CSUN *Challenge Course* Training Manual.

Training Manual for Staff
at
the Challenge/Ropes Course Programs

at

Recreation and Tourism Management Classes

California State University Northridge

&

Other places seeking a guide for safe learning practices

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Written by Keith Neuman
Edited by Al Wright

CHALLENGE COURSE FACILITATOR MANUAL

TABLE OF CONTENTS

INTRODUCTION

This manual has been designed to give the facilitator an overview of the philosophy and the operation and safety procedures for running the various aspects of an Adventure Challenge Course.

It is not intended to be an all-inclusive manual that expounds every detail of the Adventure Challenge Course experience but rather to give a solid foundation on which the facilitator can build a complete operational platform, based on national best practices, personal experience, and personality.

It should not be used indiscriminately by any person, group, or organization that has not received direct experiential training in Adventure Challenge Course operation. This manual is supplemental to the hands-on training experience. There is no substitute for adequate training of the facilitator to equip them with skills needed to work effectively and safely with participants in the program. Facilitators need to know what they are doing at all times during these activities to avoid sloppy programming and poor safety monitoring and procedures.

This manual, in use by the Adventure Learning Center for California State University Northridge or regular curricular classes, is understood to be a supportive document to the Standards and Policies for Staff manual which cover safety policies for all adventure-based programs including ropes courses and wilderness environments. All general safety policies and procedure represented in that document are applicable to the operation of the ropes course including, but not limited to, release forms, communication plans and so forth.

The release forms for the challenge course are slightly different than the standard class form and represent an even greater shift of responsibility for assuming risk to the participant as it relates to medical conditions. Adults in particular are to be reminded that high ropes course experiences carry certain risks and that agreement to participate is fully the decision of the participant.

Operating an Adventure Challenge Course, with the high level of excellence required, is a challenge in itself. This manual will be an effective tool to help motivate Adventure Challenge Course facilitators to approach the task with exuberance and gusto, and to help participants to enjoy a unique and exciting educational experience.

Adventure Challenge Course is the name of the total program. Group initiatives identify components that require group effort and cooperation. Ropes course signifies components that require primarily individual effort and can be divided into low ropes and high ropes. Adventure Courses typically utilize structures (components or elements) made with rope, steel cable, and wood. The environment for these Adventure Challenge Course programs is a series of components, usually installed in a wooded area at ground level for the low course and elevated in trees or on poles for the high course. The components are walls, beams, nets, cables & rope traverses, bridges, ladders, and platforms.

In group initiatives, a small group of 8 - 12 participants are asked to achieve a component or goal together. In individual initiative activities, an individual participant is asked to achieve a component goal usually without physical help from other members of the group, although some of the course components will be completed with at least one partner. Speed or individual excellence is not the goal. Success in determined

by extent to which groups are willing to try something new and work together to accomplish the task. As group members interact in a supportive, caring manner in an attempt to solve an initiative or offer moral

support to a fellow member facing and individual initiative, team building, individual growth and camaraderie take place.

The facilitator=s role is to provide safe, supportive, non-judgmental permission to try to accomplish tasks beyond preconceived limitations. This de-emphasis of judgment will provide an activity climate in which individuals and groups will find it necessary to compete only with themselves in their striving to succeed and not with each other.

Risk taking is a key factor in these programs, for it is from risk taking that the greatest personal benefit and growth are derived. As the individual participant voluntarily takes greater and greater risks, dealing positively with the fear associated with facing and unknown experience, a feeling of increased self-confidence can be gained and a new or increased potential to try greater challenges. Yet, if an individual is pushed beyond a personally manageable level of risk-taking, panic can take over. The result will be a greatly reduced attempt and diminished self-confidence.

It is here that the facilitator will need to exercise good judgment in working with a participant who is experiencing difficulty in doing one of the components. This does not mean that the first indication of fear should be taken as a sign that they will not be able to continue, but that the facilitator will need to be sensitive to high levels of fear or other signs that the participant has had enough. After all, the inability to complete the task initially does not necessarily mean failure. Another attempt at a later time may provide another opportunity to face the challenge and try to go further. An important key is to remember that true success isn't always found in the completion of an activity. Instead, it is often found simply in the effort put forth to truly try.

THE ROLE OF THE FACILITATOR

The role of the facilitator is to facilitate, not act as a teacher, preacher, or other form of 'teller'. The facilitator is a leader who facilitates the learning process. The facilitator should be able to exercise mature control over a group activity and influence groups and individuals to accomplish particular objectives. The facilitator needs to be sensitive to the personality and mood of individuals and groups and be able to function in an assisting, enabling role in the process of leading them to reach their full potential.

The facilitator should understand that each individual is distinct in physical and emotional abilities, and does not expect each individual to be able to do the same things in every way as other members of the group. Each individual should be expected and encouraged to make an effort and do their best, even if that is only a single step. But, if the facilitator becomes too carried away with expectations, hindrance rather than help will be the result.

It is important for the facilitator to realize that they cannot totally change, in a short period of time, the fears and lack of self-confidence that have taken years to develop. The greatest opportunity will be to plant seeds in people in the hope that they will grow into healthy plants in the future. This is accomplished by providing safe, supportive, non-judgmental permission for the participants to make an effort to move beyond their personal expectations and limitations. It is their responsibility to provide the environment within which the participants may succeed while leaving the outcome of success or failure to the participant.

The facilitator should take neither complete credit for the participant's= success nor blame for their failures, and should remember that individuals will not accept or pursue these high adventure activities with equal enthusiasm. Excessive time should not be spent trying to force an individual to do an activity simply to satisfy the facilitator=s ego. Planting the right seeds in the participant will cause greater growth than trying to force what was not meant to happen at that particular time.

On the other hand, the facilitator should not give up too soon when an individual is experiencing difficulty, but should continue, with reasonable limits, to challenge the individual to press on beyond self-imposed limitations. It takes time for the facilitator to learn to recognize when a participant has reached their limit, but it is important to do so. To rescue too soon provides the easy way out that some participants seek; to continue too long can create ill feelings, resentment, and even panic. The facilitator should be satisfied with any honest attempt and accomplishment. Their role is to set an example, to motivate, to stimulate, to be flexible, to understand, to maintain a positive attitude, to minimize negative interaction, and to encourage group members to support each other.

There is a clear distinction between actual and perceived risk. Perceived risk is the risk that a participant feels during an Adventure Challenge Course experience. Reasonable risk-taking is a part of living. Actual risk is the possibility of physical injury to the participant if something should go wrong. Perceived risk should be kept in the activity, but activities should be operated within the parameters of proven safety procedures so that the actual risks have been eliminated.

PROCESSING THE ACTIVITY

Processing the adventure experience is an important aspect of these programs. Processing involves discussing how the group performed during a component activity. These post-activity discussions are a valuable tool for helping the group members understand the individual and group dynamics that were in evidence as they dealt with the problem and interacted.

The facilitator should carefully observe what is going on as the participants work at each activity, keeping some basic questions in mind:

1. How well is the group functioning as a unit? Are group decisions being made, or are things happening in a random manner? Does this change, in either direction, as time goes on?

2. What leadership patterns are emerging? Is someone taking over the group without really knowing what they are doing? On the other hand, is someone with a really good idea not being given the opportunity to express it?

3. Are the group members showing sensitivity to each other? Almost every group will have and individual or two who hold the group back because of lack of coordination, size, or other potentially handicapping condition. The successful completion of some of the group components will require that the stronger members assist weaker ones. How is the group dealing with this?

4. Are the participants having fun? These components are serious and often difficult work. Yet, they are also play.

5. What was the goal of the group or the task? Was it accomplished? How does each individual feel about the task? What did they learn about self and others? How do things learned here apply to other areas of life? What was the most difficult part? What was the easiest? What was the most rewarding? Why?

As these and other questions are being discussed, group members can be led to confront the positive and negative factors of their experience and to evaluate how they functioned as persons and as a group; why they did well? why they didn't?

This processing time takes place at the end of each component experience, and the level of intensity of the discussion will be governed by the needs of the group. The participants may have undergone a very demanding experience and they may need to share what is going on inside of them. The facilitator needs to create an atmosphere in which it is easy for them to do so.

PROCESSING TECHNIQUES

1. In the activity area, sit down if possible, and sit in a circle so everyone can see, hear, and be comfortable.

2. An individual may choose to "pass" and make no comments. The facilitator should not be coercive but should try to involve everyone in the discussion. The facilitator may need to ask everyone in the group to respond to a question in a systematic pattern in an effort to include everyone in the discussion.

3. Random responses are best. Sometimes, the facilitator may need to direct a question to a particular person.

4. No put-downs or negative comments should be allowed to go unresolved.

5. Appreciation should be expressed following each comment.

6. During the discussion, the facilitator should find ways to determine whether group members remember what others have said. Are they really listening?

7. A spirit of empathy and patience within the group should be encouraged.

8. The facilitator should not finish the thoughts and sentences of participants.

9. The facilitator should ask open-ended questions that stimulate discussion. Avoid questions that necessitate yes/no responses as much as possible.

NOTES ON DEBRIEFING

Debriefing and reflection can be the most crucial part of learning from a group experience. Always leave time to debrief right after the experience with everyone present. Debriefing allows persons to work through their feelings and draw out their learning. Feelings should be dealt with first. Processing hints include.

Experience - actual involvement in group experience or individual experience, making decisions.

Identification - "What Happened?" What can you identify that happened in the experience? To whom did it happen? When? How did you feel? What did you do as a result of what happened? Look at the facts; explain the symbolism, surface feelings.

Generate data:

What made you feel good or bad?

What did you feel was the most significant thing that happened?

How did you feel when...?

What were your reactions...?

What were other people's reactions?

Analysis - "What really happened?" Can I analyze the experience to see what made things happen the way they did? What seemed to be the behavioral patterns? What blocked or aided the process? What were the results of the strategies used? Think about outcomes, cause and effect relationships. Explore the results of alternative actions. What problems did you face & how did you attempt to meet them? How were you affected when this happened?

Generalization - What can I learn that is applicable in other situations? What correlation can be made between this experience and other life situations? What did I learn? What conclusions can be reached? Can I apply this to other experiences in life? The Adventure experience is over & can never be the same, but my life after the Adventure experience is just beginning. I will be different because of this experience.

FOLLOW-UP

Discuss feelings from different points in the activities, both physical and emotional. Which are easiest to express? Which are the most difficult to express?

Did People listen to you, did you listen to others? Were all suggestions heard, followed?

Who assumed leadership roles? Did it shift among people? Was it difficult for a leader to emerge and lead?

Who assumed the role of follower? Was it always the same people? Were there times when were you definitely a leader and definitely a follower? Did you feel more comfortable in one role versus the other? What can you do to improve your role as either a leader or a follower?

How were group decisions made? Were you satisfied with the decisions? Did the whole group have part in the decision-making? Did everyone get to express their feelings? How did you feel about the process?

What is an example of cooperation from your group experience? Do you tend to cooperate or be independent? What are the rewards for cooperating? Are there problems with cooperating? Was there anything blocking cooperation within the group?

What is an example of when you trusted someone during the activity? When someone trusted you? How would you rate your group on overall trust?

What did you learn about yourself?

What did you learn about others?

How do you feel about yourself and others?

What new questions do you have about yourself and others?

What skill can you work on to improve?

Was your behavior typical of the way you usually act in groups?

How can you use what you learned in other life situations?

Would you do anything differently if you were starting the activities over?

What would you like to say to the group members?

OPERATIONAL PROCEDURES FOR LOW ELEMENTS

Low Elements are problem-solving activities that are accomplished through the combined effort of a group of 8 - 12 participants. Each employs an apparatus (component) in an activity designed by the facilitator to accomplish a particular objective or group of objectives. Objectives might include increased self-confidence, increased trust in others, and cooperation toward a common goal, communication, teamwork, group building, and the development of problem-solving skills.

In leading the group toward the accomplishment of desired objectives, the facilitator may add personal ground rules to better achieve the objectives or to adapt the activity to the specific needs of the groups and individuals. Examples of ground rules include:

* role reversing

* only one helper on top of the wall

* no talking by anyone, or by only certain members

* blindfolds

* limit the use of an arm or leg for one or more members

However, the activity is structured, it is imperative that the facilitator place total responsibility for its completion on the group. The group members discuss the activity and then decide how to approach the activity. Throughout the activity, the facilitator=s primary responsibility is to maintain the safety of the

participants. Therefore, even though the group is supposed to accomplish the task unaided, the facilitator must address any safety problems that arise. Some responsibility for safety may be shared by the group. This can be done by asking such questions as "Is your procedure safe?"; "Is it as safe as it can be?"; "How can you make it safer?". The final decision on safety, however, always falls to the facilitator.

Although each group initiative component has its own set of safety rules and procedures certain ones are common to all:

1. Check the site for hazards.

2. Check overhead for possible dead-fall.

3. Remove all jewelry, possibly glasses, and everything from the mouth and pockets.

4. Check the component for stability and look for possible breaks, rot, and vandalism including impact to the surrounding area such as broken glass or other recently arrived hazards.

5. Carry out your role as facilitator which includes:

    a. Focus attention on the activity at all times.

    b. Insist that the participants follow all safety rules, being consistent.

    c. Stand close to the activity to respond to safety concerns and emergencies.

    d. Establish ASTOP" as a command to freeze.

6. The responsibility of the facilitator is safety. Never allow yourself to be a participant in the activity.

7. Establish and practice a clear sequence of spotting commands by which everyone knows when spotting begins and ends.

The facilitator=s role is also to help prepare the group to process the experience. As the group deals with each component, various issues will surface. The facilitator should note these issues for discussion during the processing. Issues that might arise include:

Stereotypes, roles, success, failure, defeat, communication, trust, comfort, support, teamwork, frustration, patience, control...

SPOTTING THE LOW ELEMENTS

Throughout the low elements protection from injury is afforded to participants by an alert and caring group. Spotting is not only functional, but often promotes group interaction, problem solving, and team building. The basic spotting techniques are sometimes taught during the first initiative. Our veteran facilitators have started to introduce spotting at the teachable moment in the continuum of activities from least risk to most risk. Important concepts of spotting include:

1. Protect the body, particularly the head, neck, and back from injury in case of a fall.

2. The group must be alert and physically prepared to break a fall.

3. Be conscious of the Spotting Radius - that area around the participant where the group can protect a participant regardless of the direction of fall. facilitators should not hesitate to move individuals in order to cover the area. This spotting radius should follow the participant on traversing elements as well.

4. Each spotter must spot with the attitude that they are the only person spotting.

5. Hands must always be up and in the ready position. This simple act alone will give the facilitator feedback that the group is tuned into the activity.

6. Don't allow participants to jump from an obstacle unspotted to the ground. This often results in sprained ankles.

7. It should become habit forming for facilitators to give reminders about good spotting throughout the experience. Feedback to specific individuals or to the group as a whole often model the importance of good spotting. The technique of caring for one's physical well-being is often a strong catalyst in building working teams.

8. Signals must be used in initiative activities where there is a possibility of injury. These signals must be clear, precise, and accurate.

Climber Spotters

(1st) Spotters Ready?

(2nd) Ready?

(3rd) Climbing!

(4th) Climb On!

(5th) Spotters Ready?

(6th) Ready!

(7th) Falling!

(8th) Fall on

9. Facilitators should demand and enforce good spotting technique. One can always refer to the covenant.

10. Any unsafe methods such as throwing people, hanging upside down, diving, or over straining specific individuals should be stopped immediately.

11. Prior to each initiative the facilitator should state the objectives and emphasize the safety procedures and the hazards associated with this particular activity.

12. Spotting techniques should be demonstrated and practiced before the participants take part in spotting an event.

13. No more than two levels of participants should be stacked vertically at one time.

14. Do not allow the participants to joke" about not catching someone firmly. This can be detrimental to the development of trust within the group.

Trust Fall

As the name implies, this is an exercise in building trust within a group as well as within individuals. The procedure involves falling backwards from a platform into the outstretched arms of the group. Although potentially one of the more dangerous initiatives, this activity has the potential to build a great deal of trust and cooperation within a group to a degree that few other initiatives can achieve. Care and support are key elements from the facilitator to make this a successful activity.

1. Falls should be no higher than chest height of the average group member.

2. There must be a minimum of 6 spotters.

3. Demonstrate how to spot:

    a. Face each other in two rows, arms altered in a zipper pattern.

    b. Arms and hands should not be locked.

c. With palms up, arms are bent 90 degrees at the elbow. Hands should be halfway between the opposing person=s wrist and elbow.

d. Feet planted firmly shoulder width apart with one foot forward and the knees slightly bent.

e. Heads should be tilted back slightly and the spotters should watch the one falling.

f. One spotter should be at the head of the two lines and is responsible for lining the group up with the one falling as well as for protecting the faller's head, neck, and shoulders.

4. Position the Faller:

a. Hands must be crossed and locked in front of the faller, grabbing clothing under the opposite arm accomplishes this position, as does stretching arms out in front with backs of hands facing each other, crossing arms, interlocking fingers, and drawing the hands up to the chest.

b. Back and neck should be arched slightly back.

c. Feet together and knees locked.

d. Demonstrate the dynamics of the "butt first".

e. Faller should keep arms in until lowered.

5. Describe and explain all commands.

Climbers	Spotters
1) Spotters Ready?	2) Ready?
3) Climbing?	4) Climb On!
5) Set	(Reposition)
6) Spotters Ready?	7) Ready!
8) Falling!	9) Fall On!

"Ready" means hands in position, spotters looking at faller, paying attention, and covering the Spotting Radius.

6. Signals must be clear, precise and accurate.

7. Group Spotting is as follows:

   a. Divide spotters in half and have them face each other.
   b. Place one spotter at end of line in the position to catch head of falling participant; don't back away.

   c. Keep heads back and facing the falling participant.

   d. Place palms up, elbows bent slightly with alternating hands.

   e. Plant feet with one back, flex knees with the weight of the falling participant.

   f. Spotters must catch and gently lower the fallen participant to the ground feet first.

   g. Stress the importance of protecting the head and neck.

   h. Teaching this activity requires full time supervision. Generally, the facilitator will not participate by falling unless another facilitator is present or you are absolutely certain your fall can be safely monitored and spotted.

   i. Do not allow spotters to grasp and lock hands.

   j. Watch out for opposing heads.

   k. Start low and go higher is you have any concerns about group's ability to be responsible.

   l. Facilitator reminds ‘faller’ to ‘lead with their head’ as they fall backwards so they will do a ‘layout’ style fall (this avoids the lead with your butt taking you into a ‘pike’ position.

8. The facilitator should place hand on back of faller's leg until faller is ready to fall.

9. As the facilitator releases hand from leg, faller may fall, once proper commands are followed.

The Wall

The objective of this activity is to get the entire group safely over a wooden structure. This is an excellent initiative to help groups develop planning and problem solving skills as well as group cooperation, trust, and support. Starting on the smooth surface of the wall, the group members help each other go up and over the top while observing the following:

1. Climbers must be spotted at all times by the entire group until both feet are on the platform on the back side of the wall.

2. The following series of commands must be used by the climber and spotters:

Climbers	Spotters
1) Spotters Ready?	2) Ready?
3) Climbing?	4) Climb On!

3. Responsibilities of the climber:

a. No fingers in holes or cracks.

b. Stay on the face of the wall.

c. The head must be higher than the knees at all times.

d. Climbing is the only way permitted to go up the wall.

e. Only one participant may climb up the wall or down the ladder at a time.

4. There should be a maximum of two participants assisting from the platform at any one time. Their feet must be firmly on the platform and their heads may not go lower than their knees. The people on the platform must be particularly aware of their own safety.

5. Props such as belts, pants, ropes, and tree limbs, or the use of human pyramids or stepping on backs is not permitted.

6. Discuss the three types of falls: straight down, pendulum left, pendulum right.

7. Spotters must spot 180 degrees tight to the wall watching for all types of falls.

8. The entire group is responsible for spotting climbers on the face of the wall as well as climbing down the ladder. The commands should be used before climbing the wall and descending the ladder.

9. Spotting procedures:

a. All participants not climbing or on the platform must spot.

b. Spotters must keep one hand in front of their own face to protect against kicking feet and falling dirt. The other hand should follow the climber as they climb in order to be able to catch them if they fall.

10. The facilitator should be positioned to monitor safety at all times. This includes watching spotting on the backside as well as the front, and standing close to the group in case backup spotting is needed.

11. Once a participant has gone over the wall and has touched the ground on the other side, they cannot physically assist any other climber. However, they must continue to spot other climbers at all times.

The Beam

The Beam is an 8 - 10 foot long log attached between two trees, parallel to and approximately 7 feet above the ground. The objective is similar to the wall but with a different environment. The same type of group dynamics will develop. It is an easier task than the wall, but can be structured so that it is harder. Safety procedures for this activity are the same as those for the wall with the following modifications:

1. Climbers must be spotted 360 degrees at all times by the entire group until they are back safely on the ground.

    a. It is essential that the spotters are 360 degrees around the climber as well as directly beneath as they climb.

    b. Spotters must take care to protect themselves, since there is a potential to be kicked by the climber.

    c. Anytime there is motion on the beam, everyone must be spotting.

2. To dismount, the climber should swing both legs over with their stomach on the beam and allow the group to lower them to the ground. Participants should never be allowed to jump to the ground.

3. There may be a maximum of two participants assisting from the beam at any one time:

    a. Legs must be locked beneath the beam and another participant must spot them by holding the feet.

    b. The head may not be lower than the waist.

    c. If the legs come unlocked, with feet unspotted, the activity must begin again.

4. The trees that support the beam may not be used by participants.

5. As with the wall, props, and human pyramids are not allowed.

6. Spotting commands are to be used.

7. Once a participant has gone over the beam, they may not physically assist climbers, except to lower them to the ground and to spot.

Tired Pole/ Tired Tree/ King=s Ring

A tire is placed over a pole that is no more than 12= tall. The group is to get the tire off of the pole, to the ground, then back onto the pole and to the ground. The process can be done in reverse if the tire is off the pole at the beginning.

1. The tire must touch the ground while around the pole.

2. The same physical setup cannot be used to put the tire on and off of the pole.

3. The tire must be lowered to the ground, not dropped.

The Incomplete Bridge/Islands

This component is made up of three separate platforms set in line with each other with an eight-foot space between each platform. Each platform is approximately eight inches above the ground, with the center platform having approximately one half the surface areas of the two end platforms. The group must work together to get from one end to the other without touching the ground. The only props that may be used are two boards. One board is seven and a half feet long and the other is four feet long. The facilitator must be alert to spot the group during this initiative, since all the participants are involved in the activity. This is an excellent initiative for discovering and developing communication patterns and for observing problem solving capabilities within a group. For some groups, this activity should be done in silence.

1. The entire group must move from platform A to B to C without touching the ground.

2. The two boards are the only props that may be used.

3. Neither the boards nor the participants may touch the ground at any time. If either touches the ground, that attempt for completion is over. The facilitator may limit the time or number of attempts.

All Aboard

The All Aboard is a problem-solving task which utilizes a small platform, usually two feet square or smaller. The object of this activity is to get the entire group standing on the platform at one time for a period of at least ten seconds. Since the entire group is involved in the activity, the facilitator must provide spotting. The activity will show development of leadership and communication skills, persistence, compromise and more.

1. Participants may use any method they can think of to get on the platform.

2. Facilitator must stop any process that could be dangerous.

3. Size of all aboard picked depends upon the size of the group.

4. Facilitator must act as spotter.

5. Do not allow individuals to lock arms back-to-back.

6. Do not allow stacking.

Variations

1. This initiative can be made more challenging by adding the following procedures:
   a. add a longer time count,
   b. allow no talking
   c. add more participants
   d. use a smaller platform

2. The all aboard can be made less challenging by dividing the group and shortening the time count.

3. Portable platforms can be used indoors in severe weather.

Spider's Web

The objective of this activity is to transport each member of the group through the various openings in the spider′s web. This initiative has the potential for injury since individuals are being lifted off of the ground by the group with at least part of them not being supported on one side of the web. Therefore, the facilitator should take great care to watch that the proper spotting and safety procedures are utilized. Leadership, communication, cooperation, problem solving, and trust are all issues that readily flow from this activity.

Procedures

1. The group may use each hole of the web only a specified number of times as determined by the facilitator.

2. If a participant touches the wire while attempting to cross through or while assisting, the entire group must start over.

3. Spotting must be enforced at all times.

4. No one should be allowed to jump from another participant's back.

5. Do not allow participants to throw people or to dive through web.

6. Spotters may be positioned outside the fence until the group has enough participants outside to provide safety for those exiting the area.

Trolley

The object of this activity is to cross a specified distance using trolleys with ropes attached. This activity increases communication, coordination, and develops team work.

1. The entire group must ride the trolley a given distance.

2. Group may use ropes or each other for balance.

3. If any member falls off, they must walk backwards, or the group starts over.

Variations

1. Ask group to step sideways over objects, walk up and down hills, through mud, over mulch piles.

2. Use the trolley as hands on the clock and rotate.

T. P. Shuffle

The Telephone Pole Shuffle utilizes a log that is lying on the ground. The group can be divided into two either before or after the stand up on the pole. The two groups are stationed at opposite ends of the pole facing toward the center. The goal is to remain in order and get to the other end of the pole from where they start. This must be accomplished without anyone touching the ground, which would necessitate the entire group starting over. This activity generates lots of laughter and group togetherness. Young participants may simply cross the log from end to end one, two, or three at a time while the others spot. In this variation, one may be sighted and the others crossing can close their eyes to add to the challenge.

Nitro Crossing

A cable is strung between two trees from which a cable is suspended. A removable rope is attached to the vertical cable. Participants are to use the rope to swing across a set distance without touching the ground. One member of the group transports a bucket of "Nitro" to the other side without spilling any of the contents.

Safety precautions:

1. The facilitator must go back and forth as each participant swings paying careful attention to catch a participant who may slip from the rope, supporting the head, neck, and shoulders.

2. The rope used for swinging may not be tied around and part of a participants body. Only the pre-tied knots may be used.

3. Ensure participants who have swung previously are prepared to catch the next person swinging by using commands: "Spotters Ready?" "Ready"; "Swinging"; "Swing On." Or the facilitator can simply spot each swing across the 'nitro' swing area.

Wild Woozy

This initiative utilizes a cable that is stretched between three trees to form a large triangle. The group divides into pairs and each pair must maneuver along the cable from the narrow end of the triangle to the

wide without touching the ground. The activity provides illustrations of teamwork, support, trust, communication, coordination, and problem solving. It also highlights that relationships are stronger when people truly support and encourage each other and give themselves fully to the relationship.

1. The members of each pair must have their feet on separate cables and may use only one another for support.
2. Only one pair on the cable at any one time.
3. The rest of the group must spot 360 degrees around both members of each pair at all times while they are off the ground.

4. Group members may not physically assist the pair on the cable in any way except to catch them if they fall.

5. Participants may touch only the trees to which the cable is attached.

6. "Success" in this initiative may be measured in several ways:

    a. One pair must get from one end to the other without touching the ground and each pair gets one try.
    b. count the number of pairs that can cross the cables.
    c. each pair must cross the cable with a limited number of tries.

Through The Tire/Rebirth/Tunnel Escape

The object of this activity is to safely move the entire group through a tire that has been suspended several feet above the ground between two trees. Boundary markers are placed on the ground two - three feet on either side of the tire. These markers delineate the area within which the group may not stand while doing this activity.

1. All participants must pass through the center of the tire.

2. Once an individual has gone through, they may not go back to the starting side.

3. No one may step within the area between the boundary markers during the activity.

4. The facilitator should act as primary spotter for the first and last participant through the tire.

Traffic Jam

The object of this activity is to get group members to the opposite end of the line while staying in the same order. Group cooperation, problem solving, and communication are emphasized.

1. Place one more stump or stick in a line than the number in the group, leaving the center one open.

2. Divide the group in two. One group faces the other group, with a single empty stump in between. To complete the game, they must exchange positions.

Legal Moves:

a. move onto an empty stump in front.
b. move around someone facing you onto an empty stump.

Illegal Moves:

a. backwards
b. moving around someone facing the same way you are.
c. more than one person moving at a time or exchanging.

Stump Jump

The object of this activity is to have the group get around a circle of stumps without touching the ground and with only one person on a stump at a time. The activity emphasizes teamwork, communication, and coordination.

1. One stump for each participant in a circle. Distance determined by the participant, should be a good jump. Their task is to move from stump to stump until they get back to the start.

2. Only one person on a stump at a time. Everyone must move at once, if you touch the ground everyone starts over.

Variations

1. Hop on one foot.

2. Alternate landings, right foot, left foot.

Paradise Island

The object of this activity is to have the group cross from one side of the "river" to the other. It focuses on problem solving, support, and communication.

1. Participants must get from Point A to Point B (8 feet) without touching the ground.

2. Equipment: eight blocks, four 8= X 4″ X 4″ and one 5=9″ X 4″ X 4″.

3. Group must get from one side to the other without touching the ground and without letting the boards touching the ground. If a board or person touches the ground, the group must go back to the beginning.

River Crossing

The object of this activity is to have the group cross diagonally from one side of the river to the other. It focuses on problem solving, support, and communication.

1. The group must get from Point A to Point B without touching the ground.

2. Equipment: ten blocks and four 8=X 4″ X 4″.

3. The group must get from one side to the other side without a person or a board touching the ground. If a person or a board touches the ground the group must go back to the beginning.

Mohawk Walk/ Group Tension Traverse

Participants are to traverse a cable attached to several trees, joined together in one spot.
All participants must be on the cable before the first person can get off. The trees and other participants may be used for support and stability. Instruct participants to simply step down off the cable if they are falling.

Swinging Log

Participants cross the log one or two at a time while the rest of the group spots both sides of the log and the cables at each end. No more than half the group should be allowed on the log at one time. Instruct participants to simply step down off the log if they are falling.

TP Shuffle

A log is used for participants to cross. The groups is divided in half at each end of the log, facing toward the center. The object is to remain in order and get to the opposite end of the log without anyone touching the ground. Young participants may simply cross one, two, or three at a time while the others spot. In this variation, one may be sighted and the others blindfolded.

Teeter-Totter

A tree is supported in the middle with a cable strung between two trees and is approximately 10″ off the ground at the suspension point. Participants are divided into two groups of their choosing and must sit on the log to achieve balance of the log with all feet, hands, and end of the log off the ground. Instruct participants not to get off the log quickly while anyone is still on the log.

Tire Traverse

Two trees are used to support a cable that suspend 4 - 6 tires by ropes. The tires are between 1 and 3 feet off the ground. The goal is for each member of the group to traverse the distance, going from one tire to the next without touching the ground. Members of the group spot one another to insure safe crossing. Alternatively, the group can be divided in two and proceed from opposing directions, crossing one another.

ADVENTURE CHALLENGE COURSE FACILITATOR TRAINING

Self-evaluation checklist

Name _____ Date _____

The following checklist will give trainees an indication of their level of knowledge and ability in safely conducting a ropes course, initiative course or climbing wall experience. If there are any areas of which you are unsure, you should ask for assistance from the facilitator.

Philosophy: Trainees will demonstrate knowledge of Goals of Adventure Challenge Courses

Leadership: Trainees will demonstrate knowledge and ability in:

__1. Their responsibilities, limitations, and liabilities in conducting Ropes Course activities.

__2. Characteristics of an effective Challenge Course Facilitator.

__3. Basic principles of interpersonal relations and group dynamics.

__4. Planning an appropriate progression of Challenge Course activities.

__5. The various ways to present elements to a group.

__6. Organizing and delegating responsibilities in the proper set and take down of Challenge Course operations.

__7. A commitment to maintaining proper standards of safety in Challenge Course operations.

__8. The common risks on the Challenge Course and appropriate preventive measures for each.

__9. Where to find emergency assistance and techniques for summoning aid.

__10. Basic First Aid - CPR Certification. The signs and symptoms of hypothermia, heat stroke, how to prevent it, and its treatment.

__11. Scheduling of the ropes and initiative courses.

__12. Pre-activity responsibilities.

Knowing the Ropes: Trainees will demonstrate their knowledge and ability in:
__1. Carry out the routine inspection of the Challenge Course.

__2. Properly inspecting and caring for ropes, sling lines, carabiners, anchors, and harnesses.

__3. Safely handling, setting up, and transporting extension ladders.

__4. An awareness of existing weather conditions and policies when an activity must be terminated.

__5. Correctly setting anchors and stringing belays.

__6. Discussing philosophy with the participants. (Risk / Effort / Support)

__7. Discussing spotting and general safety guidelines with the group.

__8. Setting the group covenant.

__9. Techniques for minimizing environmental impact.

__10. Strengths and other characteristics of various ropes, attachment hardware, overhead belays, and related equipment.

__11. Properly inspecting, and caring for belay ropes.

__12. Tying the figure eight and water knots.

__13. Properly fitting harnesses and helmets with double check.

__14. Introducing Challenge Course elements with a group walk through.

_ See Facilitator Skills Checklist -

ADVENTURE CHALLENGE COURSE FACILITATOR TRAINING

FINAL EXAM

LOW ELEMENT COURSE FACILITATOR - NAME ____SAMPLE_____

1. What do you feel are the most important objectives of a Challenge Course experience?

2. What forms must be filled out before someone can participate?

3. Describe inspection needed prior to a Challenge Course session.

4. How does the contract fit into a Low Ropes course experience?

5. What are the verbal commands for the Trust Fall?

6. How can you modify the Trust Fall experience?

7. Why would a nylon jacket be of concern with someone doing the Trust Fall?

8. What is a "too long" situation?

9. Discuss three ways to encourage an effort from someone in a "too long" situation?

10. List ten elements used in order from least risk to most risk".

11. List the components of safe spotting.

12. What is a Anear miss"? How do you process one (internally and organizationally)?

13. Describe the procedures for a medical emergency from a fall on a low course event.

14. How would warm-up activities fit into a challenge course experience?

15. Why is it important to fill out a facilitator checklist?

16. A challenge course facilitator has flexibility in developing a sequence of activities for a group. Why is it important that safety procedures remain uniform for all facilitators?

Facilitator Trainer Signature _____ Date _____

PART II: HIGH ROPES COURSE FACILITATOR FINAL - NAME _- Sample_____

1. While inspecting a belay rope you find a severe depression, what should you do?

2. List those areas which must be inspected on the ropes course prior to participation?

3. You have a carabiner with a sticking gate, what can you do to correct the problem?

4. List those items that must be included in the emergency takedown kit, rescue bag.

5. During the pre-activity inspection of the ropes course, you find evidence of unauthorized use and damage to some standing obstacles. What should you do?

6. How would you describe the ropes course experience to someone unfamiliar with such?

7. Use of the ropes course is terminated under the following conditions:

8. What are the requirements and commands for transferring?

9. Explain the verbal commands necessary before a climber ascends a belayed element.

10. You are working with a group and an adult is assisting with the transfers from the ground. What should you emphasize to the adult?

11. While belaying, the _____ hand must never leave the _____.

12. What do the figure eight knot and the water knot have in common?

13. No knot is properly completed until it is _____.

14. When should you permit someone to physically transfer another participant's sling lines on the ropes course?

15. When should sling lines should be under one arm?

Facilitator Trainer Signature _____ Date _____

TECHNICAL SKILLS ASSESSMENT

Level I – Full Certification Skill Worksheet

Name:_____

Knots

_____Figure Eight on a Bite
_____Figure Eight Follow Through
_____Overhand
_____Bowline
_____Butterfly
_____Double Fisherman's
_____Prussik
_____Clove hitch
_____Girth hitch

Belays

____Figure Eight (setup/ hand motion)
____ATC (Stitch Plate etc.) (setup/ hand motion)
____Walking Back Belays (Z setup)
____Dynamic Belay Communication
____Lobster Claw (Tails) Communication
____ Belay Rails
____ Gri-Gri (setup/ hand motion)
____ Belayer Anchors (options)

____Belayer Escapes

Zip Line &/or Giant Swing

____ Clip In Procedure
____Communication System
____Dismount System

Equipment Fit/Use

___Harnesses - seat
___ Harnesses – full body
___Harnesses - chest
____Helmet
____Lobster Claws/Ropes

Spotting/Techniques

_____Direction/ Two Direction

Special Event (requirements)

_____Trapeze Hookups
_____Giant Swing Hookups
_____Tandem Events
_____High Wild Woosey
_____Climbing Walls
_____ Access lifts 2:1 (varies)

Inspections

_____ Rope and nylons
_____Carabiners and metals

Rescue (Level II/ Level I final)

_____Rescue Bag Preparation
_____Rescue Lower

____Swing Initiatives
____Trust Falls
____The Wall Initiative

THE GROUP CONTRACT

The contract is one of the early activities. This sets expectations for both the participants and the facilitator. Although not specific, it does provide for an atmosphere of order and safety throughout the experience.

The contract states:

1. Participants will:

    a. Follow all Safety Rules

    b. Make a commitment to try

    c. Not attack another participant's self worth

    d. Support group members

    e. Have Fun

    f. Be honest

2. Facilitators will:

    a. Establish physical and emotional safety for all participants

    b. Demand and enforce safety rules.

    c. Emphasize safe spotting.

    d. Do their best to provide a safe, educational, and enjoyable experience.

KNOTS

The purpose of this section is to describe techniques which are common to all the high elements such as knots, belaying, equipment care, equipment fitting, and inspection.

The high elements section includes much detailed information about specialized equipment, knots, techniques and terminology that come from the sport of mountaineering. Some of these techniques have been adapted to provide safer and more enjoyable experiences.

During all of the high element activities the facilitator will be asked to both tie and inspect a variety of knots. It is important to know how to tie each knot correctly, and also to know which knot is best for the purpose intended. Improperly tied or improperly finished knots do come untied - so learn to tie them exactly right!

Knot tying is placed at the start of the high element section, because the facilitator will need to know some (or all) of these for each high element activity. There are several rules that are basic to tying good secure knots that need to be remembered throughout learning, practice, and use of knots:

1. Always be sure that your knot is free of twists and unnecessary overlaps or crisscrossing ropes.

2. Always leave enough rope on the working end to finish the knot.

3. A happy knot is a knot that is free of twists and correctly finished.

4. Most knots are intended to be temporary, all knots must be repeatedly checked, and re-tied often. This applies specifically (but not exclusively) to webbing used for belay anchors, belay ropes, and the emergency take down ropes.

Knot Tying Terminology

Working end: The end of the rope that is being used to tie the knot.

Finishing Knot: An overhand or half fisherman's knot tied after another knot to secure the loose end and insure that the knot does not come untied. Finishing knots should be tied close to the first knot so there is not an extra loop of rope formed (this can be sloppy and potentially dangerous) The overhand knot is used on webbing and the half fisherman on rope.

Bight: a loop made in the rope before tying the knot that will still be there after the knot is tied. This bight (or loop) may be used as a clip in point.

Overhand Knot: One of the easiest knots to tie, the overhand may be used to finish another knot. The overhand also forms the basis for the water knot. The overhand is used in both rope and webbing.

Half Fisherman's: Used primarily as a finishing knot, a Double Fisherman's may also be tied to connect two ropes of equal diameter. This knot is tied only in rope, not in webbing.

Figure Eight Knot: The figure eight knot used has a bight on it to form a loop in rope. This knot must be Worked" to eliminate crisscrossing and overlaps before it is pulled tight. This knot is tied only in rope, not in webbing.

1. Make a large loop in end of belay rope.

2. Wrap loop around and and through opening.

3. Finish with Half Fisherman.

Water Knot: This is the one of two knots used to attach two ends of webbing together (Fisherman=s is the other). It consists of an overhand in one end that is followed exactly by the other end, then finished with an overhand on each side. This is used to form loops of webbing that will make the belay anchor. With some practice one will learn how to adjust this knot to obtain the correct size of webbing loop.

1. Tie loose overhand in one end (leave at least 10″ free on end)

2. Second piece follows first.

3. Pull tight and finish ends with overhand knots.

BELAYING

Providing a safe experience on the high elements involves proper use of the safety system to enable the participant to ascend the element safely and to remain so during the activity. A belay is used to keep participants safe anytime they are climbing higher than four feet off the ground. The term belay is French, and is derived from sailing where belay means to tie down. In essence, the belay system is used to tie down the participant in the event of a fall, thus keeping him or her from falling to the ground.

A static belay involves the use of a set of sling lines suspended from an overhead cable which is used to protect the individual in the event of a fall. This is called a static belay because the sling lines do not change length and follow the participant around the ropes course. If a participant falls, the distance is very short (about 1 to 2 feet) and the participant is able to climb back up on element or be assisted by the facilitator.

Dynamic Belay System

The dynamic belay uses 10.5mm or 11mm climbing rope, two rapid links, a belay anchor consisting of two pieces of 1-inch tubular webbing, a locking carabiner, and a figure eight descender or stitch plate when attaching to a fixed belay point (e.g., post). Or the rope can be attached to a ‘belayer’s’ harness. The most important component is an alert belayer in a position to stop a fall by using a braking action of the rope using friction from the descender or stitch plate. There are multiple hand movement techniques but they must follow specific safety principles. A very common technique for beginners is called the PBUS system.

The guide hand may be used to pull the rope in as the climber proceeds, and the rope simply slides through the brake hand (see figure). Notice that the brake hand grip is only loosened to allow the rope to slide through. The brake hand has constant contact with the rope. In the case of a fall, the brake hand is brought down over the near thigh to provide additional friction.

In this position the belayer stands behind or beside the belay post. In case of a fall the rope is moved into the brake position providing additional friction (see figure). Constant contact with the rope on the brake hand is critical as in all other belay positions.

Static Belay System

The static belay system consists of a set of sling lines attached to the participant's climbing harness which protects falls on the ropes course. The anchor consists of a 3/8″ steel galvanized cable that runs over top of each high element. The person's weight on the cable interacts with the trees to provide a cushion in case of a fall. The sling lines are constructed of 11mm Maxim climbing rope with two steel locking carabiners on the cable end with a figure eight bight passed through the loops and hitched on the harness.

The sling lines follow the participant through the ropes course, requiring transfers from obstacle to obstacle. The sling lines are transferred one at a time as described in the transfer section. While on the ropes course, the participant always remains Aon belay", because at least one sling line is always fastened to the overhead cable. This type of system is sometimes referred to as "lobster claws".

Catching a Fall While on Dynamic Belay

It is one skill to learn the hand movements and techniques for getting a person up on the element, it is another to be alert to anticipate a fall and be able to catch it. During the training program you need to create several opportunities to experience the feel of a fall when you are belaying. It is vitally important that during all climbing the belayer keep their eyes on the climber. Assume the climber may slip and fall at any moment.

The belayer's brake hand is the critical link in the belay system which utilizes friction to stop a climber's fall. For this reason, the belayer's brake hand must never leave the rope. Review the diagram (see figure) showing hand position for belaying and practice this with a rope over and over until these movements feel comfortable with both hands. Once belaying becomes A second nature (as it should be) the belayer's brake hand will never leave the rope.

Dynamic Belay Signals

Communication is a key element in belaying. In essence, the belayer (ropes course facilitator) forms a contract with the participant, promising to keep him or her safe from a fall while off the ground. A majority of near-miss reports have as their underlying cause a failure to communicate. For this reason, we adhere to a set of commands used in climbing in all dynamic belayed entrances or exits to elements or climbing wall.

"On Belay?" (climber to belayer)

(Am I on belay? or Do you have me?)

"Belay On!" (belayer to climber)

(The belay is on! or I have you!)

"Climbing!" (climber to belayer)

(I am ready to climb up.)

A “Climb On!” (belayer to climber)

(Go ahead, I am ready.)

Once up on the ropes course two situations may occur. The climber may wish to begin the first ropes course obstacle, in which case he or she must ask for permission to transfer from the belayer. The belayer must be a position to see the sling lines and the transfer point -- this may involve walking away from the anchor while keeping the brake hand on the belay rope at all times.

The second situation that may arise is one where the climber falls and is lowered while on the dynamic belay or decides to climb down while on the dynamic belay. If the climber has decided to climb down or be lowered on the dynamic belay, the commands are as follows:

Climbing or Falling (climber to belayer)

(I am ready to climb down or to fall and be lowered.)

Climb On or Fall On (belayer to climber A) (Go ahead, I am ready.)

The belayer feeds out enough slack to allow the climber to descend if climbing. If the climber is falling back in order to be lowered, the belayer must have all slack out of the belay system.

Off belay (climber to belayer)

(I am now safe on the ground.)

Belay off (belayer to climber)

(O.K., I am taking you off belay.)

In all cases of belaying the belayer's brake hand never leaves the rope until: (1) a transfer to the static belay system has been completed; (2) the belayer says “Belay Off” indicating closing of the contract between belayer and climber.

Belay Anchor

Belay anchors used on the high elements include designated trees and posts set in concrete, and other forms of fixed anchors set up and identified during construction of the course. A belay anchor set-up consists of two pieces of 1-inch tubular webbing, a locking carabiner, and a figure eight descender or stitch plate. The 11mm Maxim belay rope is fed through the figure eight descender or stitch plate to provide friction to aid the belayer in stopping a fall.

The first step to setting up a belay anchor is to tie two webbing loops that are the correct size (using the water knot with finishing knots). The size of the loop is determined by the diameter of the anchor--the loop must be large enough to hitch around the anchor with about 1 to 2 inches to spare. It will take some practice to learn how to tie the correct size and adjust your water knots.

The next step is to girth hitch both loops of webbing from opposite directions. This adds strength for the possibility of pull from any direction and prevents slippage around the anchor (see diagram). Secure both girth hitches with the locking carabiner and figure eight descender or stitch plate. Thread the belay rope through the figure eight descender maintaining 5 points of contact or through the stitch plate using its three points of friction.

Belay Anchor Set Up.
Tie 2 the same.

1. Tie two loops from 1-inch tubular webbing large enough to girth hitch the belay anchor plus about 4 ft (use water knots with overhand knots to finish).

2. Two Tubular Webbing loops.

    1. Right through Left 2. Left through Right 3. Locking Carabiner to hold in place.

3. Girth hitch webbing around belay anchor, below stop block if available. Hitch each piece from opposite directions. Clip carabiner from bottom up into both pieces of webbing. The gate is facing up and then locked. the knots in the webbing are on the back side of the anchor, out of the way.

Once the set-up is complete, give everything a double check. Look over the water knots and overhand finishing knots; check to see that the girth hitches are from opposite directions; make sure the rope is correctly inserted in the figure eight or stitch plate; and that the carabiner gate is up, and locked.

Any time a belay is used the anchor must be inspected again. Do not assume that another facilitator set it up properly, and do not assume that the unattended belay is the same as when it was left. It is the belayer's responsibility to double check the belay anchor each time he or she uses it.

1. Form a loop in the belay rope.
    This end to climber.

    Brake hand end.

2. Insert loop through large end of Figure 8 descender and place loop over small section.

    This end to climber.

    Brake hand end.

    Belay Hoop Up shown is for right-handed belay. Reverse set up for left-handed belay.

An ATC or Stitch Plate may be used instead of a Figure 8 Descender.

SAFETY CONSIDERATIONS

The foremost responsibility of the facilitator is safety. The major concern throughout each activity is to keep participants safe. Injury, however major or minor, will damage the individual and the group both physically and in the growth process. The facilitator must be constantly alert to the safety of all participants. Two important elements in safety are the proper care of equipment and the safe control of participants while they are on the components.

Equipment Use and Care

All equipment should be treated with care and respect. The facilitator should set the proper tone and example. The following guidelines should be carefully followed:

FIGURE EIGHT, CARABINER, SCREW LINK - Hardware items should not be thrown or dropped, especially on hard surfaces such as rocks, other hardware, or cement. This can result in metal fatigue and stress fractures, risking malfunction. These items can also get fouled by dirt. They should be kept off the ground and stored in a clean place when not in use. Carabiners and screw links should be dried off as soon as possible after they have gotten wet to prevent rust from forming in the threads and hinge mechanisms.

SAFETY ROPE, SLING LINES, HARNESSES - Rope and webbing should be kept away from dirt as much as possible because dirt particles are sharp and abrasive and can cause excessive wear. Harnesses, safety rope, and webbing should not be sat upon and should never be stepped on. This will grind dirt into the fibers which can cut them. Protect fiber equipment from sharp edges, open flame, rock fall, petroleum products, and insect repellents. Participants should not eat or handle food while wearing a harness or working with harnesses or ropes, because food particles and odors remaining on stored equipment attract pests that can gnaw on equipment and render it useless.

HELMETS - Helmets are designed to protect the head from bumps, scrapes, and falling objects. They are not meant to sit upon, stand on, or carry water in. They should not be dropped or thrown. However, they are to be worn at all times by participants on the Adventure Challenge Course.

Material Specifications

Following is a list of specifications on materials used in the construction of Adventure Challenge Courses. All specifications on materials meet or exceed construction standards as outlined by the Association for Challenge Course Technology and/or the Professional Ropes Course Association. These examples show the ‘general rule’ which is all safety gear must exceed the 5,000 lb. minimum strength level.

Rope: Polydac, 3 strand multiline: Tensile strength – 2″ = 5800 lb., 5/8″ = 8200 lb.

Belay Rope: LMS Dynamic Rope, 11 mm rated for 11 falls, Impact 9.4 Kn., Elongation 6.6%, (Tensile strength 5,800 lb.)

Individual safety rope: ABC Response Static Rope, 7/16 7800 lb., elongation 4%, weight 10 lbs./150=

Prussik 6 mm: 2,200 lb. (Cannot be used as life safety rope)

Figure Eight Descender: 6,000 lb.

Carabiners: Kong Steel Double Autolock 255g, Gate Clearance: 26mm, Strength:50kN, Gate Open: 9kN

Zip Pulley: Two-wheel, steel shank with built-in backup, steel sides 13,000 lb.

Rapid Link Connectors: 2″ steel Tensile strength = 15,750 lb..

Helmets: Edelrid Ultralight, exceeds UIAA & DIN specifications

Cable: 7/19 - 3/8″ Galvanized Aircraft Cable, Tensile strength 14,400 lb. Clamps: Fist Grip torqued to 45 ft lb., 3/belay cable end, 2/ element cable end.

1″ Tubular Webbing: 4,000 lb.

EQUIPMENT CARE AND INSPECTION

General Information

1. Only commercial harnesses such as LMS, REI or Yates (one size fits all) may be used.

2. Carabiner used on static belay cables should be made of steel.
3. Figure eight descenders or stitch plates should be used on all belays and must be protected from chipping and scratches that could damage ropes.

4. Ropes must be nylon and made for climbing use. 11mm Maxim ropes are used for all belays and sling lines.

5. Never loan climbing equipment -- it is up to the facilitator to keep careful track of the usage of all equipment. If an incident occurs that may potentially damage a piece of climbing equipment (i.e., a rock fall on a rope, or carabiner is dropped from a height of 20 feet) that piece of equipment must be labeled and set aside for further inspection and possible retirement.

On-Site Equipment Care

1. Do not allow any walking or standing on ropes, slings, or hardware. Watch participants to be sure they do not drag equipment on the ground.

2. Do not allow smoking near nylon equipment--this includes no smoking while wearing a harness and sling lines.

3. Do not allow belay ropes to cross or twist around each other.

4. Keep belay lines away from dirt and water as much as possible; be sure they are clean and dry before coiling (see equipment care).

5. Belay equipment should be untied and checked on a regular basis.

6. Soiled ropes and webbing should be rinsed or washed in a mild detergent recommended for nylon and hung to dry.

7. Wet ropes, harnesses, and webbing should be hung up loosely until dry.

8. All nylon ropes should be finished off to prevent unraveling. Tape ends first and then fuse with open flame. If rope is unraveling, set it aside for repair.

9. Nylon equipment must be kept from solvents such as bug spray, Coleman fuel, paint thinner, marking pens, etc., as well as excessive heat and/or artificial heat sources.

10. Never oil a carabiner that has a sticking gate, try rinsing with water.

11. Records should be kept on the age and seasonal use of each rope and all other climbing equipment.

12. General guidelines from manufacturers regarding rope retirement include Professional use: every three months, Regular weekend use: every 1 - 2 years, Occasional use: 2 - 4 years, and Minimal use: 5 - 7 years. Our system depends primarily on visual and tactile inspection. Ropes should be replaced if the sheath is extremely fuzzy, sheath abrasions allow core to be visible, lumpy or brittle spots develop, or the rope takes on irregular shapes.

Inspection of Equipment

All equipment (sling ropes, carabiners, harnesses, belay lines, helmets) used on the high elements must be inspected prior to each group. This inspection must include all of the following:

1. Inch by inch inspection of belay lines and take down rope including all of the following points:

* Belay rope must be inspected for cuts, ruptures, and outer sheath damage. Sheath damage is recognizable by the visible white core. A rupture is felt as a depression within the sheath. The sheath accounts for only about 10 % of the rope=s strength.

* This inspection includes each belay line as well as the emergency take down rope.

* The belay lines should be checked for correct figure eight knot and secured with a half fisherman's knot. If these knots appear to be pulled tight from use, they need to be retied.

* The emergency take down kit should include the figure eight descender attached to climbing rope, two locking carabiners, a sharp knife, a Prussik, and an Etrier. Also check the figure eight and securing knots to see that they are safe and correctly tied.

2. Inch by inch inspection of sling ropes:

* Sling line ropes must be inspected by using the same procedure used for inspecting the belay lines.

* Fixed figure eight knots in sling ropes must be checked and secured with a half fisherman.

3. Inspection of carabiners, looking for defects evidenced by:

* A groove worn on the inside of the carabiner (usually caused by the steel static belay cables).

* Broken or faulty gates that do not operate smoothly.

* Excessively rusted carabiners.

* Locking carabiners with faulty sleeves.

* A gate that does not close. Try rinsing with water and drying thoroughly. Do not oil.

4. Inspection of tubular webbing:

* Webbing must be checked for cuts, scrapes, abrasions, frays, spots from petroleum.

* Water knots must be secured with overhand knots. The only knot acceptable for attaching two pieces of webbing is the water knot.

5. Inspection of harnesses:

* Cuts and/or abrasions of webbing.

* Defective buckles, bent or broken.

* Ripped or pulled seams, make certain that all bar tacks and X stitching at critical points is sound.

* Smell for petroleum spills or insect repellent.

* Excessive fraying on the buckle strap that will make the harness difficult to buckle.

6. Inspection of helmets checking for:
    * Secure and intact suspension system.

    * Secure and intact chin strap.

    * Deep cuts or cracks

Fitting of Equipment

Equipment that is worn by the participants for high element activities must be inspected, fitted properly, double checked, and then put away properly following the experience. The equipment covered in this section includes the seat harnesses, helmets, and sling lines.

All equipment issued to participants must pass the facilitators= inspection prior to use. (Note the previous section). This should be completed before participants arrive. All equipment (harness, sling lines and helmets) should be placed outside the storage area.

Checking the Fit of the Seat Harness

This check should be made before the facilitator leaves the safety briefing space.

1. A downward tug on harness confirms that the participant will not fall out if turned upside down (if the harness slides down over their hips, the harness is too loose). Facilitators should double check the waist strap.

2. Buckle is properly fastened, doubled back, with necessary amount of end past the buckle (pull on end).

3. Harness is tight.

Attaching the Sling Lines to the Belay Rope

The facilitator attaches the sling lines to each participant. These will be the connection to the dynamic belay and the static belay on the high ropes course.

1. Before receiving sling lines the participant is instructed to place them over the shoulders, do not swing them and do not drag them in the dirt.

2. Slide the Figure 8 loop through the loops in the harness, and use a girth hitch to secure.

Fitting the Helmet

The helmet used is to be the ANSI approved helmets with the chin strap and additional padding. Each participant may select his or her helmet. The participants should assist each other in getting the helmets properly buckled.

* The headband on the inside of the helmet needs to be adjusted so it fits down on the forehead.

EQUIPMENT DOUBLE CHECK

All critical connections must be checked a second time and independently before any participant can participate on the high element. The double check is performed as follows:

1. The first method (preferred) is to have the facilitator supervise the harnessing, putting on of sling lines, and helmets. After all participants are fully equipped, the facilitator will then have a second facilitator check (second check) each person separately. The person checking must be a high ropes course facilitator.

2. The second method is basically the same except that the facilitator performs the second check as well as the first check. The idea is to check all the equipment as it is fitted, and then systematically start over and check everything again.

3. The following pieces of equipment and connections must be checked prior to use.

* proper fit and snugness of harness

* all buckle connections of harness

* sling lines to harness loop connections

* helmet fits snug and fastened securely

* participants must not have any sharp objects in their pockets

GENERAL SAFETY PRACTICES FOR THE HIGH ELEMENTS

1. Before a high elements is conducted, the facilitator should ensure that the elements and all equipment are in working order.

2. All elements should be demonstrated or explained by facilitators to the participants before they attempt them. Prior to attempting the elements, safety hazards of each element should be pointed out.

3. All staff and participants should wear closed toe shoes and active wear clothing for high elements. Commercial rock climbing helmets with chin straps must be worn by facilitators and participants while participating in or standing under high element activities. Helmets must fit properly.

4. All elements are protected by a belay system. The dynamic belay rope is used to protect the participant while climbing onto the course. Once on the course, the participant transfers to the static belay on 3/8" galvanized cable. The participants continue to be on belay" until they reach the ground.

5. Before participants leave the ground, a full safety check will be made by a trained facilitator. This can be a head-to-toe check where each item is inspected for fit and safety: helmet; harness; rope; carabiners. The CRASH test is an alternative approach – C=Carabiner, R=Rope, A=Attitude, S=Stuff all objects in pockets or around neck, loopy ear pierces (hoops etc.) should be removed and long hair secured. Glasses should be removed or secured by a protective strap. H=Helmet and Harness. CSUN uses the SHARK test (S=stuff, H= helmet & harness, A= Attitude, R= rope, K= karabiner). Shark does not have the negative imagery of 'crashing'.

On a traditional circuit course start with a dynamic belay followed by lobster claws attached at the first landing, the participant will keep lobster claw tails draped over shoulder (They will not be worn in 'gunbelt' style in order to limit confusion between long belay rope carabiner and lobster claw carabiners.)

6. Harnesses must fit so as to never constrict a participant's body in case of falls and must be tight enough to not allow a participant to fall out while in an upside-down position.

7. A sharp knife, emergency take down kit for rescue, Etrier and a first aid kit should be available at all high elements activity sites during any activity. If the facilitator goes up on the course for any reason, the emergency take down kit should be taken along.

8. There should be a documented maintenance schedule and documented periodic inspections of all obstacle and ropes courses. They should be inspected thoroughly twice a year, with particular attention given to connection and anchor points.

9. No more than twelve participants should be assigned to each staff member. If the participants are unable to transfer each other (due to age or maturity), another responsible adult is necessary.

10. Avoid congestion on high elements events by monitoring the movement of individuals at all times. Good management techniques will ensure that all participants get opportunities to participate.

11. Release forms will be completed by all participants. A special youth form is to be completed by parents of youth participants. Adults are to be advised that high ropes course events traditionally create an increased heart rate and level of exertion and participation is fully at their discretion.

INSPECTION OF THE HIGH ELEMENTS

The high elements must be visually inspected each and every time the site is used. Don=t assume that the course is not subject to damage through natural conditions and/or vandalism. Nothing can be assumed or taken for granted. ASSUME NOTHING!! All critical points that must be inspected on a daily basis are as follows:

1. A visual inspection of all standing obstacles to verify, simply, that they are still standing. Major emphasis is on the following:

    * Platforms and Transfer points
    * Steel static belay cables and belay anchor points

2. The site must be walked over and cleared of any sharp and otherwise dangerous objects.

3. Visual inspection of all lashing looking for:

    * Excessive wear or cut lashings. Look especially close at lashing that is partially hidden between logs.

    * Lashing that has slipped or otherwise moved out of position.

    * All knots in lashing must be secured.

4. Visual inspection of all critical hardware and hardware connections looking for:

    * Loose wire clips and subsequent cable slippage

    * Loose and/or broken lags, eye lags, nuts and bolts and through-bolt connections

    * Excessive rust on all hardware that might indicate more than just surface corrosion.

5. Visual inspection of all obstacles looking for:

    * Missing boards, ropes, or nets.

    * Loose or missing padding from platforms.

    * Loose or missing boards from platforms.

6. Visual inspection of trees, specifically limbs, looking for:

    * Storm and/or lightening damage to trees that could produce unstable trunks or limbs.

    * Dead fall up in trees above course.

7. If a high element has been vandalized to any degree, that activity must be closed until a more thorough inspection can take place. The caretaker and the police should be notified immediately of anything damaged or stolen.

FIT AND INSPECTION OF EQUIPMENT

The High Elements section gives details for fitting of harnesses, helmets, and sling lines for the high ropes.

Each participant is double checked before leaving the equipment room. Remember to take the first aid kit and take-down kit with the group to the course.

ARRIVING AT THE HIGH ROPES COURSE SITE

The facilitator leads the group to the course and upon arrival re-checks all belay anchors and knots to see that nothing has been tampered with.

Prior to beginning the activity, the facilitator gives a step-by-step introduction to the ropes course activities. Variations occur in sequence but all of the following must be covered and understood by all participants.

1. The facilitator walks participants through" the entire course and gives basic information about each obstacle. Do not inform participants as to the "how's" of each obstacle. Participants need to be encouraged to use their own resources.

2. The walk-through is a procedure to point out the particulars of each obstacle.
One safety consideration needs to be mentioned wherever applicable: When in a forward position, sling lines should be placed behind one arm. This will prevent the possibility of sling lines becoming wrapped around the neck in the event of a slip off the obstacle while in a forward position.

3. All safety procedures are taught and demonstrated:

    * Belay Commands (see Belay Commands)

    * Transfers (see Transfers)

4. Begin the ropes course by re-emphasizing the philosophy, the contract, and reviewing the group goals/objectives for the experience.

5. Each participant receives a final check of equipment before ascending onto the course.

    * allow the participants to hook their lines into the belay rope; this is your chance to see that they understand Clip In procedures.

* Check the harness fit and buckle connection, the sling line hook up, helmet fit.

* require use of proper belay commands before climbing.

TRANSFERS

Teaching and enforcing safe, appropriate transfer procedures for participants is one of the most critical tasks for the facilitator. The transfer process may provide the most room for human error and endangerment to life of any of the procedures we perform at the ropes course. The facilitator should have a thorough understanding of belays, commands, and safe climbing rules in order to teach and observe the transfer process safely. If you, as a facilitator or trainee, ever have any doubts as to why we do something a certain way, please ask. There is no room for compromise on belays and transfers; they are literally the participant's lifeline.

A transfer occurs any time a participant needs to unhook carabiners to get around an obstacle. Usually this occurs from one obstacle to the next, but it also occurs on catwalks, on and off of the dynamic belay, and at other times.

Participants on the high ropes course use two separate sling lines with locking steel carabiners that attach to overhead steel safety cables (the static belay) or to the dynamic belay. When a participant reaches a point where a transfer is required, he or she stops and goes through the following procedure of commands and actions:

1. Participant calls out, "Switching", _____" (participant uses name of whoever he/she expects to observe transfer).

2. The person who will observe the transfer calls back "Watching _____", (observer uses name of participant). It is now the observer's responsibility to watch the transfer from beginning to end. In essence, the observer has entered a "safety contract" with the participant, and has promised to ensure that the participant transfers safely. Remind transfer observer as often as necessary that this responsibility is a serious one.

3. The participant uses one hand only to unclip one carabiner or safety clip and hook it on the cable saying
Squeeze Check or Checking _____." The observer responds with "Thank you_____."

4. The participant says Switching_____," unclips the second carabiner and hooks it onto the cable just as the first carabiner after they have heard the "Watching _____" command in return. Stress that the observer verbally repeats the "Watching". Then the participant says, " Squeeze Check"_____" and safety observer responds with the "Thank you, _____"command to complete the transfer.

NOTES ON TRANSFERS (At many courses)

There are only certain staff who can observe transfers in a given situation; on the high loop course the ground staff observes transfer on pole # 1, and pole # 2. The zip line staff person observes the transfers at pole # 3 and the zip platform.

1. The facilitator only may give permission to transfer on or off of the dynamic belay line. This is critical because she or he is in control of the belay.

2. For participants over 15 (maturity is the KEY), the facilitator can allow them to transfer each other. Also, if the participants are 13-14, the facilitator may allow them to transfer each other if they feel the participants are mature enough to handle it

3. For participants younger than 13, the facilitator, or other adults, must observe all transfers (refer back to 2 for exceptions). The facilitator must spend extra time with the adults to ensure that they understand the transfer process and the importance of doing it correctly.

4. Participants can only transfer their own sling lines. Often in an attempt to be "helpful" participants want to assist each other by transferring carabiners other than their own. The result is often a near miss, hence the rule that each person transfers his or her own sling lines and carabiners.

5. The facilitator has the ultimate say as to which groups will be allowed to transfer each other.

6. Participants must practice the transfer system on a ground level practice area before using the transfer system in the high course.

TECHNIQUES FOR TEACHING TRANSFERS

All high ropes courses participants will practice the transfer procedure on transfer cables at the ground level. Before any participant goes up on the ropes course, she or he must have practiced the transfer procedure until the facilitator is confident it can be utilized safely and correctly. Explain and demonstrate the process outlined above and make use of the following teaching ideas to help participants avoid common mistakes.

1. Throughout the transfer process the participant always has one carabiner hooked into a cable at all times. Show them an "improper transfer" by unhooking both of your carabiners using both hands, ask "What would happen to me now if I was on the ropes course and fell?" Stress using only one hand, and moving only one carabiner at a time.

2. If an observer gives "permission to transfer," he or she has the responsibility to stop any other activity and watch the transfer from beginning to end. The observer must be able to see where the participant is hooked and where they are transferring too clearly. Only one participant can be transferred at a time.

3. If a participant asks for permission to transfer, he or she must wait for an affirmative reply from the observer before beginning to transfer. Often participants are in a rush and forget to listen for an answer.

4. Discuss transferring other people's lobster claws.

5. Last but not least--most "Near Misses" occur during the beginning of a ropes course experience, and toward the end, as participants begin to feel invincible or like pros" (particularly younger high school groups). Enforce transfer procedures at all times. Participants will become careless if you do not catch mistakes quickly. Little mistakes amplify into big ones.

Climbing Wall

Climbing walls are a regular part of challenge courses. Here are some key terms. Boulder wall (aka traversing wall, low wall, boulder area, boulder) is a climbing wall that does not use a dynamic belay (read rope for dynamic) but some combination of spotters and/or impact surface to protect the climber. So, the boulder walls are treated like any other low element and spotted with other humans often in a pair with one climber and one spotter.

Climbing walls (aka towers, big walls, mobile walls, climbing towers, etc.) are made of wood, plastic, concrete, fiberglass or ceramic and have some kind of climbing hold attached and use belay ropes (nylon or steel) as the essential safety system.

The belay devices used can be the conventional belay device of rock climbers such as stitch plates, tubers, ATC, figure eights or it might use a high-tech cam device like a Gri-Gri or a belay rail. A belay rail (sometimes called hitching rail or belay bar) is a round object like a 4" steel pipe that is used as the friction device with the rope taking at least one full turn around the pipe.

Climbing walls offer the opportunity to teach people actual technique of rock climbing though many people just allow people to flounder around much like sending someone into a canoe with a paddle and no instruction. The novice can have a good time and return to the ground in one piece or perhaps be extremely frustrated and suffer from the lack of some simple instruction much like the canoeist who makes it back to shore but wonders why that canoe never seemed to go in the desired direction.

Skills and knowledge needed are like those covered earlier in the manual regarding equipment care and use, belay technique, and special considerations of the climbing wall itself. Here is a sample list of SOPs for a climbing wall.

A. SAFETY POLICY

1. All climbing will be supervised by technically competent staff approved by the outdoor coordinator.

2. All climbing equipment will be checked at the beginning of each climbing day (e.g., ropes will be uncoiled and checked prior to use.)

3. Supervisors of the climbing wall will be trained and familiar with the operational standards specific to that specific climb wall.

4. Belayers do not need to wear helmets. Climbers will be helmeted. Staff will be aware that the industry does not require wearing helmets in artificial climbing environments.

5. All belayers will be anchored when belaying a participant who represents a significant weight differential. Anchoring can include a fixed anchor point, staff hold on belayers harness, or clipping the belayer to the sandbag anchor.

6. Climbing supervisors shall monitor student belayers in such a way that timely assistance can be rendered if necessary.

7. Adequate instruction will be given to participants prior to climbing the wall including warm-up activities, climbing techniques.

8. If the mobile climbing wall is conducted in diminished conditions, it is limited to appropriate times and appropriate safety precautions are in place.

9. The “Gri-Gri” mechanical belay device or stitch plates or belay rails are all acceptable belay devices and can be used when warranted (stitch, figure 8, group walking belay).

13. Students will be thoroughly familiar with the belay technique in use before encountering an actual belaying situation.

14. Supervisors must ensure that the rope between the belayer and climber is adequately taut. Climbers must obviously climb at appropriate level of control and speed.

15. Ropes shall be tied directly to climbers and/or to climber's seat harness with a secure knot (bowline, bowline on a coil, or figure eight follow through) and a safety back-up (full hitch or two half hitches). Normally a change in climbers will be accomplished by removing the harness while leaving the knot properly secured to the harness.

A DAY IN THE LIFE OF A ROPES COURSE FACILITATOR

A High Ropes facilitator is a busy person with a lot of responsibility. Not only are there a lot of things to do, excellent management is necessary to keep the group safe. The outline of activities includes tasks to be

completed. The facilitator begins 45 minutes to 1 hour before the participants are scheduled to arrive, and leaves only after all equipment is put away and the storage area is locked.

Before a group participates in an adventure experience, the facilitator should spend a few minutes getting to know the group members and briefly orienting them to the experience. This time together involves both gathering and giving information. It is an extremely important time for establishing an appropriate climate and attitude for the activity. It must be approached with seriousness, but also with a spirit of adventure, excitement, and anticipation.

ORIENTATION TALK

The following list suggests ideas and topics that could be discussed with each group during the orientation time. These may be expanded or supplemented as the facilitator or sponsor sees fit.

1. Name Game and Talking Rule.

2. The Philosophy:

    a. Non-competitive.

    b. Non-judgmental.

    c. Risk taking.

3. The Shared Environment:

    a. Stay on trails.

    b. Protect animals and plants.

    c. Practice low-impact use of the environment.

4. The Activity Contract:

        1. Participants will:

    a. Follow all Safety Rules

    b. Make a commitment to try.

    c. Respect.

    d. Support group members.

    e. Have Fun.

f. Be honest.

2. Facilitators will:

a. Establish physical and emotional safety for all participants.

b. Demand and enforce safety rules.

c. Emphasize safe spotting.

d. Do their best to provide a safe, educational, and enjoyable experience.

A. Prior to the Activity (before group arrives)

1. Visual inspection of ropes course/trust fall.

2. Inspect all equipment (harness, sling lines, belay ropes, take down kit, and first aid kit).

3. Set ladders, string belays, and set anchors.

4. Note weather conditions.

5. Check bulletin board and facilitator check list.

6. Collect all release forms and note important information.

B Activity Orientation

1. Clarify goals and objectives with group.

2. Discuss philosophy (risk/effort/support).

3. The Contract.

4. Direct participants to remove sharp objects and gum.

5. Fit all equipment - harness, sling lines and helmets.

6. Double check entire system.

7. Stretching.

C. Introduction at the Ropes Course Site.

1. Walk through Ropes Course, explain obstacles, safety.
2. Transfer demonstration and practice.
3. Explain belay and commands.
4. Begin by re-emphasizing goals and objectives.

D. Management

1. Demand attention while giving instruction.
2. Speak slowly, clearly, understandably.
3. Use correct, consistent equipment terminology.
4. Watch all transfer/hook-ups through completion.
5. Complete all belays correctly.
6. Demand proper use of commands, maintain all double checks.
7. Keep participants involved at all times.
8. Discuss any problems (safety/spotting/support) immediately after they occur.
9. Encourage and challenge participants--do not rescue (giving them an easy out).
10. Place responsibility for solutions on the participants.
11. Encourage group support.

E. Zip Line

1. The facilitator is the only person who should clip participants onto the zip pulley.
2. Put one clip on the safety staple or safety loop cable of the zip line wire.
3. Clip the second carabiner onto the zip line itself behind the zip pulley.

4. Clip the lower pulley carabiner to the participant=s waist loop.

5. Do a visual and tactile inspection from participant to zip line including harness fit and buckles, lower carabiner squeeze test, tether inspection, upper carabiner squeeze test, pulley.

6. Call out "Zip Clear?" When the "Zip Clear" response is given, visually inspect for clear conditions (no ladders, vehicles, etc.). Give final instructions, have participant step off or slide off the platform.

7. After the participant has come to a complete stop, the catcher must firmly grab the legs and steady the person and roll ladder under participant and give dismount instructions.

8. Return pulley to zip line platform with the retrieval rope.

F. Processing

1. Discuss High Ropes activity on site following activity.

2. Initiate discussions through questions, activities, and comments.

3. Encourage ownership of feeling, thoughts and actions.

4. Recall group goals and objectives, and relate the experience to them.

5. Discuss how things learned from activity may help the group and individuals in everyday life.

6. Stretching.

G. Post-Activity

1. Take down belays and break down anchors.

2. Lock ladders securely.

3. Account for all equipment before leaving site.

4. Place equipment in designated areas in storage room--if wet, hang to dry.

5. File appropriate forms--near miss, accident, notes.

6. Complete facilitator checklist.

7. Lock storage room.

PARTICIPANT ASSISTS

Throughout the ropes course experience, facilitators are constantly monitoring the group, giving feedback, encouragement, and traffic flow hints. At some point, you will need to assist a participant who may be in physical or emotional trouble. There are two categories of assists:

1. Verbal: (too long situations).

2. Physical Fatigue: The participant does not have the ability or strength to get back on an obstacle and must rely on others.

VERBAL -- TOO LONG SITUATIONS
Karl Rohnke of Project Adventure (Bag of tricks) writes: "There seems little value in leaving a student on a platform or cable to agonize for 15 minutes about whether to take that step, etc. Being in a position of potential is enough to qualify for the try, that stepping stone to the next level of commitment or completion. The longer a student dwells on the attempt, the more it can become the facilitator's personality, peer pressure or fear of failure that provokes the move. Any resulting decision is most likely not the individual's, but the result of various good intentioned anxiety ploys. There is no doubt that an individual can be coerced into extraordinary efforts by pressure mentioned above. The military uses such stress techniques effectively and with justifiable cause, discipline above all. But to emulate the DI's methods and means within an educational setting is negative, unproductive and unacceptable."

A "Too Long" Suggestions:

1. After a few unsuccessful attempts, suggest that the next one be it. Try this only twice.

2. Ask participant to turn around, regain composure, and try again.

3. Tell them you've been trying to help them for 15 minutes. They owe you an attempt.

4. Trust me I'm not going to let you fall.

5. A "Do you want to do this? Then follow my directions. Allow me to help you".

Site Specific Protocols for the CSUN High Ropes Course:

5.f.1-6 Initiative Games and Problem-solving Exercises
A more complete explanation of Safety Operating Protocols is found in the CSUN *Challenge Course* Training Manual.

1. Group initiatives and low component events will use trained spotters (participants or staff)

2. The group must be alert and physically prepared to break a fall.

3. Hands of spotters must always be up and in the ready position.

4. Don't allow participants to jump or dive from or through an obstacle unspotted to the ground.

5. Signals must be used in initiative activities where there is a possibility of falling (e.g. Trust Fall). a. (Spotters Ready, Ready "Mauricio"/Name, Falling, Fall-On "Mauricio")

6. Trust Falls will follow these additional spotting protocols

a. Falls should be no higher than chest height of the average group member.
b. There must be a minimum of 6 spotters for a classic trust fall
c. Spotters hands will be alternated with other spotters but not clasped
d. Spotters will have proper position of feet and body position
e. Faller must be properly instructed as to body position, falling position (leading with head) and appropriate grasp of hands.

5.g.1-19; High Challenge/Ropes Course Events

A more complete explanation of these Safety Operating Protocols is found in the CSUN *Challenge Course* Training Manual.

1. Participants will wear helmets and harnesses appropriately fitted and inspected. Trapeze leap events will include a chest/seat combination or full body harness. Zip line descents will include a chest/seat combination or a full body harness (welcome to California).

2. Before a high elements event is conducted, the facilitator will visually and/or tactilely inspect the elements and all safety equipment (ropes, harnesses, hardware, etc.)

3. All staff and participants should wear closed toe shoes and active wear clothing for high elements.

4. All high elements are protected by a belay system. One of three systems will be used.

- The dynamic belay is used for any vertical climb and any single element may be used with dynamic belay as the belay system. Dynamic belays may also be used to start the use of the static system (lobster claws) or the continuous belay system.
- The static belay system may be used with age appropriate and maturity appropriate participants.
- The continuous belay system may be used with any age group.

5. Before participants leave the ground a full safety check will be made by a trained facilitator. The SHARK test is the preferred check system. (S = Stuff, H_2 = Helmet and Harness, A = Attitude, R = Rope, and K = Karabiner). Staff will be trained in the appropriate inspection knowledge for each of these items.

6. Lobster claw and/or continuous belay systems will be practiced on a ground level station before participants use the system in the high ropes course.

7. Traditional lobster claws will dangle over the back of the participant on the initial climb rather than be looped and clipped over the shoulder in ammo belt style.

8. If lobster claw system is used; a safety partner at ground level will be pared with participant, monitor progress, and use verbal commands for transfer (Switching, Watching, Checking, Thank you).

9. Dynamic belays will be used with direct tie-in to rope on Trapeze Leaps.

10. Dynamic belays can use direct tie-in or double lock auto carabiners (i.e. 3 motions to release the lock mechanism).

11. Zip line descents will use verbal commands with ground personnel (Zip Clear?, Clear!, Zipping!, Zip on). Gri-Gri with backup will be the primary descent system used. Others acceptable systems may be implemented for training purposes.

12. An emergency rescue kit will be on site. If using static or continuous belay systems the kit will be stationed at the participant level of the course. If using the teams course the rescue bag travels with the group facilitator.

13. A Checklist for critical emergency situations is in the ropes course first aid kit and on the seatrain storage container wall.

14. There will be an annual inspection of the ropes course facility by a knowledgeable external vendor.

15. The course will be closed at first sight or sound of lightning and during high wind. (40 mph gusts or higher).

16. Staff operating the high course must be trained at the equivalent to ACCT Level I curriculum plus rescue level training.

17.ZIP DESCENTS

Zip descents are handled the same basic format while on the traditional course or the new teams course. Due to the increased volume (up to 3 Zips) the ground level facilitator will help manage the participants at the Zip dismount.

ZIP Reminders:

1. Clip into the new before clipping out of the old (i.e. students will be clipped to the gri/gri tether with preliminary tightening before their Kong hook is removed from the PAIGE plate (or the lobster claws are removed from the horizontal safety line).

2. The Kong hook is attached as the 'backup' tether by placing it in the backup safety clip on the zip trolly.
3. The Zip line is called out – "Zip Clear" // Response "Clear"
4. Gri/Gri is pulled to maximum tension for the zip line.
5. Student descends being told to place one hand on the gri/gri down rope and one hand on the 'knot'. (Only relevant on the initial step off)

Take-Down from Zip:
6. Students are reminded to disconnect their Kong hook from the back-up carabiner/safety clip before using the gri/gri lowering procedure.
7. Forgetting step #6 will mean the back-up step ladder will be brought over to manage the unclip procedure.
8. Facilitator or assistants provide tension on the rope as the participant brings the black handle of the gri-gri over to the clockwise position to lower participant to the ground.
9. The retrieval rope is clipped to the carabiner removed from the participants harness and then they quickly return zip pulley to the platform by walking under the platform.

1. **High Teams Course Protocols**

Specific and general protocols for operation of the high teams course are detailed in the training manual and specific protocols for set-up and operation are identified here. Due to the detail of the protocols for the high teams course these procedures are more specific than most SOPs for adventure activities.

Standard Set-up:

1. Participant safety gear brought out (helmets, harnesses, Kong hooks & tethers)

Staff safety gear: High: OSHA harnesses, rescue bag, wrench, kong release, lobsters.
Low: Seat harness, figure 8 device
2. Ladder access: 2 aluminum ladders with 'hooks' are propped up against the 'cable' connector. Aluminum ladders are 'labelled' for specific climbs (orange or black) & east or west.

- Make sure the ladder connection is fully engaged with the cable.

These two rigid ladders are used by the 'inside climbers. The two removable 'rope ladders' are attached to the lower staple on the utility pole and will be used by the 'outside' climbers. Four climbers can climb simultaneously for East or West teams' courses.
3. ALF ropes and ALF device (carefully put away in designated bins so they install easily) will need to be attached to the Level II belay beam on the designated 'cable choker' if Level II is to be used.
4. Zip Line trolleys will be attached in standard format for all three zip lines.

Safety Gear Protocols
1. The participant full body harnesses will have a triangle or oval quick link attached to the 'contact point' of the harness. The Kong hook tether will be attached to this link and the quick link will be snugged with 'the wrench' during safety briefing and will remain attached throughout the course (with the exception of rescue protocols).
2. Existing standard procedures for the 'old course' and new team's course will be followed:

- preliminary gear inspections, helmet & harness fit, kong hook practice area,

- zip descent orientation, etc.

3. The team Facilitators at height will carry the 'rescue' bag with them throughout the course (and check rigging of course prior to use). The Kong hooks release tool will be clipped to their harness for use in rescue or platform entanglements (Facilitators may use their claws for intermediate tethers as needed for Kong entanglements).

Access:

1. East Teams Course starts at the North End and the West Team Course starts at the South End.
2. The facilitator for the team will access the first or second platform prior to participants in order to manage the transition from vertical belay (wire rope grabber) to the horizontal safety cable with the Kong hook and tether.
3. The ground level facilitator will conduct a SHARK test on each participant. In addition to the standard SHARK tests make sure that the Kong hook is positioned above the black stopper on the ½ inch vertical cable. Also make sure the rope grabber is attached correctly and given a carabiner check (squeeze check) as part of the "K" in SHARK. Participants can proceed to climb at the end of this sequence.
Once permission to climb is granted by the ground facilitator, make sure the kong hook following the climber stays above the stopper as the climber begins their ascent.
4. The team facilitator at height greets arrivals at a platform by <u>first making sure participants bring their Kong hook over the black stopper and on to the 'horizontal belay cable'.</u> **Only AFTER this transition** can the facilitator release the vertical ascender.
5. The team facilitator will send the 'rope grabber' hardware to the ground level via the retired climb rope hanging on the outside poles. (Btw – these ropes are NOT to be used as critical safety gear – only for gear relocation).
6. Once all team members have arrived (usually 8, sometimes 9 or 10, rarely 11 or 12). The horizontal life safety cables can safely support three participants but we prefer to work with 2 participants per line for logistics.
7. The team facilitator will carry a rescue bag with them as they progress through the course. Trained facilitators working at height will have competence in the 'rescue drill'. Team facilitators will be on adjustable 'lobster claws' rather than Kong hooks.

Special Notes for Level I Completion of both Team Initiatives

- Team facilitator (gone ahead) will make sure the continuous loop is connected to the zip line access cables by moving the auto lock steel carabiner to the correct position. **YOU MUST CLOSE THE LOOP!**
- The team will move to the Zip lines after completion of the 'level one' initiatives.
    - Remind participants to limit 3 people at one time on the transition cables to the zip line platform.

Special Notes for Level II Completion of Team Initiatives

- Team members must be briefed that Kong hooks are NOT moved at the end of the "second" challenge on Level II (i.e., when they reach the exit platform) without specific instruction from the team facilitator. Red "stop" tape is put on the ½ inch safety line as a reminder.

- Team facilitator will have decided the exit strategy for Level II (Zip or Down Climb to Ground).

- **IF** the team will be using the **Zip Lines** for exit then:
    - a) visually make sure that the transition at the platform at Level I has been properly routed to transition to the 'zip line access cables' by moving the auto lock steel carabiners to the correct position (if not already in position.)
    - **YOU MUST CLOSE THE LOOP!**
    - a) Level II - 'clip the ALF BELAY' carabiner to the participant at the Level II platform prior to allowing the Kong hook to progress off of the horizontal cable to the vertical cable.
    - b) once the climber has descended down the ladder to Level I (with Kong now on the vertical cable) they will disconnect the ALF carabiner from their harness and await permission to traverse to the Zip line platform. This allows the facilitator at Level II platform to clip another climber to the ALF line.
    - c) Repeat the process for the Alf Belay – now using the second butterfly loop

- **IF** the team will NOT be using the Zip Lines to exit but climbing down to ground level then:
    - a) visually make sure that the transition at the platform at Level I has been properly routed to transition to a continuing down climb by moving the auto lock steel carabiners to the correct position (if not already in position.)
    - **YOU MUST CLOSE THE LOOP!**
    - At Level II - 'clip the **ALF BELAY' carabiner to** the participant at the Level II platform prior to allowing the Kong hook to progress off of the horizontal cable to the vertical cable.
    - b) once the climber has descended down the ladder to ground level, they will disconnect the ALF carabiner from their harness and move out of the climbing area.
    - c) Repeat the process for the Alf Belay – now using the second butterfly loop

for the next climber to down climb.

- Once all participants are at ground level the team facilitator can progress down by use of the ALF BELAY device. (Alternate staffing patterns may be followed per course manager discretion).

19. Rescue Procedure on High Teams Course and High Individual Course

1. A rescue bag will travel with each team on the teams course. The 'individual circuit course' rescue bag will be positioned with the Zip line facilitator during operation.

2. Upon a 'fall' the participant will be 'coached' back onto the challenge component and/or assisted by team members or facilitator to get back on.

3. The second point of self-rescue is to remove the 'etrier' from rescue bag and climber uses that ladder to get back on to the element.

4. The third point of rescue is to lower the distressed participant to the ground.

- The emergency scissors and Kong release tool is removed from the rescue bag and clipped to the facilitator's harness.
- The rescue rope with figure eight already on the rope with attached carabiner is then attached to the life safety cable.
- The rescue bag is tossed to the ground.
    - The upper-level facilitator attaches the 'live end' carabiner to the participants Quick link at belt level or **to the 'dorsal hook' at the rear of the harness.**
    - The ground level facilitator takes the rope and attaches it to a second figure eight/carabiner and connects the carabiner to the contact point of their harness.
- Belay commands are established (making sure all slack is removed from the belay rope/rescue line). "Tension!?" and response is "Tension ON"
- The upper-level facilitator now says "ready to lower?" and after response "ready" she removes the Kong hook tethers either at waist level aided by the wrench or at life safety cable level using the kong release tool.
    - This is normally done with the 'participant' lifting themselves up on the etrier to allow slack in the kong safety tether.
    - In the case of medical emergency the kong tether is severed once belay commands and lower commands are established
- The ground level facilitator lowers the person to the ground.
- In the case of multiple lowers, the ground person will pull the rope straight down to allow the live end to return to the rescue area. Repeat lowering communication and disconnection of the safety tethers.

Alternative Procedures for 'Rescues' or the 'Lowering Drill'

The best option of course is to empower people to do self-rescue. There are basically 2 key ways to assist the person with self-rescue.

1. Helping Hand - Simple physical assist from a platform, enables participant to regain position.

2. Etrier - The Etrier is used when a participant has arm strength and the ability to return to an obstacle, but because of height limitations cannot reach the obstacle. Or they have insufficient arm strength in terms of the weight/strength ratio of the arms and they need a 'step' in order to get back up onto the component. The facilitator will attach the Etrier to the overhead belay cable and slide it out to the participant who then steps into one of the loops to gain sufficient height to reach the obstacle.

3. Prussik - This piece of equipment accomplishes the same purpose as the Etrier except it can be carried by the facilitator on his seat harness, which means it is always accessible. The prussik can be tied around the participant's safety tether or lobster claw lines enabling an easy foot up. Refer to the section on knots for technique.

EMERGENCY TAKE-DOWN

If a participant falls off of a component and is unable or unwilling to pull herself back onto the component, several options are open to the facilitator. Above all, do not panic when a participant has gotten herself "into trouble". Take calm, deliberate, and safe actions to help. The greatest service the facilitator can do for any participant is to maintain an attitude of calm, peaceful reassurance and to avoid panic at all times.

1. Calm the participant with words of comfort and reassurance, especially with the participant who may have lost all sense of self-control. As self-control returns, she may be able to climb back onto the component unassisted.

2. If the participant is physically or emotionally incapable of climbing unassisted, the facilitator should go to one end of the component in order to try and talk the participant through the component. If she is still unable to regain the component, the facilitator may go out to the participant and assist her back onto the component. It this is unsuccessful; the facilitator must resort to the emergency takedown procedure.

1. FOR ONE FACILITATOR

As mentioned earlier, the Emergency Take-Down or Rescue Procedure is the last of participant assists, and the most complicated technical skill in the facilitator training program. For this reason, all trainees are asked to demonstrate this skill. Every ropes course must be equipped with its own take-down kit that may consist of: two steel locking carabiners, each with a Figure 8 Descender attached, an aluminum or steel locking carabiner, a belay rope at least double the height of the highest element on the course plus 25 feet (One end should have a pre-tied end-loop using a figure 8 loop on a bight knot.), a Prussik, an Etrier, and rescue knife, scissors, or a pair of side-cutter pliers which is safer than a blade.

It is extremely important that during pre-activity inspections, facilitators take a moment to make sure all the parts of the rescue bag are inventoried and set up ready for use.

PROCEDURES FOR THE EMERGENCY TAKE-DOWN

1. Use only when previous assists have been attempted or deemed inappropriate for the situation.

2. Secure all participants: That is, ask them to go to a platform and remain there until further notice.

3. Obtain the rescue bag and travel over to the high ropes course component following standard transfer procedure. Do not try to follow the guidelines for each obstacle, get there as quickly as possible since this is a race against time. Don't ask for permission to transfer. (Clip and Go).

4. Comfort the victim. Reassure and explain what you are going to do. Tell them you will have them on the ground as quickly as possible.

5. Clip the steel carabiner with Figure 8 into the overhead cable and throw the rescue bag. (This is where your pre-activity preparation pays off.) The rope should fall freely. Climb out on the obstacle next to the participant, lower yourself into a sitting position in your harness by hanging from the overhead cable, and remain next to the participant. Pull end of rope with steel carabiner to the participant's waist height. Run

the belayer end of the rope into a carabiner on your harness and assume a belay position. Double check entire set-up. Place your brake hand on the belay rope, reassure the victim, and keep her informed. Pull any slack out of the belay rope. Have the participant assist with taking her weight off their static lobster claw lines. Upon completion lower participant to ground. An alternative to the facilitator taking a 'belay position' is to use a second figure 8 device attached to the rope and your harness in order to gain even greater control of the lower.

In the extreme case of the unconscious victim BE SURE TO IDENTIFY YOUR SLING LINES AS OPPOSED TO THE PARTICIPANT'S SLING LINES. After establishing communication with your ground belayer THEN cut the participant's safety tethers. In this type of emergency situation, you will initiate the communication plan for emergency assistance. Post event remember that there is de-briefing to do with the participant take-down and group member's processing of the event.

6. Return take-down kit to ready status.

2: FOR TWO FACILITATORS

This procedure is used in connection with the static belay system to lower a participant from a component to the ground.

EQUIPMENT

* Belay rope at least double the height of the highest element on the course plus 25 feet. One end should have a pre-tied end-loop using a figure 8 loop on a bight knot.

* Back pack, rope bag or stuff sack for the rescue rope. (The rope is stuffed into the bag without coiling).

* 1 Figure 8 descending devices.

* 2 lengths of webbing to anchor figure 8 descender

* 3 locking carabiners.

* EMS utility scissors or a sharp knife capable of cutting 2-inch diameter climbing rope.

PROCEDURE

The equipment listed above should be available at all times when the course is in use. The rope should be neatly stuffed into the rope bag by uncoiling it and feeding it into the bag so that it will feed back out when needed without becoming tangled. (i.e. do not coil the rope in the bag – stuff it). There should be a loop tied in the end of the rope that is stuffed into the bag next to last. This should be either a Figure 8 loop or a bowline on a bight, and one of the three carabiners should be attached to it. A second carabiner should be attached to the rope just below the end loop and within a free loop (bend) placed in ready position just outside the bag opening.

1. Set up the anchor point for the Figure 8 using the webbing pieces. Set the anchor around the tree securely. This anchor set-up is done at the opening of the high course not just prior to a rescue. Hook one of the carabiners into the webbing with the gate facing up and with the gate opening away from the tree. Attach the Figure 8 to the anchor carabiner through the small hole in the Figure 8.

2. The facilitator on the course should calmly go to the participant taking the rope in the rope bag with the two locking carabiners attached and the EMS scissors.

3. Upon reaching the participant, hook the carabiner that is attached to the rope in the free bend/loop onto the overhead safety cable between the participant=s and the facilitator=s lines. Call for "rope" and drop the rescue bag. Then attach the carabiner on the loop to the participant=s safety harness.

4. After dropping the rope bag to the facilitator on the ground they will proceed to feed the rope through the Figure 8 as follows: Take most of the slack out of the rescue rope between the facilitator and the participant. Disconnect the Figure 8 from the anchor carabiner. Make a small loop in the rescue rope. Pass the loop down through the largest hole on the Figure 8 and then back up over the small end of the Figure 8.
Reconnect the Figure 8 into the anchor carabiner and lock the gate.

5. The facilitator on the ground will remove all slack in the rope between the participant and themselves. The above ground facilitator will call for "Tension" and the ground facilitator will respond with obvious tension and the response "Ready".

6. Encourage the participant to try to get back up onto the component, giving physical assistance if necessary.

7. If this attempt fails and the participant must be lowered to the ground, attempt to disconnect the static belay line of the participant from the overhead safety cable. While pulling up on the participant, have the group assist by pulling on the rescue rope to raise the participant enough to disconnect their carabiners. If this fails, the static line must be cut by the facilitator on the course. This is accomplished by holding the static belay line away from both the facilitator=s static belay lines and the rescue rope and then cutting away from both of these as well as away from the facilitator and the participant.

8. When the Static lines have been disconnected or cut, the facilitator on the ground slowly lowers the participant to the ground. When the participant is near the ground, one or more helpers need to assist them to a stable position on the ground.

The procedure outlined should be used whenever a true emergency situation develops and only after all other avenues of assistance have been pursued as described above.

EMERGENCY PROCEDURES

Emergencies, whether major or minor, pose a special challenge to the facilitator. The facilitator=s primary responsibility is to maintain the safety and welfare of all participants at all times. In any type of emergency, the facilitator must maintain personal composure and the composure of the group members. Reactions should be sound and reasonable, not hasty, and should be followed by safe and deliberate actions. Never forget that the group you are working with is your responsibility.

Standard procedures to follow in response to weather emergencies, accidents, and allergic reactions are described below. A copy of all emergency procedures should be posted in a permanent location in the equipment cabinet and should be reviewed by each facilitator before each Adventure Challenge Course session.

WEATHER EMERGENCIES

The greatest weather threats in most parts of the country are high winds and lightning. Although it is not necessary to retreat at the first sign of a cloud or gust of wind, a certain amount of respect needs to be maintained about the dangers that weather conditions can pose. It doesn't=t take much wind to blow down a dead limb or other debris from a tree. The wise facilitator maintains a healthy respect for the power of the weather.

WIND - Check the weather forecasts for possible strong winds, paying careful attention to local conditions. If the wind becomes strong enough to cause falling limbs or otherwise endanger participants, the group should cease course activity and seek shelter.

RAIN - Light rains are not necessarily a problem. Since one of the goals of outdoor programs is to develop an increased familiarity and identification with the natural world, rain can actually enhance the experience. Yet during colder months of the year, rain may pose a potential problem if the participants are not dressed appropriately. Chilled participants cannot function happily or safely on an Adventure Challenge Course, and wet wood or cable surfaces can be extremely hazardous. The facilitator must use discretion in handling wet conditions.

LIGHTNING - THUNDER - If a storm is in the distance, maintain a constant awareness of its position in relationship to the course. If lightning and thunder are nearby, the Adventure Challenge Course should be vacated immediately and the group removed to a safe shelter. Trees and steel cables are dangerous during a lightning storm. Do not use trees for shelter. If no other shelter is available, get as far as possible from trees and other vertical objects and have the group members lie on the ground.

TORNADOES - If the surrounding area is placed under a tornado watch or warning, the Adventure Challenge Course should not be used even if there is no indication of a local threat, since such storms move rapidly.

ACCIDENTS

A stocked First-Aid kit should be present when the Adventure Challenge Course is in use.

In the event of an accident, whether or not an injury has resulted, group members should be kept as calm and quiet as possible. If an injury has occurred, special care should be taken to ensure that the injured person is as calm and comfortable as possible.

All accidents, whether or not they involve injury, should be reported on the Accident/Incident Report Form. Occurrences that might be termed "close calls" or "near miss" should also be reported.

MINOR INJURY - A basic first aid kit for treating minor injuries should be at the Adventure Challenge Course at all times when it is in use. The facilitator should have received basic Red Cross First Aid and CPR training. After treating the injured person, they should be taken immediately to the nearest medical facility for further treatment if necessary.

MAJOR INJURY - In the event of a major injury, a facilitator should remain with the injured person while another communicates with trained emergency personnel for their help - DIAL 911. The injured person=s condition should be stabilized with respect to breathing, circulation, and bleeding, but they should not be moved until trained medical personnel have determined it is safe to do so.

Emergency phone numbers should be kept in the first aid kit and should be posted in the equipment storage area. After phoning emergency personnel, wait to meet the emergency crew and direct them to the injured person.

ALLERGIC REACTION - In the event of a severe reaction to a bee or other insect, there may not be enough time to wait for emergency personnel to arrive. Contact 911 but also move the victim to the student health center for treatment. Staff personnel should make sure the 911 call directs rescue personnel to the proper location.

Site Specific Protocols for Emergency at CSUN Course

In the event of a serious fall do not move the victim other that allowing the establishment of an airway and treatment of bleeding. The 911 communication plan is posted on the wall of the ropes course storage container. Follow those directions specifically including identification of 'where' the incident has occurred. (corner of Lindley and Halsted).