In the last issue of *TEPE* (May, 2006), I presented low initiatives and activities to begin a two-week unit in adventure education at the elementary level. All the activities described in these two articles have been used with 3rd through 5th grade students during a two-week (10 days) summer camp. If you have the training and facilities, and your students are ready, transitioning to high ropes elements can add even more excitement and fun to learning experiences for them. High elements add an increased perception of risk, which enhances student learning in the adventure education curriculum. Additionally, high elements provide physical and psychological challenges to students that low elements may not. Figure 1 shows the sequence of the two week unit. This article addresses activities for days 6-10.

Getting children off the ground poses psychological and physical challenges that vary individually. It is important to assess the emotional and skill readiness of each class before attempting to utilize high elements in the curriculum. Do not transition to high elements until students can demonstrate a readiness to accept personal and social responsibility, acceptable spotting skills, and a capacity for teamwork, problem solving, and peer communication skills.

This article addresses appropriate goals and activities for adventure education. Subsequent articles will (a) highlight teacher training opportunities, make recommendations for equipment purchasing, and identify strategies for student management during adventure activities; and (b) identify processing strategies (sometimes called *debriefing*) to round out and enhance student learning. Advanced training is needed to safely and successfully implement high rope course elements into any physical education curriculum. The information presented in this article is intended to demonstrate the potential for adventure-related challenges to promote student learning. I hope you will get excited and consider the possibilities for your own program.

Sequencing the learning adventure curriculum is vital to the development of skills, promoting emotional readiness in students, and enhancing the learning experiences during adventure education. Developing trust, communication, problem solving, and teamwork skills should be central components of the unit. Using warm-up activities that focus on one or more of these aspects, before moving to high elements, will help teachers assess the students’ readiness to climb that day. Stress the importance of safety, both emotional and physical,
with students and their role in maintaining a safe learning environment. The importance of safety on a ropes course and during an adventure unit cannot be stressed enough. Protecting the emotional and physical safety of students begins with creating a safe learning environment. So, again, before adding adventure to your curriculum, particularly high elements, get advance training (to be discussed in a subsequent issue of TEPE).

DAY 6: Social Responsibility

The transition to high elements increases the perceived (and actual) risk. It is this perception of risk that sets adventure apart from other activities. Students need to be aware of their responsibility and the instructor’s expectations that everyone must contribute to creating a safe experience when students are off the ground, and they must be held accountable throughout the activity time. Start each day with warm-up activities as presented in week one (Clocksin, 2006). This immediately assists in gauging the readiness of the class to accept social responsibility for their peers. If students are not ready both physically and psychologically, DO NOT CLIMB!

Warm-Up—Pizza Party

The Pizza Party activity revisits themes from days 4 and 5, problem solving and teamwork. Divide students into teams of 3-4. Place the teams in a large circle around a center hula hoop (each team should be about 12’-15’ from the hoop). Provide each team with their own hula hoop (pizza). In the center pizza, place all the toppings (yarn balls, bean bags, tennis balls, etc). The object of the game is to get all the toppings (not just one of each) in their pizza. The rules of the activity are (a) only one topping can be picked up at a time by any student, (b) no throwing toppings, and (c) no blocking or guarding the pizza.

Allow the teams to strategize for a minute before beginning. Let the students know that they will have a certain amount of time to complete the task (e.g., 37) and begin. At the end of the time, stop the class and ask if any team has all of the toppings (no one will, unless they have done this activity before). Repeat the rules of the game and allow additional time to strategize. After several rounds, students will begin to ask questions, such as can the pizzas be moved. Re-examine the rules with them. Is there a rule against moving the pizza? Solution: A team (or, more likely, all) needs to place their pizza on top of the center pizza to have all the toppings in their pizza. Result: Working together as a class allows every team to succeed.

Belay School—Australian “Blob” Belay

Belaying is used to provide support and protection to climbers as they ascend high elements (see glossary on p. 21 for an explanation of terms). The Australian, or Blob, belay technique utilizes a team of belayers to support a single climber (see Figure 2). The climber, wearing a harness and a helmet, is attached to the rope using a double bowline (or similar) knot and a locking carabiner. The Blob delay is formed using a triple bowline knot, which creates three bights in the rope. Create the triple bowline so that each bight is about 2’ in length. Three students wearing harnesses each clip into a bight using a locking carabiner. Additional students can assist in the Blob delay by clipping onto a loop running through the rear of the belayer’s harnesses, creating the potential for a 6-student belay team. Train one student as Safety Officer to check knots, harnesses, helmets, and carabiners before climbing begins.

FIGURE 2 Australian or blob belay.
Designate one student in each belay team as Captain Blob. The Captain’s role is to keep the team working together and to ensure there is no slack in the three bights of the Blob belay. Keeping the slack out of the bights prevents a single belayer from having to bear the full weight of the climber should there be a fall.

Unlike in sport climbing, the Blob technique doesn’t use a belay device or complicated rope handling. Rather, the Blob backs up as a group as the climber ascends, and walks slowly forward as the climber descends. This keeps a constant tension (no slack) on the rope. Also, any climber who falls is supported by the weight of the entire Blob.

Give special attention to instructions the belay team receives regarding the descent of climbers. The belay team must work together to slowly lower the climber to the ground by walking forward. Injury may occur to climbers if they hit part of the climbing element or the ground due to a belay team creating too rapid a descent. If additional security is required, a teacher can easily clip their harness to a student’s harness. Or, if it’s unclear whether or not a group really understands what they’re to do, they can practice by attaching an equipment bag to the rope in place of a live climber.

Climbing Calls

It is the responsibility of the Safety Officer and Captain Blob to make sure it is initially safe to climb. However, throughout the actual climbing process, effective communication is critical, and follows a specific sequence. The climber initiates that sequence:

Climber: “Spotters ready?”
Spotters: “Ready!”
Climber: “On Belay?”
Blob: “Belay On!”
Climber: “Ready to Climb”
Blob: “Climb on!”

During the climb, the climber can call for “tension” (i.e., increase tension on the rope) or “slack” (i.e., decrease tension on the rope). The Blob takes a step away from the climber to create “tension” or toward the climber to provide “slack,” while still maintaining tension on their bights. There should not be slack in the rope or in the bights once the climber has left the ground. When the ascent is complete, the climber announces “ready to descend.” The Blob initially increases tension on the rope (tension) and replies “descend away!” The climber releases from the element, placing his/her full weight on the rope, and the Blob walks forward slowly to lower the climber to the ground.

To minimize the possibility of hitting part of the element (e.g., pole, wires, staples), climbers are advised to move toward the middle of the element, or just below the belay pulley, before descending. When ready, the climber stands up straight and grasps the rope. On “descend away,” the climber leans back and away from the element to be lowered. We recommend that climbers keep their feet in contact with the element until their head is nearly below the level of their feet. This discourages them from “jumping” off like a rappel, and reduces swinging and turning, preventing them from hitting the element as they descend. The sequence ends when the climber calls “off belay” and the Blob responds “belay off!”

High Climb—Catwalk

The catwalk is a telephone pole suspended horizontally off the ground. Students climb a ladder or another telephone pole to reach it. Prior to beginning, ask students to identify 2-3 goals for their climb. These goals should range from something they think they can accomplish (goal 1) to something that will be a challenge for them (goal 2 or 3). The object of the climb is for students to accomplish at least one of their goals. Goals vary by student, from simply putting on a harness to crossing the pole blindfolded. It all depends on the level of challenge each activity poses to the climber. It’s helpful to remind students that everyone has different fears and challenges and that the primary goals of adventure education are to challenge yourself (Challenge by Choice) and respect differences among your peers (Full Value Contract; Rohnke, 1989). Do not require students to climb. Rather, help them find ways to challenge themselves (e.g., putting on a harness, climbing a couple of rungs of a ladder or staples on a pole, taking the lead as Captain Blob).

Management

A single high climb can incorporate 10-12 students (1 climber, 5-6 on the Blob team, 3-5 in other assisting roles) and should be closely supervised by a teacher. Classes might be split into two or three groups and rotated through stations, with a single station being a high climb. Team teaching, or using additional trained personnel, allows for possibly two high climbs to be run at the same time.

Choose activities that reinforce the sequential approach to adventure education and require minimal supervision. Clocksin (2006) includes a variety of activities that can be conducted on low elements while a portion of the class is engaged with a high climb.

All high elements described in this article should be installed, inspected, and maintained by trained personnel. Likewise, teachers should participate in advance training to learn belay techniques specific to each element. Do not allow students to attempt any high elements without a belay. If using a Blob belay, make sure all students on the team understand their responsibilities and how the belay is to work.
Day 7: Personal Responsibility

Warm-Up—Infinite Circle / Zimbabwean Math

The Infinite Circle (or, technically, the Almost Infinite Circle) is a partner activity. Each student needs a short rope (2'-6'). Create a loop at each end (like a set of handcuffs). To begin, one student puts on your handcuffs. A partner passes his or her rope between your rope and body before putting handcuffs on. Thus, partners are attached in the middle, each wearing their own set of handcuffs. The object of the activity is to separate yourself from your partner. You cannot take the handcuffs off your wrists (or your partner’s wrists) at any time.

Allow several minutes for students to step through, around, or over the partner’s rope trying to free themselves (thus, the name of the activity).

Solution: Push a bight of your own rope through one of your partner’s handcuff loops, over and around their hand, and back out of the loop (Rhonke, 1984).

Zimbabwean Math [also called Hands Down] is another activity that requires students to problem solve and tests observation skills. For this activity you will need 10-15 twigs (relatively straight). I frontload the activity by telling students about the six months I spent studying math in Zimbabwe (No, I never really studied math in Zimbabwe) and how the Zimbabwean people created a mathematic system using sticks to communicate numbers (and objects if you want to get really creative). Arrange the students so they can see the area directly in front of you. Kneeling on the ground, align the twigs in a random configuration. When finished, lean forward on your hands and ask students what number the twig represents. The hidden solution is that the twigs represent nothing; rather, the number is expressed by how many fingers you extend on the ground as you lean forward on your hands. Once a few students catch on, the game isn’t over. Allow them to arrange the sticks themselves as their peers continue to mull over the solution.

High Climb—Climbing Wall

A climbing wall is commonly the first high element installed in school settings. Whether a vertical or traverse climbing wall, it can serve as a good problem solving activity. Initially, students have to determine which route works best for them. After gaining some initial familiarity and skill, example problems for them to solve include (a) only use blue handholds, (b) retrieve an object and transfer it to a new location, or (c) use each hold only once (a handhold cannot be used later as a foothold).

Day 8: Teamwork

Warm-Up—Hot Chocolate / 10-Person Pyramid

Hot Chocolate requires teams to successfully cross a stream of hot chocolate (or, as creativity leads you, molten lava or an acid river) using special marshmallows. Each group of 5-7 students needs 3-4 poly spots. The back story is about a chocolate factory that sprung a leak and created a scalding river of hot chocolate (the river is an area 20’-30’ wide students are to cross). The hot chocolate is so hot it will burn through shoes if anyone steps in it. So, each group will need four industrial strength marshmallows (poly spots, small mats, bases) to cross the river. These marshmallows will not melt, but they may float away if left unattended.

Rules:

1. No part of the body can touch the hot chocolate (floor or ground).
2. Everyone in the group must travel as a team, no leaving people behind.
3. A marshmallow left unattended may float away (be taken by the teacher). This prevents students from throwing the poly spots out and trying to jump to them.

Options: I generally provide additional marshmallows to groups that initially show good teamwork. The sanction for stepping in the hot chocolate is either starting over or continuing from that point with a blindfold (hot chocolate splashed into the eyes).

Ten Person Pyramid requires students, in groups of ten, to create a pyramid. The easiest solution is for
students to form it in rows of 4, 3, 2, and 1. However, other solutions are possible. There is no rule that the pyramid must be vertical. Use floor mats if in the gym.

This activity challenges students to listen to each other and negotiate a solution. It’s important that they work as a team and come to recognize that solutions to problems are not always as hard as they seem.

**High Climb – Dangling Quad**

The Dangling Quad (see figure 3) gets its name from the number of climbers that participate at one time. There are variations of this high element for two (Dangling Duo) and three (Trio) climbers. Each climber has a Blob belay team and one or more spotters to assist with the first rung and on the landing. Groups of seven work well [1 climber, 4 blobs, 2 spotters], so this works well for a class with 28 students. The object of this activity is for four climbers to work together to reach the top. The distance between the rungs increases as the climbers ascend the element, requiring them to lift or pull each other up to the next rung.

Students can again set their own level of challenge. A belay team can conceivably pull on the belay rope to physically lift their climber to the next rung, but the real object of the challenge is to get the climbers to work together, even if they’re not able to eventually reach the top.

**Day 9: Problem Solving**

**Warm-Up—Rope Jousting / Commitment**

Students work with partners for these activities. Each pair needs 2 poly spots, one long rope [20’ or longer works best], and gloves (optional, but recommended). Place the poly spots 10’-15’ apart. Lay out the rope between them, leaving 2’-5’ of extra rope at each end. The students each stand on a poly spot and pick up the rope. The object of Rope Jousting is to get the other student to lose balance and step off their poly spot.

**Rules:**

1. You may not wrap the rope around any body parts. You can only hold it with your hands.
2. You can either pull or increase slack in the rope to try and get your opponent off their poly spot.
3. If your opponent steps off their poly spot, you win.
4. If you drop or release the rope, or the end of the rope gets away from you, you lose.

Jousting battles can be single elimination or “best of” rounds (best or 3, 5). Rotate to a new jousting battle [find a new partner] after a loss.

This game is a great equalizer. Brute force turns out to be a disadvantage, showing students how differing talents or abilities can be used to solve unique problems.

**Commitment** (or, Wild Woosey) is a low element activity. Two diverging cables, suspended off the ground, start approximately 8” apart and end 10’-15’ apart. Partners support each other as they each stand on one of the cables. The object is to traverse the cables as far as possible before falling. Truly committed partners can get to a nearly horizontal position.

**Safety:**

1. Do not allow the partners to interlock fingers.
2. Use spotters both behind and between the participants.
3. If performed indoors, place mats beneath the cables.

This is a good time to introduce the zipper spotting technique. Two or more students face each other with arms outstretched. Increase the number of spotters as the protection area increases, in this case, as the participants move along the cables and get further apart. As more spotters are added, the position of the arms forms a zipper pattern. The spotters legs should be in a staggered, ready position (see Clocksin, 2006).

**Commitment** can also be performed without the cables. Have partners clasp hands while standing 3’ apart. Once balance is achieved, one person at a time takes a small step backward. Continue to alternate stepping backward until balance is lost. Practicing this before moving to the cables works well.
High Climb—Vertical Play Pin

The Vertical Play Pin combines a variety of objects (e.g., tires, ladders, rungs, staples) to form a vertical obstacle course for the climber. The design of each play pin is different, but the object is the same: get to the top. Many Vertical Play Pins allow two or more students to climb at the same time. This element requires problem solving skills to determine the best “route” to the top and when teamwork is needed. Allow students to strategize before beginning their climb.

The initial challenge on the course we use is a Fire Cracker Ladder on one route and a Hanging Ladder on the other. The Fire Cracker Ladder requires greater strength and coordination to accomplish. Allowing both students to utilize the Hanging Ladder is an appropriate solution to this challenge.

Day 10: Goal Setting

Warm-Up—Hoop Pass

Hoop Pass requires hula-hoops (3-4 for a group of 25). Arrange students in groups of 8-10. Groups should stand in a circle holding hands. Place a hula hoop between two students, so it is hanging on their arms while they hold hands. The object of this activity is to find a way[s] to pass the hoop around the circle without letting go of each other’s hands. Allow groups to practice for a few minutes and then time them. Make up a world record time or a state record (e.g., 13.75 seconds) and have students shoot for that or set a goal time to achieve. After timing them once, challenge them to beat their time or find another way to move the hoop. It’s sometimes necessary to make groups uneven so they are not competing against each other, but against their own best time. Other options: add a second hoop; have one hoop go clockwise and the other go counter-clockwise.

High Climb—Zip Line

The Zip Line is one of the most requested high elements by students. Students climb, on delay, to an elevated platform where they are attached to a pulley system on a cable running from one pole to another. The height and length of zip lines vary by site and can include gravity brakes or braking blocks to slow the descent of the zipping student or stop them at the bottom. A minimum of 3 adults are needed for this activity (one to supervise belay team, one on top of the platform, and one to supervise the recovery of students as they finish zipping).

The Zip Line element poses two challenges to students. First, it is a high element so students must climb to the platform while on delay. The second challenge is the speed of the descent while attached to the pulley system. Use goal setting and allow students to set their own level of challenge. Caution, the Zip Line is not an efficient activity for large classes, as the set-up and facilitation is time-consuming. However, there are multiple support roles: a Blob belay team (4+ students, 1 teacher), ladder/spotting team (2+ students), recovery team (4+ students, 1 teacher), in addition to the climber. Expedite the process by starting the next climber up to the platform as the prior student begins to zip.

Starting the Adventure

There are a variety of ways for physical educators to insert adventure education into the curriculum. Clocksin (2006) presented several low activities that can easily be implemented. This article, in contrast, has presented high elements the author has used with elementary students. These activities present a greater challenge to the teacher, in terms of access to a facility and the need for advance training. However, the next article in this series provides information on training opportunities, suggestions for equipment purchasing, and strategies for student management.

References


Glossary

Knots serve very specific purposes and are included in ropes course training. Therefore, instructions for tying the knots are beyond the scope of this article. Good knots reduce shear forces on the rope itself.

**Belay**—Any method of protecting a climber using a rope.

**Belayer**—Any person holding a rope for the purpose of protecting the climber in case of a fall.

**Bight**—A bend in the rope. Tied off by a knot, the bight forms a loop.

**Bowline knot**—The bowline creates a bight that cannot slip or change size. The double and triple bowlines create two and three bights, respectively.

**Carabiner**—An oval ring of metal with a gate that allows a rope to be inserted or removed. The locking carabiner has a nut on the gate that can be screwed to prevent it from accidentally opening.

**Climbing wall**—A surface designed to simulate rock climbing.

**Traverse**—A long, low surface upon which climbers travel sideways rather than up.

**Vertical**—A narrow surface that extends up, often to the ceiling.

**Route**—Synthetic climbing holds are applied to the wall in ways that force climbers along a particular path, or route. Holds of various sizes or shapes allow for routes of varying difficulty from which to choose. Often, holds are color-coded to differentiate the routes.

**Slack**—Looseness in the rope. The more slack there is in the rope, the further the climber is able to fall and the greater the force on the belayer responsible for halting the fall.

**Tension**—Lack of looseness in the rope. While ascending, there should not be enough tension to lift the climber, but there should also not be any sag in the rope between the belay pulley and the Blob team.