

This book is intended for outdoor instructors and outdoor instructors in training. The art of teaching can be learned through observation and experience but is best anchored in the science of teaching. This book is intended to give the theoretical background needed for anyone teaching in the wild outdoors.

Outdoor Instruction: Teaching and Learning Concepts for Outdoor Instructors

by Maurice L. Phipps, Stephanie L. Phipps and Chelsea E. Phipps

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Outdoor Instruction:

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for Outdoor Instructors



Maurice L. Phipps with Stephanie L. Phipps
and Chelsea E. Phipps

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Chapter 3

Communication

“Words mean nothing.”

- Paul Petzoldt

Most teaching for an outdoor instructor will probably be done as an open skill, that is, subject to feedback rather than as straight lecturing, which means that communication is paramount. The teacher then needs to develop an open communication climate with the group and with each individual. Special attention needs to be given to interpersonal communication skills in the outdoor situation as groups are closely confined within each other's personal space for long periods of time. Any kind of defensive postures can divert energy into hidden agendas and antagonistic endeavors. Berne (1964) described three 'life' positions: "I'm OK – you're OK," "I'm OK – you're not OK," and "You're OK, - I'm not OK". A way to achieve open communication is to give positive unconditional regard to the students demonstrating an "I'm OK – you're OK" position. Having both instructors and students in the OK position can make the communication climate more positive.

Develop supportive communication by being empathic, egalitarian, and spontaneous. This will create personalization, openness, non-role behaviors and creativity (Gibb, 1961). Reduce defensiveness as this can cause depersonalization, façade building, role taking, hostility, circumvention, aggression, and dependence. Being rigid, inflexible, superior directed or just neutral can create this kind of defensiveness (Gibb, 1961). Emotional warmth is important for teachers but fundamental for outdoor instructors. Neill (1997) stated, "Outdoor education places participants in unfamiliar situations without many of the usual anchors for emotional security" (p.97).

Communication skills are involved whenever there is direct interaction with students and transmission of information. In a new learning situation, redundant (already known) but relevant information helps the assimilation of novel information. Novel information needs to be presented against the backcloth of redundant information so that we can see or hear things in context. The good teacher strikes an appropriate balance between the presentation of redundant and novel information (Whiting, 1975).

The Communication Channel

The channel is the means of conveying the message. The communicator is the sender, and the student the receiver (see Figure 14). Noise is any element that interferes with communication. Sender noise refers to such things as attitudes, prejudices, frame of reference of the sender, and the appropriateness of the language or other expression of the message. Receiver noise refers to such things as attitudes, background, and experiences that affect the coding process. According to Johnson (1981), "in the channel" noise refers to, environmental sounds, speech problems, and annoying or distracting mannerisms.

Figure 14. The Communication Channel

In outdoor situations, communication channel noises literally interfere if, for example, teaching sites are close to a roaring torrent or if the wind is whistling through the trees. Voice projection becomes very important. Perhaps request that students use a “20 foot” voice (speak loud enough that you can be heard 20 feet away). Feedback from students can assist in determining if ‘noise’ in the communication channel is too great to allow learning to take place.

Overloading the students with too much information, especially new information, usually encourages him/her to switch off or select only some of the input. False information might get into the communication system. The teacher should always look for feedback. Even if giving a lecture, the instructor should look for non-verbal signs indicating the degree of attentiveness and effective communication and encourage verbal feedback from students as well.

Timing can be an issue in outdoor pursuits as there may be moments that instructions cannot be given. On the Chattooga River, on the last rapid above Sandy Ford, the river splits at an island and there is an enormous amount of wood at the confluence. In lower water levels, there isn’t enough water to run the left side of the river and get all the way down without having to get out and drag your boat. The right side is very narrow with possible snags – depending on how much work the raft guides have done that year to clear it. As there is a longish rapid approaching the island with no convenient eddy just above the confluence, the best place to discuss this is further upriver in an eddy before the lead-in rapid. Explaining this at the very beginning of the trip at Earl’s Ford wouldn’t be a good idea because it may raise anxiety levels too much throughout the trip.

“Words mean nothing”. I can see Petzoldt shaking his head at a debriefing after students had pitched their tents under a huge widow-maker (dead tree), after we had just explained the old three W’s for selecting a camp site – wood, water, and widow-makers. In later years, this phrase came up especially on Teton trips. Students from North Carolina had not experienced camping on snow and so had ‘noise’ in their minds as receivers in the communication channel. We knew that this would be the case, so we had had pre-trip meetings to show clothing that would be good to take. We explained the ‘man-on-the-move’ phenomena (see the Perception Chapter) where a student who ‘ditched’ his booties just before we drove out to Teton Canyon, never stood still in the evenings when we were on the snow as his feet were still in his cold boots, so he had to keep moving to stay warm. This gets old on an extended trip and we explained that sitting on an insulating pad in a snow kitchen wearing your booties is the ultimate in ‘toastiness’ and comfort. The last few springs in the Tetons haven’t been cold enough for just booties so now you also need lightweight over boots, so the booties stay dry. How many students didn’t bring their booties and over boots on a subsequent trip? Three men ‘on the move’. So, they had several nights to ponder what kind of ‘noise’ affected the communication. I have to say that they didn’t complain too much and were creative with some plastic bags inside their camp shoes. They got some together time warming their feet on each other’s bellies as well, but I am sure that they won’t eliminate booties from their kit for future snow trips. It’s a bit like expecting all snake-loving students to follow the instruction, “Don’t pick up any snakes”. Sometimes experience ends up being the most effective teacher. However, a trip would have to be modified if there was any danger of frostbite or serious

trench foot or a snakebite. Ignoring instructions can affect the whole trip for everyone if you have to return to a shop to get vital clothing or the hospital in the case of a serious medical concern.

Noise in the communication channel when climbing can be a safety issue, hence the development of climbing calls so climbing partners know what words to listen for when they may be over a hundred feet apart and perhaps in noisy, windy conditions. There are different sets of climbing calls throughout the world so if climbing with someone from another country it would be wise to settle on a common set. Figure 15 illustrates a British set and a North American set developed by Petzoldt. Petzoldt's calls were invented with syllables in mind, for example "up-rope" has two, whereas "slack" has one – the idea being that individuals would be less likely to mistake the words if they were reduced to grunts in the wind. His system also always included a response – often "Thank you", which makes for very polite climbing!

Figure 15. Comparison of Two Different Sets of Climbing Calls

Petzoldt's Climbing Calls		A Set of British Climbing Calls	
Belayer	Climber	Belayer	Climber
"On belay"	"Climbing"	"Safe"	"Take in"
"Climb	"Up-rope"	"Taking in"	"That's me"
"Thank you"	"Rock"	"Climb when ready"	"Climbing"
"Twenty-five" (<i>feet</i>)		"Climb on"	"OK"
"Fifteen"			"Tight rope"
"Zero"	"Thank you"		"Take in"
	"Falling"		"Slack"
	"Slack"		"Below"
"Thank you"	"Belay off"		"Tension"
"Thank you"			"Safe"

Active Listening

This is a way of listening that is designed to improve mutual understanding. It includes listening attentively. Sometimes someone may be thinking of what they want to say rather than focusing on what the speaker is saying. Active listening has structure as the listener should paraphrase what the speaker said to test for accuracy and further explanation can be given if necessary. You might start by saying, "This is what I am hearing you say" and, "Am I missing anything?" It can be used for communication clarification in instruction or for conflict resolution where feelings can also be included. It is important that full attention is given to the speaker. Value judgments should be suspended while listening. Reading body language can help interpret feelings. Cooperative intentions can also aid the discussion concerning feelings. Using this technique can really help a group to reach a consensus if this is needed in decision-making.

Role Modeling

An interesting role modeling incident happened to me at the beginning of a WEA professionals course in North Carolina one July. As we were preparing and outfitting the group, I offered everyone a cagoule (long rain jacket). The members of the group were not familiar with cagoules and were balking at the idea of taking them as they don't look fashionable. They were however very waterproof, not being made of 'Leaktex'. One guy asked, "What are you taking?" What a great lead in. I said, "A cagoule of course - as it can rain every day in this part of the country". Sure enough, we had nine days of rain out of the ten-day course, but that bit of role modeling improved the experience for everyone. We didn't have the same success with the Outbound shelters which are like Megamids, bottomless pyramid shaped shelters which are very light and roomy with good ventilation for North Carolina summers. One professional got very upset after we found a rattlesnake near our campsite. He shouted, "You didn't tell me these weren't tents! Someone said - "Yes, he said these are *not* tents!" Again, another "words mean nothing" situation. He hadn't heard the words. He was a little anxious about rattlers joining him in his shelter, but he did stay dry in his cagoule and Outbound.

Role modeling becomes an important part of communication as students will copy you - even if you have said not to do so. If you are camping and you want your drink topped off with hot water, then you had better put the cup on the ground, so they will imitate you. The same goes for being on time to meetings, taking care of hygiene, having a tidy kitchen at your campsite, camping away from the trail or the stream, etc. Role modeling group norms that have been set is essential. One very useful norm in particular is being 'other-directed'. Petzoldt (1995) noticed that some of his first guides at his American School of Mountaineering were more interested in their own goals:

Training and selecting guides was difficult. I soon found that some of the people who were the most agile and experienced climbers were not suitable guides. While taking people up the mountain, they were thinking mostly of themselves, what they wanted to climb, and the different chimneys and snow slopes they wanted to try. It turned into a climb that pleased them, and the clients were just along for the ride. In my opinion, they should have been doing the type of climb that was best for the client. (p. 206)

Being 'other-directed' as the instructor, looking after the concerns of students, creates a group culture where everyone is more likely to help each other. Instructors can model this on expedition courses by letting the students pick their tent sites first. Rushing ahead of the students to pick the best one would send the wrong message. Throughout the course, checking in with all the students, maybe by visiting them when they are cooking, is another great way to make sure their needs are being met. They can be asked at de-briefing sessions at the end of the day but that isn't the same and they are less likely to confess their anxieties to the rest of the group. I nearly always do ask the group each day or evening if there are any anxieties or problems that need discussing but have found that more is revealed in informal one-on-one 'check-ins'.

Soliciting Hidden Information

When students are in the group as a whole, I have found that an exercise to illicit communication is necessary unless they have a totally open communication climate. For example, facilitate students writing an anonymous note about their anxieties, and put them into a hat. Mix up the notes and then ask everyone to take one and read it out loud. This will likely bring out issues that can be dealt with. Sometimes the issues are about group dynamics and sometimes they are misperceptions that just needed clearing up. Good

facilitation skills are sometimes needed in these situations as participants may use inappropriate communication tactics that Thorenson (1972) called defense mechanisms. (Detail on this can be found in the group dynamics chapter.) An example that I experienced is when someone failed to help out when we pitched camp in a storm – he got his tent up and dived into it straight away. A group norm was to help each other in adverse conditions and he obviously ignored that. He was confronted in a group meeting the following morning and someone who had also been ignoring group norms on occasion jumped right in to defend him. This is called “red-crossing,” encouraging mutual aid, so I had to say, “Let George speak for himself,” so that he wasn’t let off the ‘hook’.

Confronting behavior issues requires good feedback skills (this is also addressed in the group dynamics chapter). Using the note in the hat exercise can be a way to check on group norms (that are pre-set) and communicate what needs to be addressed. A good way to re-visit group norms is to suggest that everyone write down one thing that they perceive the group to be doing well and one thing that needs improvement. Again, put the notes in a hat and then re-distribute them for everyone to read one out. Clarification is often necessary as you discuss everything. If this is done on a regular basis, it communicates to the group that you are revisiting the group norms and haven’t forgotten about them - which tends to improve behavior. It is very important to give praise for meeting the group norms, so this should never become just a negative session.

Non-Verbal Communication

Non-verbal communication plays a very important role. Contradictory verbal and non-verbal communication should be discussed as this often hides conflict. Buried conflict usually emerges later having grown out of proportion to what it was originally. Display openness in your non-verbal communication as you are trying to establish an open communication climate.

As an instructor, it is helpful to understand some detail of non-verbal communication; it is generally regarded as contributing far more to communication than words. *The Backcountry Classroom* (2005) states that body language accounts for 55% of the message, tonality (how the words are said), 38%, and actual words only 7% (Drury, Bonney, Berman, & Wagstaff, 2005). Research using video instead of tape-recorded words found that non-verbal cues had 4.3 times the effect of verbal cues (Argyle, Salter, Nicholson, Williams, & Burgess, 1970). Study results may vary with different situations, but it does seem that non-verbal cues are extremely important. Non-verbal cues include:

- 🔊 Kinesics (facial expressions and body movements)
- 🔊 Posture
- 🔊 Gesture
- 🔊 Vocalics (Tone, pitch and accent)
- 🔊 Haptics (touching)
- 🔊 Eyes
- 🔊 Clothing and bodily characteristics
- 🔊 Proxemics (how physical space is perceived and used)
- 🔊 Chronemics (time).

☞ Kinesics (facial expressions and body movements). A nod, a smile, a grimace, a cold hard stare, a frown, a raised eyebrow, a sneer, a jutted chin, an open mouth, gritted teeth, a wrinkled brow, a curled lip, a yawn, all tell us something. They are often unintentional, but can be intentional, and the timing of these kinesics communicates something as well. Ekman & Friesen (2003) explained that someone trying to convey an emotion has a faster onset and offset than someone showing a spontaneous emotion. That being said, the ability to interpret others' expressions is key. Being aware of your own expressions can be helpful but trying to mask your emotions is difficult as ingenuous expressions can be picked up very easily. Some changes in expression can be so fleeting they are referred to as micro-momentary movements, "facial expressions that are so short lived that they seem to be quicker than the eye", and can slip in, in a number of ways (Haggard and Isaacs, 1966, p. 154). When referring to control Cook (1997) says, "It can slip from those parts of the body least under voluntary control, through nervous gestures of hands or through a trembling of the stiff upper lip when the person thinks no one is watching" (p. 56).

People can read each other fairly accurately in regard to genuineness. Be aware of that in your expressions as an instructor and look for that in students who may be verbalizing one thing but saying something different through their expressions. This could happen, for example, with a student entering a cave or rappelling for the first time. In classes, nods, smiles, and quizzical looks are common and keep the conversation going, helping in the communication process.

☞ Posture. Body orientation and posture can also communicate things, like attentiveness. Leaning in or forward, facing into the circle of students can reflect fondness, whereas a disengaged student might face sideways and/or lean backwards. Be aware of indicators like direction of lean, arm position, body openness, and body orientation. Posture matching can enhance rapport between/among the group and instructors; non-congruent postures can illustrate differences of opinion or relationship distance.

☞ Gesture. Gestures can include obvious things like pointing, giving a thumbs-up, making a T shape with the hands to signal a time out, or less obvious things, like a knitted brow, clenched fist, or behaviors mentioned above, like leaning forward or backward. Other common, purposeful gestures include waving, eye rolling, and winking. To avoid looking incompetent or anxious, avoid hair twirling, putting a hand in front of your mouth and wringing your hands. Gestures can be used to emphasize things like the sweep of a hand across the 'valley', or pointing directly at a mountain when teaching navigation. They can also reflect nervousness or boredom. Common positive gestures in one country may have very different negative meanings in other countries. For example, the 'thumbs up' sign is positive in the U.S. and the UK but negative in Asia.

☞ Vocalics (tone, pitch, and accent). When leading groups, instructions can be given in positive or negative ways, so thinking about how to deliver your message is very important. How you say something can be more important than what you say. Are you suggesting that something be done, insisting, or telling in a civil way, or do you sound demeaning? Do you sound authentic? Try to always be civil and as natural as possible. Monotone pitch could make your presentation sound dry. Liven it up with variations of rhythm, speed, inflection, timbre, loudness and pitch. Intonation also affects your delivery. The same words said with a different intonation can mean the exact opposite as with the use of sarcasm – like, "Well thanks".

Accents can both help and hinder. Some accents are pleasant to people and some are grating. In America, an English accent is often liked whereas in Australia it is nothing out of the ordinary (speaking from personal experience). I remember advising a student in North Carolina who let me talk in my fairly mixed accent including Derbyshire, Yorkshire, Australian, and southern US. Though the student said, "I love

your accent,” it was soon followed by, “What did you say?” The actual message was totally lost. Words for sure meant nothing at that time! Accents can unfortunately result in prejudice. Prejudice should not be a part of any instructor’s repertoire. Accents and dialects are part of each and every one of us. They reflect where we are from, whether we are proud of that or not, and they do have an effect on other people.

👉 Haptics (touching). There should be a ‘red alert’ on this. While touching can give encouragement and support, it can also create embarrassment, or worse, if misinterpreted. It could be interpreted as sexual harassment. People react very differently to touching whether or not it is a cultural norm. Pats on the back or a touch on the arm could be relatively safe. Shaking hands is usually safe, as are high fives, or fist bumps but hugs can vary. I am British, and not a hugger, but many Americans have to hug - a lot! For folks who have never met, hugging would be inappropriate. Use good judgment in this.

Also use good judgment when you have to touch students. There are many occasions for this in the outdoors. It could be when supporting students on a ropes course or spotting students rock climbing. You are actually holding students during one of the stages of teaching kayak rolling; do it in a way that doesn’t affect the students’ comfort zones. Male-female touching is especially tricky. Organizations may even have strict rules on this. Backrubs may be nice but be careful with this as that may lead to special friendships or miscommunicated intentions of special friendships. I have seen this on expeditions and the resulting problems once biological attraction kicks in can be very hard to deal with.

👉 Eyes. Ralph Waldo Emerson said, “When the eyes say one thing, and the tongue another, a practiced man relies on the language of the first.” Charles Darwin, one of the original researchers of non-verbal behavior said:

From the continued use of the eyes, these organs are especially liable to be acted on through association under various states of mind, although there is manifestly nothing to be seen. A man...who vehemently rejects a proposition, will almost certainly shut his eyes or turn away his face; but if he accepts the proposition will nod his head in affirmation and open his eyes widely. (1998, p. 33)

Do they mirror the soul? There are many sayings associated with eyes: “mirroring the soul”, “shifty eyes”, “come-hither look”, “evil eye.” They could be the most dominant features of the face; much is ‘said’ by the eyes. The study of eye contact is called *oculesics*. In western cultures using eye contact is expected when communicating. In other cultures, this may not be the case such as in Asia or Islamic countries. Where eye contact is acceptable, duration affects a person’s comfort level; too long a gaze becomes a stare, too short becomes ‘shifty eyed’.

In Western cultures as eye contact is expected, it is often used by a teacher as a cue for a student to speak. A blank stare from a student may mean that they don’t understand something, or they are mentally processing. Phelps, Doherty-Sneddon, and Warnock (2006) suggest that students look away from the teacher while thinking about the answer to a question as that mental demand shouldn’t be compromised by the extra demands of reading the teacher’s expressions. When presenting as a teacher, not looking at the audience will give the perception of nervousness or a formal reading. Students looking around generally, looking at watches, and/or exhibiting restless behavior signals a lack of attentiveness.

Eye contact is used for other social communication like aggression or flirting. Both of these compromise teaching in the human dimension. When in bear country it is recommended not to have eye contact with bears as this can reflect a challenge and trigger an attack.

☞ Clothing and bodily characteristics. Gender, weight, height, color, body odor, and clothing are all non-verbal cues. They may instill an immediate effect, which can be lasting, but overall the students are looking at teacher traits such as fairness, liveliness, and knowledge. Some characteristics, like height and gender cannot be changed, but hygiene and clothing can. Height, according to Melamed and Bozionelos (1992), does create an initially more favorable impression. Body type and weight can produce the stereotypic generalizations associated with skinny, muscular, and overweight people. These generalizations are usually dispelled. I have seen very slightly built students show enormous strength, and muscular people need the help of others in carrying large packs.

Good hygiene practices should always be used, especially on expedition courses, as role modeling greatly affects student behavior in that regard. Clothing should also be role-modeled by the instructor for example, by wearing a hat for sun protection as well as long sleeves and long pants - the same for serious bush pushing for protection from brambles. The opinion that clothing or gear should be considered high fashion is alive and well in the outdoor industry. Is your clothing, helmet, or tent very different from that provided to the students? They will notice if it is and wonder why they aren't getting what they may perceive as the best.

Could whatever you are wearing be some kind of barrier? What kind of sunglasses do you have – are they mirrored? Do you wear them only when you have to, or all the time? The eyes of the instructor are important as described above, so sometimes during instruction they should not be worn. At times they have to be worn, for example, on snow for sun protection, but it does affect communication.

Are you wearing any insignia that sends a message? North Face, or Patagonia brands communicate “I have good (but expensive) gear”. Patches from the organization you work for communicate that you have an allegiance. What does your favorite T-shirt say? Is it conveying what you really want to say?

☞ Proxemics (how physical space is perceived and used). In the outdoors, lighting, noise, and temperature can affect the communication. Proxemics looks at the space between sender and receiver. In the outdoor classroom, we often have some wonderful teaching spots. Think about the environment you choose in relation to how quiet it is, aesthetics, or distractions, like a river or view. Have you been meeting in the same place time after time and need a change of scenery? Does the space allow for students looking down on you, or up at you? Does it allow for a circle, horseshoe shape, or more of an auditorium formation? This can have an effect on communication with different students who may choose their seating or standing position based on how they are most comfortable or for more or less interaction with the instructor. More outgoing or extroverted students might choose places with the best line of sight to the instructor. Anxious or introverted students might seek positions less available for eye contact (furthest away in auditorium settings and closer to in a circle or horseshoe).

People have different comfort zones regarding actual distance between each other when communicating. Initial study on this was done by Edward Hall (1966) who devised four zones; intimate, personal, social, and public. However, according to Griffin (2009), modern researchers view proxemics as part of other communication cues like gender, topic of conversation, perceived status, and surrounding noise. How close two people get depends then on more than intimacy levels. Instructors should be aware that students may be uncomfortable with very close proximity, especially at the beginning of a course. Different cultures have different norms in this regard. Normally classes in social and public domains are four feet or more apart, but when conversing one on one, care should be taken to not to go beyond the personal zone (18 inches to four feet) into the intimate zone (0 to 18 inches) as this would likely be perceived as an intrusion. People are affected by whether they are looking up or down. Discussing a journal would be best done sitting side by side. Giving a ‘commanding’ lecture may be better received if the instructor stands while the students are sitting down. If you are trying to achieve a sense of egalitarianism, then communicate at the same level.

❧ **Chronemics** (time). On an outdoor leadership course in the 1980s, I remember being told that group dynamics were incredibly important – but we spent virtually no time on the topic. I, as the student, might have thought that perhaps it wasn't all that important, except we were on a 23-day expedition with lots of meaty group dynamics happening, often provoked by time.

Time is always an issue with newly formed groups. Some people believe in “Island Time”, “Irish” time, “Mormon Standard” time and other labels for the student who wish to arrive “whenever”. This often creates the first conflict in the group as many students do believe in arriving on time and the instructor usually believes in punctuality as well. A group norm set very early in the course is helpful, as is synchronizing everyone's watches. If someone is constantly late, what are they saying to you or everyone in the group?

The pause. After asking a question, there may be an uncomfortable pause if no one immediately jumps to an answer. You want students to think before speaking, so the pause is good. Rather than you give the answer, wait awhile. Don't try and save the pause by calling on someone. If the pause is getting unproductively long, ask the students to verbally discuss the question with their neighbor. This nearly always elicits a response. Perhaps the question was not worded well and needed clarification. If the same students continue jumping to answer, then change tactics and call on others. People have different response times. Waiting with a longer pause can enable students with longer response times to participate in answering a question thrown out to the group.

How fast or slow do you talk? Do you change the pace to emphasize something? How long are people willing to listen? I have seen introductory climbing session talks detail rope breaking strains and other unnecessary information while the campers were looking at the climbing wall, probably fantasizing about being up there. For sure, they had shut down on the communication because of the length of time the instructor drived on without paying attention to the students' cues (sighing, fidgeting, yawning etc.). Saying more than is needed often spills information as the ‘cup’ is filled to overflowing.

Verbal and Non-Verbal Communication Interactions

There is interaction between verbal and non-verbal communication. Knapp and Hall (2007) give six ways: repeating, conflicting, complementing, substituting, regulating, and accenting/moderating. Remember that the communication is a two-way street where the instructor should always be looking for non-verbal as well as verbal cues indicating whether the student understands the message being given. The outdoor instructor can use these interactions in the following ways:

■ **Repeating.** A ski instructor may lean forward herself when giving a verbal message to lean forward. A kayak instructor may point or throw a rock into an eddy when discussing that eddy. A climbing or caving instructor may demonstrate leaning back while explaining the body position required for a rappel. A verbal message is strengthened by some kind of gesture or body movement.

■ **Conflicting.** Verbal and non-verbal messages that do not match send a conflicting message. An eye roll will pretty effectively negate any verbal instructions. If the students ask you how far the hike is going to be and you say, “Not so far”, but your body shows signs of anxiety, like fidgeting, the students will probably read that they have a long hike ahead. If you ask if everyone had breakfast on an expedition day and the students avoid eye contact, then they probably slept in and didn't have time to prepare anything.

■ **Complementing.** It is best to try and affirm verbal instruction with non-verbal cues, thus aligning what you're saying with how you are saying and reinforcing your message. If everyone in the group is

sitting, perhaps stand up and somewhat lean over the group to say, “We will be rising at 4am for an Alpine Start!” If someone did a great job rigging a bear bag line maybe touch someone on the shoulder and say “Thanks, that was a great job”.

■ **Substituting.** This is where no words are spoken. I remember doing a Nick the Greek (safety briefing) on a day when Petzoldt had decided that he had talked too much and promised to say nothing for a while. The group was brainstorming the odds of accidents the following day when we were to climb on the Wigwams Ridge. No one was bringing up lightning. He got hold of a large rock, stood in the middle of the group and held it up in the air like Moses, which immediately elicited conversation about lightning. Also, remember some of Greenaway’s (1996) techniques for debriefing, like the morale graph where students get in a line and stand how they feel or where you might ask them to re-enact an incident without words.

■ **Regulating.** Anyone in the group can regulate, or control, the conversation by touching someone’s arm to signal that they need to stop, and/or with hand gestures that say, “Give me more”, “Time-out”, or “Stop”. Conversation is often regulated by the common norm of raising a hand to answer a question. Sometimes a rock or object is used to monitor interruptions if the discussion gets out of hand; the only person who can talk is the person holding the rock or object.

■ **Accenting/moderating.** The verbal message may be changed or moderated. Emphasizing a particular word can reinforce your message. For example, “We will NOT be missing breakfast tomorrow morning!” The intonation strengthens the message for this expedition group responsible for cooking their own breakfast. Shaking a clenched fist while you say it would communicate that you are angry as well (perhaps because they slept in the day before). Do you want that message to be received? If not, then watch what you do with your hands.

Petzoldt-isms

Instructors from The Wilderness Education Association (WEA) and no doubt from the National Outdoor Leadership School (NOLS) use Petzoldt’s sayings to illustrate points. Petzoldt had such a force of personality that his ideas and corresponding sayings still resonate through both NOLS and WEA, organizations that he was instrumental in establishing. Other people, such as John Jackson (1973), quoted in Cockrell (1991) have come up with valuable sayings: “Have the right person, the right people in the right place at the right time with the right knowledge and the right equipment.” (p. 19). Petzoldt developed and used this technique very effectively. It provided an easy way to boiler-plate, or strengthen, various ideas or fundamental principles of an organization that can be used by other instructors. Here are some of his sayings.

“Know what you know and know what you don’t know.” This saying means know your limitations. WEA leadership courses in the Tetons taught leadership through backpacking and spring mountaineering. The mountaineering was mostly to show students what they didn’t know, such as knowledge of ice axe techniques, glissading, and avoidance of moats, etc. Students on these courses were expected to recognize that they wouldn’t have the skills to necessarily lead mountaineering after that initial course unless they were already established mountaineers. It would limit their leadership to backpacking as they ‘knew what they knew and knew what they didn’t know’ about working on snow or with technical mountaineering. They would need to get considerable more experience and training before considering that kind of leadership.

“Rules are for fools.” This relates to judgment, Paul’s most important and emphasized concept for the outdoors. Organizations that employ young and inexperienced instructors may have more rules than ones that employ seasoned instructors. Paul was against hard and fast rules along with rote learning of what to do in the outdoors. He often used to say, “We aren’t preparing people for Jeopardy, the TV Show.” Things change so much with things like weather, snow, water levels, and group dynamics, so hard and fast rules don’t always apply.

“Chew the cud -- have a cow-like nature.” On expeditions, people can sometimes get very tense as there is often no way to get away from the group and if there are some conflicting personalities, then this can heighten friction between group members. On extended NOLS, Outward Bound (OB), and WEA expedition style courses, this can be common. Hence, Paul suggested that expedition members try and develop a cow-like nature and chew the cud, rather than react forcefully to others’ behavior and comments. Not that inappropriate behaviors should become the norm; they should be dealt with through effective feedback techniques (see the group dynamics chapter). He also suggested that it wasn’t a good idea to get into arguments about religion or politics on expeditions. Those beliefs are deep seated, and the chances are that no-one is going to change those beliefs, so why encourage open conflict about those issues?

“Look at the Las Vegas odds like Nick the Greek.” Paul viewed much of his decision-making through the Nick the Greek (king of gamblers), ‘Las Vegas Odds’ lens. In the outdoors, safety is not a given, so we should always be considering the ‘odds’ when we decide to make the climb (or turn back), run the rapid, or ski the drop. He often used this premise for safety briefings, saying, “Let’s do a Nick the Greek” when embarking on something new, like an introductory rappel lesson. This would initiate a brainstorming of where Nick the Greek would place his bets on where accidents could occur along with the judgment factors during the activity. This got everybody thinking about the safety aspects, which was far more effective than listing off a set of rules for students to try and remember. Using “Nick the Greek” honors Nick’s ability as a gambler to weigh the odds. As outdoor instructors, we can never assure absolute safety in the environment we work in. Petzoldt wanted us to use the Las Vegas odds regarding making safe choices (bets) in our decision-making.

“Me no lost, teepee lost.” This statement referred to not being entirely sure of one’s position exactly although knowing roughly where one is and to not get in a panic about it. This could be used literally in regard to navigation or figuratively in regard to being in a philosophical argument. The saying comes from a story he used to tell about cowboys. Paul never gave much credit to cowboys for judgment such as insisting on wearing cowboy hats in winter and getting frostbitten ears. We really never do see pictures of cowboys wearing woolly hats and balaclavas, do we? Anyhow, the story goes that two cowboys met up with an Indian who looked lost and one said, “I thought you guys never got lost”. The Indian replied “Me no lost – tepee lost”. This statement was probably also lost on the cowboys. Instead of disappearing into long division, we can say, “I can think my way out of this and find where I am as I am not truly lost.”

“Meet at the old oak tree.” This refers to being in the woods where there are hundreds of old oak trees. In other words, when you make an arrangement be precise so that there will be no confusion. This had special meaning to me having spent some of my childhood playing in the famous Major Oak, or Robin Hood’s Tree, near Edwinstowe, Nottinghamshire. Unlike this tree, the “old oak tree” could refer to any oak tree. Two friends of mine, ropes course facilitators who regarded themselves as communication professionals, decided to meet for dinner at Pizza Hut in Bryson City, NC. There happened to be two Pizza Huts in that town and they each went to a different one. If you can make a mistake with two Pizza Huts,

imagine the possibilities of confusion with the hundreds of oak trees in Sherwood Forest or the North Carolina woods.

“Be other directed.” This was in Paul’s mind the “raison d’etre” for being a leader. It meant looking after others. It could make the difference between being certified as an outdoor leader or not by Paul. Even if someone was a very experienced outdoorsman but was selfish and unconcerned about others in the group, they would not get a leader’s certificate based on this premise. Towards the end of each week on the five - week courses, students would start to run out of some items of food, so we used to compile all the food onto a tarp and then have everyone pick from the piles of food that were laid out. Sometimes, a student would hide behind some bushes and eat the rest of their cheese instead of adding it to the tarp – a surefire way of illustrating selfishness.

“Eat like Indians.” When you are part way through your supplies, you have to decide whether you will portion out food to get through the rest of the trip or “Eat like Indians” – eat normally and go hungry at the very end. This decision sometimes has to be made on expeditions. The saying refers to the old times when food was sometimes plentiful and at other times scarce. Indians didn’t really have much of a choice, so when there was food it was eaten. This Petzoldt-ism was, again, not intended to be racial. All of Paul’s references to Native Americans were positive. His references were about their use of good judgment,

“White man fire.” The large bonfires that people love to make when camping Petzoldt called “White Man Fires”. The idea was that ‘white folks’ had no sense of reason when making large bonfires and should really only make small fires, just big enough for a specific reason, like cooking. Nowadays the necessity of a fire of any kind is often questioned. They are rarely needed. If there is a lot of downfall and great care is taken to make sure that it is safe and will not start a forest fire and any disturbed ground is repaired, a small fire could be considered. Many a tent, nylon jacket, pants and boots have been ruined by wearing them by a fire or by trying to dry them out by a fire. And don’t even think about ever trying to dry a down sleeping bag by a fire. For instructional courses, down bags are too hard to dry and so are not recommended. Using a fire to dry modern clothing is not recommended either except for extraneous circumstances.

“This is a Maasai Chief decision.” Sometimes the leader has to make an unquestioned decision. Paul referred to this as a Maasai Chief Decision. In the past, questioning such a chief was not an option for the Maasai. The leader can delegate decision-making, but cannot delegate responsibility so the designated leader has the prerogative to make such a decision. It may be unpopular but because the responsibility rests on the leader’s shoulders and they will have to answer for any subsequent consequences - designated leaders may take the option to do this. Paul would preface such a decision by saying “This is a Maasai Chief Decision.” – in other words, don’t question it. Occasionally he used it to assert his leadership. There will always be some contention for the leadership in a group. Paul was very insistent on preventing this “*Don’t lose the leadership of the group*” was always stressed. If someone started to chip away at his leadership, he would make a definite effort to stop it, one way being to make a decision relating to that person that was a decision-not-to-be-questioned.

“A promise made is a debt unpaid.” - Robert Service. Paul used to say “If you take someone on the course, then you have the responsibility to look after them.” If you say that you will do something or take someone on your course then you can’t ignore subsequent issues – so it becomes a promise. “A promise made is a debt unpaid.” Paul could recite Service’s entire poem (*The Cremation of Sam McGee*), which made

for a powerful effect. Do not promise things that may not be possible. I remember trying to adapt a kayak paddle to a wonderfully enthusiastic woman who was a hemiplegic. She had been promised that she could kayak the five-day trip down the Vermillion River in Minnesota. We adapted the paddle, but neither she, nor any of us could paddle one armed for more than ten minutes. This created great disappointment even though we adapted a canoe paddle and enabled her participation on the trip in the front of a canoe.

“If they say they’ve climbed the Matterhorn – take an extra rope.” - Glen Exum. Often times when someone has had a taste of an activity, they feel over-confident and they think they know far more than they actually do. Clients of the Petzoldt-Exum Guide School who had climbed in Europe, where the guiding style didn’t involve any teaching, came off as ‘know it alls’ because they had climbed the Matterhorn, but were, in fact, a danger to themselves as they really didn’t know what they were doing and so had to be watched more closely. Glenn suggested that you needed an extra rope to keep them safe. The warning here is to beware of students that are being loud about their accomplishments as they may have no real understanding of the judgments that are necessary, nor the activity concerned.

Mental Imagery

Using truisms and sayings like the above examples can help students to better see issues more clearly. For physical skills we can use a different kind of mental imagery. Imagine you are on the Chattooga River in a boat. It is a bright sunny day and the river is running at a comfortable level for you. The water is absolutely clear, and you can see the rocks all the way to the bottom of the river and the “Fools’ Gold” shining on the sandy riverbed. There is a strong smell of pine as the river pushes you down through the wilderness. You are approaching second ledge, slipping through the rocks just upstream and heading for river left. You can hear the waterfall. You did this run a couple of weeks ago and so it is still fresh in your mind. You have to aim some yards from the left bank, there are some low hanging branches – but stay right enough to stay away from them; the sound is loud now, there is what looks like steam rising from the edge of the drop and no view of what is happening right below the horizon line. Your heart rate has picked up considerably, the boat in front of you disappears and you are hoping that you are positioned right now as it is too late to change course, so you power the next few strokes. You can see the edge and you are on it in a nanosecond giving one last strong pull to try and sail over the edge. You drop into the hole and it’s all froth and sparkling whitewater as you pop up to the surface, through the hydraulic and on downriver to join the other boats in the river right eddy under a giant rock.

While reading the above passage you were creating, or re-creating (if you have run this rapid before), an image with many of your senses, visual, auditory, olfactory, and kinesthetic, as you moved through the scene. Vealey and Greenleaf (2010) define mental imagery as “...using one’s senses to re-create or create an experience in the mind” (p. 268). It can be powerful enough to illicit physical effects like firing neurons in muscles and increasing heart rate, so athletes use the concept of mental imagery to improve performance, which enables additional practice beyond the actual physical practice - though it can’t replace real practice. The ski racer for example, could imagine the complete downhill run and replay it many times, on the chairlift going back up, in the car (as a passenger), on the way to or from the slopes, in an armchair, in bed, or in a special sensory deprivation flotation chamber. Meta-analysis of research on mental imagery has shown that using mental practice is more effective than not using it for improving a motor skill (Hinshaw, 1991). Athletes in competition and training use imagery for much more though – for improving confidence, self-motivation, improved cognition and strategies, problem solving, and controlling emotional states.

Most writing and research on mental imagery is about athletes’ training and competition. Can we take the relevant parts of this concept to improve outdoor instruction for recreational participants? An

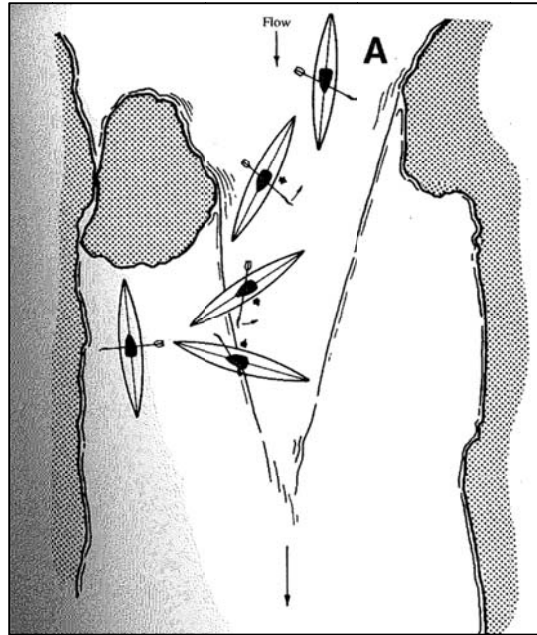
understanding of the various associated constructs will help to see how this could be done. First though, further conceptualization of what it is will set the stage. Vealey and Greenleaf (2010) suggest that it is a *polysensory* experience that should involve all the relevant senses (visual, auditory, olfactory, tactile, gustatory [taste], and kinesthetic). So, besides the visual, participants could be playing or re-playing the sounds of skis on snow, the smell of the river (hopefully not the Pigeon in Tennessee!), the taste of salt when surfing, and the feel of muscles moving in climbing. For some things, several senses could be a distraction so involving *relevant* senses is key to maximizing the effectiveness of the imagery. There are different terms associated with mental imagery – mental practice, mental rehearsal, visualization, and some writers, like Orlick (2007) have suggested that the term mental imagery be replaced by movement, action, or performance imagery; it is a polysensory experience, not just a visual snapshot.

However, Coffey (personal communication, May 26th, 2011) does use what he calls snapshot visualization, where he suggests the instructor pick three or four points (for a more complex run in kayaking) at which the student imagines a virtual snapshot of themselves, and stroke placement, edge, balance, and vector (direction of momentum) or turn. Run through the move verbally, then physically. This technique gives a way to address key issues within certain runs and allows more clarity as the student isn't trying to formulate the entire move in their head. The entire move will come later as they start to imagine more snapshots until it eventually becomes a "broken minds-eye video".

What is the perspective of the imagery? Is the visualization internal, from your own viewpoint, or external, from a third-person perspective? Are you visualizing from the first-person position, seeing it from in your boat, or are you viewing it as if from the lens of a camera looking at you? Both perspectives can be used. Horn, Morris, Spittle, and Watt (2005) explain that each one can be helpful in different ways; internal because of the resemblance of the physical performance, external because spatial effects and correct movement execution. Some athletes switch between the two in their mental imagery. Both could be used when teaching an eddy turn on a river, which requires an understanding and visualization of the positioning of the boat in relation to the eddy line and the power to push through it. In this case, some instructors show positioning by using a model boat on a sandbank with rocks and sticks to represent features. Downriver in a safe place above the eddy, talk through a first person (internal) script to stress the kinesthetic aspects of the move (see Figures 16 and 17 for examples).

Example Internal Perspective (Eddy Turn)

Figure 16. An Eddy Turn



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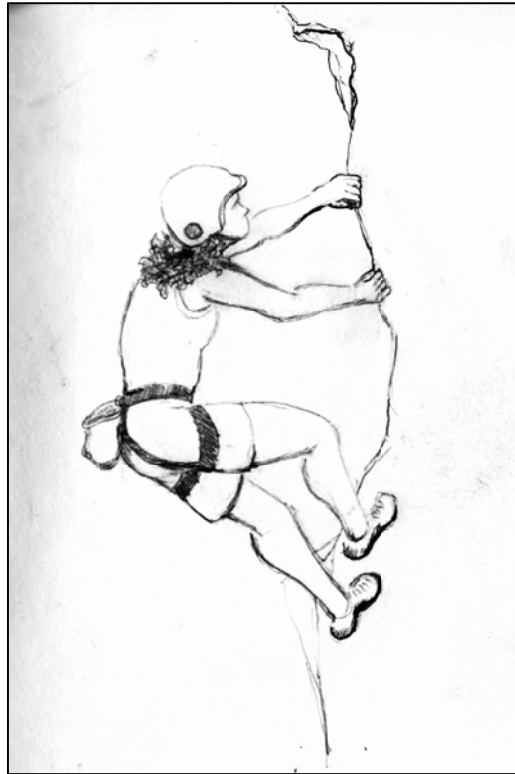
After a demonstration upstream, and possibly a video that morning (external perspectives), you are in your kayaks a few yards above the eddy in a quiet spot by the bank. You have the students close their eyes and guide them through the eddy turn in their mind's eye by saying the following:

Imagine you are paddling down towards the eddy on river right. You look right, across to the top of the rapid (Point A on Figure 16), aiming for the very top of the eddy with several powerful forward strokes, lifting your right knee a little. You see the eddy line and push through it with hard strokes going fast. As soon as you cross the eddy line, you change your lean and lift up your left knee hard, keeping it up until the boat is facing totally upstream well inside the eddy.

Repeat this exercise/script a couple of times, then have the students mentally rehearse it a couple of times. Now do it.

Example External Perspective (Rock Climb)

Figure 17. A Lay-Back Climbing Move



You are doing some practice bouldering, teaching a lay-back climbing move to beginner students. You are facing a corner, which has a nice edge. While the students watch, you demonstrate the technique and climb the boulder using the edge, explaining when you are pulling with your arms and when you are pushing with your feet, and then you talk them through the move.

Look at the edge and, in your mind, picture yourself reaching up and grasping it with both hands. You are leaning back so your arms are straight. Now you are starting to walk up the other wall with your feet until your legs are horizontal. You are now pushing with your feet and pulling with your arms. You move one hand up a little higher on the edge, and then the other hand. You move your feet up a little again. You keep doing this to the top of the corner.

Repeat this exercise/script a couple of times, then have the students mentally rehearse it a couple of times. Now do it.

The external perspective can be seen using video, which, thanks to modern technology, is becoming easier to use and offers immediate feedback. Filming a series of students' ski-turns and then showing them at the bottom of the slope to critique performance is now possible on an iPad, along with software enabled graphics on the screen.

The sport psychologist, Suin (1976) referred to his procedure for mental practice as Visuomotor Behavior Rehearsal (VMBR). He explained the procedure as more than sheer imagination, but a "...well

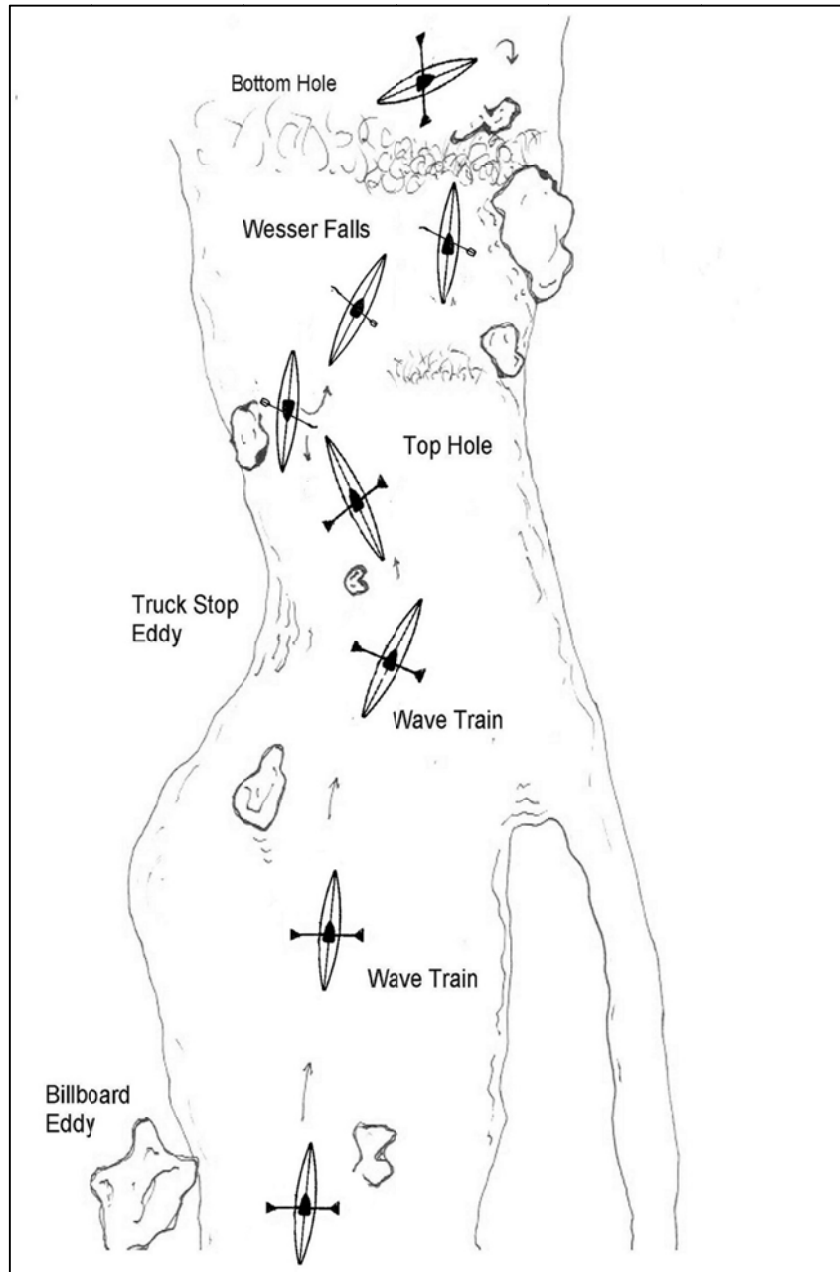
controlled copy of experience...” (p. 41). VMBR is a popular technique involving the polysensory nature of mental imagery that is used by sports psychologists. What are some other concepts that can help us as outdoor instructors? Let’s look at the PEETLEP model.

The PETTTLEP Model

The PETTTLEP model, proposed by Holmes and Collins (2001) optimizes the efficacy of the interventions that could assist with the development of motor imagery scripts (mental verbalizations of the imagery). It includes: *physical* (motor skills, arousal or relaxation techniques), *environment* (for athletes – personalized scripts, videos etc.), *task* (nature of the skill, performer ability and perspective), *timing* (imagery performed in real time), *learning* (review of imagery to reflect new skills), *emotion* (the necessity of emotion), and *perspective*.

The following example illustrates how one might use this model. In this example, assuming students have managed some river rolls and built up enough skill to try a class three rapid, they might try running Wesser Falls on the Nantahala River. Wienberg and Gould (2003) gave details of what to expect in the PETTTLEP elements that we will analyze to illustrate the complex nature of what could be used, and what may need to be omitted, in developing mental imagery for the students. Figure 18 shows a diagram of the rapids at Wesser Falls. A mental imagery exercise follows.

Figure 18. Wesser Falls



Physical. In this case visualization of specific motor techniques are needed, including a left eddy turn and a quick turn left immediately above the bottom hole. Arousal levels will need to be lowered after looking at the falls using some kind of relaxation imagery. Relaxation is also needed riding the waves down to Truck Stop Eddy on river left above the main drop.

Environment. As an instructor, as opposed to a professional athletic coach, you don't have the physical and psychological backgrounds of the students standing in front of you. You only have your observations based on their verbal and non-verbal communication as you look at the rapid as a group. From these observations, you can develop a script for them to deliver back at the top, out of sight of the rapid.

Task. The imagery will begin in this case by viewing the falls and other boaters running the rapid from an external perspective – looking down on the rapid and seeing how it is run. This brings up a problem in that imagery can produce both positive and negative results. They could see some “carnage” with other boaters flipping and swimming. If that image prevails, then they are more than likely to do the same. As the script is developed – it must focus on the positive by suggesting how to get by the top hole by just mentioning passing it rather than describing its holding abilities. At least these falls don’t have names like Jaws, Doo Doo Hole, the Cruncher, Hell Hole or the Bull, all of which increase the arousal levels of anyone doing them for the first time. Even though the imagery right now, looking down on the rapid, is external, the script could be given in first person when at the top and out of sight of the rapid.

Timing. While for athletic competition this is usually very important, some slalom kayakers do speed up the imagery to emphasize the idea of pushing as fast as possible, (White & Hardy, 1998). In this teaching situation, absolute accuracy in the timing isn’t so critical except for the eddy turn and the turn below the top hole.

Learning. Running the falls a second time could require a change, say in the timing to head across to Truck Stop eddy. Reviewing the first run could enable changes in the imagery for the second run. Individuals may be different, so a bit of time spent individually with each student may be worthwhile before the second run. After the second run, have the students repeat their script a few times before they try again.

Emotion. Here, initially there would be fear, which would need to be controlled so the students can relax going into the rapid. Afterward, if the run was successful, there would be elation, so for a second run, elation could be added to the imagery.

You have walked back up to the top of the rapid near the raft take-out area. You sit the students in their boats on the bank away from the hubbub of other people as best you can, sit down in front of them, and ‘walk’ them through the rapid using the relevant elements of mental imagery. For this event, we need visual, tactile and kinesthetic imagery. The script that you give could look like the following:

We are all in a big tight knot, but the rope is relaxing and gradually coming loose, our breathing is becoming relaxed, the knot is undone, and we are loose, relaxed and ready to go.

You are paddling down river left, small waves, relax your grip on the paddle some as you head through the bigger waves and on past Billboard Rock. Keep relaxed, nice big waves ahead but stay left. Look up and left for Truck-stop Eddy and paddle hard across to it. Big sweep stroke on the right, lean left and grab the eddy with a bow rudder. Take a little time to relax.

Turn in the eddy and paddle out of the back of it aiming to the middle of the river, a couple of hard forward strokes to just below the top hole, big reverse sweep on the left, then forward sweep on the right to turn down river. Paddle through the bottom hole and eddy turn on the right.

You could go through this, two or three times, then have the students in the first person rehearse it, ‘seeing’ Billboard Rock, Truck-stop Eddy and the top hole and ‘feel’ the relaxed grip, the relaxed run through the waves, the turn into the eddy, the turn below the top hole, pulling hard through the bottom hole and turning into the right eddy at the bottom. Ta da! Voila! or as the Brits say, “Bobs’ your uncle!”

This may be more effective than just ‘going for it’ after a look at the falls, which to quote another British saying – could result in an “epic” with several swimmers. You would of course be running the rapid

at the front of the group with an instructor at the back and would re-group in Truck Stop. While waiting in Truck Stop, the students could be rehearsing the last drop.

However, it could conversely be more successful to minimize the whole imagery by just taking a quick look at the falls, then running it with a minimum of fuss, just emphasizing going for Truck Stop eddy. It would depend on the arousal levels of the students – would detailed imagery techniques reduce the arousal or increase it? It could depend on the student, their skill level, and prior experience. More research on imagery and teaching is needed to help in situations like this. There are times when mentally visualizing exactly where you will turn say in a peel out into a fast jet on a river is crucial. Having seen someone omit to do that at the bottom of Tablesaw Rapid on the Ocoee resulted in a vertical pin on the ‘landing pad’. This type of visualization is useful also in skiing, pinpointing in your mind’s eye where the turn will happen.

Epics or as they are called in America, ‘yard sales’ where several students end up swimming with gear all over the place, may be a result of several things like poor progression of environment and or skills, but the possibility of student failure is increased by imagery conjured up with names like Decapitation Rock or Hairy Hack Falls. I remember taking British Physical Education teachers, usually a very rowdy lot to the River Ure in Yorkshire and we, as instructors, responded (badly) to their cockiness by building up “Hairy Hack Falls.” On the way there it was very, very quiet in the van. At the end of the trip there was more boisterousness than you could believe but I know that we didn’t increase their chances of doing well on Hack Falls and did increase the chances of an ‘epic’ or ‘yard sale’ at the bottom of the falls. Of course, the same anxiety levels can also be produced by over-the-top skiing, climbing and caving names. Notable examples from my past have been Spiral Stairs (skiing), Cenotaph Corner (climbing), and Hydrophobia Passage (caving), though for the most part, names of climbs are usually more esoteric. One instructor I know refers to Tablesaw rapid as the “Fluffy Bunny” instead to reduce anxiety levels. The thing to remember is that if the climb, ski slope or rapid does have an intimidating name, then don’t mention it until afterwards if you want to create positive mental imagery, and, hold off on the stories of prior mishaps wherever you are going. Don’t even show videos of hair-raising stuff the night before, lest the students think that may be the type of thing they will be doing in the morning.

The above examples have illustrated imagery type – where you are seeing yourself do the activity along with the feel of the activity. Horn (2008) suggests three categories, *imagery type* (the content), *imagery function*, which is the purpose (skill acquisition, modification or motivation), and *imagery outcome* (improved focus, confidence, strategies, skill, motivation, etc.) Scripts can be designed for all of these functions. Horn states that the most common type that has been measured in research is cognitive specific (the specific skill), but others involve strategies, progress toward goals, mastery and control, arousal and anxiety, healing and injury, and metaphorical imagery. She uses an example of runners imagining running on eggs to promote being light on their feet. Ski instructors use the metaphor of holding a large beach ball to enable the correct arm position while skiing. Staying in the ‘box’ is sometimes used for the same purpose in kayaking.

The ability to generate mental imagery varies and individual differences show in the actual imagery produced by the same script. Part of this is a result of perception. “People constantly process information from the world around them at the perceptual level, but the information that enters their consciousness is selected by their attention...” (Horn, 2008, p. 309). In other words, people can be more or less accurate in their perceptions and more or less able to focus their attention. However, mental imagery should be thought of as a skill in itself where improvement can be made through practice.

Sometimes mental imagery occurs spontaneously from unconscious memories. The climber that has taken a bad fall in the past may experience a negative mental image when repeating that climb in the future. This would require some powerful positive mental imagery to overcome this. If you are demonstrating a skill poorly as an instructor, then the immediate image received could have a similar effect. If you get “sewing

machine” leg on a rock climb while demonstrating to students this would almost certainly produce the same outcome from the students.

Although mental imagery is used a lot by athletes and coaches in competitive events, it is used less in outdoor instruction. Outdoor instructors can use many of the elements described above. Perhaps three really important areas to assist our students would be to use it to control arousal levels, focus attention, and assist with complex motor skills.

Summary

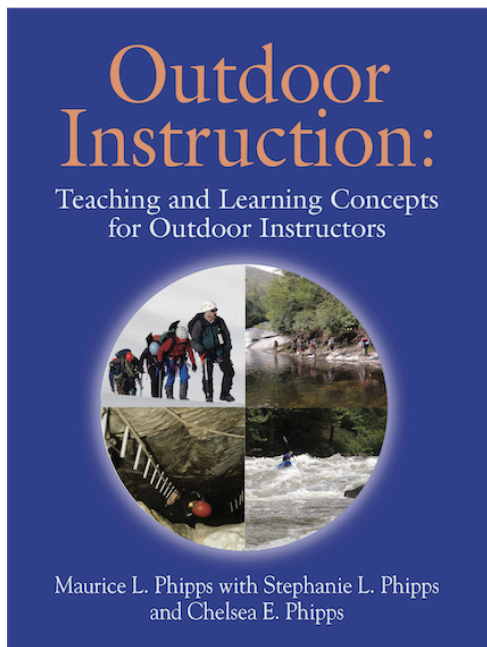
Communication encompasses many things including: climate, clarity, timing, noise, role modeling, non-verbal cues, active listening, truisms, and mental imagery. An understanding of all these can help the instructor communicate effectively. This assumes that the student is ready to take in the information. Each student is affected by their readiness to take in information at that particular time and place which is affected by their arousal level. The next chapter reveals how to affect optimum arousal levels in learning.

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This book is intended for outdoor instructors and outdoor instructors in training. The art of teaching can be learned through observation and experience but is best anchored in the science of teaching. This book is intended to give the theoretical background needed for anyone teaching in the wild outdoors.

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