemic advantages or disadvantages.

Diversity is a characteristic of a group, not a person.

An incomplete description of dimensions of diversity may include the following:

Dimensions of Diversity			
Ability, handicap	Age	Caste	Color (skin)
Culture	Ethnicity, ethnic origin	Family/parental status	Gender
Gender identity, including gender expression	Genetic information	Geographical location	Marital status
Military/veteran status	National origin	Nationality	Political affiliation
Race	Religion, religious creed	Sex	Sexual orientation
Socio-economic (class) status			

The presence of diversity is not in itself positive without equity and inclusion.

Diversity may be considered to be not an end in itself, but a condition that occurs in the course of fostering equity and inclusion.

Equity

We can consider equity to mean “fairness; justice; freedom from bias or favoritism.”

Equity work recognizes historic and current systemic privilege and oppression (also described as advantages and barriers).

Equity, which connotes fairness, is different from absolute equality, which indicates an identical sameness, for example equal pay for all job positions.

The images below illustrate the difference:

Equity is sometimes considered to be the same as equal opportunity, or equality of opportunity.

Opportunity And Outcome

Equality of *opportunity* should be distinguished from—and does not necessarily lead to—equality of *outcomes*. This is because outcomes are influenced by factors such as individual choices and fortuitous events.

In fact, economists recognize that inequality of outcomes can have benefits, for example providing incentives for innovation and entrepreneurship that support economic development.

In addition, it's important to recognize that some inequality of opportunity will exist, due to socioeconomic differences brought about by differing life choices or chance events. This is considered reasonable. In this case, there is still a "level playing field."

What is not considered appropriate, however, is when inequality of opportunity is brought about by systemic barriers to access to opportunity based on factors like race, gender or sexual orientation.

A core objective of DEI work, then, is equity of opportunity, so that opportunities are accessible to the full diversity of populations, and not predominately to the privileged.

Inclusion

We can consider inclusion to be defined as "being open to and not excluding members or participants, particularly those historically disenfranchised, on the grounds of certain characteristics."

It is possible to have diversity without inclusivity.

Inclusion has been described as "what you do with the diversity you have." If diversity is being invited to the party, inclusion is being asked to dance.

The aim of inclusion, then, is a welcoming environment—both in the process of taking steps to join, and in the experience of participating.

Privilege and Oppression

The concept of privilege and oppression recognizes that individuals are systematically excluded from access to opportunity based on absence of in-group characteristics, without moral justification.

In addition, benefits of opportunity are unearned, and sometimes unrecognized or denied.

For example, when the USA was formed, only those who were white, male, property-owning, and of the Protestant religion were able to vote.

Characteristics that generally confer privilege today include:

- Member of dominant race
- Male
- Heterosexual
- Cisgender

- Able-bodied
- Member of dominant religion
- Having high financial security

Let's look specifically at four of these dimensions: race, sex, sexual orientation, and gender identity.

Race

Race is a categorization of people on the basis of physical characteristics or shared ancestry. Race is an arbitrary social construct, not based on or supported by biology or genetics. It's not considered to be a biologically valid concept.

The idea of dividing people by race is deeply connected to racism, the idea that individuals of one race are superior to those of another. This has been used for hundreds of years in justifying oppression.

Race is being replaced with other, less bias-prone ways of grouping people.

Sex

Sex refers a set of biological attributes in humans and other animals such as chromosomes, reproductive/sexual organs, and genes.

Sex indicates a category a person is assigned at birth, typically based on the appearance of their external anatomy.

Sex is not binary. A person may have the genes that people may associate with being male or female, but their reproductive organs, genitals, or both may look different.

A person's sex is typically categorized as male, female or intersex.

Sexual Orientation

Sexual orientation is an enduring emotional, romantic and/or sexual attraction to another person.

Sexual orientations can include heterosexual, lesbian, gay, bisexual, queer, asexual, and others.

Gender Identity

Gender identity is a person's internal, deeply held knowledge of their own gender.

A person's gender identity is not visible to others, although a person's gender expression may be.

There are many different gender identities, including female; male; transgender; gender neutral; non-binary; agender; pangender; genderqueer; two-spirit, third gender; all, none or a combination of these, and many more. There is no fixed number of gender identities.

Sex, sexual orientation, gender, gender identity, and gender expression are all different.

LGBTQIA+ is an abbreviation for lesbian, gay, bisexual, transgender, queer or questioning, intersex, asexual, and more. These terms are used to describe a person's sexual orientation or gender identity.

Gender

Gender identity is different from gender. Gender is a person's social and personal identity as male, female, or another gender or genders that may be non-binary.

Gender is a social and cultural construct of norms, behaviors and roles. Gender exists along a continuum, and varies between societies and over time.

Gender expression

Gender expression is how a person chooses to express their gender identity, often through behavior, pronouns, name, clothing, hair style, makeup, or voice.

Gender expression may or may not conform to socially defined characteristics typically associated with being either masculine or feminine.

How Inequity and Exclusion Manifests

Inequity and exclusion show up in outdoor programs in several ways:

- Reduced opportunity through discrimination generally
- Lack of representation in the outdoor industry
- Outdoor programs not being culturally relevant
- People feeling unwelcome and unsafe in the out-of-doors

We'll look at each of these in turn.

Reduced Opportunity Due to Discrimination in General

For many years, individuals have been excluded from jobs in the outdoor industry (and other places) based on race, sexual orientation, or other characteristics.

Individuals—and their families, over multiple generations—have also experienced reduced economic opportunity due to discrimination on the basis of race, sexual orientation, national origin, religion, or other factors.

This leads to not being able to afford outdoor recreation experiences, participation in outdoor education programs, or enrollment in organizations (such as independent schools whose primary target audience is the privileged) offering outdoor programs to their registrants.

Representation

People who are not of the dominant race or religion in a given area, who are female, who are not heterosexual, or whose gender identity is different from dominant gender identities, often do not see people like them represented in the outdoor industry.

Advertisements for outdoor gear and promotional material for outdoor programs often appear to show cisgender males of the dominant race.

Likewise, employees of parks, outdoor education organizations, and outdoor recreation programs often are disproportionately represented by dominant identities.

This can lead to a chilling effect in outdoor program participation, where individuals look at an organization, group, or activity, and say “this is not for people like me.”

Cultural Relevance

Outdoor programs are often designed to be relevant for dominant social groups, to the exclusion of others.

For example, in some cultures, outdoor recreation tends to happen with the whole family. There might be significant reluctance to sending a teenage daughter off to an overnight event with an unknown group of young adults of multiple sexes. Yet that is precisely the structure of many outdoor programs.

Organizations that see nature as a place where challenges are overcome through grit and adventure may not resonate with indigenous perspectives on relationship with the land.

Pre-experience paperwork and orientation meetings provided only in the dominant language of the region may not be accessible to the immigrant parents or guardians of prospective youth participants.

Unwelcome and Unsafe Outdoors

Individuals who are members of groups that have experienced systemic discrimination—such as racial minorities and those in the LGBTQIA+ community—have been subjected to a disproportionately high level of harassment, abuse and assault in the out-of-doors. Being in nature also may mean being away from their community and no longer having safety in numbers.

Consequently, some may feel unwelcome and unsafe in the out-of-doors, including when taking part in organized outdoor recreation or outdoor education activities.

Why This Is Important

Paying attention to issues of diversity, equity and inclusion in organized outdoor experiences—and anywhere else—is important, on a moral basis. It's simply not right to exclude others or reduce access to opportunity on the basis of characteristics such as sex, race, religion, sexual orientation, or gender identity.

In addition, widespread social inequity can cause economic and social instability. An equitable society, through allowing the talents and capacities of all persons to fully unfold, supports economic development, and the widespread well-being and prosperity that brings.

Equity Work Is Complex

Understanding and effectively addressing the many causal factors of inequity is challenging on intellectual and practical levels.

Comprehensive, well-developed causation models of inequity are not thoroughly described.

Equity also involves a certain amount of subjectivity. Discrimination is sometimes hard to detect and assess; determining the magnitude of reparations or related efforts is not always clear-cut; deciding where on the continuum of affirmative action preferential selection procedures to arrive involves judgment calls.

Understanding causes and effective remedies of inequity involves considerations of morality, philosophy, economics, evolutionary biology and human behavior, sociology, anthropology, and complex socio-technical systems theory.

Critics say that outdoor education, in some places, has structural links to inequity. Outdoor adventure programs framed on motifs such as the hero's journey and the individual conqueror (of mountain peaks or fears) cater to male archetypes. Rugged adventures in wild spaces are often led by male leaders from the dominant culture. And organized outdoor education and recreation experiences, as an often discretionary activity, have been critiqued as having been built for the middle and upper classes of the dominant culture.

Facilitating candid investigations of one's own unconscious bias, and how one has benefited from inequity and exclusion, can elicit powerful, even aggressive, forces of resistance and denial. (The acclaimed book White Fragility describes instances of this.)

DEI issues vary widely by region. For example, white supremacy is a major issue in North America, but less so in Taiwan, with its history of 20th century occupation by imperial Japan.

Issues, norms, laws, concepts and best practices relating to fostering equity and inclusion are ever-changing.

Even for an outdoor program that genuinely seeks to operate in an equitable and inclusive way, it is extremely difficult to escape all elements of society that are built on unearned privilege and oppression. Operating a financially sustainable outdoor program that doesn't participate in inequitable economic systems—from supply chains to funding sources and the demographics of market demand—is challenging at best.

Humanity has figured out how to put a person on the moon. But, due at least in part to these complexities, we have yet been unable to figure out how to overcome the resistance to establishing an equitable, inclusive world.

A Caveat

Also due to these complexities, the material presented here is a summary only, and not a comprehensive account of DEI in outdoor programs. Readers may not agree with the views expressed here, and this content may not be up to date or completely correct. For a fuller understanding, other resources should also be consulted.

Why Inequity Exists

Efforts to advance diversity, equity and inclusion in outdoor programs are most effective when outdoor professionals have a close understanding of why intelligent, capable and rational persons may decide that it is to their advantage to not support DEI in outdoor programs, or may decide to actively work against those efforts.

From Accumulation to Sharing: A Spectrum of Success Strategies

One can consider that there is a continuum of approaches than a person—or other organism—employs in order to find success.

Accumulation. On one end of the spectrum, the strategy is to accumulate as many resources as possible. This may include accumulating far more resources than one might reasonably need, and accumulating resources as the expense of others.

This reflects the idea that one can maximize the probability of success by assertively accumulating as many resources (money, social status, information, influence over policy, or other forms of power) as possible.

Sharing. On the other end of the spectrum is supporting a system where everyone has access to the resources to get their needs met.

This recognizes the value in collaboration and sharing. The tendency to share helps lead to forming civilizations, political entities like nations, and organizations.

At any given moment, each person decides when and how much to emphasize or use each approach.

The psychologist Carl Jung and others have referred to balancing these two approaches as "individuation versus togetherness."

Different types of organisms balance these two differently; some species are more social or individually oriented than others.

Within humans, different groups and cultures balance these two approaches differently.

Power

We all want power. We want power in all its forms: for instance, money, laws that benefit us, social status, the ability to influence decisions, and respect from others.

This is natural, normal and adaptive. Accumulating power is in our own self-interest. Generally, in terms of evolutionary biology, the more power one has, the more likely one is to survive and thrive.

Accumulating resources is in our own self-interest. One can consider that all human behavior is ultimately self-interested—in the short term or long term, directly or indirectly.

People tend to accumulate more power, more resources, than they might reasonably require to meet their needs, and to support the well-being of those close to them—family members, friends, and those who look and act like them.

It's useful to recognize that, as an adaptive strategy, this works.

Political and business leaders who accumulate money, fame, and millions of supporters gain evolutionary advantage. This advantage is found in terms of mate selection; offspring; access to medical, legal, educational and recreational resources, and in other ways.

This is visible in the natural world as well. For example, the largest, strongest and most aggressive male elk controls a harem of female elk, excluding other males from reproductive access, and helping ensure their evolutionary advantage.

Othering

One approach humans use to accumulate power is by 'othering'—excluding those who are different, who don't fit in one's group. This tendency towards tribalism or clannish behavior, like other means of accumulating power, is rational when applied within reasonable limits, such as exercising caution with strangers.

However, like any other form of retaining power, this tendency can be taken to excess, for example when an organization led by men of the dominant race preferentially hires men of the same race for managerial positions.

Creating the Conditions to Support Equity

How do we establish an environment that supports equity?

Doing so requires fostering conditions such that rational people decide it's to their advantage to support equity and inclusion—to give up power, no matter how unnatural that may seem.

Sharing with others has to be more attractive than systemically excluding others from opportunity.

This applies whether the context is in an outdoor program, or in society more generally.

How does this come about?

Exhortations to be compassionate and collaborative have limited effectiveness. Outdoor programs seeking to advance equity can look to other instances where members of a disenfranchised group were successful in fostering equity and inclusion. Examples include:

- The establishment of individual rights and justice through the Magna Carta in 13th century England, following pressure applied by barons to the King;
- Civil rights movements leading to laws prohibiting discrimination against women, those of non-dominant races, or members of other disenfranchised groups, using marches, rallies and other forms of activism, and
- Environmental movements involving demonstrations, protests, media messages and other advocacy in support of those disproportionately harmed by ecological degradation.

An individual outdoor program has limited influence over large-scale social practices at a national or regional level. Organizations and individuals seeking to advance equity can join with others and do as much as reasonably practicable to have the greatest positive influence in supporting diversity, equity and inclusion in outdoor programs.

When powerful groups identify that it's in their best interest to support equity, forward progress is possible. For example, large corporations have advocated in support of affirmative action regulation promoting diversity, because a diverse workforce is seen as good for the economy and good for business. And political leaders, even those catering to the interests of the powerful, have supported equity when sufficient political support for it is evident.

Fostering Equity

Taking effective action to advance diversity, equity and inclusion in outdoor experiences is not easy.

Outdoor leaders have a good understanding of how to do certain things, like effectively teach technical outdoor skills like navigation and campcraft.

However, instruments for achieving broad and sustained equity have yet to be successfully identified and widely applied.

That said, there are examples, such as in Nordic countries and New Zealand, where relatively equitable societies have been successfully fostered.

And there are ways in which outdoor leaders and program administrators can further the cause of equity. Outdoor educators can, indeed, help bend the long arc of the moral universe towards justice.

Moderating Tendencies Towards Inequity

Organized movements to support rights and justice have been effective in more equitably apportioning power. Movements to outlaw slavery, permit women to vote, prohibit race-based discrimination, and

hold sexual harassers accountable have been effective (if imperfectly so) in various geographies in relatively recent history.

And outdoor education programs that support character development, compassion, and an ethos of teamwork can, by the very work they do, foster the development of future leaders who can diminish systems of privilege and oppression present in their sphere of influence.

Let's now look at what outdoor programs can do to specifically support equity and inclusion within their own organization and program operations.

Outdoor Program Managers

Administrators of outdoor recreation, outdoor education, and other outdoor-centric organizations have significant influence on the presence or absence of equity and inclusion in their institution. We'll look at six different areas in which this can occur.

First, Look Within

Change starts at home. In order for outdoor programs to deeply exhibit equity, executive management has to do their own work.

Many who work professionally in outdoor programs—at any level—are beneficiaries of inequity. This may include privilege with regards to:

- Access to education, healthcare, and economic opportunity
- Preferential treatment by law enforcement authorities
- Greater levels of safety, in one's home community, while traveling, or in the out-of-doors
- Relative freedom from harassment and abuse
- Intergenerational transfer of wealth

Whether we admit it to ourselves or not, we may be reluctant to relinquish those unearned privileges. Doing so involves giving up power, and that's something that we are often not eager to do.

It's important for outdoor program administrators to understand their role, on a personal, individual basis, in perpetuating systems of privilege and oppression. Leaders will be most effective in supporting equity and inclusion when they understand their own unconscious bias, their own unearned privilege, and how these continue to benefit them.

It's common for seemingly charitable and well-meaning individuals to consciously or unconsciously resist exploring and addressing their own bias and privilege. This can show up in myriad ways, for example:

- Saying, “I don’t see color.” (Failing to recognizing existing barriers to racial discrimination can have the effect of perpetuating systemic racial inequity.)
- Aggressively denying one’s potential bias and privilege; attacking those who support efforts of individuals to explore them. (In white-dominated groups, this is described as ‘white fragility.’)
- Performative behavior where one claims to support equity, but where actions show differently. Examples of this insincere virtue signaling include gaywashing and greenwashing.
- Unconscious bias, where one gives preference to those within the in-group, without conscious awareness of this discrimination.
- Claiming that the presence of a small scholarship fund or the hiring of a few people from a racial minority “checks the box” of demonstrating equity, and that no further action is needed.

Overcoming this resistance and self-deception can be difficult.

A number of nonprofit or charitable outdoor programs have hired lower-level “DEI coordinators.” However, when these individuals raise issues such as gross inequities between the pay of field staff and senior executives, or disproportionate representation at executive and governance levels by members of groups in power (such as males, or dominant racial or ethnic groups), resistance is encountered. The DEI coordinator is told to focus on promoting a small scholarship fund, or training field staff on inclusive pronouns. If the DEI coordinator persists in raising issues of systemic inequity, they are marginalized, pushed out, or fired.

In order for business leaders to recognize and overcome internal conscious or unconscious resistance, it’s important for them to have a strongly held value that they will be better off, and the world will be a better place, when people have equitable access to opportunity.

However, this can be challenging to achieve, as executives are often the ones with the most unearned privilege, and who are more likely to benefit from the status quo of inequitable systems of privilege and oppression.

The likelihood that any change effort will be successful is strongly influenced by the views of those who have the most power. If outdoor program executives and governance leaders have done their own work, and provide strong and enduring support for building equity and inclusion, the efforts to advance DEI in any organization are much more likely to succeed.

Live Equity in the Organization

In addition to staff doing their own work to understand their role in sustaining inequity or equity, outdoor programs sincerely interested in DEI should look to embed equity and inclusion into their business operations.

For example, the compensation of senior executives at a well-financed outdoor program could be not disproportionately greater than compensation of field staff.

Field staff could be offered a living wage and a sustainable work schedule, so that an outdoor profession is an accessible career choice for those of limited means.

Staff—especially at the executive and governance-level leadership levels—could proportionately represent the community they serve, without disproportionate representation by dominant groups, such as males, or members of the dominant race, religion, national origin, or citizenship.

Support Systemic Change

To the greatest extent practicable, outdoor programs can work to dismantle systems of privilege and oppression in society at large.

Organizations can support lobbying and advocacy efforts, including by industry associations, to change government policy, regulation, and law, to better support systemic equity and inclusion. These efforts can address issues including affirmative action, equitable taxation, access to healthcare and education, purchasing preferences, and anti-discrimination, among others.

Organizations can work for a sustainable environment and to address the global climate crisis. Environmental issues often disproportionately affect the most vulnerable and least privileged populations, and can be viewed in part as political problems of inequity.

Outdoor education providers can consider how systemic inequity shows up in education systems, specifically with respect to public as opposed to independent/private educational institutions.

And institutions providing outdoor programming can seek to develop and implement a business model that does not take advantage of systemic inequity. For example, an outdoor program provider could seek alternatives to their target market being participants from educational institutions where access is restricted for those without unearned privilege such as intergenerational family wealth.

Change Management in the Larger Organization

Many outdoor programs are a part of a larger institution such as a university, government entity, or healthcare system. Supporting DEI efforts in the larger organization is often a complex change management process.

Since outdoor program managers don't have formal authority over policy in the overarching corporate entity, diplomatic persuasion is apt. Helping upper administrators understand how it is to their advantage to advance DEI may be effective.

Telling the story of why building an equitable institution is the right choice, shaping the narrative to lead those in power to value equity and inclusion, and building strategic alliances with others who can support your aims can help DEI efforts succeed.

Making change in the absence of formal authority is a long process featuring incremental steps. But success is possible, although not guaranteed.

Administrative Strategy

Let's look at some over-arching, policy-level approaches that outdoor program leadership can employ to build a culture and practice of equity in their institution.

Prioritize managerial action. Leaders can recognize that the majority of DEI work in an outdoor programs happens at management level, not in the field. This work involves the organization's business model, target market selection, budget priorities, training plans, policy and procedure development, staff recruitment strategies, and corporate culture. The burden of supporting equity and inclusion should largely rest with administrators, rather than field staff, who rely on the management structures and culture established by those at upper levels to help bring DEI in the field alive.

Make significant, sustained investments. Effective change requires sustained and committed leadership from those who have the most power in the organization—the CEO, owners, and/or Board members. Substantial time, money, and political capital are required in order to provide effective training, culture change, and the momentum to address entrenched denial and resistance.

Suffuse DEI enterprise-wide. Consider issues of diversity, equity and inclusion as fundamental to the organization. DEI should not be cast as a special one-time initiative or side project, but the work should infuse all aspects of the enterprise.

Engage everybody. All personnel, including every employee and volunteer, should be engaged in the organization's DEI work. DEI efforts aren't an isolated project of a lone mid-level manager, but involve all staff.

Consider affirmative action. Affirmative action involves preferential treatment for historically or currently disenfranchised populations, including for the purpose of remedying prior disenfranchisement. This can apply to activities such as selective admissions, hiring, and elsewhere. Norms and laws regarding affirmative action, which vary widely by geography and over time, should be taken into consideration.

End legacy admissions. For educational institutions that enroll generations' worth of learners, discontinuing preferential admission for children of alumni increases equity in admissions.

Seek tuition/fee equity. Scholarship funds can serve either as a force for equity, or, when limited, an example of check-the-box tokenism that can perpetuate exclusion. Fully need-blind admissions can support equitable participation. Elimination of fees—such as lab fees, equipment rental expenses, or the like for field courses and travel experiences—on the basis of need is also beneficial. Budgetary support for programming for those from less-privileged communities should be based on durable sources, rather than depending on impermanent grant awards or other unreliable support.

Support equity in communications. Individuals from less-privileged communities may not have awareness of outdoor recreation or outdoor education opportunities. Even if they do, they may feel that participation is not something that they can afford, is culturally appropriate, or will be welcomed. This obstacle can be reduced by extensive, thoughtful and sustained outreach to members of groups that have historically experienced, or currently experience, barriers to participation in outdoor experiences. The nature of those communities varies geographically, but typically includes those who don't identify as male, those with disabilities, and those not of the dominant race, religion, citizenship, sexual orientation or gender identity.

Just as some outdoor programs recognize that they operate on lands unjustly taken from traditional indigenous owners, organizations can stay appropriately humble and grounded with respect to other dimensions of equity by recognizing and publicly acknowledging that they are a participant in inequitable economic systems.

Organizations can avoid performative communication—messaging made or done for show, to bolster one's image. For instance, rather than simply issuing a statement that the institution supports equity and inclusion, the organization can specifically describe the steps it takes in support of DEI—and the unfinished work it seeks to address.

Promotional materials can feature diverse populations. However, outdoor programs be cautious about doing this if it is not an accurate reflection of actual program participation.

Institute equity in personnel management. An outdoor program can replace unpaid internships with paid experiences, to make trainings accessible to persons from all walks of life. A wide variety of inclusive recruiting and hiring policies and practices can be employed, including benefits such as generous parental leave.

Seek supply chain equity. An organization can seek to purchase products that are produced, transported and distributed with environmental sustainability and social justice throughout the supply chain, so far as is reasonably practicable.

Use equitable enrollment materials. Outdoor programs can use inclusive language in gear lists, for example by listing 'menstrual products' rather than 'feminine hygiene products,' out of recognition that persons of multiple genders can menstruate.

Application materials can be provided in the language of participants and their parents/guardians. This is particularly important when adult immigrants may not speak the locally dominant language (though their children may).

Before an outdoor program commences, the organization can gather information about cultural/faith needs regarding topics such as clothing or time for prayer.

Application or enrollment materials can provide non-binary gender option on medical and other forms, if asking about gender. For example, gender options could include Female, Male, Transfemale, Transmale, and Other.

Advance equity through training. Consistent, regular, high-quality staff training can foster the knowledge, skills, abilities and values necessary to support equity. Training is most effective when it occurs at all organizational levels, especially at the top. Training can begin by helping staff understand

their own unconscious bias and experience of unearned privilege, before moving on to covering operational tactics. Repeated trainings are more effective than a brief, one-time awareness workshop.

Tactical topics can include information on DEI issues and practices; mental health and psychological first aid, and attributes and needs of all populations, including participants receiving scholarship awards.

Trainers should expect to encounter resistance and denial, and have the tools to address these.

Program Design

Outdoor programs can incorporate design elements that can support equity and inclusion. A selection of those elements is described below.

Design for all abilities. Programs can choose activities, equipment and other elements that support participation by individuals with all levels of ability. Staff can be trained in how to work effectively with persons of varying abilities. Facilities and experiences can meet accessibility standards (such as, in the USA, those described in the Americans with Disabilities Act, and similar legislation in other regions).

Adaptive programming requires specific expertise. Outdoor programs can seek support from institutions with that expertise. (In the USA, examples include Move United, Wilderness Inquiry, Breckenridge Outdoor Education Center, and CorpsTHAT.)

Reflect multiple ways of learning. Outdoor education activities can include oral tradition, storytelling, and expressive arts as modalities of teaching and learning, going beyond writing, reading, lectures, and conventional field studies.

Include Traditional Ecological Knowledge. Outdoor programs, particularly those with an environmental education focus, can include knowledge from native or indigenous people, as well as information obtained from contemporary environmental science.

Practice inclusive multicultural engagement. Programs that engage multiculturally should do so without committing cultural appropriation. Cultural appropriation occurs when members of a dominant culture take, without consultation and permission, elements from a culture of people who have been systematically oppressed by that dominant group. Cultural appropriation can cover up historical oppression, and can perpetuate falsehoods and harmful stereotypes about other cultures.

Give full land histories. Outdoor programs can tell the full stories of the parks, wilderness areas, and other natural spaces in which their activities are held. In many places, this includes the forcible and illegal eviction of native or indigenous groups from the land by colonizing forces, in order to create parks, nature preserves or other spaces. This also can include the history of outdoor movements and outdoor associations, and their roots in racism and oppression.

Telling the full story of lands goes well beyond offering brief narrative land acknowledgements. These acknowledgements, depending on how they are given, can range from the powerful and sincere to the performative.

Educational content on the history of the land from the perspective of equity and inclusion—or their absence—can be included in staff training materials, curriculum documents, and participant learning activities.

Use diverse reading sources. Inspirational quotations, personal histories, role model descriptions, and other reading materials made available to program participants can be selected from a wide range of individuals. Authors and subjects should not be primarily from dominant groups, for example straight cisgender males of the dominant race.

Use Inclusion Incident Reports. Incident reports documenting incidents of exclusion and inequity can be systematically employed, in addition to those describing illness, physical injury and physical property damage.

Procedure development and training should accompany Inclusion Incident Report forms. Report should be systemically responded to by both program administration (on the policy level) and field staff.

Avoid tokenism. Organizations can engage substantial numbers of staff and participants from less-privileged groups, rather than include just one or small number of individuals from such a group. The presence of one or two members from a group experiencing systemic exclusion from opportunity should not be seen as indicating that the organization's work to support equity is done. Group members should not be asked to act as spokespersons the group, or seen as representative of all members of their group.

Operating Procedures

Practice inclusive hygiene talks. Outdoor hygiene discussions, often held at the beginning of an outdoor or backcountry experience, include topics such as menstrual products, changes in periods, and cleaning and infection control. These should be provided to all participants, not just those who appear female. This is done in recognition that one's outward appearance does not necessarily correlate to specific anatomy, and that persons of any gender can menstruate.

Intervene with microaggressions. Staff should receive written procedural guidance and training regarding how to appropriately intervene, and how to help others learn to intervene, when microaggressions are observed.

Microaggressions are remarks, questions, or actions, often brief, which, often subtly or obliquely, intentionally or unintentionally exhibit and perpetuate biases against marginalized groups. (Microaggressions are contrasted with overtly aggressive actions such as physical violence against others.)

Examples of microaggressions including saying "you don't look gay," or a woman being repeatedly interrupted by men.

Elevate quieter voices. Staff can encourage individuals who—for reasons of age, sex, race, culture or otherwise—tend not to speak up in groups, to do so. Staff can intentionally create environments so that their voices are fully included, along with the voices from, for example, loud, assertive males of the dominant race or culture.

Ask for feedback. Staff can be supported, by way of a standardized written procedure, to encourage participants to give staff, as well as other participants, constructive feedback on whether or not speech and behavior is interpreted as inclusive or not.

Use inclusive language. Staff can role model the use of inclusive language, and encourage others to do so. This may include employing the information below.

It can be useful to recognize that gender is different from chromosomal sex, and that people choose the gender with which they identify.

As a consequence, instead of using 'women' to refer broadly to people who have periods, one can use terms such as 'people who have periods,' or 'people who menstruate.'

Likewise, instead of referring to 'feminine hygiene product,' a term such as 'period product' or 'menstrual product' can be used.

Pronouns. Not everybody identifies as a woman or girl, or as a man or boy. There are genders other than male and female. Some people do not identify with any gender, may fluctuate between genders, or possess qualities of multiple genders.

When we speak about another person, we often refer to that individual using pronouns. These pronouns often imply the person being referred to has a certain gender—"he" referring to a boy or man; "she" to a woman or girl. This is not always accurate or appropriate.

In addition, if we make an assumption about a person's gender—correct or not—based on their appearance, and refer to that person with the pronoun we associate with that gender, this can be harmful. That's because it implies that a person has to look a certain way to demonstrate a particular gender.

Therefore, it can be respectful to share the pronouns you use, for example by introducing yourself by saying, "Hi, my name is __; I use she/they pronouns." Once you've shared your pronouns, you might invite the person(s) with whom you're interacting to share theirs.

Similarly, to avoid making assumptions about a person's gender, 'they' can be used as a singular pronoun.

Gender-neutral adjectives, such as Latinx in place of Latino/Latina, can be used. (Gender-neutral language options exist in multiple languages, including Spanish, Arabic, Hebrew, German, French, and Swedish.)

The term 'any gender' can be used, rather than 'either gender,' 'girls and boys,' or 'female and male.'

Gender-neutral titles such as Ms. for a self-identified woman, and Mx. as a gender-neutral option, can be used.

Unless you know the gender identification of a person, instead of using the terms 'woman,' 'man,' 'girl,' or 'boy,' a term such as '…whom I perceive to be female/male (or girl/boy)' can be used.

Descriptions can avoid referencing men as the standard. Examples include:

Gender-Inclusive Reference Terms	
Use a term such as this:	**Instead of this:**
Department of Labor	Department of Manpower
Worker's compensation	Workman's compensation
Humankind	Mankind
Actor	Actor/actress
Chair or chairperson	Chairman
Folks or everybody	Guys

Staff can use language such as "As a self-identified woman/man…" at the beginning of experience to set the tone for inclusive language.

Staff can acknowledge and use the terms of people of any ability use to self-identify (for example, Deaf person, person who is deaf).

Offer inclusive overnight accommodations. Both single-gender and gender-neutral overnight sleeping accommodations can be provided, for example in tents or other shelters. Participants, parents/guardians of minor participants, and leaders of intact client groups (such as schools) should be consulted in advance to understand and account for their perspectives and preferences. There is no one best procedure for all contexts.

Offer inclusive bathroom facilities. Gender-neutral bathroom/latrine facilities can be provided. The same goes for changing rooms.

Support culturally-specific hygiene needs. Staff should have the training and access to materials necessary to support culturally-specific hygiene or grooming practices, such as skin and hair care.

Practice ability inclusivity. Staff can respect persons of all abilities by, for example, not assuming that a person with a disability needs assistance, and not interrupting or finishing the sentences of a person with a speech impairment.

Outdoor Educators

Outdoor leaders can invest in doing their own work to understand their own unconscious bias, unearned privilege, and ways in which they are engaged in systems of privilege and oppression.

As part of this, outdoor leaders—just as with program administrators—can benefit from working to understand and overcome conscious and unconscious self-deception regarding their participation in inequity and exclusion.

Field staff working directly with participants typically have little formal authority in an organization. To effect institutional change, front-line staff can advocate for management to foster an inclusive culture, be role models of equity and inclusion, and provide information, training, and structures to support DEI efforts.

Outdoor leaders should understand and follow the organization's DEI-related policies and procedures, along with best practices for fostering equity and inclusion as an outdoor educator.

Field leaders can role model equity by taking on duties that break down gender stereotypes. For instance, a female instructor could teach rescue skills, while a male outdoor educator engages in cooking and cleaning.

Outside of the job setting, an outdoor educator can consider working to change culture by voting, donating to organizations working to support equity, or by engaging in activism.

All Persons

Any individual interested to advance diversity, equity and inclusion in outdoor programs can connect with and support organizations facilitating outdoor experiences for members of groups who have experienced barriers to experiencing the out-of-doors.

(In the USA, examples of these groups include Outdoor Afro, Latino Outdoors, Black Folks Camp Too, and Outdoor Asian.)

Individuals who are of the dominant race, sex, sexual orientation, caste, religion or national origin, or who have other unearned privilege, can be an ally to others engaged in equity work.

Conclusion

Building a world—or an organization, or a group in the field—that fully supports equality of opportunity, without systemic barriers to opportunity based on factors like race, gender or sexual orientation, is challenging.

Individuals and outdoor programs have limited ability to change values and practices outside of their immediate sphere of interest. And norms, practices, and circumstances are always evolving.

It's often a good idea, then, to focus on addressing the issues around which one has some influence, and to identify ways to find serenity despite the presence of inequities out of one's capacity to eliminate.

You can't change everything, but you can change something. By taking steps—large or small, individually or with others—to foster a more equitable and inclusive world, you are making the world a better place.

Limitations

Education is an enormously complex subject. Best practices are continually evolving. What is considered appropriate today may not be considered acceptable tomorrow.

The material presented here is necessarily brief, and is not intended to be exhaustive. Some may become outdated soon after publication. Although not all outdoor leaders are able to pursue advanced university degrees in education, all outdoor educators may benefit from further studies in education, to the greatest extent practicable.

SUMMARY

1. Education is the process by which learners acquire knowledge, develop skills, gain abilities, and clarify values.

2. Outdoor education is education in or about the outdoors.

3. Environmental education is a learning process designed to lead to a sustainable and equitable future.

4. Interpretation is a learning process focusing on natural and cultural sites and objects.

5. Curriculum is a plan for learning. It includes goals, lesson plans or activity plans linked to the goals, and assessments of goal achievement. Curricula are developed using methodologies such as experiential education, adventure-based learning, inquiry-based learning, progression, including constructivism.

6. Learning goals refer to knowledge, skills, abilities and values.

7. Lesson plans include an introduction, body, and conclusion, and are associated with goals and assessments.

8. Assessments can evaluate the learning process and the end results, and range from informal to scientifically accurate.

9. Experiential education involves direct experience and focused reflection.

10. Adventure-based learning employs challenge and uncertainty to meet educational objectives.

11. Inquiry-based learning involves learners posing questions and attempting to answer them.

12. Progression in education refers to intentionally sequencing activities, having learners use a series of cognitive processes, and connecting learning to prior knowledge.

13. A syllabus is an outline of educational activities, often in chronological order.

14. Learners should have educational experiences that are age-appropriate and culturally appropriate.

15. The concept of learning styles is considered no longer credible.

16. Training peers requires different approaches than instructing youth.

17. Steps should be taken to support diversity, equity and inclusion in outdoor programs.

FOR FURTHER INFORMATION

On education:

- Dewey, J. (1938) **Experience and Education**, New York, MacMillan
- Piaget, J. (1964), Part I: **Cognitive development in children**: Piaget development and learning. Journal of Research in Science Teaching, 2: 176–186
- Vygotsky, L. (1986). **Thought and Language**, MIT University Press

Seminal texts on education theory

Luckner, J. L. and Nadler, R. S. (1997) **Processing the Adventure Experience: Theory and Practice**, 2nd Ed. Dubuque, IA: Kendall-Hunt.
Influential text on adventure education

North American Association for Environmental Education
naaee.org
Professional association for environmental education

Association for Experiential Education
aee.org
Professional association for experiential educators

BEETLES Project (Better Environmental Education, Teaching, Learning & Expertise Sharing): Science and Teaching for Field Instructors
beetlesproject.org
Experiential field science learning resources for youth programs, from University of California's Lawrence Hall of Science

Riener, C., & Willingham, D. (2010). **The myth of learning styles.** Change: The magazine of higher learning, 42(5), 32-35.
Critique of the concept of learning styles

National Association for Interpretation
Professional association for natural and cultural heritage resource interpretation
interpnet.com

On diversity, equity and inclusion:

Brown Girls Climb
browngirlsclimb.com
Social enterprise supporting equity and justice in the outdoors

White Men as Full Diversity Partners
wmfdp.com
Diversity and inclusion consultants with an outdoor connection

Carolyn Finney

carolynfinney.com
Resources on DEI and the outdoors, including the book *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*

The Avarna Group
theavarnagroup.com
resources for DEIJ in outdoor and conservation contexts, including extensive listing of resources

Justice Outside
justiceoutside.org
Organization advancing racial justice and equity in the outdoor and environmental movement

Implicit Association Test from Project Implicit
implicit.harvard.edu/implicit/takeatest.html

Disability Language Style Guide from National Center on Disability and Journalism
ncdj.org/style-guide

Evidence-based tools to address bias
biasinterrupters.org

Consortium of Higher Education, LGBT Resource Professionals
lgbtcampus.org
Resources for supporting inclusion in education, including providing suggested best practices for supporting trans* students

Cultural appropriation information from Simon Fraser University
sfu.ca/ipinch/sites/default/files/resources/teaching_resources/think_before_you_appropriate_jan_2016.pdf

Diversify Outdoors
diversifyoutdoors.com
Coalition supporting diversity in outdoor recreation and conservation

Learning Activities

REQUIREMENTS

To complete the education module, participants must:

1. **Reading.** Read the "Goals" and "Subject Matter Information" sections of the Education content

2. **Discussion.** Respond thoughtfully to discussion prompts as assigned by your instructor.
    a. These discussion prompts may be addressed in one or more formats, as specified by your instructor. Formats may be online asynchronous discussion forums, personal journal, group journal, or live real-time group discussion.
    b. Specific discussion prompts may be assigned by your instructor. Four discussion prompts that may be used include:
        i. Outdoor education experiences often have difficult-to-measure objectives, such as character development, teamwork skills, compassion, or resilience. How do you approach understanding if your educational efforts are effective?
        ii. Classic education practice involves developing comprehensive lesson plans for each learning activity. How does this work when the activity is a day-long or multi-day outdoor travel experience, for example by paddling, bicycling, or hiking, without highly structured academic lessons?
        iii. In what ways do you experience and benefit from systems of privilege and oppression? What is your emotional response when you consider that question?
        iv. Turnover in outdoor education and recreation positions is sometimes high, due to issues including long work hours, low pay, seasonal jobs, and separation from family and friends. Given this, what level of mastery of pedagogical knowledge and complex education skills is appropriate for outdoor professionals?
3. **Syllabus.** Write a complete syllabus for an outdoor program.
4. **Lesson Plan.** Write a comprehensive, detailed lesson plan for an outdoor activity. Integrate best practice principles for experiential education. Include learning objectives, activities, and a description of how outcomes achievement will be assessed. In addition, describe in one to two paragraphs the methodologies to be employed in lesson delivery, and how they will be employed.
5. **Lesson Presentation.** Conduct your lesson/activity. Complete the planned activities and the assessment of outcomes achievement.
6. **Group Activities.** Participate in any group activities (instructor presentations, projects, etc.) that are established by your instructor as part of the learning experience.
7. **Exam.** Complete the written Education exam.

VENUE

All learning activities in the Education module can be conducted online, in a classroom, or in the field, or in any combination of those settings. Delivery of the lesson/activity in an in-person format is preferred over delivery online.

Assessment

Successful completion of the Education module will be evaluated according to the following criteria:

1. **Discussion.** Participant engages fully in discussions, showing independent thought and analysis.
2. **Syllabus.**

a. Syllabus describes learning activities that support achievement of widely-accepted goals for outdoor education programming.
b. Syllabus illustrates a progressive sequencing of activities that supports achievement of outdoor education outcomes.

3. **Lesson Plan.**
   a. Lesson plan describes contextual information such as activity title, participant ages, activity length and/or location, materials needed, references, and safety considerations, as appropriate.
   b. Lesson plan describes outcomes, how outcomes achievement will be assessed, and learning activities.
4. **Lesson Presentation.**
   a. Lesson presentation shows careful and effective preparation.
   b. Lesson/activity is delivered clearly, with delivery adjusted as needed for audience and conditions, and with good time management and safety management.
   c. Lesson activities build towards pre-established outcomes.
   d. Assessment of lesson outcomes is conducted.
5. **Group activities.** Be present for and engaged in all mandatory group activities, as applicable.
6. **Exam.** Participant answers at least 80 percent of exam questions correctly.

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Goals
Hikers courtesy Taiwan Discovery

Principles and Concepts
Rafters courtesy Gabriel Côté-Valiquette
Kayaker courtesy Taiwan Discovery

Education
Abseiler courtesy Taiwan Discovery
Canoers courtesy NPS
Map readers courtesy Gabriel Côté-Valiquette
Hiker with lake courtesy U.S. Forest Service

Outdoor Education
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Outdoor educators courtesy Gabriel Côté-Valiquette

Environmental Interpretation
Interpreter courtesy U.S. Forest Service

Curriculum--Introduction
SUP lesson courtesy Taiwan Discovery
Flipchart lecture courtesy Gabriel Côté-Valiquette
Map reading courtesy Gabriel Côté-Valiquette

Goals
Rafting courtesy Gabriel Côté-Valiquette

Lesson Plans/Activity Plans
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Assessment
Backpackers courtesy Gabriel Côté-Valiquette
Ice climbing class courtesy Gabriel Côté-Valiquette
Bamboo raft building courtesy Taiwan Discovery
Kayak rescue practice courtesy Gabriel Côté-Valiquette

What to Evaluate
Kayaker courtesy Taiwan Discovery

Subjective and Objective Data
Stream tracer courtesy Taiwan Discovery

Scales of Evaluation
Backpackers courtesy Taiwan Discovery

Approaches to Evaluation
Glacier educator courtesy Gabriel Côté-Valiquette
Outdoor presentation audience courtesy U.S. Forest Service

Experiential Education

Rafters courtesy Gabriel Côté-Valiquette
Citizen science courtesy NPS
Kayaker approach courtesy Taiwan Discovery

Adventure-based learning
Abseiler courtesy Taiwan Discovery

Progression
River tracers courtesy Taiwan Discovery
Petroglyphs courtesy U.S. Forest Service
Swimmers courtesy Taiwan Discovery
Bear courtesy NPS
Outdoor group courtesy Gabriel Côté-Valiquette

Syllabus
Backpackers courtesy Gabriel Côté-Valiquette

Age-Appropriate Experiences
Child courtesy Taiwan Discovery

Culturally Appropriate Experiences
Dragon boat courtesy Taiwan Discovery
Ski tourers courtesy Gabriel Côté-Valiquette
SUPer courtesy Taiwan Discovery

Learning Styles
Speaker: courtesy NPS
Presenter with map: courtesy U.S. Forest Service
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Fault courtesy Gabriel Côté-Valiquette
Snow science courtesy Gabriel Côté-Valiquette
Tree climber courtesy Taiwan Discovery

Glacial crevasse courtesy Gabriel Côté-Valiquette

DEI
Equality vs Equity courtesy Robert Wood Johnson Foundation
Nature Scavenger Hunt courtesy Kenny Peavy
Kahua Hula courtesy NPS
Kayak instruction courtesy Taiwan Discovery
Raft guides courtesy Gabriel Côté-Valiquette
Bali hikers courtesy Kenny Peavy
Climber courtesy OB Vietnam/KW
Rice terrace hikers courtesy Kenny Peavy
Tents courtesy Kenny Peavy
Coconut tree climber courtesy Kenny Peavy
Rice paddy hikers courtesy Kenny Peavy
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Kayak lineup courtesy Taiwan Discovery
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