DON’T JUDGE A BOOK BY IT’S COVER: A CLOSE LOOK AT INCLUSIVE ADVENTURE EDUCATION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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ABSTRACT

Adventure education is increasing in popularity for all populations (Ewert, 1987; Priest & Gass, 1997). It may be defined as education that "contributes to growth through perceived or actual physical and emotional challenge, followed by the opportunity for self-and group-appraisal and support" (Whitcombe, 1991, p. 6). Inclusion is currently becoming common practice within all areas of society. Inclusion is a philosophy that has the purpose of providing opportunities for all individuals to develop the skills and attitudes required to live, learn, and work together in society (Stainback & Stainback, 1990). There is a need to find more innovative ways to serve individuals with disabilities in education and recreation, allowing participation in a wider range of activities. In addition, educators are searching for ways to engage individuals with and without disabilities in settings that allow social outcomes for both groups.

The purpose of this study was to examine the influence of participation in an inclusive adventure education program on self-efficacy, group dynamics, social relations and trust; and to determine if the inclusive adventure experience differed for participants with and without disabilities. Seven participants aged 10-13 years were used for this study. These individuals self-selected to participate in the inclusive adventure education program. The study was conducted as a case study using qualitative methodology, and was approached from an ethnographic standpoint using an interpretivist paradigm.
Sources of data included field observation notes, interviews, document analysis, and participant instruments. The data were analyzed using the constant comparison method (Strauss & Corbin, 1994) in which the codes and themes were constantly compared and updated or expanded with new data or interpretation of the data.

The findings of the study indicated that the Smith Rock climbing trip had a positive effect on the group dynamics, trust, social relations, and self-efficacy of the participants. Over the course of the three-day trip the seven participants became a more cohesive group. The trust and social relations between the participants increased over the three-day trip and were generally maintained one month after the trip. The Smith Rock climbing trip increased the self-efficacy for technical climbing and belaying skills for six of the seven participants and social self-efficacy for one participant.
Dedicated to My Family and Friends
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There are a number of people that I want to acknowledge for their part in helping me accomplish this feat. This list is by no means in order of importance as everyone played their own particular and valuable role in helping me to succeed.

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CHAPTER 1

INTRODUCTION

Experiential education is an approach to education in which students are actively engaged in activities that are meaningful to them and assist them in making connections with the experience to other areas of their lives, through reflection and analysis (Chapman, 1992; Proudman, 1992). In contrast to the traditional behavioral and cognitive theories of learning, experiential learning “tends to be more holistic in nature, incorporating cognition and behavior with conscious perceptions and reflections on experience” (Priest & Gass, 1997, p. 15). Outdoor education is a process that follows the philosophy of experiential learning and occurs mostly, although not exclusively, in the natural environment. The emphasis of learning in outdoor education is placed on the relationships between people and natural resources (Priest & Gass, 1997).

There are two branches of outdoor education: adventure education and environmental education. Adventure education may be defined as education that “contributes to growth through perceived or actual physical and emotional challenge, followed by the opportunity for self and group appraisal and support” (Whitcombe, 1991, p. 6). According to Priest (1990), “Adventure education is concerned with two relationships: interpersonal and intrapersonal” (p. 114). Interpersonal relationships are
concerned with how individuals function in a group situation, and include elements such as communication, cooperation, trust, problem-solving, leadership and conflict resolution among others (Priest, 1990). Intrapersonal relationships are concerned with how the individual functions within himself or herself, and includes constructs such as self-concept, self-efficacy and spirituality among others (Priest, 1990). Adventure education programs use the natural environment to create new experiences that provide emotional, physical and social challenge to the participants (Ewert, 1989). The premise of participation in these programs is that an increased level of self-awareness is brought about by the positive change experienced through participation.

Adventure education is increasing in popularity for many different populations (Ewert, 1987; Priest & Gass, 1997). This increase has been in individual activities and organized group programs. Within the organized group programs, Outward Bound is considered the founding organization for adventure education programs. Initially, Outward Bound was used as a vehicle to improve the attitudes of youth in Great Britain. These courses were one month long and included orienteering, training in search and rescue, expeditions, obstacle courses, and local community service (Miner, 1990). After the success of this program, more Outward Bound Schools and programs were started. Indeed, Outward Bound has developed greatly, having centers in 24 countries and working with a wide variety of clients (Priest & Gass, 1997).

Since the inception and success of the Outward Bound Program other programs and organizations have been created that have their basis in the philosophy of Outward Bound: National Outdoor Leadership School, Project Adventure, Wilderness Education Association, Association of Experiential Education (Priest & Gass, 1997). In addition to
these organizations there are a number that offer programs for individuals with disabilities in segregated and/or inclusive settings. These organizations include Adventures Without Limits, Breckenridge Outdoor Education Center, National Ability Center, and Wilderness Inquiry. In addition to these organizations that offer adventure education programs, many different groups and organizations use some aspect of adventure education to impact the individuals participating in their programs.

Currently, within all areas of society inclusion is becoming a common practice. Education began the process toward inclusion with the passing of P.L. 94-142, the Education of All handicapped Children Act in 1975, which is now included within P.L. 105-17. This act stated that children with disabilities should be educated within the ‘least restrictive environment’. Will in 1986 advocated for the Regular Education Initiative that stated that children with disabilities should be educated within regular classrooms. This initiative is synonymous with present day inclusion. Other areas of society such as recreation, organized sports, and camps have also started to offer inclusive programs. Inclusion is a philosophy that has the purpose of providing opportunities for all individuals to develop the skills and attitudes required to live, learn, and work together in society (Stainback & Stainback, 1990).

There is a need to find more innovative ways to serve individuals with disabilities in education and recreation, allowing participation in a wider range of activities. In addition, educators are looking for ways to engage individuals with and without disabilities in settings that allow social outcomes for both groups. Both of these factors point to the use of adventure education to fulfill these needs. However, there is a paucity of research in the area of inclusive adventure education programs. Of the research
conducted, the measurement of changes in attitudes as a result of the participation has been the most researched variable (Anderson, Schleien, McAvoy, Lais, & Seligmann, 1997; McAvoy, Schatz, Stutz, Schleien & Lais, 1989; McAvoy & Schleien, 1988; Rynders, Schleien & Mustonen, 1990; Sable, 1995). As society moves further and further towards inclusion there is the need for research into the outcomes of inclusion for all participants involved. Due to the relatively recent introduction of inclusive adventure education programs, there is a gap in the current literature in relation to the effects of such programs on both the interpersonal and intrapersonal relationships of the participants.

Within the interpersonal relationships of the participants in adventure education programs, the aspects of trust, social relations (sociometrics), and group dynamics among others are considered important. Trust is considered to be impacted by adventure education programs (Moore, 1986) and is an important aspect of group dynamics (Johnson & Johnson, 1997). Trust can be defined as:

Trust involves an interaction of the individual’s pervasive preconscious sense of safety in risky or needful social situations with the rational appraisals the individual makes based on situational cues and the learned generalized expectancy that others will be reliable, predictable, and safe. (Bernarth & Freshbach, 1995, p. 3)

The ability to trust is considered a fundamental factor in a child’s personality and socioemotional development (Bernarth & Freshbach, 1995). Children who are socially accepted are more likely to develop trust than children who are rejected socially. Due to the nature of an inclusive adventure setting, the issue of social acceptance or rejection is an important one, not only in relation to group dynamics, but also in relation to the adventure activities.
Social relations (sociometrics) are concerned with identifying the social status of individuals within a group. An individual with a disability is often alienated due to his or her disability. With the increase in the inclusion of individuals with and without disabilities within society, it is important for fostering successful inclusion to understand the impact of these programs on the sociometric views of participants. Adventure education purports to impact the social relations of participants and thus examining this issue within an inclusive adventure education setting seemed appropriate.

Group dynamics has been defined as “a field of inquiry dedicated to advancing knowledge about the nature of groups, the laws of their development, and their interrelations with individuals, other groups and large institutions” (Cartwright & Zander, 1968, p. 7). More generally it is the social, intellectual, or moral forces that produce activity and change in a group of individuals. According to Priest (1990), adventure education programs can impact the group dynamics of the participants. As with the social relations, it seemed appropriate to examine this impact in an inclusive setting.

The intrapersonal relationships present in adventure education can impact an individual’s self-efficacy (Priest, 1990). Self-efficacy can be defined as, "beliefs in one’s capability to organize and execute the courses of action required to manage prospective situations" (Bandura, 1997, p. 2). In more general terms, self-efficacy is an individual’s own belief(s) regarding accomplishment of a task. Efficacy expectations, given appropriate skills and incentives, "...are a major determinant of people's choice of activities, how much effort they will expend, and of how long they will sustain effort in dealing with stressful situations" (Bandura, 1977, p. 194). In general, individual's participate in activities in which they feel confident about their abilities, and avoid those
about which they do not feel confident. As stated, adventure education purports to impact an individual’s self-efficacy but there is limited research in this area to date.

In light of the above information, it seemed appropriate to examine the influence of an inclusive adventure education program on the self-efficacy, group dynamics, social relations, and trust of participants. It is anticipated that the findings from this study would serve the following purposes. First, the current gap in the literature base regarding the benefits of participation in inclusive adventure education programs would begin to be filled in relation to self-efficacy, group dynamics, social relations, and trust. Second, the findings could provide some information regarding the success of such programs in providing new and innovative ways to offer recreation and education to individuals with disabilities. Third, it could provide some information regarding the ways to offer successful inclusive programs that influence the participant with and participants without disabilities.

Purpose of the Study

The purpose of the study was to examine the influence of participation in an inclusive adventure education program on self-efficacy, group dynamics, social relations, and trust; and to determine if the inclusive adventure experience differed for the participant with and participants without disabilities.

Research Questions

1. What are the characteristics of an inclusive adventure education experience?

2. What were the changes in group dynamics, trust, self-efficacy, and social relations of the participants across the inclusive adventure education experience?

3. Does this experience differ for individuals with and without disabilities?
Significance of the Study

Despite the claims that adventure education programs have a positive effect on the affective domain of participants, there is a paucity of research regarding the benefits of inclusive adventure education. With the current climate of inclusion within society, there is a need to find new and innovative ways to offer recreation and education to individuals with and without disabilities. Thus, one purpose of this study is to begin to fill the gap in the literature base regarding the influence of participation in an inclusive adventure education program on the group dynamics, self-efficacy, social relations, and trust of individuals with and without disabilities ages 10-13. It is anticipated that the findings from this study will also provide an argument for the use of adventure education programs to promote a healthy attitude towards inclusion, and offer educators information regarding new and innovative programs for inclusive groups.

Delimitations

This study was delimited to participants' ages 10-13 that self-selected to participate in an inclusive climbing trip organized by Adventures Without Limits (AWL) in March 2000. Only one participant had a disability. The seven participants in the inclusive adventure education program were from one geographic location. Adventures Without Limits was chosen for the study, as it is one of the few within the United States that offers inclusive adventure education programs for this age range. The seven participants from one AWL trip were used in this study. It is the responsibility of the reader to make generalizations of the results and findings of this study.
Limitations

The following points were considered to be limitations of this study:

1. The short duration of the Smith Rock climbing trip.

2. The relatively small number of participants who self-selected to participate in the study, of which only one had a disability.

3. The choice of the instruments (trust checklist and sociometric) used to collect data, and the use of Friedman two-way ANOVA to analyze this data.

4. The choice of location for the pre-trip interview of the participants may have limited the depth of data gathered.

5. The friendships previously established prior to the trip, and the inclusion of a set of twins and two brothers within the seven participants, may have limited the data collected regarding social interactions and trust.

6. The researcher’s subjectivity as it related to data collection and analysis.

Definition of Terms

Adventure Education:

Adventure education can be defined as education that “contributes to growth through perceived or actual physical and emotional challenge, followed by the opportunity for self-and group-appraisal and support” (Whitcombe, 1991, p. 6).

Adventures Without Limits:

Adventures Without Limits (AWL) is a private non-profit organization located in Forest Grove, Oregon. This organization is an integrated outdoor education/recreation organization that provides hands-on learning experiences to participants with and without disabilities in the natural environment (AWL, 1999a).
Challenge By Choice:

Challenge by choice can be defined as:

- a chance to try a potentially difficult or frightening challenge in an atmosphere of support and caring,
- the opportunity to “back off” when performance pressures or self-doubt become too strong, knowing that an opportunity for a future attempt will always be available,
- a chance to try difficult tasks, recognizing that the attempt is more significant than performance results,
- respect for individual ideas and choices (Schoel, Prouty, & Radcliffe, 1988, p.131)

Experiential Education:

Experiential education can be defined as “an approach which has students actively engaged in exploring questions they find relevant and meaningful, and has them trusting that feelings as well as thinking, can lead to knowledge” (Chapman, 1992, p. 18).

Group Dynamics:

The social, intellectual, or moral forces that produce activity and change in a group of individuals.

Inclusion:

Inclusion is a philosophy that has the purpose of providing opportunities for all individuals to develop the skills and attitudes required to live, learn, and work together in society (Stainback & Stainback, 1990).

Inclusive Setting:

Within the group the concept of natural proportions of individuals with disabilities to individuals without disabilities is present. The group will consist of 10-15% of individuals with disabilities.
Interpersonal Relationships:

Interpersonal relationships are concerned with how individuals function in a group situation, and include elements such as communication, cooperation, trust, problem-solving, leadership and conflict resolution, among others (Priest, 1990).

Intrapersonal Relationships:

Intrapersonal relationships are concerned with how the individual functions with him/herself, and includes constructs such as self-concept, self-efficacy and spirituality, among others (Priest, 1990).

Leave No Trace:

A philosophy for minimum-impact camping that encompasses the following six components:

- plan ahead and prepare
- camp and travel on durable surfaces
- pack it in, pack it out
- properly dispose of what you can’t pack out
- leave what you find
- minimize use and impact of fires

(Leave No Trace, 1996)

Self-Efficacy

Self-efficacy can be defined as, "beliefs in one’s capability to organize and execute the courses of action required to manage prospective situations" (Bandura, 1997, p. 2).
Sequencing

Sequencing in adventure education is defined as “paying attention to the order of activities so that the order is appropriate to the needs of the group” (Schoel, Prouty, & Radcliffe, 1988, p. 35).

Social Interaction

Social interaction can be defined as “Patterns of mutual influence linking two or more persons” (Johnson & Johnson, 1997).

Social Self-Efficacy

Social self-efficacy can be defined as “the belief that one has the skills for a successful performance in a specific social situation” (Galanaki & Kalantzi-Azizi, 1999, p. 2).

Teambuilding

Within this study, teambuilding is defined as organized activities that were used as a vehicle for achieving increased group cohesion.
CHAPTER TWO

REVIEW OF LITERATURE

The purpose of this chapter is to provide an overview and critique of the research in relation to the topic of this dissertation. The review will be divided into six sections. The first section will provide a definition and historical perspective of adventure education, and a review of the research in this area. The second section will provide a definition and description of self-efficacy theory, and a review of relevant research in this area. The third section will provide a description of sociometrics. The fourth section will provide a definition and description of group dynamics. The fifth section will define and describe trust. The final section of the chapter will provide a summary of adventure education and self-efficacy, and further highlight the need for more research in this area.

Experiential Education

Prior to defining and explaining adventure education it is necessary to highlight the theory of experiential learning as it is under this theory that adventure education rests. In contrast to the traditional behavioral and cognitive theories of learning, experiential learning “tends to be more holistic in nature, incorporating cognition and behavior with conscious perceptions and reflections on experience” (Priest & Gass, 1997, p. 15). Education using this theory of learning is termed Experiential Education. Chapman
(1992) stated that experiential education is “an approach which has students actively engaged in exploring questions they find relevant and meaningful, and has them trusting that feelings as well as thinking, can lead to knowledge” (p. 18). Proudman (1992) proposed that

“Good experiential learning combines direct experience that is meaningful to the student with guided reflection and analysis. It is a challenging, active, student centered process that impels students towards opportunities for taking initiative, responsibility and decision making...Experiential education engages the learner emotionally.” (p. 20).

From the above definitions it is clear that experiential education is an approach in which the students are actively engaged in activities that are meaningful to them and that assist them in making connections with the experience to other areas of their lives, through reflection and analysis. The role of the teacher in experiential education becomes that of a facilitator where they use experiential education methodology to assist the student in the learning process. These methodologies include: a) a mixture of content and process, b) absence of excessive teacher judgement, c) using activities that are meaningful for the students, d) relating the experience to the ‘big picture’ of the student’s life, e) teaching with multiple learning styles, f) reflecting upon the experience and transfer of knowledge, g) making meaningful relationships from the learning, and h) learning outside of one’s perceived comfort zone (Proudman, 1992).

Experiential education is not a vehicle that is widely accepted within the realm of traditional education, however, there has been a call for reforming this system. In the Presidential Address to the American Educational Research Association, Resnick (1987) stated that learning in schools differed from other learning in four ways: a) individual cognition in school versus shared cognition outside of school; b) pure experimentation
Page 14 does not exist
opportunity for self-and group-appraisal and support” (Whitcombe, 1991, p. 6).

According to Priest (1990), “Adventure education is concerned with two relationships: interpersonal and intrapersonal” (p. 114). Interpersonal relationships are concerned with how individuals function in a group situation, and include elements such as communication, cooperation, trust, problem-solving, leadership and conflict resolution among others (Priest, 1990). Intrapersonal relationships are concerned with how the individual functions with themselves, and includes constructs such as self-concept, self-efficacy and spirituality among others (Priest, 1990).

Figure 1: Relationship of Outdoor Education, Adventure Education and Environmental Education
Adventure education programs use the natural environment to create new experiences that provide emotional, physical and social challenge to the participants (Ewert, 1989). The premise of participation in these programs is an increased level of self-awareness brought about by the positive change experienced through participation.

**Historical Perspective of Adventure Education**

The basis of the philosophy of adventure education can be traced back to the ancient Greek philosopher Plato (Hunt, 1990). Plato believed that learning best occurs through an individual actively experiencing the subject matter, which in the case of the ancient Greeks were the virtues of war. Aristotle, who was a student of Plato’s, believed that education should be concerned with the development of virtue in young people (Hunt, 1990), and that to do this one must experience these virtues. The 19th Century philosopher William James believed that the virtues taught in war were of great value, but that there were better methods of teaching these virtues. Instead of war, James believed that impelling young people into adventurous situations that use nature as the medium will substitute for war in teaching about virtues (James, 1949).

Kurt Hahn, who can be considered the grandfather of adventure programming (Priest & Gass, 1997), believed in the philosophies of Plato, Aristotle, and James. Hahn opened a co-educational boarding school in 1920 in Germany where the curriculum focused on personal responsibility, equality, social justice, respect, and service to the community (Priest & Gass, 1997). He extended this philosophy when he opened the Gordonstoun School in Scotland in 1934. Then in 1941, Hahn began the program called Outward Bound in Aberdovey, Wales. This program was originally started to improve the attitudes of youths. These courses were one month long and included orienteering.
training in search and rescue, expeditions, obstacle courses, and local community service (Miner, 1990). After the success of this program, more Outward Bound Schools and programs were started. Indeed, Outward Bound has developed greatly, having centers in 24 countries and working with a wide variety of clients (Priest & Gass, 1997).

Since the inception and success of the Outward Bound Program other programs and organizations have been created that have their basis in the philosophy of Outward Bound; National Outdoor Leadership School, Project Adventure, Wilderness Education Association, Association of Experiential Education (Priest & Gass, 1997). In addition to these organizations there are a number that offer programs for individuals with disabilities in segregated and/or inclusive settings. These organizations include Adventures Without Limits, Breckenridge Outdoor Education Center, National Ability Center, and Wilderness inquiry.

**Adventure Education Models**

Priest and Gass (1997) believe that one of the major influences of Outward Bound has been the Outward Bound Process Model (Walsh & Golins, 1976). This model outlines seven elements whose interaction influences the experiential learning process. The first element is the learner. It is important to assess the experience, needs, objectives, and motivation level of the learner in order to plan a successful experience. The learner is then put into a ‘prescribed physical environment’ that is in contrast with their ‘home’ environment. In addition, the learner is placed into a ‘prescribed social environment’ where a group of 7-15 individuals have a common objective to achieve. The size of the group is important to facilitate the interplay of the group dynamics, in relation to conflict resolution, support, reciprocity, and creating a collective force. This
group is then presented with a ‘characteristic set of problem-solving tasks’ that are organized, progressive, recognizable, achievable, worthwhile, and holistic in nature. These tasks create a ‘state of adaptive dissonance’ that the group must change by problem solving, which leads to mastery or competence in relation to the task. This process provides the learner with information regarding the ‘reorganization of the meaning and direction’ of the behavior change. However, the lasting impact of this change is dependent upon the learner’s ability to transfer the meaning to other aspects of his or her life. The Outward Bound Model is one of the first models that specifically outlined the adventure experience. A vital aspect of this model is the ‘Challenge by Choice’ philosophy under which it is conducted. This concept was originated by Rohnke (1984), and empowers the participant by allowing them to determine the degree of challenge, risk, and competence with which they engage in the adventure experience. Schoel, Prouty and Radcliffe (1988) described this concept as offering participants:

- a chance to try a potentially difficult or frightening challenge in an atmosphere of support and caring,
- the opportunity to “back off” when performance pressures or self-doubt become too strong, knowing that an opportunity for a future attempt will always be available,
- a chance to try difficult tasks, recognizing that the attempt is more significant than performance results. (p. 131)

The challenge by choice concept is important within the adventure education experience and must be addressed within each program to allow for the safe participation of individuals.

In 1981, Joplin synthesized information from experiential programs and created a Five-Stage Model of Experiential Education. The five stages of this model are the focus stage, the action stage, the support stage, the feedback stage, and the debriefing stage.
The focus stage consists of presenting that task and focusing the learner or group attention on this task. The action stage is where the learner or group performs the task. The support stage involves the provision of security and emotional support for the effort being spent. The feedback stage involves the facilitator providing information to the learner or group regarding effort and accomplishment. The intent of this feedback is to assist in the learner or group to advance in the learning process. The last stage is the debriefing process where the facilitator uses reflection to assist the learner or group to achieve meaning from the experience. The important aspect to consider with this model is that it is learner centered.

Sequencing of Adventure Activities

Sequencing in adventure education is defined as “paying attention to the order of activities so that the order is appropriate to the needs of the group” (Schoel, Prouty, & Radcliffè, 1988, p. 35). This sequencing of activities has been considered as one of the most important aspect of adventure-based programs (Bisson, 1997a). In synthesizing five of the most commonly used sequencing models, Bisson (1997a) compiled a model that consisted of four large, group-related, phases. This model consists of the following four phases (Bisson, 1997a):

- Group Formation – the focus of this phase is activities that allow the group to become acquainted.

- Group Challenge – where activities are presented that challenge a group and require them to work together to solve the problems presented.
• Group Support – the focus in this phase is on personal challenge activities that require self-confidence and determination of the participant and the support of the other group members.

• Group Achievement – this phase extends the adventure activities into the traditional outdoor pursuits and is not included in all of the models used to develop this model.

Of the five sequencing models used to develop the Bisson (1997a) model only two had a difference in the sequencing of the activities. The Sequential Process by Roland and Havens (1983) and the Challenge Education Sequence by Robb and Ewert (1987) put the personal challenge activities after the group challenge activities. Both of these models were designed for use with groups of individuals with disabilities.

Bisson (1997b) in a Delphi research study on 25 professionals in the field of adventure education developed a ‘hypothetically-correct sequence’ as follows:

1. Acquaintance Activities
2. Deinhibitizer Activities
3. Communication Activities
4. Trust Activities
5. Group Problem Solving Activities
6. Individual low Ropes Course Events
7. Individual high Ropes Course Events
8. Outdoor Pursuit Experience

This sequence was then used to measure the group cohesion of students participating in an outdoor adventure program, and was compared to an ‘altered sequence’ of activities.
Results indicated that the ‘hypothetically-correct sequence’ was significantly more effective in developing group cohesion among participants than the ‘altered sequence’.

There is a need for further research into the effects of sequencing adventure activities to support or refute the limited findings to date in this area. In addition, research into the appropriate sequencing of activities for inclusive groups is warranted as the literature is contradictory in relation to sequencing models for individuals with disabilities and models for individuals without disabilities.

**Transfer of Learning**

As the models outlined above indicate, there is one very important aspect to consider for a successful, meaningful learning experience to occur in an adventure experience. Gass (1990) stated that “The true value or effectiveness of the program lies in how learning experienced during adventure activity will serve the learner in the future” (p. 199). This effect on future learning assists in explaining how transfer occurs; specific transfer, non-specific transfer, and metaphoric transfer. Bruner (1960) described specific transfer as transfer when the specific skills of the task are highly similar to those originally learned. Gass (1990) provided the use of the ‘feel’ hand and the ‘brake’ hand learned in belaying and how it transferred to rapelling as an example of specific transfer. Non-specific transfer is concerned with the transfer of attitudes and principles from one learning experience to a future one (Bruner, 1960). An example of this type of transfer would be the increased trust of others learned in an adventure education program transferring to increased trust of work mates. Metaphoric transfer occurs when the individual generalizes specific principles from one situation to another. This type of
transfer occurs when there are parallels between the learning environments (Priest & Gass, 1997). Priest and Gass (1997) provided a good example of metaphoric transfer:

Another of many metaphors in rapelling or abseilling is the gathering of internal strength in order to commit to the ‘first-step’ of the descent and gathering sufficient courage to begin many other endeavors in life, such as beginning a new job, starting a recovery program, or entering a new social situation. (p. 175)

The key aspect to consider in metaphoric transfer is the strength of the connection between the adventure experience and real life situations. Creating an environment that assists with or facilitates this transfer of learning is of great importance in the adventure education program.

Gass (1990) provided the following factors/techniques that can assist the transfer of learning.

1. Design an environment for transfer prior to the experience by having students set goals for the experience and plan the experience on these and each student’s abilities.

2. Create elements that will be similar to those found in future environments and discuss them with the student.

3. Allow the practice of transfer while in the adventure education program by using a variety of situations.

4. Use natural consequences of learning rather than artificial ones.

5. Allow the opportunity to internalize the learning.

6. Include past successful program alumni in the group to assist in telling how they have used what they learned in the program within their lives.

7. Include significant others in the learning process.
8. Put more responsibility for learning on the student, depending on their ability to accept it.

9. Use processing/debriefing techniques that facilitate the transfer of learning. These techniques include: present sessions when students can contribute personally meaningful responses, link experiences from recent and future environments, and de brief throughout the experience not just at the end.

10. Provide follow-up experiences that aid in the transfer of learning.

This list provides guidelines on techniques that can enhance the transfer of learning. Although it may not be possible or advisable to use all of these suggestions, it is proposed that their use will increase the transfer of learning for participants.

Benefits of Participating in Adventure Education

Much of the research in the outcomes of adventure education programs has focused on the affective domain. Research has shown that participation in adventure education programs has produced positive effects upon: self-confidence and self-concept (McDonald & Howe, 1989), self-esteem and personal confidence (Rohnke, 1986), positive perception of self (Meier, 1978), motivation levels (Kelly & Baer, 1969), and reduced anxiety and increased self-actualization (Young & Candrell, 1984). In addition to the effect upon the affective domain, participation in adventure education has been postulated to increase muscular strength and cardiovascular efficiency (McAvoy & Dustin, 1986), and the development of cooperation, trust, and problem-solving skills (Moore, 1986).

More specifically, Marsh, Richards and Barnes (1986a) found that adults in a 27-day Outward Bound course experienced statistically significant increases in multiple
dimensions of self-concept as measured by the Self-Description Questionnaire III (SDQ III). In a follow up study, Marsh, Richards, and Barnes (1986b) found that this increase in multiple dimensions of self-concept was maintained 18 months after participation in the Outward Bound course. Ewert (1988a) found that participation in Outward Bound courses can significantly reduce the level of trait anxiety of adults but this effect, although still positive, diminished over 12 months. In a similar study, Ewert (1988b) reported a significant reduction in situational fears, as measured on the Situational Fear Index, of adult participants in an Outward Bound course. This reduction in situational fear was consistent when measured 12 months after participation in the course. These studies indicate that certain positive outcomes from participation in adventure education programs can be maintained from at least 12 to 18 months after the experience.

Anderson and Frison (1992) conducted a qualitative study with 16 university students in an introduction to adventure-based programs. The findings of this study indicated that the students experienced positive increases in: trust towards other members of the group, communication, self-confidence, risk-taking behavior, group cohesiveness, and observation and listening skills. In addition to these findings, students reported a “deeper insight into the value of cooperative behavior and communication” (Anderson & Frison, 1992, p. 16).

The above studies were conducted with individuals who were typically developing. The following sections will outline research considering the benefits of participating in adventure education for individuals with disabilities.
Research Related to Participation in Segregated Adventure Education

For the purpose of this discussion, segregated adventure education programs will be defined as groups consisting solely of individuals with disabilities with the exception of program facilitators or caregivers. Gibson (1979) conducted a comprehensive review of therapeutic wilderness programs and found that many of the studies conducted had methodological flaws that called into question the findings. Indeed much of the research in the area of segregated adventure education programs has been conducted as a therapeutic intervention. The research used in this review is limited by these two factors.

Robinson (1994) conducted a study of the use of adventure activities with young adults who had developmental challenges. Four participants engaged in adventure activities three days a week for a duration of four weeks. A modified version of the Piers and Harris Self-Concept Scale for Children was used to measure participants’ self-concept twice prior to the start of the program, three times during and twice after the program. Results indicated that an increase in aspects of self-concept (popularity and overall self-concept) resulted from participation in adventure education for individuals with a developmental challenge, and that this increase was maintained two months after termination of the program. In addition to these findings, Robinson (1994) contended that participation in adventure education can provide “a medium for exploration, unique social interactions with both their peers and program instructors, and enhanced self-concept” (p. 501).

Blinde and McClung (1997) conducted a qualitative study on the impact of various recreational activities upon the perceptions of the physical and social self of participants with physical disabilities. One of the activities, horseback riding, could be
considered an adventure activity. Those individuals participating in horseback riding reported experiencing their bodies in different ways. One participant reported that she “didn’t feel so much like my body was a traitor” as now her “body was allowing me to do something which, you know, I thought it just couldn’t do” (Blinde & McClung, 1997, p. 334). The authors found that by participating in horseback riding, which many participants felt was beyond of their capabilities before the experience, resulted in a “redefinition of physical capabilities for many participants” (Blinde & McClung, 1997, p. 335). This redefinition would allow individuals with disabilities to participate in other activities that they previously felt were not accessible to them. The experience also expanded participants’ social interactions and experiences with individuals with and without disabilities. Overall the study found that, “Perceiving greater control in the physical and social areas resulted in higher levels of self-efficacy and greater risk-taking or proactive behaviors” (Blinde & McClung, 1997, p. 339). As this study highlights, positive gains in both the physical and social self may be provided through participation in adventure activities for individuals with physical disabilities.

In addition to these benefits, Datillo and Murphy (1987) contend that adventure education could be used as a vehicle for leisure education for individuals with disabilities. Through participating in adventure education, individuals with disabilities can: 1) learn about safety measures; 2) discover resources and opportunities for further participation; 3) master the skills necessary to participate in specific adventure activities; 4) develop decision-making abilities based on skill level, activity requirements, and consequences of participation; and 5) enjoy actually participating in the activity (Datillo & Murphy, 1987). Thus for a population with increased leisure time, participation in adventure education
could be used to further develop leisure education leading to increased participation rates
in leisure activities.

Research Related to Participation in Inclusive Adventure Education

Inclusion is a philosophy that has the purpose of providing opportunities for all
individuals to develop the skills and attitudes required to live, learn, and work together in
society (Stainback & Stainback, 1990). Inclusive adventure education programs have the
following goals for participants (Schleien, McAvoy, Lais & Rynders, 1993). It allows
participants to experience inclusion in settings away from their everyday environment. It
increases the self-esteem and self-confidence of all participants. It promotes more
independent living skills for participants with disabilities. Inclusive adventure education
provides opportunities to positively impact the attitudes of individuals without disabilities
towards individuals with disabilities, allowing them to look beyond the disability and to
discard negative stereotypes. It provides opportunities to highlight the similarities
between individuals with and without disabilities. Schleien et al (1993) also provided
four rationales for inclusive adventure education programs. These programs provide
opportunities for individuals with disabilities to learn the necessary social skills for
participation in society. Individuals participating in such programs have the opportunity
to build self-esteem and make meaningful contributions to the group. Inclusive programs
are more cost effective than providing segregated programs and facilities for individuals
with disabilities. Inclusive programs are important to a high quality of life for individuals
with and without disabilities as there are many lesson to be learned from participation in
such programs.
There is a paucity of research addressing inclusive adventure education programs. Of the research conducted, the measurement of attitudinal change as a result of the participation has been the most researched variable. Sable (1995) conducted a study considering adolescents’ acceptance of individuals with disabilities. Within this study three groups of adolescents ages 11-16 were compared in relation to their attitudes towards peers with disabilities as measured by the Acceptance Scale (Voeltz, 1982). The comparison group experienced physically integrated activities with peers with disabilities during a weeklong stay at a residential camp. The disability awareness group participated in the regular camp activities plus a disability awareness program. The adventure group participated in the regular camp activities plus a Challenging Outdoor Experience (COPES) program. The results of the study indicated that participation in the disability awareness group and the adventure group increased adolescents’ acceptance of individuals with disabilities significantly more than the comparison group. In conclusion, Sable (1995) stated that “Being with a peer with a disability as s/he negotiates a zip line, or having to work as a group to scale a fifteen foot wall together, can create acceptance with the context of the mutuality of the relationship” (p. 213). This study demonstrated that participating in inclusive adventure activities significantly increased adolescents’ acceptance of individuals with disabilities, which is very important with the increase of inclusion of individuals with disabilities within public education.

McAvoy, Schatz, Stutz, Schleien and Lais (1989) studied the effects on personal and lifestyle traits of adults with and without disabilities who participated in an integrated wilderness program. This was a two-week wilderness camping and canoeing program. Results indicated that all participants experienced a decrease in trait anxiety levels, as
measured by the State-Trait Anxiety Inventory, and that this decrease was maintained one month after participation in the program. The interview data indicated that “integrated wilderness adventure programs can be powerful experiences that can have substantial positive effects on personal and lifestyle traits” (McAvoy et al, 1989, p. 59). The six areas of positive lifestyle impacted by participation in the wilderness program were: interpersonal relationships; recreation skills and patterns; attitudes towards persons with disabilities; tolerance of others; tolerance of stress; and skills in approaching new situations. Results of this study indicated that individuals with and without disabilities in an inclusive wilderness program can experience benefits of participation. Interestingly, the positive change in attitudes towards individuals with disabilities was reported as the second highest lifestyle change for individuals without disabilities.

In a follow up to this study, Anderson, Schleien, McAvoy, Lais, and Seligmann (1997) conducted a 30-month longitudinal study with adult participants in an inclusive wilderness program. Results of the study indicated that a positive change occurred for all participants in the areas of attitude, relationships/social integration, canoe skill acquisition, and perceived lifestyle changes. The authors considered the most powerful result of the study was that, attitudes remained positive even when tested in challenging situations over the course of the program. In addition, it was reported that through participation in the program, individuals chose to include individuals with disabilities in their lives as friends. This study indicates that participation in inclusive wilderness programs can have a positive impact on participants and that this impact can be maintained over at least a 30-month period.
Rynders, Schleien and Mustonen (1990) considered the effects of including adolescents with severe disabilities and those without disabilities in a two-week camping experience. Prior to the experience, children without disabilities received training on how to be a ‘special friend’ to a child with a disability. The results of the study indicated that the children with disabilities increased their level of independence in two skills (swimming and clearing the table). An increase in the amount of social interactions and friendship ratings of children without disabilities towards children with disabilities was also reported. In a similar study, McAvoy and Schleien (1988) found that participation in an inclusive outdoor education program significantly increased the level of appropriate social interactions between adolescents with and without disabilities. In addition, the level of peer acceptance increased significantly as a result of the program, as did the mastery of snowshoeing skills.

Self-Efficacy

In 1977 Bandura introduced the Social Learning Theory which later evolved into the Social Cognitive Theory (Bandura, 1986). One premise of this theory is that individuals possess a self-system which allows them to exercise a measure of control over their thoughts, feelings, motivation, and actions (Bandura, 1986). This system enables individuals to perceive, regulate, and evaluate their own behavior that results from the interaction of the system with environmental influences. In doing this, the system acts in a self-regulatory manner allowing individuals to influence their cognitive processes and actions thereby altering their environment (Pajares, 1997). Self-efficacy beliefs play a major role in this system. Self-efficacy can be defined as, "beliefs in one’s capability to organize and execute the courses of action required to manage prospective
situations" (Bandura, 1997, p. 2). In more general terms, self-efficacy is an individual's own belief(s) regarding accomplishment of a task. Schunk (1989, 1991, 1995) indicated that self-efficacy can determine an individual's outcomes of such diverse tasks as academic achievement, athletic performance, cognitive skill learning, coping with fear, pain tolerance, and career choices. Self-efficacy beliefs differ from the core constructs of other theories related to perceived competence because they are concerned with "individuals' perceived capabilities to produce results and to attain designated types of performance" (Pajares, 1997, p. 3). Self-efficacy judgements are used in relation to a goal and are more task and situation specific (Pajares, 1997).

Efficacy expectations, given appropriate skills and incentives, "...are a major determinant of people's choice of activities, how much effort they will expend, and of how long they will sustain effort in dealing with stressful situations" (Bandura, 1977, p. 194). In general individuals participate in activities in which they feel confident about their abilities, and avoid those about which they do not feel confident. Pajares (1997) stated that:

People with a strong sense of personal competence in a domain approach difficult tasks in that domain as challenges to be mastered rather than as dangers to be avoided, have greater intrinsic interest in activities, set challenging goals and maintain a strong commitment to them, heighten their efforts in the face of failure, more easily recover their confidence after failures or setbacks, and attribute failure to insufficient effort or deficient knowledge and skills which they believe they are capable of acquiring. (p. 5)

Efficacy expectations vary in relation to magnitude, generality and strength. Bandura (1986) postulated four sources of efficacy information available to individuals: mastery experience, vicarious experience, verbal persuasion, and physiological states.
Sources of Self-efficacy Expectations

Within these four sources, mastery experiences are posited to provide the strongest information related to self-efficacy. In mastery experiences, “individuals gauge the effects of their actions and their interpretations of these effects help create their efficacy beliefs” (Pajares, 1997, p. 3). In general, success in an activity raises an individual’s efficacy expectations whereas failure lowers them. However, Bandura (1977) hypothesized that once a strong feeling of self-efficacy has been established through success in a task, that the occasional failure will not affect an individual’s efficacy expectation. As mastery experience is reported to be the strongest source of self-efficacy beliefs, interventions for increasing self-efficacy should contain mastery experiences.

The second source of efficacy information is through vicarious experience, where observation of similar peers’ success at a task can positively influence the efficacy expectations of an individual (Bandura, 1977; Schunk, 1985, 1995). The similarity of the capabilities of the model to the perceived capabilities of the individual is an important factor in determining the effect of the vicarious experience. This source of self-efficacy beliefs is important for individuals who are uncertain of their own ability, or have limited prior experience (Pajares, 1997). However, if this observation is not then validated by successful performance from the individual at a given task, the efficacy expectations can be negated (Schunk, 1985, 1995).

Verbal persuasion that an individual is capable of achieving a task can raise efficacy expectations when it is received from a credible source. It is important that the individual perceives the source of verbal persuasion as credible and feels deserving of
such praise for this source to be influential on levels of self-efficacy. As with the
vicarious experience, subsequent performances must be successful for this source of
efficacy expectation to be validated.

Physiological information may be obtained through reactions such as sweating,
heart rate, and anxiety. Such physiological reactions may indicate an individual’s lack of
ability to succeed at a given task, and decrease their motivation to attempt the task.
Although this source is the weakest of the four outlined, it is still a viable and important
source of self-efficacy information.

The effect of information derived from these four sources regarding efficacy
expectations will depend upon how the information is then cognitively appraised by the
individual (Bandura, 1977). "...[P]eople process, weigh, and integrate diverse sources of
information concerning their capability, and they regulate their choice behavior and effort
expenditure accordingly" (Bandura, 1977, p. 212). An individual’s interpretation of
events provides the basis for judgments of competence within an activity (Pajares,
1997).

From these four sources of efficacy information, interventions have been designed
to increase self-efficacy. These interventions include the use of models, goal setting, and
feedback. According to Bandura (1986), models provide an important vicarious source
of vicarious self-efficacy information. Observers gain information regarding the
sequence of actions to succeed at a task from observing competent models performing a
task successfully (Schunk, 1995). This observation raises an individual’s efficacy
expectations for that task, and can motivate the individuals to perform the task (Schunk,
1989). The use of goal setting can also influence self-efficacy. "Individuals who adopt a
goal may experience a sense of self-efficacy for attaining it and engage in activities they believe will produce goal attainment" (Schunk, 1995, p. 119). However, the strength of the goal setting intervention will be determined by the proximity, specificity, and difficulty of the goal (Bandura, 1986).

Feedback can be persuasive in providing self-efficacy information (Schunk, 1995). However, different types of feedback such as attributional, performance, and goal setting may influence self-efficacy in different ways. The credibility of the feedback received by the individual is of vital importance in influencing self-efficacy (Schunk, 1995).

**Generalization of Self-efficacy**

Although Bandura (1997) proposed that self-efficacy theory is a multidimensional approach, specificity and generality of self-efficacy beliefs were not discounted. Indeed Bandura (1997) stated that “the development and exercise of capabilities would be severely constricted if there was absolutely no transfer of efficacy beliefs across activities and settings” (p. 50). However, there is not an indiscriminate generalization of efficacy beliefs. Bandura (1997) identified six processes whereby some generality of personal efficacy can occur. First, when different activities are categorized by similar subskills generality can occur, although the perception of similarity between tasks will vary between individuals and so generality can not be assumed. Second, when skills in different domains are acquired together, the process called codevelopment can help with generality. Bandura (1997) provided the example “if students are tutored in language and mathematics with comparable adequacy, the levels of perceived efficacy in both subjects will be positively related even though they depend on different cognitive skills”
(p. 51). Third, the development of self-regulatory skills assists with the generalization of self-efficacy beliefs, as these skills allow individuals to increase performance in a variety of activities. The fourth process is developing generalizable coping skills that allow an individual to have control over different situations and stressors. An example of this process is the development of self-defense skills for women, which leads to an increase in efficacy beliefs in other areas of life such as social situations. The fifth process of generality is "achieved by structuring commonalities cognitively across diverse activities" (Bandura, 1997, p. 52). Within this process, the commonalities of the separate activities are highlighted to enable generalization of efficacy beliefs between the activities. The sixth process is a "transformational restructuring of efficacy beliefs that is manifested across diverse realms of functioning" (Bandura, 1997, p. 53). This process refers to a powerful mastery experience that provides the individual with information that he or she has the capacity to effect personal change. "What generalizes is the belief that one can mobilize whatever effort it takes to succeed in different undertakings" (Bandura, 1997, p. 53).

There is empirical evidence that efficacy can generalize (Bandura, Adams, Hardy & Howells, 1980; Bandura, Jeffrey, & Gajdos, 1975; Brody, Hatfield, & Spalding, 1988; Holloway, Beuter, & Dieda, 1988; Wise, 1999). In 1975, Bandura et al studied the generalization of behavior change of individuals with a snake phobia. The participants in the study received the following treatments, participant modeling alone, or participant modeling with self-directed mastery. The results of the study indicated that participants who received participant modeling with self-directed mastery increased their snake handling efficacy, and a decreased mean number and intensity of dissimilar fears,
compared to participants who just received participant modeling alone. These changes in behavior were maintained one year after the treatment was given.

Bandura et al (1980) conducted another study on individuals with snake phobias. During this study, participants underwent five 45-minute sessions in which they visualized four different models successfully performing a variety of interactions with a boa snake. After these five sessions the participants then performed these interactions with both a boa and a corn snake. This study showed that this process of cognitive modeling increased participants’ self-efficacy toward handling a boa snake and generalized participants’ self-efficacy to a dissimilar snake, a corn snake.

In this same study, participants with severe agoraphobia underwent a 10-day treatment which focussed on self-relaxation and assertiveness techniques, and mastery activities in relation to personal fears (Bandura et al, 1980). The results of the study indicated that there was a significant increase in participants’ self-efficacy and performance, and this generalized to fewer and less intense fears in other situations, including interactions with animals, interpersonal encounters, and miscellaneous fears.

In a more relevant study, Brody et al (1988) studied the effects of instruction on rappelling on college-aged males. The participants in the experimental group were provided with two instructional sessions on rappelling. The first session taught the mechanics of rappelling. The second session involved a series of 50-ft. rappels. The participants in this group reported significant increase in self-efficacy toward rappelling. This group also reported significantly increased self-efficacy toward other high-risk activities (e.g. downhill skiing, rock climbing, mountain climbing, and white water
tubing), but not toward perceived high risk social situations (e.g. meeting new people, test anxiety, and speaking to a group of strangers), or toward two laboratory challenges.

Holloway et al (1988) studied the generalization of self-efficacy toward weight-training exercises to other activities. The participants were adolescent females who undertook a 12-week weight-training program. The results of the study indicated significant increases in weight-training efficacy, confrontation efficacy, and total efficacy. This was measured with an instrument designed specifically for the study. The instrument measured total self-efficacy statements regarding weight-training, self-defense tasks, confrontation tasks, and other tasks such as public speaking and studying.

Wise (1999) examined the effect of participating in a curriculum to generalize efficacy from weight training exercises to activities of daily living among college-age individuals with spinal cord injuries or Spina Bifida. The study consisted of three separate groups. Group one received instruction on weight training alone. The second group received instruction on weight training and a curriculum designed to generalize efficacy to activities of daily living. The third group did not receive any instruction. The results of the study indicated that participants that received instruction and curriculum generalization experienced greater generalization of efficacy to activities of daily living than the other two groups.

**Self-efficacy and Other Constructs of Perceived Competence**

As previously stated, self-efficacy beliefs differ from the core constructs of other theories related to perceived competence because they are concerned with "individuals’ perceived capabilities to produce results and to attain designated types of performance" (Pajares, 1997, p. 3). Self-efficacy judgements are used in relation to a goal and are more
task and situation specific (Pajares, 1997). A discussion of how these constructs differ will be provided to help solidify the role self-efficacy beliefs play.

Self-concept

Pajares (1997) stated that “the conceptual difference between self-efficacy and self-concept is not always clear to researchers or in investigations” (p. 11). Indeed there has been much confusion between the two constructs with the terms being used synonymously or with self-concept as a generalized form of self-efficacy. However, as previously stated, self-efficacy is concerned with “individuals’ perceived capabilities to produce results and to attain designated types of performance” (Pajares, 1997, p. 3). Self-efficacy judgements are used in relation to a goal and are more task and situation specific (Pajares, 1997). On the other hand, self-concept is a more general measure of competence at a task and the associated feelings of self worth. “Self-concept judgements can be domain specific but not task specific. Compared to self-efficacy judgements, they are more general and less sensitive to context” (Pajares, 1997, p. 11).

Bandura (1997) stated that “self-concept is a composite view of oneself that is presumed to be formed through direct experience and evaluations adopted from significant others” (p. 10). Theories of self-concept usually provide a global measure of an individual’s self-concept. Bandura (1997) argued that by using a measurement that combines diverse attributes into a single measure provides confusion regarding what is being measured and the overall weighting of each attribute. Research has shown that efficacy beliefs are more predictive of behavior than self-concept (Pajares & Kranzler, 1995). Indeed Bandura (1997) stated that “Self-concept loses most, if not all, of its predictiveness when the influence of perceived efficacy is factored out. Such findings
suggest that self-concept largely reflects people’s beliefs in their personal efficacy” (p. 11). From this it can be deduced that self-efficacy is a behavior specific construct that contributes to a person’s overall self-concept.

**Self-esteem**

Often within the literature the constructs of self-esteem and self-efficacy are used interchangeably, leading individuals to believe they represent the same phenomenon (Bandura, 1997). However, self-esteem refers to an individual’s feelings of self-worth, and perceived self-efficacy refers to an individual’s judgements of his or her perceived capabilities. Bandura (1997) argued that there is not a relationship between self-efficacy beliefs and feelings of self-worth. An individual may have low self-efficacy beliefs regarding a certain activity, but this will not have an effect upon levels of self-esteem because the individual does not hold value with the activity. However, individuals do cultivate their capabilities in activities they value and which give them a sense of self-worth (Bandura, 1997).

Within the literature some of the confusion between the two concepts has arisen from instruments that measure self-esteem, yet include items related to self-efficacy and self-worth (Coopersmith, 1967). Bandura (1997) stated that self-esteem has also been regarded in the literature as a generalized form of self-efficacy. The example provided to substantiate this statement was that judgements of self-worth and perceived competence represent levels of the same phenomenon, with self-worth being a global measure and perceived competence being a domain specific measure (Harter, 1990). However, Bandura (1997) argued that self-esteem is not the “generalized embodiment of specific efficacy beliefs” (p. 12). As this discussion highlights, there is a difference between the
concepts of self-efficacy and self-esteem and they should not be used interchangeably. Self-efficacy, as previously stated, refers to an individual’s judgements of their perceived capabilities, and self-esteem refers to an individual’s feelings of self-worth.

**Attribution Theory**

Attribution theory is “primarily concerned with how people perceive, interpret and process information associated with their own, and others’ behavior” (Biddle, 1984). It is a cognitive approach to behavior in which individuals make inferences about the causes of behavior. Weiner (1972) proposed an attribution theory related to achievement motivation, which has been cited as the most widely published theory in achievement related tasks (Biddle, 1984). Within the original theory proposed by Weiner (1972), four major causal elements were identified as an explanation of success or failure in achievement related tasks. These elements were ability, effort, task difficulty, and luck. Although it was recognized that there could be any number of causal elements of success and failure in achievement related tasks, these four were highlighted as the most prominent. In addition to the causal elements of the theory, two dimensions of causality were identified, personal control and stability over time. The dimension of locus refers to the internal/external causality, or factors within the person and factors within the environment. When considering the four major elements of causality, ability and effort are defined as internal, and task difficulty and luck are defined as external. The dimension of stability over time refers to the stable/unstable causality, or factors of causality that fluctuate or remain constant (Weiner, 1985). Within this framework of four elements and two dimensions of causality, “ability was classified as internal and stable, effort as internal and unstable, task difficulty as though to be external and stable, and luck
was considered external and unstable” (Weiner, 1985, p. 551). However, upon review of this classification and the framework of the theory, the shortcomings were realized.

In a latter expansion of this attribution theory, Wiener (1985) added controllability to the dimensions of causality. This dimension refers to the individual’s control over the elements of causality. For example, effort is under the volitional control of the individual, whereas ability is not (Weiner, 1985). To avoid confusion with other theories and the misuse of the term, Weiner (1985) stated that “Locus and control, not locus of control, describe causal perceptions.” (p. 552). Thus in this theory of attribution the locus dimension is termed the locus of causality. Thus in the latter version of the theory there were four elements of causality (ability, effort, task difficulty, and luck) and three dimensions of causality, locus of causality, stability over time, and controllability.

In summary, the attribution theory of achievement motivation introduced by Weiner (1985) proposed that if causes for failure at a task are conceived as stable and internal then future hopes of success in similar contexts will be limited. Alternatively if failure is attributed to external and unstable causes, then hopes for future success will probably be maintained. Additionally, outcomes of a task that are attributed to stable causes will be thought to be repeated in future with a higher degree of certainty than those attributed to an unstable cause. Weiner (1985) termed these conclusions the ‘expectancy principle’ which he defined as “Changes in the expectancy of success following an outcome are influenced by the perceived stability of the cause of events” (p. 559).

The above discussion provided an outline of the attribution theory of achievement motivation as delineated by Weiner (1985). This theory will now be compared and
contrasted to the self-efficacy component of the Social Cognitive Theory (Bandura, 1986). On the surface it may seem that the two theories are similar and are measuring the same concept. However, as the following discussion will clarify, the theories are measuring different attributes of perceived competence. In considering the differences between the two approaches, Bandura (1997) stated that, “Whereas attribution theory is concerned solely with perceived causes of performance successes and failures, self-efficacy theory encompasses modeling and persuasory and affective sources of efficacy information as well as enactive ones” (p. 124). Thus in self-efficacy theory causal factors other than the four highlighted in attribution theory work as providers of efficacy information rather than categorizing the causes of behavior. When judging his or her capabilities, an individual will gather information from sources such as “situational conditions, physical and emotional states, contextual influences, and the temporal patterning of performance attainments” (Bandura, 1997, p. 84). In addition, individuals gain information regarding efficacy beliefs from modeling, social comparison, social evaluation in addition to performance information. Thus, it can be summarized that attribution theory considers the causes of the level of achievement at a task and categorizes these causes into limited choices. Self-efficacy theory, on the other hand, considers information from a variety of sources to form efficacy beliefs regarding performance of a task.

Methodologically, measuring factors associated with perceived competence from an attributional and self-efficacy viewpoint are very different. Self-efficacy theory considers an integrative approach to diverse sources of information regarding beliefs of self-efficacy. Attribution theory, on the other hand, uses a categorical approach in which
individuals self-report the weighting they attribute to the four causes of their success or failure. Bandura (1997) argued that “there is a marked difference between asking people to reconstruct their judgement processes and identifying their judgement processes as revealed in their actual judgements” (p. 85).

From the above discussion, it can be summarized that attributional causes can be used to help an individual form beliefs regarding personal efficacy. However, in determining or examining the construct of perceived competence, self-efficacy theory provides a more comprehensive framework as efficacious information is gathered from a variety of sources and is measured before the activity not after.

Learned Helplessness

The concept of learned helplessness “suggests that when behavioral outcomes are perceived to be independent of responses, a debilitating psychological state of helplness ensues” (Biddle, 1984, p. 156). In a longitudinal study of third grade children, Seligman (1990) found that a major reason for not persisting in or avoiding a task is the sense of not having control over the outcomes of achievement situations. Abramson, Seligman, and Teasdale (1978) explored the link between attribution theory and learned helplessness. These studies found that failure at a task by students defined as learned helpless was attributed to lack of ability, which is considered internal and stable in causality. In addition, the studies indicated that effort will not result in success at a task. As such, students categorized as learned helpless lacked effort and persistence in completing tasks and avoided the tasks when possible to avoid the obvious exhibition of their lack of ability. Abramson et al (1978) also distinguished between ‘personal’ and ‘universal’ helplessness. Personal helplessness is an individual’s perceived lack of
control over the situation and is internal in nature. Universal helplessness is a perceived independence between the response and outcome of a task for themselves and others. This type of helplessness is considered to be external in nature. A difference in the impact on the individual between personal and universal helplessness is related to the internal and external nature of causality as explained in attribution theory. Abramson et al (1978) also distinguished between global and specific helplessness. Global helplessness refers to the effects of helplessness in one event affects other events in a similar manner. Specific helplessness relates to feelings of helplessness in one situation or a narrow range of situations. Global helplessness is obviously more detrimental to an individual. Feelings of helplessness have also been described as short or long term in nature (Abramson et al, 1978).

Martinek and Griffith (1994) considered attribution theory and learned helplessness in a physical education setting. They found that in a physical education context, adolescent students classified as ‘learned helpless’, attributed failure at a task to ability 64% of the time, and task difficulty and effort only 9% of the time. This was in contrast to students of the same age classified as mastery oriented, who were defined as students “who will see a task through to completion regardless of hardship” (Martinek & Griffith, 1994, p. 111). The mastery oriented students attributed failure to lack of effort 54% of the time and to ability only 9% of the time. An interesting aspect of this study was that there was no significant difference between students who were classified as learned helpless and mastery oriented in the second and third grade, but a significant difference between those in sixth and seventh grade. Martinek and Griffith (1994) suggested that “the learned helpless condition may become more crystallized by the time
students enter their middle school years” (p. 119). This has implications for the developing strategies to overcome learned helplessness early in a child’s life. A possible solution is to use the interventions designed to raise and individual’s self-efficacy such as the use of models, goal setting, and feedback. This would provide the individual with a more positive outlook on completing the task as a raise in self-efficacy could decrease learned helplessness assisting the individual to believe they have control over the task.

**Measurement of Self-efficacy**

One of the main issues in self-efficacy research is the type of instrument used to measure levels of self-efficacy. Bandura (1997) stated that “efficacy beliefs should be measured in terms of particularized judgments of capability that may vary across realms of activity, under different levels of task demands within a given activity domain, and under different situational circumstances” (p. 42). This form of measurement was termed domain-specific by Bandura (1997) and is considered to be the best in predictive utility of subsequent performances.

When developing a domain-specific instrument it is important to consider that self-efficacy beliefs vary in level, strength and generality. Perceptions of self-efficacy are related to the level of the task demands representing different degrees of challenge of a successful performance (Bandura, 1997). An individual’s level of self-efficacy can vary in relation to strength. In general, an individual with a weak self-efficacy in a given task will give up easily in the face of difficulty, whereas an individual with high efficacy beliefs will persevere in spite of such difficulties. The generality of efficacy beliefs vary across individuals. “People may judge themselves efficacious across a wide range of
activities or only in certain domains of functioning” (Bandura, 1997, p. 43). An instrument designed to measure self-efficacy beliefs should contain items that consider the level, strength and generality of those beliefs.

In addition to the importance of addressing the level, strength and generality of self-efficacy beliefs, Bandura (1997) provided other guidelines for instruments to measure self-efficacy. The instruments should use a 10 point likert-type scale ranging from 0 (cannot do) to 10 (certain can do). Instruments using less than 10 intervals have been found to be less sensitive and less reliable in measuring self-efficacy beliefs and should be avoided (Streiner & Norman, 1989). Two different formats can be used to measure an individual’s strength of self-efficacy (Bandura, 1997). First, an individual is asked to judge if they can complete a task or not, and then asked to provide a rating of the strength of the efficacy belief if they feel they can complete the task. The second format is strength of perceived self-efficacy rating for each item in the activity domain. The last guideline is that the instructions for completing of the instrument should inform individuals to judge their capabilities to perform the task now and not in the future.

An omnibus measure of self-efficacy has also been proposed within the literature. This type of measure is one that considers an individual’s self-efficacy beliefs that are “dissociated from clearly defined activities and contextual factors” (Bandura, 1997, p. 48). The general items of this type of instrument force the individual to guess what the context may be for their personal efficacy beliefs. This may create a false picture of an individual’s efficacy beliefs. For example, if a gymnast is asked to judge his or her overall athletic efficacy, he or she will probably use the context of gymnastics rather than track and field on which to base those judgements (Bandura, 1997). This situation,
therefore, will not produce a measure of self-efficacy beliefs that is predictive of an individual’s overall athletic performance but of the one or two athletic activities upon which the beliefs were based.

In using an omnibus measure there may be some overlap between global and domain specific measures of self-efficacy that may lead to a relationship between the two being proposed. However, Bandura (1997) stated that “global beliefs lose their predictiveness when the influence of particular efficacy beliefs is removed (p. 42). In addition, it has been proposed that global measures use a confounded mixture of items that assess beliefs about capabilities, emotional and motivational effects of these beliefs, and reports of past behavior (Bandura, 1997). The Physical Self-efficacy Scale (Ryckman, Robbins, Thornton & Cantrell, 1982) and the Self-efficacy Scale (Shearer, Maddux, Mercandante, Prentice-Dunn, Jacobs & Rogers, 1982) are examples of global measures of self-efficacy beliefs. According to Bandura, these scales are not good measures for testing self-efficacy theory, predicting performance or motivation, and are not in line with the assumption of the multi-dimensionality of self-efficacy beliefs.

In light of the above discussion, a review of research in the area of physical education and sport pedagogy will be conducted in relation to the type of instrument used and the findings of the study. McAuley and Grill (1983) conducted a study of college-level female gymnasts to compare the Physical Self-Efficacy Scale (PSE) and more task-specific measures of self-efficacy to subsequent performance levels. In this study, the researchers found that the PSE appeared to be a reliable and somewhat valid measure of general physical self-efficacy in a competitive sport situation. However, the PSE was not found to be a significant predictor of actual performance when compared to the task-
specific self-efficacy measure. This study supports Bandura’s (1997) contention that a domain specific measure will provide the most predictive utility in relation to levels of self-efficacy and subsequent performance at a task.

Chase, Ewing, Lirgg and George (1994) examined the effects of equipment modification of children’s self-efficacy of basketball shooting performance. Task-specific self-efficacy measures developed using guidelines proposed by Bandura (1986) were used to assess efficacy beliefs prior to the intervention. These measures used an 11-point likert-type scale ranging from 0-10 concerning strength of beliefs on making baskets at an 8 or 10 feet high basket, and assessed 10 levels of performance (ranging from 1 out of 10, to 10 out of 10). In relation to the predictive utility of the measurement instrument, there was a low correlation between the self-efficacy scores and the actual performance ($r = .15$), and a correlation between post performance self-efficacy scores and shooting performance of $r = .49$. The authors did not address this issue in the discussion other than to support the strength of past performance as a credible source of efficacy information, and to question why the efficacy expectation remained inflated after the performance. The issue of specificity of the instrument to measure children’s self-efficacy levels in this domain was not raised, when it appeared to be a limitation to the findings of the study.

In 1979, Feltz, Landers and Raeder considered the effects of three different modeling interventions on participant’s self-efficacy levels in diving. The three modeling interventions were participant modeling, live modeling, and videotape modeling. The difference between the three interventions was the physical guidance provided in the participant modeling group. The instrument used to measure self-efficacy levels was a
task-specific scale constructed by the authors, following the guidelines proposed by Bandura (1977). The results of the study indicated that the participant modeling intervention was more successful in relation to the number of correct dives performed. The study also showed a significant correlation between the self-efficacy scores and performance scores after the modeling intervention had occurred. With these results, the use of participant modeling intervention was proven to be more successful in raising levels of self-efficacy, and the predictive utility of these levels was a result of a well designed domain specific instrument.

Mueller (1992) conducted a study to consider the effects of general self-efficacy and task-specific self-efficacy on the performance of a fine motor task. The Perceived Physical Ability subscale of the PSE was used to measure general self-efficacy, and a task-specific instrument developed for this study, using guidelines proposed by Bandura (1977), was used to measure task-specific self-efficacy levels. The results of the study indicated that general self-efficacy does not predict or influence performance of a fine motor skill. Task-specific self-efficacy can be manipulated and influence the performance of a fine motor skill. The task-specific self-efficacy levels were also predictive of subsequent performance in the task. Again the use of the task-specific instrument was found to have greater predictive utility than the general self-efficacy instrument.

Rudolph and McAuley (1996) conducted an investigation into the relationship between self-efficacy and perceptions of effort in treadmill running. For the purpose of the study, a domain specific instrument was used to measure self-efficacy levels based on suggestions for such an instrument proposed by Bandura (1986). The results of the study
indicated that levels of self-efficacy as measured by this instrument were significantly predictive of the perceptions of effort by participants in the activity. Again this is support for the predictive utility of the domain specific measurement of self-efficacy as outlined by Bandura (1997).

Boyce and Bingham (1997) considered the effects of self-efficacy and goal setting on bowling performance. In this study three goal setting groups were employed, self-setting, assigned, and control. The instrument used was designed specifically for the study using the guidelines established by Bandura (1986). The results of the study indicated that the level of self-efficacy effects the level of difficulty in relation to goal setting (higher levels of self-efficacy were correlated with more difficult goals), and students with higher levels of self-efficacy achieved his or her goals more than students with lower levels of self-efficacy. In addition the authors reported that levels of self-efficacy as measured with the domain specific instrument significantly predicted future bowling performance.

As highlighted in the review of measurement instruments used in the field of sport pedagogy and physical education, instruments that are domain-specific were more sensitive to the changes in self-efficacy and predictive of future performance. The Children’s Self-efficacy Scale for Peer Interactions (Wheeler & Ladd, 1982) is such a domain specific instrument that has been developed to measure social self-efficacy of children in third through sixth grade.

Sociometrics

Sociometrics are concerned with identifying the social status of individuals within a group. There are two major sociometric methods used with children: peer ratings or
peer nominations. In peer rating methods, members of the group rate other group members in terms of how much they like them or would like to play with them (e.g. Asher, Singleton, Tinsley & Hymel, 1979; Singleton & Asher, 1977). This rating is on a 5 point likert-type scale for elementary age children (Singleton & Asher, 1977) and a 3-point likert-type scale for preschool children (Asher et al, 1979). In the peer nominations method, members of the group identify a small number of the group they like the most and the least (e.g. Coie, Dodge, & Coppotelli, 1982; Newcomb & Bukowski, 1983). With this method there has been concern over using the negative nominations and the possible impact on unspoken biases towards peers (Terry & Coie, 1991). Individuals with disabilities are often alienated due to his or her disability. With the increase in inclusion of individuals with and without disabilities within society, it is important for fostering successful inclusion to understand the impact of these programs on the sociometric views of participants.

Group Dynamics

Group dynamics has been defined as “a field of inquiry dedicated to advancing knowledge about the nature of groups, the laws of their development, and their interrelations with individuals, other groups and large institutions” (Cartwright & Zander, 1968, p. 7). More generally it is the social, intellectual, or moral forces that produce activity and change in a group of individuals. A group has been defined as “two or more individuals who influence one another through social interaction” (Forsyth, 1983). Johnson and Johnson (1997) further delineated this definition by stating that a small group may be defined as,
Two or more individuals in face-to-face interaction, each aware of the positive interdependence as they strive to achieve mutual goals, each aware of his or her membership in the group, and each aware of the others who belong to the group. (p. 12)

According to Forsyth (1983) and Johnson and Johnson (1997) there are two main theories of group dynamics: sequential-stage theories and recurring-phase theories. Both of these theories are based on the fact that groups change over time. Johnson and Johnson (1997) stated that these two types of theories are not contradictory in nature. Indeed, “a group may move through various stages while dealing with basic themes that surface as they become relevant to the group’s work” (Johnson & Johnson, 1997, p. 24).

According to Johnson and Johnson (1997) the most famous sequential-stage theory was proposed by Tuckman (1965) and elaborated upon by Tuckman & Jensen (1977). This theory provides five stages that groups move through. The first stage is termed ‘forming’ in which the group becomes oriented toward each other and being accepted. The characteristics of this stage include tentative interactions, polite conversation, and silence. ‘Storming’ is the second stage proposed by Tuckman (1965). During this stage the group is in conflict with competition among group members and dissatisfaction with others. The characteristics of this stage include ideas being criticized and individuals being interrupted when talking. The third stage is ‘norming’ during which the group establishes rules and norms, becomes more cohesive, and develops a structure (Tuckman, 1965). The characteristics of this stage include increased supportiveness and we-feeling. ‘Performing’ is the fourth stage according to Tuckman (1965). In this stage the group works together to achieve the group goals or task. The characteristics of ‘performing’ include increased cooperation
and problem solving. The last stage is ‘adjourning’ in which the task is completed and the group disbands (Tuckman, 1965). The characteristics of this stage include regret and increase emotionality.

The recurring-phase theories propose that issues dominating group interaction recur again and again (Johnson & Johnson, 1997). Within this type of theory the work of Bales (1965) and Schultz (1958) appeared to be dominant (Johnson & Johnson, 1997; Forsyth, 1983). Bales (1965) proposed that groups oscillate between the concern for task-oriented work and emotional expressions to achieve better relationships among group members. This theory consists of the following points:

1. When a group has a task to complete, its members engage in task-related behaviors on an unequal basis.
2. The members who are high on task behaviors tend to create some tension and hostility on the part of members who are less committed to the task.
3. There is a need for actions that help maintain effective working relationships among members.
4. Social-emotional actions are engaged in by members other than those high on task actions.
5. These differentiated roles (task and social-emotional) are stabilized and synchronized as the task and social-emotional leaders reinforce and support each other.

(Johnson & Johnson, 1997, p. 199)

Schultz (1958) believed that there were three issues that recurred during the attempt to build a more cohesive group: affection, inclusion, and control. The need for inclusion is a desire for belonging and togetherness gained through interaction. The need for control related to the establishment and maintenance of leadership in the group. The need for affection is the desire to establish and maintain emotional relations with other group members.
The theory of social interdependency proposed by Deutsch (1962) is a factor in determining group dynamics. This theory proposed three courses of action to individuals within a group situation: cooperation, competition, and individualistic. A cooperative goal structure occurs when individuals work together to achieve a common goal. A competitive goal structure occurs when individuals work against each other to achieve a goal. An individualistic goal structure exists when an individual believes he or she can achieve the goal regardless of the actions of others. Johnson and Johnson (1989) found three broad and interrelated outcomes of cooperation: effort exerted to achieve, quality of relationships among participants, and participants’ psychological adjustment and social competence. According to Johnson and Johnson (1997), cooperative groups promoted higher achievement, willingness to take on more difficult tasks, long-term retention of what was learned, higher-level reasoning skills, creative thinking, transfer of what was learned, positive attitude toward the task, and time on task than competitive or individualistic groups. In addition, cooperative groups promoted greater liking, social support, caring, mutual commitment, and cohesion among group members than competitive or individualistic groups (Johnson & Johnson, 1997). Finally, Johnson and Johnson (1989) found that cooperative groups increased social skills and competencies more than competitive or individualistic groups.

Trust

Trust is considered to be impacted by adventure education programs (Moore, 1986) and is an important aspect of group dynamics (Johnson & Johnson, 1997). Trust can be defined as follows:

Trust involves an interaction of the individual’s pervasive preconscious sense of safety in risky or needful social situations with the rational
appraisals the individual makes based on situational cue and the learned
generalized expectancy that others will be reliable, predictable, and safe.
(Bernarth & Feshbach, 1995, p. 3)

According to Johnson and Johnson (1997), there are two aspects to trust: trusting
behavior and trustworthy behavior. Trusting behavior is the “willingness to risk
beneficial or harmful consequences by making oneself vulnerable to other group
members” (Johnson & Johnson, 1997, p. 132). Trustworthy behavior, on the other hand,
is “the willingness to respond to another person’s risk taking in a way that ensures that
the other person will experience beneficial consequences” (Johnson & Johnson, 1997, p.
132).

The ability to trust is considered a fundamental factor in a child’s personality and
socioemotional development (Bernarth & Feshbach, 1995). Accordingly,

Children who cooperate with peers, who are socially accepted or have a
best friend, and who engage in exchanges of secret and promise sharing
are more likely to develop trust in peers. Children with limited social
competencies, who fail to form cooperative friendships or earn at least
limited social acceptance by peers, may be at risk of not developing trust
toward peers. (Berth & Feshbach, 1995, p. 10)

Most research in the area of development of trust in childhood has been conducted in
relation to trust in peer friendship. This development has been delineated into four stages
(Bernarth & Feshbach, 1995). The first stage is early childhood in which children in
kindergarten and first grade understand the concept of trust, make trust decisions, and
trust peer friends (Rottenberg, 1986; Selman & Selman, 1979). However the emphasis in
this stage is on immediate, concrete, physical aspects, and rewards. The second stage is
middle childhood in which there is significant change in the understanding and assigned
importance of trust in peer friendship (Bernarth & Feshbach, 1995). By second grade
patterns of mutual trust and same-sex trust is evident in children (Rottenberg, 1984;
Rottenberg & Pilipenko, 1983-1984). The importance of peer friendship on trust has also been examined. Research has found that children who are socially rejected view trust as significantly less important in peer friendships than children who are not socially rejected (Shannon & Kafer, 1984). In addition, Wentzel (1991) found that rejected children were less trusting and popular children were more trusting than the average child in sixth and seventh grade. An important aspect of this stage is that research has found that cooperative peer friendship and social acceptance by peers promotes trust development in children (Bernarth & Feshbach, 1995).

The third stage of childhood development of trust is late childhood and preadolescence. In this stage, children regard trust between friends as extremely important to gain close friendships (Selman & Selman, 1979). By fourth grade the research has shown that trust plays a substantial role in promoting and maintaining friendship (Rottenberg, 1986). In addition, Wilson and Carroll (1991) found that ratings of trustworthiness by peers and teachers significantly predicted children’s peer group standing, indicating that children who were trustworthy were attractive as play and work mates. The fourth stage is preadolescence to adolescence. In this stage children view friendships as more stable, resistant to minor trust violations, distinguishable from acquaintanceships by the expectations of friends, and trust incorporates allowing friends to be autonomous (Bernarth & Feshbach, 1995). As this section indicates, trust is an important aspect of child development. Among children trust is “promoted by social acceptance by peers, friendships, and cooperative interactions” (Bernarth & Feshbach, 1995, p. 17).
Summary

This chapter provided a description of adventure education, self-efficacy, social anxiety, sociometrics, group dynamics, and trust along with the research in these areas that is considered to be relevant to this study. Adventure education is considered to have an impact upon the intrapersonal and interpersonal relationships of participants (Priest & Gass, 1997). In a recent meta-analysis of 97 research studies conducted in the area of adventure programs, Hattie, Marsh, Neill and Richards (1997) found that the majority of these studies were concerned with self-concept as the major dependent variable. A number of these studies included self-efficacy as a dependent variable. However, the only individuals with disabilities that were participants in these studies were individuals with behavior disorders or mental illness. In addition none of these studies considered an inclusive adventure education program. There has been no research found to date that examines the effect of inclusive adventure education programs upon the social self-efficacy, group dynamics, trust, and social relations of the participants.
CHAPTER THREE

METHODOLOGY

The purpose of this study was to examine the influence of participation in an inclusive adventure education program on self-efficacy, group dynamics, social relations and trust; and to determine if the inclusive adventure education experience differed for the participant with and participants without disabilities. The study was framed within the theory of self-efficacy as proposed by Bandura (1977). Self-efficacy can be defined as, "beliefs in one's capability to organize and execute the courses of action required to manage prospective situations" (Bandura, 1997, p. 2). In more general terms, self-efficacy is an individual's own belief(s) regarding accomplishment of a task. Schunk (1989, 1991, 1995) indicated that self-efficacy can determine an individual's outcomes in such diverse tasks as academic achievement, athletic performance, cognitive skill learning, coping with fear, pain tolerance, and career choices. Self-efficacy beliefs differ from the core constructs of other theories related to perceived competence because they are concerned with "individuals' perceived capabilities to produce results and to attain designated types of performance" (Pajares, 1997, p. 3). Self-efficacy judgements are used in relation to a goal and are more task and situation specific (Pajares, 1997). This
theory will act as a “conceptual template with which to compare and contrast results, rather than to use as a priori categories into which to force the analysis” (Morse, 1994).

This study was conducted as a case study, which is considered as a choice of object to be studied rather than a methodological choice (Stake, 1994). The case in this study included the participants who attended the AWL Smith Rock climbing trip during March, 2000. The use of the case study approach “draws attention to the question of what specifically can be learned from the single case” (Stake, 1994, p. 236). Yin (1992) found four common commitments in the case study approach in both qualitative and quantitative research: a) to bring expert knowledge to bear upon the phenomena studied, b) to round up all the relevant data, c) to examine rival interpretations, and d) to ponder and probe the degree to which the findings have implications elsewhere. As the purpose of this study was to examine the influence of participation in an inclusive adventure education program on self-efficacy, group dynamics, social relations, and trust and to determine if the inclusive adventure experience differed for the participant with and participants without disabilities, it clearly fell under the premise of a case study approach. Further, the nature of this study placed it as an instrumental case study, which was examined to allow insight into a particular issue (Stake, 1994). In this study, the inclusive adventure education trip organized by Adventures Without Limits (AWL) was studied to understand the influence upon participants’ self-efficacy, group dynamics, social relations, and trust and to determine if the inclusive adventure experience differed for the participant with and participants without disabilities. The concept of natural proportions was utilized in promoting successful inclusion. Within this concept 10-15% of the group members would have a disability.
This study used qualitative methods to answer the research questions. The study allowed for the nature of participation in an inclusive adventure education trip to be explored. This chapter will provide a description of the participants, the procedures for informed consent, information on the inclusive adventure education program, and an outline of the qualitative methodology.

Participants

The participants in this study consisted of seven individuals who attended the Smith Rock climbing trip, organized by Adventures Without Limits during March, 2000. The seven participants who attended the Smith Rock climbing trip ranged in age from 10-13 years. There were three female and four male participants. Only one participant, a twelve-year-old male had a diagnosed disability. Within the seven participants there was a set of twin ten-year-old females and two brothers ages ten and eleven. More details on each of the participants’ will be provided in chapter four.

Informed Consent

Informed consent was obtained from all participants in this study. A letter outlining the purpose of the study, the procedures to be used, and the rights of the participants was sent to all participants prior to the commencement of the study (Appendix A). This letter was reviewed by the parents or guardians of the participants, and signed and returned to the researcher prior to the inclusion of the participants in the study. Approval was obtained from the Human Subjects Review Board at The Ohio State University prior to the commencement of the study.
Adventures Without Limits

Adventures Without Limits (AWL) is a private non-profit organization located in Forest Grove, Oregon. This organization is an integrated outdoor education/recreation organization that provides hands-on learning experiences to participant with and participants without disabilities in the natural environment (AWL, 1999a). The mission of AWL is to:

empower people of all ages and abilities through quality outdoor experiences, to provide participants the opportunity to develop new skills, increase self-confidence, enhance awareness of the natural environment and recognize personal potential and inspire personal growth. Specific objectives include:

1. Providing access to outdoor recreation.
2. Building leisure/recreation skills in accordance with P.L. 94-142.
3. Teaching a greater awareness of human impacts on our natural environment through instruction in “leave-no-trace” ethics, basic ecology and environmental awareness, and related topics.
4. Breaking down stereotypes associated with varying abilities.
5. Helping participants transfer understanding gained in the adventure experience from the “field” to “real life” situations. (AWL, 1999a, p. 2)

Adventures Without Limits offers programs in Nordic skiing, backpacking, hiking, rock climbing, canoeing, sea-kayaking and rafting. The organization draws participants from northwest Oregon and southern Washington, and in 1997 offered 85 adventure activities to 372 participants (AWL, 1999a).

For the purpose of this study, the activity offered by AWL that was utilized was the three-day rock-climbing trip to Smith Rock. The first day of the trip involved the van ride to Smith Rock, environmental education activities, setting up camp, belay school,
preparing and cooking dinner, and campfire activities. The second day consisted of preparing breakfast and lunch, a hike into and out of the gorge at Smith Rock State Park, a five-hour climbing and belaying session, a debriefing session, preparing and cooking dinner, a teambuilding session, and campfire activities. The third day included breaking camp and making sure the campsite was free of trash, preparing breakfast and lunch, a hike into and out of the gorge at Smith Rock State Park, a three-hour climbing and belaying session, and the van ride back to AWL.

Sampling

Purposeful sampling allows the researcher to focus in depth on relatively small samples to gain information rich data (Patton, 1990). For the case study approach selected for this study, intensity sampling was used. The participants who selected to attend the Smith Rock climbing trip organized by AWL during March, 2000 were used as the sample.

Site Selection and Entrée

The adventure education program that was examined during this study offers inclusive adventure education programs. The inclusive adventure education organization was Adventures Without Limits (AWL). Entrée into AWL was successfully negotiated. A contact person at the organization made the initial inquiry easier and more fruitful. A five-day trip was taken to Oregon to meet the staff of AWL, explain the project, the role of AWL in the study, and to answer any questions that may arise. An outline of the project and the instruments that were used to gather information were discussed at the meeting. The staff considered the instruments in relation to the cognitive level of the participants in the AWL programs, specifically those with disabilities. All of the
instruments were found to be appropriate for the population by the AWL staff. These staff members have many years of experience working with children in inclusive situations both in educational and adventure environments, and educational backgrounds in adapted physical education.

Qualitative Methodology

The following section will provide information regarding the qualitative aspect of the study. Table 1 provides an outline of the methods for data collection and analysis by research question. Prior to a description of the qualitative research design, the data collection methods, the site selection and entrée, analysis of the data, and establishing trustworthiness, a description of where the researcher is situated methodologically will be provided. This description is important in allowing the reader to understand the implications on the data collection methods and the interpretation of the data.

Qualitative research is often reliant upon the viewpoint of one researcher in the field situation at a given point in time, and who can be considered his or her own “research instrument” (Punch, 1994). The researcher’s subjectivity, personality, theoretical standpoint, and interactions with the participants affect this instrument. Therefore it is important to disclose this information and to recognize these effects upon the data. Peshkin (1988) has described subjectivity as ‘like a garment that cannot be removed’. He further constructs a compelling argument that researchers should “systematically identify their subjectivity throughout the course of their research” (p. 17). The researcher is viewing the study being conducted and the knowledge gained through his or her own eyes, which is influenced greatly by his or her subjectivity. Recognizing and embracing one’s subjectivity is an ethical issue in research. An individual’s
<table>
<thead>
<tr>
<th>Question</th>
<th>Data Collection</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the characteristics of an inclusive adventure education experience?</td>
<td>Observation, Interviews, Document Analysis</td>
<td>Constant Comparison</td>
</tr>
<tr>
<td>2. What is the change in group dynamics, trust, self-efficacy, and social relations of the participants during the inclusive adventure education experience?</td>
<td>Observation, Interviews, Participant Instruments</td>
<td>Constant Comparison Friedman two-way ANOVA</td>
</tr>
<tr>
<td>3. Does this experience differ for individuals with and without disabilities?</td>
<td>Observation, Interviews</td>
<td>Constant Comparison</td>
</tr>
</tbody>
</table>

Table 1: Research Questions, Data Collection Methods, and Data Analysis

Subjectivity has great bearing on the research process and therefore the findings of the study. Disclosing how subjectivity influenced the process is not only ethical, but it also allows the reader to be more informed in assessing the research. For the researcher, embracing his or her own subjectivity allows him or her the opportunity of managing it (Peshkin, 1988). The danger in not identifying and embracing subjectivity lies in the contention that “untamed subjectivity mutes the emic voice” (Peshkin, 1992, p. 21). Krieger (1985) proposes that to fully understand the data the researcher must first understand himself or herself.
In relation to the present study, the researcher can identify the following biases prior to the study and acknowledges the affect these can have upon data collection and interpretation. Involvement in the field of adventure education for the past 12 years in the role of both participant and facilitator leads the researcher to have the assumption that such programs can increase an individual’s self-awareness. In addition to this the researcher has been involved in programming for individuals with disabilities for over ten years in the fields of physical education, recreation, and adventure education. This involvement has led the researcher to become an advocate for such programs for people with disabilities.

The umbrella term of qualitative research covers a number of different research methodologies including, ethnography, phenomenology, grounded theory, ethnomethodology, and discourse analysis (Morse, 1994). Each of these methodologies uses different data collection methods. The type of methodology chosen is guided by the nature of the research question and will influence the results obtained and the usefulness of these results (Morse, 1994). This study is focused on the nature of the inclusive adventure education experience and thus was approached from an ethnographic standpoint. The interpretivist paradigm was used for this study. Interpretivists attempt to understand the world from the point of view of others. This paradigm was chosen for this study, as the nature of the question was to understand the inclusive adventure education experience from the point of view of the participants.
Qualitative Research Design

Controversy has been coupled with the definition of ethnography with the opposing beliefs that it is a philosophical standpoint or a data collection method.

Ethnography can be understood on a practical level as:

forms of social research having a substantial number of the following features:

- a strong emphasis on exploring the nature of particular social phenomena, rather than setting out to test hypotheses about them
- a tendency to work primarily with “unstructured” data, that is, data that have not been coded at the point of data collection in terms of a closed set of analytic categories
- investigation of a small number of cases, perhaps just one case, in detail
- analysis of data that involves explicit interpretations of the meanings and functions of human actions, the product of which mainly takes the form of verbal descriptions and explanations, with quantification and statistical analysis playing a subordinate role at most.

(Atkinson & Hammersley, 1994 p. 248)

The exploration of the nature of participation in an inclusive adventure education experience was the focus of this study. This focus, the use of “unstructured” data, the investigation of one inclusive adventure education program, and the interpretive analysis of the data clearly situated this study under ethnographic methodology.

The qualitative design of this study falls into the category of an observational case study. In this type of study the “major data gathering technique is participant observation (supplemented with formal and informal interviews and review of documents) and the focus of the study is on a particular organization” (Bogden & Biklen, 1998, p. 55). The organization in this study was the participants on the Smith Rock climbing trip.
Qualitative Pilot Study

A short pilot study was conducted during the winter of 1999. The study examined the nature of participation in an Adaptive Alpine Skiing program and was framed within the self-efficacy theory (Bandura, 1977). This program was designed to give individuals with disabilities the opportunity to try adapted Alpine skiing. During this time multiple methods of data collection were tested. The importance of conducting a pilot study, time permitting, was highlighted by Glesne and Peshkin (1992), “with the results of the pilot, you may revise your research plans, your interview questions, and even your way of presenting yourself” (p. 31).

The different role of the observer during field observations was explored in terms of switching between full participant, participant observer, observer as participant, and non-participant observer. This allowed a comparison of the richness and depth of the data collected in each of the roles. In addition, the researcher gained an insight into the experience of using each of the roles. Experimentation with a different method of recording the field notes by using a clip microphone and tape recorder occurred. In addition, the technique of conducting a face-to-face interview was tested. This allowed the researcher to become more confident in the use of this method of data collection. Feedback from the individuals being interviewed also assisted the researcher in understanding the role of the interviewer and the effectiveness of the technique.

Qualitative Data Collection

The data collection methods used in this inclusive adventure education study were determined by the nature of the question and the ethnographic research methodology. Observations (field notes), face-to-face and phone interviews (semi-
structured and open-ended), document analysis, and participant surveys were used as a means of collecting data. Each data collection method will be explained in more detail.

**Observation**

"Observation entails the systematic noting and recording of events, behaviors, and artifacts (objects) in the social setting chosen for the study" (Marshall & Rossman, 1995, p. 78). Observation was conducted within the spectrum of roles of the observer, from observer as participant, participant as observer and complete participant. Negotiating the meaning of each of these roles was important for the researcher. These observations took place during the adventure education trips and occurred over the length of the trips. Observation periods varied in length dependent upon the context of the activity observed.

Field notes were taken during the observation periods using two main methods. The traditional hand written field notes and the use of a clip microphone and tape recorder were used during the trips. The different methods allowed the researcher to move between the observer roles more easily while obtaining information-rich notes. The written field notes contained sections denoting observation notes, theoretical notes, methodological notes, and reflexive notes. The observation notes were a recording of what was observed, with a focus on the interactions among the participants. The theoretical notes contained information relating the observation to the theoretical background of self-efficacy. The methodological notes were the researcher’s thoughts regarding decisions and outcomes of the methodology used in this study such as, the impact of the role the researcher takes on the data collected. The reflexive notes were related to the researcher’s thought processes during the observation period. The reflexive notes were also elaborated upon or supplemented with the researcher’s journal. This
journal and the process of writing it allowed the researcher the opportunity to reflect more deeply on the observation notes and the research process.

The field notes were written and reflected upon immediately after the observation period or as close to this time as possible. This process is important to conduct while the experience is fresh in the mind of the researcher and, as such, time was scheduled for this. However, due to the nature of the adventure education trip this was not always possible immediately after the observation period.

**Interviews**

Interviews were used to collect data using both face-to-face and telephone interviews. All interviews were audio-taped with the permission of the participants and transcribed for analysis. In addition to this, the researcher took notes during the interview. Immediately after the interview, time was spent listening to the tape, elaborating upon the interview notes and reflecting upon the interview. The interview tapes were transcribed as soon as possible after the interview. Semi-structured interviews were conducted at the beginning of the trip, the end of the trip, and during a follow-up phone interview one-month after the trip with each of the participants. The questions for each of these interviews are included in Appendix B. The pre-trip interviews occurred at two different times and settings. Four of the participants (Bee, Carebear, Hedgehog, and Mold) were interviewed the day before the trip at a coffee shop owned by one of the mothers. The shop was closed for the day to the general public. Due to the geographic location of three of the participants (Brad, Lathic, and Lincoln), they were interviewed at Smith Rock State Park prior to the activities on the first day. The post-trip interviews with the participants occurred on the last day at Smith Rock State Park. The follow-up
interviews took place by phone and occurred one-month after the trip. The same
questions and interview protocol were used for all seven participants during the study.
The trip leaders were also interviewed using a semi-structured format at least once during
the trip. These interviews took place during the afternoon and evening of the second day,
and the interview questions are included in Appendix B. In addition, tow of the trip
leaders were interviewed one day after the trip. The semi-structured format was used at
this time to help guide the conversation, allowing the researcher to gain the information
through questions determined a priori, but also allowing for flexibility in the interview to
move in different directions (Kvale, 1996). The questions for these interviews initially
came from the theoretical background and the review of literature, and then moved to
include themes that emerged from the data. Open-ended interviews were conducted
during the trips to clarify and elaborate upon situations occurring during, or themes or
emerging from, the observation periods.

Document Analysis

This method of data collection was used to analyze resources from AWL. Such
resources included training manuals, trip information, and program procedures. These
documents were analyzed using content and thematic analysis. Adventures Without
Limits was contacted prior to the trip to obtain this information allowing the researcher to
gain an insight to the philosophy of the organization and the staff.

Participant Instruments

At various times throughout the inclusive adventure trip (Table 2), two quick self-
report instruments were given to the participants. The trust checklist was developed by
the researcher specifically for this study using the work of Rotenberg (1984). This
instrument instructed the participants to rate which of the group members they trusted to help them in the following activity (Appendix C). The participants put a number from 1-5 next to the group members' names. Number 1 indicated the least amount of trust in a group member to help in this activity. Number 5 indicated the most amount of trust in a group member to help in this activity. The researcher told the participants that no one but she would see the lists at any time, and asked for honest answers.

The sociometric instrument, also developed for the purpose of this study, instructed the participants to rate which of the group members they would choose to play with (Appendix D). The sociometric was developed using the work of Singleton and Asher (1977). The peer rating form of sociometric achieved a median test-retest correlation over a 6-week period of .82 for play rating-scale measures, and a .84 for a work rating-scale measure (Oden & Asher, 1977). The participants rated each member of the group on a scale from 1-5. Number 1 indicated the participant would choose to play with this group member the least. Number 5 indicated the participant would choose to play with this group member the most. The researcher told the participants that no one but she would see the lists at any time, and asked for honest answers.

Quantitative Analysis

The participant instruments were analyzed using quantitative methods to triangulate the qualitative data. Due to the small sample size, the use of dependent samples, the ordinal data collected through the instruments, and the lack of assumption that the scores were from a normally distributed population, a non-parametric statistical analysis was used. The Friedman Two-Way ANOVA (Friedman, 1937) was the non-parametric statistical tool used to analyze the data from the Trust Checklist and the
Sociometric sheet. The total scores for each individual participant on each checklist or sheet were used in the analysis. The Friedman Two-Way ANOVA was calculated using the SPSS statistical computer software package.

<table>
<thead>
<tr>
<th>Instrument Number</th>
<th>Trust Checklist</th>
<th>Sociometric</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Completed before ‘Belay School’ on 3/20/00</td>
<td>Completed before ‘Belay School’ on 3/20/00</td>
</tr>
<tr>
<td>2</td>
<td>Completed before the climbing session on 3/21/00</td>
<td>Completed before the climbing session on 3/21/00</td>
</tr>
<tr>
<td>3</td>
<td>Completed after the climbing session on 3/22/00</td>
<td>Completed after the teambuilding session on 3/21/00</td>
</tr>
<tr>
<td>4</td>
<td>Completed after the teambuilding session on 3/21/00</td>
<td>Completed before the climbing session on 3/22/00</td>
</tr>
<tr>
<td>5</td>
<td>Completed before the climbing session on 3/22/00</td>
<td>Completed before leaving Smith Rock State Park on 3/22/00</td>
</tr>
<tr>
<td>6</td>
<td>Completed before leaving Smith Rock State Park on 3/22/00</td>
<td>Completed one-month after the trip</td>
</tr>
<tr>
<td>7</td>
<td>Completed one-month after the trip</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Completion times for the Trust Checklist and Sociometric Instruments

Qualitative Analysis

The observation notes, interview transcripts, researcher’s journal, and document analysis were entered into Microsoft Word 7.0 version word processing program. From
this format the data were imported into NUD*IST 4.0. This computer program helped to organize and manage the data in both the raw state and when coded. Once data were imported into NUD*IST they were read and re-read before each file was coded and a coding tree was created. Once coded, the data was re-examined for themes that emerged from it. The data were analyzed using the constant comparison method (Strauss & Corbin, 1994) in which the codes and themes were constantly compared and updated or added to with the new data or interpretation of the data. Emerging themes were considered within the data and then old and new data were compared to these themes and combined with the theoretical background framing the study. This was an ongoing process that allowed the researcher to manage and explore the data constantly. It was important during the analysis phase to revisit data that had previously been coded to ensure that pertinent information was not missed as new themes emerged from the data.

Trustworthiness of the Qualitative Data

Within qualitative research establishing the trustworthiness/validity of a study is a crucial political issue. Quantitative research has the luxury of having predetermined criteria with which a study must conform. In an effort to rectify this issue and yet stay within the philosophy of qualitative research, Lincoln and Guba (1985) identified a number of components inherent in a trustworthy/credible study, which included the following points. Prolonged engagement by the researcher at the site was important to establish rapport, provide more information, and allow themes to emerge. In this study the researcher was present for the entire length of the trip which lasted for three days. Reporting on the extent of persistent observation indicating number of times, length, and place of observation helped to increase the trustworthiness of the findings. The field
observations occurred constantly throughout the three day trip. The only times that data were not collected was during the night when the participants and the researcher were sleeping, during mealtimes (although these times were reflected upon after they had occurred, and during time taken for personal hygiene. Once these criteria have been established they can be addressed to increase the trustworthiness of the findings.

The use of triangulation in relation to sources, methods and researchers is an important issue in trustworthiness. For this study, data were collected from five sources: observations, interviews, researcher journal, document analysis, and participant instruments. The combination of these methods allowed for richer and more extensive data collection. Highlighting negative case analysis within the data added to the trustworthiness by showing that the researcher considered all the data collected. Any negative case analysis was reported upon in this study to allow a thicker description of the data.

Member checks were used in the form of the trip leaders reviewing the information collected and the researcher’s interpretations. This process allowed the participant to agree or disagree with the interpretations and enabled the collection of more rich data. Peer debriefing was utilized to help keep the researcher honest in the methodological procedures chosen and the interpretations of the data. Fellow researchers from the fields of qualitative research, adventure education, and working with individuals with disabilities were used for peer debriefing. These individuals examined the methods used to collect data and the researcher’s interpretation of the data to ensure that the methods were satisfactory and the interpretations were accurate.
Referential adequacy is concerned with the careful and thorough use of the data, ensuring that the data were not invented and any assertions made can be backed up by the data. This was assured in this study by keeping all notes, documents, transcripts, and tapes in a secure place.

Thick description of the data allows the findings to be transferred more readily to other settings, which increases the trustworthiness of the data. During this study the researcher ensured that thick descriptions were provided in all aspects of the text.

The inclusion of excerpts from the researcher’s reflexive journal increased the trustworthiness of the findings. This reflexive journal can reveal the researchers subjectivity and biases in the study and what actions were taken to attempt to minimize these.
CHAPTER 4

RESULTS

This chapter will report the findings of the study. These findings will be presented by research question. Prior to this a description of the three trip leaders and seven participants on the Smith Rock climbing trip will be provided. The seven participants chose a pseudonym for use in this study. These descriptions along with the details of the Smith Rock climbing trip and Adventures Without Limits from the previous chapter will provide the context within which the findings will be presented.

Trip Leaders

Susan

Susan was one of the trip leaders on the Smith Rock climbing trip. Susan is the full-time program director for Adventures Without Limits (AWL), a position that she has held for the past two years, during which time she has been a trip leader for many AWL trips. She is also an Adapted Physical Educator within the Forest Grove school district. Susan has a bachelor’s degree in Recreation Education and dual masters’ degrees in Physical Education and Adapted Physical Education. Susan has over four years of experience directing programs for individuals with and without disabilities in sport, recreation and adventure activities.
Brian

Brian was the second leader on the Smith Rock climbing trip. This was Brian’s first year as a trip leader for AWL. He works full time in a leadership program for at-risk high school students in the Forest Grove school district. Brian previously worked full-time for Outdoor School, which is an experiential and environmental program that is offered to students through the school districts. Brian has his bachelor’s degree in Forestry Recreation. Brian had some experience working with individuals with disabilities through his position with Outdoor School, prior to working at AWL.

Corey

Corey was the third leader on the Smith Rock climbing trip, and this trip was Corey’s first for AWL. He brought the technical lead climbing skills to the leadership team. Corey works full time for the Outdoor School in the role of training and supervising the staff, which is a position he has held for the past two years. He has over 12 years experience working in the field of experiential and environmental education. Corey had some previous experience working with individuals with disabilities through Outdoor School.

Participants

Bee

Bee was one of the participants on the Smith Rock climbing trip. She was a ten-year-old Caucasian female who was typically developing. Bee’s twin sister Carebear also participated in this trip. Carebear is Bee’s only other sibling. She also knew Hedgehog and Mold (fellow participants) and considered them to be friends prior to the trip. Bee stated that she enjoyed sports and outdoor activities. She felt that she had lots of
friends in her school and neighborhood, and that it was easy for her to make new friends. Bee had attended other AWL indoor rock climbing trips. This was Bee’s first trip away from home. Bee and Carebear wrote a letter to their mother prior to the trip saying that they would be okay on the trip and they would call home every day. The school district that Bee attended was inclusive so she was used to being around individuals with disabilities.

Brad

Brad was a participant on the Smith Rock climbing trip. He was a 13-year-old Caucasian male who was diagnosed with autism. Brad felt that he was different from ‘other kids’, but did not necessarily feel that he had a disability. He stated that his Dad tells him he is autistic, but his Mom tells him he is not. Brad had been on many AWL trips and considered himself a veteran of AWL. Prior to this trip Brad had attended previous AWL trips with Hedgehog, Linco’n and Mold (fellow participants). Brad felt that he has a lot of adult friends through AWL, but not many friends his own age. He stated that it was hard for him to make new friends. Brad felt that he had trouble talking in front of people sometimes, and that he was teased at school for being different. Brad enjoyed playing soccer at his house, outdoor activities with AWL, and learning about nature. At school, he attended a Social Learning Center, which was a classroom for students with behavioral problems. The school district that Brad attended was inclusive so he was used to being around individuals with and without disabilities.

Carebear

Carebear participated in the Smith Rock climbing trip. She was a ten-year old Caucasian female who was typically developing. Carebear’s twin sister Bee also
participated in this trip. Bee is Carebear’s only other sibling. She also knew Hedgehog and Mold and considered them to be friends prior to the trip. Carebear stated that she enjoyed sports, outdoor activities, exploring, baking, and playing with her dog. Carebear felt that she had lots of friends in her school and neighborhood and that it was easy for her to make new friends. She had attended other AWL indoor rock climbing trips. This was Carebear’s first trip away from home. The school district that Carebear attended was inclusive and so she was used to seeing individuals with disabilities at school.

**Hedgehog**

Hedgehog was another participant on the Smith Rock climbing trip. He was a ten-year old Caucasian male who was typically developing. Hedgehog’s older brother Mold also attended this trip. Mold is Hedgehog’s only other sibling. He knew Bee and Carebear prior to the trip and considered them to be friends. Hedgehog stated that he really enjoys football, other sports, and outdoor adventure activities. He felt that he had quite a few friends in his school and neighborhood and that it was not that hard for him to make new friends. Hedgehog had been on many AWL trips prior to this one. The school district that Hedgehog attended was inclusive, so he was used to interacting with individuals with disabilities.

**Lathie**

Lathie participated in the Smith Rock climbing trip. She was 13-year old Asian female of who was typically developing. Lathie was an only child and was adopted at the age of three. Lathie stated that she enjoyed sports, vaulting (gymnastics on horseback), gymnastics, rock climbing, and camping. Lathie felt that she had a lot of friends and that it was easy for her to make new friends. This was the first AWL trip that Lathie had
attended, and she did not know any of the other participants prior to the trip. The school
district that Lathie attended was inclusive and so she was used to interacting with
individuals with disabilities.

Lincoln

Lincoln also participated in the Smith Rock climbing trip. Lincoln was a 13-year-
old Caucasian male who did not have a diagnosed disability. He had six other siblings.
Lincoln stated that he enjoyed rock climbing, sports, swimming, and volunteering with
raptors. Lincoln had attended other AWL trips, and knew Brad prior to the smith Rock
climbing trip. Lincoln stated that he had a lot of friends and that it was pretty easy for
him to make new friends. Lincoln was home schooled and had been since first grade.

Mold

Mold was the last participant on the Smith Rock climbing trip. He was an 11-
year-old Caucasian male who was typically developing. Mold’s younger brother
Hedgehog also attended the trip. Hedgehog is Mold’s only other sibling. Mold stated
that he enjoyed sports and outdoor adventure activities. Mold had attended other AWL
trips. He considered Bee and Carebear to be friends prior to this trip, and he also knew
Brad from other AWL trips. He felt that he had a few good friends, and that it was pretty
easy for him to make new friends. The school district that Mold attended was inclusive
and he had friends in his class who had disabilities, so he was used to interacting with
individuals with disabilities.
Findings

1) What are the characteristics of an inclusive adventure education experience?

The characteristics of the inclusive adventure education experience in relation to this study were taken from the field notes from the Smith Rock climbing trip and the Adventures Without Limits documents. When considering the Smith Rock climbing trip, there were seven characteristics that emerged (in no particular order) from these data sources: skill development, social interaction, teambuilding, trust, environmental awareness, personal growth and self-empowerment, and safety. These characteristics are described in the following sections. Further elaboration upon the findings of the data in these characteristics is provided in subsequent research questions.

Skill Development

Individual skill development is listed as one of the of AWL goals within the Adventures Without Limits Staff Training Manual (AWL, 1999b). The skill development characteristic of this inclusive adventure education experience related to camping skills and the technical skills of climbing and belaying. The Smith Rock climbing trip was the first time that most of the participants had experienced climbing on natural rock. Climbing and belaying skills required for this type of climbing are extensions of those developed on pre-requisite indoor climbing trips. During these pre-requisite trips participants acquired the skills of correctly putting on a climbing harness, tying a figure-eight knot to attach the belay rope to the harness, climbing commands, basic climbing moves, and descending down the artificial rock face while on belay.

The first three of these basic skills were reviewed during the belay school conducted on the afternoon of the first day. The purpose of this session was to
reintroduce the skills of correctly putting on a climbing harness, tying a figure-eight knot, climbing commands, and belaying techniques. The participants learning the belay technique practiced in a simulated fashion using a climbing rope suspended from a tree, with a “climber” walking on the ground towards the tree and away from the belayer. This instructional technique allowed the participants to practice the techniques in a safe environment. The belay-school session lasted for two hours on the first afternoon during which time all of the participants practiced the climbing and belay commands, the role of the back-up belayer, and the belay techniques (with the exception of Brad, who chose not to belay). This session provided the basis of the belay techniques for the next two days of climbing.

Day two and three of the trip consisted of technical climbing on real rock at Smith Rock State Park. The first session of climbing lasted for five hours at the actual rock face. During this time the participants had the opportunity to experience climbing, belaying, and back-up belaying. In addition to the climbing and belaying skills, Corey, one of the trip leaders, taught those who were interested to rappel down the rock face as an alternative to being belayed down after the climb. There was a rappel line set up next to one of the climbing ropes so that the participants could complete that climb and then rappel down the rock face. The second session of climbing took place on day three of the trip and lasted for three hours. The participants again had the opportunity to climb, belay, back-up belay, and rappel during this session. The climbs selected by the leaders were more difficult than the previous day, thus allowing the participants to further develop technical climbing skills.
In addition to the technical climbing and belaying skills, participants also developed camping skills. These skills included correctly erecting and dismantling tents, collecting appropriate firewood, starting a safe campfire, extinguishing a campfire, preparing and cooking meals using both a camping stove and a campfire, cleaning dishes, techniques on how to stay warm in cold weather, and “Leave No Trace” camping ethics. Some of these skills were completely new for the participants such as cooking over a campfire, Leave No Trace camping, and staying warm in cold weather, whereas others were a development of previously acquired skills.

Social Interaction

Social interaction is listed as the second goal of AWL trips (AWL, 1999b). As the goals are listed hierarchically, it can be concluded that this is considered an important aspect of the AWL trips. Due to the inclusive structure of the participants on AWL trips, the goal is termed “social integration and an awareness of those around you” (AWL, 1999, p. 6). The very nature of an adventure education experience necessitates that social interaction will occur as the participants and trip leaders are in close proximity to each other for extended periods of time. Social interaction can be defined as “Patterns of mutual influence linking two or more persons” (Johnson & Johnson, 1997). Such patterns included talking to each other, joking, exchanging smiles, helping each other, and playing games/activities with each other.

During the Smith Rock climbing trip there were specific times where the interaction was primarily due to the task or activity of the group. The first instance of this was the van trip to Smith Rock State Park from the AWL site. This trip lasted four
hours and during this time all participants and one trip leader were in close proximity to each other.

Once at Smith Rock State Park, the other instances where social interaction was fostered were setting up camp, preparing and cooking meals, campfire activities, free playtime, and teambuilding activities. During each of these activities, with the exception of free playtime, the trip leaders organized activities that would foster interaction, cooperation, communication, trust, and problem solving skills among the participants. This organization for interaction provided the participants with opportunities in which group interaction was necessary and helped to develop positive interaction. Within this setting, positive interaction consisted of the participants talking to each other in a supportive way, joking and playing with each other, and helping others. In addition to these situations, social interaction occurred throughout the trip but was not specifically fostered by the trip leaders such as, during free playtime and the climbing sessions. The van ride back to the AWL site was the last opportunity for the participants to interact as a group (with the exception of Bee and Carebear who stayed in the Smith Rock area). This van ride was very different from the ride to Smith Rock as the participants had come to know each other and interaction was naturally occurring in that the group members initiated it.

Teambuilding

Although this characteristic was not outlined in the goals for trips organized by AWL it was a definite feature of the Smith Rock climbing trip. It is recognized that teambuilding could be considered an outcome rather than a characteristic. However, within this study teambuilding is defined as organized activities that were used as a
vehicle for achieving increased group cohesion. Teambuilding is different from social interaction in that there were specific activities that were designed to impact the cooperation, communication, trust, problems solving and teamwork skills of the participants in a structured format. After the teambuilding session the trip leaders debriefed the activities with the group members to help facilitate an awareness and understanding of what occurred, and transfer this to other areas of their lives. In the social interaction characteristic the leaders presented some of the activities in a manner that were designed to foster these skills but not in a structured format with a debriefing session.

On the evening of the second day, after a full day of climbing, the group took part in a session of activities that were designed specifically to impact teamwork. Susan conducted two teambuilding activities after dinner on the second day. Prior to the activities the group members were reminded of the philosophy of ‘Challenge By Choice’ and that they were free to not participate in, or withdraw from, the activities if they felt uncomfortable. The activities were “Touch My Can” and “Human Knot”. The object of both of these activities was for the group to work together to solve the problem that was presented. “Touch My Can” was explained to the group as follows:

What I need you guys to do is that I need everyone to be touching this cup. (Susan)
Everyone? That’s going to be tough. (Brad)
Everybody has to be touching the cup. Nobody can be touching each other. (Susan)
Can we be like touching each other out here? (Mold)
Nobody can be touching each other period. And two people have to be touching it [the cup] with their nose. (Susan)
(Field Notes, 3/21/00, 7:30 p.m.)

Susan explained ‘Human Knot’ to the group as follows:

Okay everybody stand in a circle. Shoulder to shoulder in a circle. Put your right hand into the circle, and grab onto a person that is across from you. Take your left hand and
grab somebody else's hand. You cannot let go of hands. Now I need you guys to get out of this human knot without breaking hands. (Susan, Field Notes, 3/21/00, 8:00 p.m.)

After each of these activities Susan conducted a debriefing session with the group in which they explored what happened, who took leadership roles, how they worked as a group, how they felt, and how what they learned could be transferred to other areas of life.

Trust

In considering the nature of an inclusive adventure education trip that was focussed on technical climbing skills, the characteristic of trust is one that would be expected to be present. The sport of climbing has a high level of trust inherent within the activity. The climber must trust his or her own ability and skills to attempt the climb, the equipment, and the individual who is on belay and back-up belay. The climbing experience of the trip leaders was outlined for the participants on the first day to help them feel more comfortable with the knowledge and skills of the leaders. The equipment was double-checked by the trip leaders prior to the participants or leaders climbing. Corey, one of the trip leaders, was the lead climber each day to set up both climbing ropes and the rappel line, so the participants had the opportunity to watch the equipment in use before climbing. Although two participants (Bee and Carebear) expressed an initial fear of heights, it was not enough to stop them from climbing. Thus the one aspect of the climbing experience that was out of the control of the climber was the belayer(s). This necessitated the climber having trust in the individuals on belay, which initially were the trip leaders and then became the other participants. One participant, Brad, chose not to climb and therefore did not experience that level of trust in the other group members.
In addition to the trust formed through the climbing activities, there were other opportunities for trust to be developed. The teambuilding activities fostered trust between the group members especially when participating in the 'Human Knot'. During this activity the participants had to trust that other group members would not cause him or her physical harm while solving the problem. The opportunities for social interaction during the van trips and campfires seemed to allow some of the group members to develop a trust in the others that enabled them to interact on a deeper, more personal level.

**Environmental Awareness**

Environmental awareness is listed as a goal for AWL trips (AWL, 1999b) and was present during the Smith Rock climbing trip. There were numerous instances of both formal and informal instruction where this characteristic occurred during the trip. The first group activity that occurred at Smith Rock State Park was an explanation of an environmental disaster that had occurred in the park a few years earlier. Corey informed the group about the devastation to the environment and the wildlife caused by an accidental fire in the park. The group could clearly see the damage caused by the fire and began to have an appreciation of the impact of humans on this ecosystem.

The nature hike that followed lunch on the first day provided participants with more information regarding the geology, history, wildlife and vegetation of Smith Rock State Park. During this hike and both climbing sessions the importance of carrying out whatever was taken into the park, including trash, was explained to the group and modeled by the trip leaders. Indeed there were instances when the trip leaders would pick up other people’s trash that was on the hike and dispose of it properly. This lesson
had an impact on some of the group members, as there were times when certain participants modeled this behavior, both on hikes into the gorge and at the campsite.

The philosophy of ‘Leave No Trace’ camping was also explained to the participants and generally modeled by the trip leaders. ‘Leave No Trace’ camping was successful through choosing appropriate firewood, making sure all trash was taken out of the campsite, extinguishing the campfires, and cleaning the dishes where the water and detergent could be disposed of properly. Again this example seemed to have an impact on the group as illustrated by this comment regarding an important aspect of camping. When asked to name one thing that he had learned about camping Lincoln responded, “Be sure that when we leave the campfire to put enough water on it to make sure it is out” (Lincoln, Field Notes, 3/21/00, 3:45 p.m.).

Personal Growth and Self-empowerment

This characteristic refers to personal growth and self-empowerment beyond the skill development characteristic previously mentioned. Personal growth and self-empowerment is listed as a goal for AWL trips (AWL, 1999b). It could be considered as an amalgamation of experiences that have previously been described under the social interaction, teambuilding, trust, and environmental awareness characteristics. Within each of these characteristics there were situations that enhanced the participants’ personal growth and self-empowerment. For each group member this characteristic had a separate meaning in addition to a shared meaning. The shared meaning was the increased experience in social interaction with a group of peers both with and without disabilities. Individually, however, the group members each seemed to gain in areas that were directly
related to his or her own self-image and these areas were not the same for each participant. This will be further elaborated upon in later sections of this study.

In addition to the activities that were described in the previous characteristics, the issue of transfer became apparent in relation to personal growth and self-empowerment. There were numerous opportunities throughout the trip where the trip leaders attempted to make the link between what the group was experiencing and how that could relate to other areas of life. A concrete example of this was the teambuilding activities where, in the debriefing, Susan specifically asked the group how what they learned could impact other situations they face. She used questions to encourage the participants to link this experience to their personal context.

**Safety**

Safety is listed as the number one goal of any AWL trip (AWL, 1999b) and it was clearly a characteristic during the Smith Rock Climbing Trip. There were two aspects of safety that were present in this inclusive adventure education trip: physical and emotional safety. The first was physical safety. During any climbing session very clear safety rules and verbal commands were emphasized and adhered to by the trip leaders and the participants. Although at times this emphasis on safety slowed the process of climbing it was very important and was respected by all involved. However, there was an example during the belay school where the issue of safety was not adhered to as strictly as previously. When Corey was explaining and demonstrating the belay technique there was a contradiction which may have confused the participants and caused unsafe belaying techniques.

He [Corey] is teaching a different technique from what he is demonstrating which is making it confusing for the kids. He’s telling the
kids to watch his hands and he’s letting go with his right hand and holding
the rope with his left. So although he is never letting go of the rope he is
letting go with his brake hand. This presents some safety issues for the
kids as they are following what is demonstrated not what is being said.
(Field Notes, 3/20/00, 5:00 p.m.).

This difference was rectified before the participants actually belayed the next day, when
Brian reinforced the correct belay technique during the first climbing session. In addition
to the climbing sessions, physical safety was stressed when building, lighting, and
extinguishing the campfire, when preparing and cooking the meals, during the free
playtime, and during the teambuilding activities.

The second aspect of safety that was clearly evident during this trip was the
emotional safety of the participants. The trip leaders emphasized and modeled respect
and a supportive, positive and encouraging environment for all group members. This was
explained to participants as respect for others, the use of put-ups not put downs, and to
treat others as you would want them to treat you.

Data for the Smith Rock climbing trip clearly showed that safety was a very
important characteristic. The participants gained an understanding of the safety aspects
that are inherent to the sport of climbing. This is an extremely crucial lesson as climbing
can be a dangerous activity without a certain level of respect for safety.

Seven characteristics were present on the Smith Rock climbing trip organized by
AWL during March, 2000. Five of these characteristics (skill development, social
interaction, environmental awareness, personal growth and self-empowerment, and
safety) were listed as goals of trips in the Adventures Without Limits Staff Training
Manual (AWL, 1999b). Teambuilding and trust were not listed as goals but were definite
characteristics of the Smith Rock climbing trip.
2) What were the changes in group dynamics, trust, self-efficacy, and social relations of the participants across the inclusive adventure education experience?

**Group Dynamics**

There was an observable difference in the group dynamics among the participants during the inclusive adventure experience. The difference will be described using the four themes that emerged from the data under this category. These themes are first meeting, getting to know each other, teambuilding, and support/help.

**First Meeting**

The first meeting of a group of individuals is often crucial in setting the tone for subsequent interactions. Prior to describing the first meeting of the participants on the Smith Rock climbing trip, it is important to outline the expectations and social self-efficacy (as reported by the participants in an interview) of the group members. Three participants (Bee, Carebear, & Lathie) felt it was easy for them to make friends and thus seemed to have a very high social self-efficacy. Three participants (Hedgehog, Lincoln & Mold) felt that it was pretty easy or not that hard for them to make friends and thus seemed to have a high social self-efficacy. These three participants (Hedgehog, Lincoln, and Mold) did not seem quite as confident as the first three about making new friends. One participant (Brad) felt that it was hard for him to make friends and thus seemed to have a low social self-efficacy. Four of the participants (Bee, Carebear, Lathie, & Lincoln) had the expectation of making friends on the trip. Two of the participants (Hedgehog & Mold) felt that maybe they would make friends on the trip although Mold stated that it was not a goal for him. One participant (Brad) did not think that he would
make friends on the trip. It seemed that the majority of the group members were comfortable with making new friends, and had the expectation of making new friends on the Smith Rock climbing trip. The exception to both of these situations was Brad.

<table>
<thead>
<tr>
<th>Participant Names</th>
<th>How do you feel about having people with and without disabilities on this trip?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bee</td>
<td>Pretty good, yeah.</td>
</tr>
<tr>
<td>Brad</td>
<td>I would worry about the person with the disability. I would be worried that they couldn’t do the stuff we would be doing.</td>
</tr>
<tr>
<td>Carebear</td>
<td>I feel good because I think disabled people should have the chance to try it also. And I feel that I should support them in that.</td>
</tr>
<tr>
<td>Hedgehog</td>
<td>Fine. I know other kids with disabilities and help them when we go on trips and stuff.</td>
</tr>
<tr>
<td>Lathie</td>
<td>Normal. They have the right to do this stuff too.</td>
</tr>
<tr>
<td>Lincoln</td>
<td>I like the idea because usually disability people can’t do as much. So this way they get the chance to do it.</td>
</tr>
<tr>
<td>Mold</td>
<td>Actually, in my class there are two kids with disabilities and in our family there is one that is disabled. So I have had a lot of practice with people who have disabilities. Plus, there have been people that go on the trips with AWL that have disabilities. So I feel pretty comfortable with it.</td>
</tr>
</tbody>
</table>

Table 3: Participant responses to a pre-trip interview question.
As the Smith Rock climbing trip was inclusive, a question was asked of each of the participants during the pre-trip interview regarding attitudes towards including people with disabilities on the trip. Table 3 shows the participant responses to this question. The only group member who expressed a concern regarding the inclusion of individuals with disabilities on the trip was Brad who has a disability himself. Indeed the responses to this question seemed to indicate that the other group members were comfortable with the inclusive nature of the trip.

The goals, expectations and social self-efficacy of the participants are important to consider when reporting the findings of the first meeting theme. Due to the geographic location of the participants, the first meeting of the group occurred in two phases. Five of the participants (Bee, Carebear, Hedgehog, Lathie, & Mold) lived close to AWL and met at the AWL site. The other two participants (Brad & Lincoln) were picked up on route to Smith Rock State Park. It is important to realize that four of the participants (Bee, Carebear, Hedgehog, & Mold) knew each other well prior to the trip and considered themselves as friends. The five participants that met at the AWL site stated that it was easy or pretty easy for them to make new friends. The actions of these participants upon the first meeting certainly indicated that this was true.

Bee, Carebear, Hedgehog and Mold were already at the office when Lathie and her parents walked in. At first the kids all seemed to be busy with what they were doing, but when Susan introduced Lathie they all said “Hi” to her from where they were. The mothers of the twins (Bee & Carebear) and Lathie seemed to help facilitate further introductions and conversation by introducing their daughters to each other. From this point on the kids appeared to carry on further conversation about where they were from and how old they were. Hedgehog and Mold also joined in the conversation with the three girls although Hedgehog was a little more hesitant about this. (Field Notes, 3/20/00, 8:15 a.m.).
Early on in this first meeting it was clear that Lathie had taken on an elevated status within the group. This was evident in the seating arrangements in the van and the conversation during the start of the van trip.

I’m not really sure how the seating arrangements came about except that Lathie stated first that she wanted to be in the back seat. Maybe because she was the oldest and seemed very confident, there was no argument about this. In fact, the only argument or discussion about the seating arrangements was between Carebear and Bee because they both wanted to sit next to Lathie... Bee and Lathie really seem to have hit it off, much to the despair of Carebear, who already has asked Susan if she can sit next to Lathie on the way back as this is only fair because Bee is sitting next to her on this part of the trip. (Field Notes, 3/20/00, 9:00 a.m.).

The bond formed among these five participants during this time seemed to be fairly strong. This bond may have contradicted the participants’ assertions that making new friends was an expectation of the trip and being comfortable with individuals with disabilities on the trip, as the following excerpt from the field notes indicates:

Once we stopped to pick up Brad and Lincoln, the mood in the van seemed to change. Mold and Hedgehog knew Brad or had at least seen him around school or at other AWL trips. When the rest of the group saw Brad get out of his truck and get his luggage, Susan noticed some snickering and laughter coming from the group in the van and shot them a stern look. (Field Notes, 3/20/00, 9:30 a.m.)

This initial meeting with Brad did not support some of the statements made during the pre-trip interviews by these five participants.

It was evident early on that Brad was anxious about the situation and being in the van with the other participants. Susan had previously stated that when Brad is in situations in which he is anxious or nervous he becomes a little verbally aggressive in his behavior and talks about bombs, talks about a fantasy world, or has the desire to only talk to adults. Upon entering the van the following behavior from Brad was observed.
As Brad entered the van he did not say “Hi” to any of the other group members, but tried to engage me in a conversation immediately. He was talking about aliens and bombs, but Susan had already told me a little about his behavior so I was expecting this as it indicated that Brad was very much out of his comfort zone. (Field Notes, 3/20/00, 9:30, a.m.).

It seemed important to Brad that he expressed how experienced he was in relation to AWL trips and that he was a veteran of AWL. Once all of the participants were in the van Susan, one of the trip leaders, initiated the first entire group interaction introducing the following game.

After a few minutes in the van Susan asked the group if they wanted to play a game. They each had thirty seconds to tell the others some things about themselves that would help the others remember them. Susan started off and made it simple, but gave information that all could remember. (Field Notes, 3/20/00, 9:45 a.m.).

This interaction enabled the participants to each share some information about himself or herself. From this initial activity other interactions between the majority of the participants occurred throughout the van trip.

It seemed that from Brad’s behavior that he was not interested in making friends with the other participants. As previously stated in research question one, for the majority of the rest of three and a half hour trip to Smith Rock State Park Brad slept, stared out the window, or talked to the adults, but did not engage in any conversation with the other group participants.

Lincoln on the other hand, seemed eager to become accepted as a part of the group. Despite not sharing much information about himself during the thirty-second game, Lincoln became very vociferous during the rest of the van trip. However, it seemed that he was trying too hard to become accepted by the group to the point of alienating some of the other participants.
Lincoln tried very hard to be accepted by the group through joining in with every discussion by announcing that he had already done what was being talked about, had already been to that place, or had been somewhere much better. At times he threw in some comments just to get a reaction from the group. For example, he stated that every Sunday his hands were covered with chicken guts. He made the comment and then waited for the group to ask him why so he could explain that he helped take care of raptors on Sundays and was responsible for cleaning the cages and feeding the bird. The group members seemed interested in this and asked him more about it. It appeared at this time that Lincoln would be easily accepted into the group as he was talking about interesting things and catching their attention. However, soon after this point Lincoln began telling the group that he had done the activities or been to the places they were talking about. I looked around a few times to see Lathie, Mold and Hedgehog pull faces when Lincoln was talking about something he had done or somewhere he had been. At one point when Susan asked Mold and Hedgehog about their trip to one of the State Parks we passed on Mount Hood, before they could answer her Lincoln had already started to tell us about the time that he had been there and everything that had happened. (Field Notes, 3/20/00).

Thus, from the first meeting of the participants it appeared that the group had become divided. Bee, Carebear, Hedgehog, Lathie and Mold constituted one group that had already bonded together, and Brad and Lincoln were not part of this group. The trip leaders noticed this division early in the trip.

I think that there were some internal circles even in a small group like this. There are a set of twins and a set of brothers, and a few folks that knew each other, and then a couple that were kind of outsiders from the get go. (Interview with Corey, 3/21/00, 5:15 p.m.)

Getting to Know Each Other

Once the first meeting was completed the group spent a large amount of time over the next three days getting to know each other. This was occurring a little during the first meeting but was limited due to the seating arrangements and space constriction in the van. As previously mentioned, after the first meeting the group was divided into an ‘inside group’ of Bee, Carebear, Hedgehog, Lathie, and Mold, and two individuals (Brad
and Lincoln) who were not part of this group. This dynamic continued during the afternoon and early evening of the first day. It was inferred from his actions that Brad seemed to choose not to be included in the group and kept very much on the outside of the group. He was physically in the same proximity as the rest of the group, but was not directly involved in the activities. It seemed as though Brad was more comfortable and interested in talking to the adults than his peers.

Right now the kids are setting up the tents. Three of the boys are working hard together. However, again Brad is off by himself. Mold just called to Brad to come and help with the tent. As of yet Brad hasn’t moved to help the rest of his tent mates. Susan is now going over to Brad to try to get him over to help with the tent. He’s heading over to the tent now but had to be directed by Susan. The boys are working on the tent but Brad is actually just sitting in the vicinity and not helping. (Field Notes, 3/20/00, 4:00 p.m.).

Brad is off once again doing his own thing and not staying with the group. He is actually helping Brian set up for dinner. So he is trying to be helpful but he is not with his peers during this activity. (Field Notes, 3/20/00, 5:30 p.m.)

These examples indicated that Brad was not fully involved with the group at this point in the trip.

During this same time frame, Lincoln was trying to establish himself within the ‘inside group’. This was still proving to be a difficult task for Lincoln. It seemed as though he was still trying too hard to be accepted, which caused the opposite effect. An example of this occurred during the nature activity on the afternoon of the first day.

Lincoln has taken the opportunity to share some of his knowledge about the raptors in this area. He seems to like the increased attention this has afforded him from the rest of the group. However, he does not appear to know when to stop and the other participants seem to be getting a little bored listening to him. (Field Notes, 3/20/00, 3:15 p.m.).
An important event occurred during the belay school that had an effect upon the status of Lincoln within the group. Corey highlighted Lincoln as one of the stronger belayers within the group. Although the impact of this statement was not apparent at the time it did have a positive effect on Lincoln’s status within the group as will be elaborated upon later.

The campfire on the evening of the first day seemed to be a turning point in the whole group getting to know each other and beginning to bond. During this time the facades and cliques that were present earlier in the day were dropped and the entire group started to interact with each other. The following two excerpts from field notes indicate how the group came together during this time.

That evening after cooking the pasta and spaghetti sauce, the group gathered around the campfire to keep warm. There were enough Crazy Creek chairs for everyone to sit around the fire. Most of the group members were indeed sitting around the fire, but for a lot of the time Brad was at the edge of the group and really did not join in the conversation. However, this all changed once the group started to make s’mores. (Field Notes, 3/20/00, 7:30 p.m.).

At the campfire last night, there was some great interaction. All the kids were there and all were involved. There was no niggling or any bad feelings. They were all fully involved. Brad was extremely involved. He really seemed to enjoy being part of the campfire and part of the group. He was even interacting with all of the kids. Right after he went off with Mold they were making s’mores. Brad had some chocolate, and he told us that it made him hyper and talkative. He was standing around and helping to lead songs. He was also talking to Mold and Lincoln. He was actually making physical contact with them too in terms of saying good job and slapping them on the back. All the kids were getting involved. In fact they were encouraging Brad to talk to them and to tell them some stories. He was singing right at the end. In fact all the kids were. By the look on Brad’s face he really seemed to enjoy it. (Researcher’s Journal, 3/21/00)

Indeed, during the post-trip interview Lathie felt that the campfire was important for the group.
Other than the rock climbing, were there other activities that really helped you to bond together as a group? (Sue)
I think the really, really good bonding time was like at dinnertime and the campfire. (Post-trip Interview with Lathie, 3/22/00)

The climbing and belaying session on the second day was an important time during which the majority of the group continued the task of getting to know each other. During this time the six group members had the opportunity to demonstrate their ability in climbing, belaying, and to some extent in rappelling. In addition the entire group observed other group members participating in these activities. Although there were not many interactions between the group members outside of the climbing activity, this was valuable time as noted by one of the trip leaders. When asked after the first climbing session how he thought the participants were working as a group, Corey stated that:

The climbing itself is such an individual activity that they had to face themselves, and they didn’t respond to what other people might or might not have been thinking until after they were down because they were scared. So I think that a lot of their comfort comes from the fact that they were vulnerable and nobody felt worse for it. So, all in all, folks are no longer looking at what they thought the other person was, they are starting to look at who the other people are and how they are presenting themselves which is the interesting piece. (Interview with Corey, 3/21/00, 5:15 p.m.).

It was during this climbing session that Lincoln really started to become accepted by the group. His climbing and belaying skills were strong and other group members recognized this. When asked in his post-trip interview what he had learned about Lincoln, Mold stated that, “He climbed really well and he’s a good belayer. He has a high self-esteem because he gives it his hardest, and he tries. He gets up there and he does it really well.” (Post-trip Interview with Mold, 3/22/00). After this session it was evident that Lincoln had been accepted as part of the group as these three excerpts demonstrate. In a
debrieﬁng session late in the afternoon on the second day the group had to thank one person for something they did that day, Lathie responded “Someone I really want to thank is Lincoln. Because he really was always cheering me on and always thanked me. And he belayed me a lot.” (Field Notes, 3/21/00, 5:00 p.m.).

It is now after dinner and some things happened that I want to reﬂect upon. Lathie and Bee were teasing Lincoln to see if he would take some of the very bad tasting candy that Corey had handed out earlier. Lincoln said that he would if they would ﬁnd him a hot dog to eat. So Lincoln ended up taking the candy. Bee and Lathie wanted him to wait to eat the candy until they were close to him so they could watch his face as he ate it. They certainly weren’t doing that yesterday by including him in their little circle, but they are including him today. (Field Notes, 3/21/00, 6:30 p.m.).

You could see earlier that with Carebear and the whole hat pulling, she’s having fun with him [Lincoln] and although she gets frustrated with him she’s doing the same thing back. So he’s really being included in the group although he almost excluded himself to start with. (Interview with Brian, 3/21/00, 8:30 p.m.).

It seemed that as Lincoln established his climbing and belaying skills within the group and received more interactions with the other participants, he stopped trying to prove what he knew and had done. This allowed the other group members to get to know the ‘real’ Lincoln and he became accepted as part of the group. When asked what she had learned about Lincoln, Carebear stated that “Lincoln is really funny. He’s kind of like a best friend type that you can play around with. Like you can ﬁght but you don’t take it seriously.” (Post-trip Interview with Carebear, 3/22/00).

The exception to the group getting to know each other during the climbing activity on the ﬁrst day was Brad. He chose not to climb or take the lead belay role for other group members. He did participate as a back-up belayer during the climbs. However, there were also times during this session when Brad totally
excluded himself from what was happening. During the morning as three of the
group members were climbing and belaying on one rope and three were learning
how to rappel the following situation occurred.

Brad is sitting down at the bottom of the rock by the gear. No one has
noticed that he is there nor is anyone trying to pull him back into the
group. In fact, he seems quite content to sit there by himself. (Field
Notes, 3/21/00, 10:45 a.m.).

Thus, due to the choices Brad made not to climb or belay and to exclude himself from the
group at times, he did not demonstrate his skills or engage in the same interactions as
other group members. However, Brad developed a place for himself within the group as
a helper. This role was recognized and valued by Carebear, “Like with Brad he likes to
help other people out” (Post-Interview with Carebear, 3/22/00). Bee also commented on
Brad’s role as helper, “Brad doesn’t like to rock climb but he helps on backing up” (Post-
Interview with Bee, 3/22/00).

The impact the climbing session had on the group interaction was evident in the
short van ride from Smith Rock State Park to the campsite. The group appeared
extremely excited, full of energy and engaging in conversation with each other.

On our way back to the campground that afternoon, the group seemed full
of energy and very wound up. They were joking in the van and playing
around. Brad was trying to join in when he could. However, when the
energy and noise level really climbed, Brad told Susan that she should
ground all of ‘these kids’ as they were misbehaving. Once we got back to
the campsite, and the kids got out of the van they started running and
playing a game of chase, especially Lincoln and Carebear who were
running around all over the place. (Field Notes, 3/21/00).

Despite Brad’s comments, the interaction between the group members was very different
from the previous day and indicated that the majority of the group members had drawn
closer together.
The debriefing session with the trip leaders and the group members was an illustration of how the group had gained respect for each other during the climbing session. Each group member was to publicly thank one other group member for something that had happened that day. This public forum could have been intimidating to some group members as it had during the thirty-second game on the first day. However, it seemed that the group members felt more comfortable with each other at this juncture and were very willing to share their thoughts. Brad was one of the first participants to be thanked during this session. This had an important impact on Brad and his interaction with the rest of the group as will be explained in more detail during the self-efficacy section.

The evening activities of teambuilding and the campfire seemed to indicate that the group had bonded together and were more comfortable with each other. The teambuilding and the impact of these activities on the whole group will be discussed in the next theme. After the teambuilding session the group was interacting very well around the campfire and including everyone in the conversation. Brian, one of the trip leaders, in an interview, commented upon this change in the group dynamics.

As we’re looking at them right now they are all interacting in a positive way. And what has really shown that they have come a long way is that there is a lot of the play fighting which is indicative of kids that are very comfortable around each other. The space boundaries have been broken. Although they are being a little testy here and there, that is part of really getting to know people. (Interview with Brian, 3/21/00, 8:30 p.m.).

When asked how the group was interacting from the first day to the campfire on the second day, Brian stated that:

We have seen some of the kids become more individualistic today. Instead of the one-ups, you got to see their true side. It is no longer Lincoln trying to one-up you. He wants to show you why he knows what
one of the birds is etc. Instead of saying ‘oh yeah I know that’, he’ll explain a little bit more about that. And that shows that he is becoming more comfortable with us as well. It’s not that I’ve got something to prove to you, it’s that I want to teach you something. They were staying a little clear of Lincoln at first because of his one upping, but because he’s dropped that façade he is being more included now... They have become more accepting of Brad. He is just really a part of the group now because they feel comfortable with him. I think it is just awesome that they have all come together so well and can just accept him for who he is and his abilities not his lack of ability. Whatever that lack of ability might be. They’ve got to embrace that and help him to do the best that he can.

(Interview with Brian, 3/21/00, 8:30 p.m.)

The climbing session on the third day was a time when the group demonstrated that they were much more cohesive. During this session there seemed to be more interaction between all the group members than on the previous day. The mood appeared very comfortable, lighthearted, and happy. The participants were joking around with each other more during this session. “The group is taking pictures of everyone. Susan is taking group pictures with everyone involved and joking around.” (Field Notes, 3/22/00, 9:15 a.m.). For one participant in particular, the interactions and activities over the three-day trip really seemed to impact her opinion of another group member.

How do you think your level of trust and wanting to play has changed during this trip? (Sue)
Brad I think has changed a lot because when I first met Brad I didn’t really, well I think I judged him. You know how people say ‘don’t judge the book by it’s cover’. Well I think I was doing that and I think that was really wrong of me. I think he is very helpful right now and I shouldn’t have done that. (Post-trip Interview with Carebear, 3/22/00)

Although the evidence in this theme illustrates a positive change in the group dynamics over the three-day trip, there were situations where the interaction was not so positive.

There was one point last night when Lincoln made a comment and Lathie, who is one of the participants that really wants the group to work together,
rolled her eyes at Lincoln’s comment. (Researchers Journal, 3/21/00, 7:00 a.m.).

As Susan and I were getting ready to go to sleep for the night Carebear came knocking on the door and told Susan that Bee was being mean to her and that she didn’t want to stay in the tent with Bee and Lathie. She seemed very upset although as it was dark I couldn’t tell if she was crying, but her voice sounded very upset and hurt. Susan told her that she would go back to the tent with her and see what was going on. This seemed to help Carebear. Susan stayed in the girls’ tent for a while and managed to get it to the point that Carebear wanted to stay there and would do so on her own. (Field Notes, 3/21/00).

I walked down to where Bee was sitting eating an orange and asked her if I could interview her after she ate her orange. She agreed to this while we were waiting I noticed that Carebear was climbing where Bee had just climbed. Carebear appeared to be stuck in the same place that Bee had some difficulty. I said to Bee that Carebear was having problems at the same point on the climb that she did and maybe she could give Carebear some tips. Bee, who was sitting with her back to the climb, looked over her shoulder at Carebear and said the she had climbed higher than that. She did not say anything else and did not go to help Carebear. I told Bee that as she had climbed that climb already she might be able to offer Carebear some help anyway. With that comment Bee again looked over her shoulder but did not say anything else. I decided not to press the issue. Bee then said that we could do the interview now if I was ready. (Field Notes, 3/22/00).

On the hike up the last hill Mold shouted to Carebear that her mom was walking down the hill. Carebear ran up to meet Maggie and seemed very happy to see her. As we were waiting for the rest of the group at the van, Carebear told Maggie that Bee had been mean to her on the trip. I didn’t hear what Maggie said in return. (Field Notes, 3/22/00).

These interactions seemed to indicate that although the group had bonded and come together over the three days there were times where some tension between certain group members existed. This tension seemed to be short lived and did not have any long-term adverse effects on the group dynamics.

The van trip back from Smith Rock State Park was in stark contrast to the trip there. Bee and Carebear did not travel back with the group as they were staying to visit
relatives in the area. This may have changed the group dynamics but the group seemed to interact well on this van trip. All five of the remaining participants were involved in the conversations, the games, and other interactions. These increased interactions, when compared to the van trip on the first day, seemed to indicate that the group members were more comfortable with each other and a positive change in the group dynamics had occurred. The very noticeable difference between the two van trips was the interaction with and from Brad. As previously mentioned Brad chose to exclude himself from any interaction with the other group members on the van trip to Smith Rock State Park. However, as the following excerpts show, Brad was fully involved in the group interactions on the trip back to AWL.

We are on the trip home and for the last two hours Brad has been talking non-stop to everyone that is sitting around him. He is actually completely engrossed in the conversation back there. He’s sitting in the middle seat and I think that might make a difference. It appears as though the kids are not worrying about his little quirkiness. He started talking about the aliens again and bombing and they are just joining in with that rather than completely excluding him. Brad struck up the conversation initially. It is completely different from the trip to Smith Rock where he was sitting in the front row of seats and did not speak to the other group members the entire trip. (3/22/00 Field Notes).

Lathie the cool girl is sitting in the back seat, with Brad and Lincoln in the middle, and Hedgehog and Mold up front which is nothing like the way they were sitting when we were coming up here. Lathie is choosing to totally interact with those two guys (Brad and Lincoln) whereas she could totally shut them out. What I have usually seen on trips is that, you know, why would I talk to those guys? Everyone usually falls asleep to avoid having to talk. (Susan - Field Notes, 3/22/00).

Susan commented upon the contrast in the group dynamics between the two van trips in depth. In particular, she noticed the change in how Brad interacted with the group and in turn how they reacted to him.
You know what I liked was the fact that Brad wasn’t bonding with the adults but with the kids. Because he usually is with the adults. Generally on rock climbing trips what he does is kind of hangs out on his own. He really viewed himself as an intermediate between the adults and the kids, and at the end of this trip he was a kid. He had been accepted into the group. It wasn’t just that they accepted him, because he could be accepted and still exclude himself. But he actually wanted to interact. (Interview with Susan, 3/22/00).

This interaction with and from Brad obviously had an impact on Susan as she referred to it again in a follow-up interview.

I can’t stop thinking about looking back in the van and seeing Brad with all the kids and the interaction that was taking place. Just the look on his face, he was happy and excited about actually being part of the group and playing the game. (Follow up Interview with Susan, 3/23/00).

Teambuilding

One event that had an important impact on the group dynamics was the teambuilding activities conducted on the evening of the second day. These activities were chosen with the purpose of providing opportunities for the group to work cooperatively to solve problems. The activities were presented, facilitated, and debriefed by Susan. The first activity presented was ‘Touch My Can’ as described previously in research question one. As soon as Susan gave the directions for the activity the group started trying to solve the problem without really discussing a plan. It seemed at this point that the most vocal group members at this time became the leaders as they made sure their idea was heard.

While the group was still discussing a plan two of the girls, Bee and Lathie, immediately took a leadership role. In fact, they are not discussing so much as trying to solve the problem with their idea by directing the group on what to do. (Field Notes, 3/21/00, 7:30 p.m.).
The group solved the problem pretty quickly and Susan added the challenge of four people touching the cup with their nose. This time the problem was not as easy to solve and the group began to discuss the situation more and offer alternative strategies. The leadership role changed throughout the activity. In addition, different group members seemed to feel comfortable and supported within the group that they could offer suggestions and assume a leadership role.

The group is trying to figure out what they are going to do. The discussion level has risen but they seem to be listening to each other although there is some disagreement over what will work and what won’t work. Brad is standing with the group listening to what is happening and looking as though he is enjoying it. Although he is very quiet and is not contributing verbally at this time he is physically doing what needs to be done with the rest of the group. There are four people laying down trying to get their noses on the cup. They don’t seem afraid to give their ideas in front of the rest of the group. Now they have just called a time out because they cannot get four noses touching the cup with it in the position it is in. Lathie has picked the cup up and is laying on her back on the ground with the cup on her nose. Lincoln also has voiced an idea that the group should pick the cup up off the ground and it would make more room. However, no one seems to be listening to him as they are all focussed on touching the cup. Right now they are all trying to get around the cup. Four people have their noses in contact with the cup. Brad is standing back, watching what is happening, with a smile on his face. Hedgehog told him that he needed to touch the cup and he reached in to touch making sure that he was not touching anyone else. They almost had it and then the cup dropped so they had to start again. There are more suggestions of how they can accomplish this task. They haven’t responded to Lincoln’s idea about lifting the cup in the air yet. Bee and Hedgehog who can be very quiet at times have really taken to this task and are taking more of a leadership role here. They are trying to direct the rest of the group as to where they should lay and how they should touch the can. Lincoln has just jumped in to add to Bee’s idea and is directing the group on the best way to lay. Brad is also giving suggestions although not very frequently. However, if his suggestion is listened to then he seems to say more. The group is still working at this task. If something isn’t quite working then they either modify it or try another approach to the problem. All are involved and feel safe enough to offer their ideas in front of the rest of the group. Lathie is now taking more of a leadership role and is directing people to where they should touch. They are having a few
problems and seem to be getting a little frustrated so Susan tries to get them refocused.

“So what is the problem?” (Susan)

“The cup is too small and our heads are too big”

“Is there anyway that you can do it that your heads won’t touch?” (Susan)

“I’ve got it, how about two people go really low and put their heads sideways and touch the cup and then two people go higher and bend over and touch the cup” (Bee).

“If you guys have an idea then be sure to let the group know because your idea could be something that would help.” (Susan)

The group is trying the solution again. Hedgehog this time has picked the cup up and is lying down with the cup on his nose and the others are trying to get around him. However, Hedgehog is unable to lie still and there is a lot of laughing. Lathie tries as the base again and the group tries to solve the problem one more time. They now have four noses touching the cup and Mold is leading the directions this time to get everyone else around the cup. Brad is involved and touching the cup without having to be prompted by anyone in the group. Lincoln on the other hand is more interested in looking for the moon, but came right over when the rest of the group called him. They have managed to achieve the goal. There is much excitement and laughter among the group. (Field Notes, 3/21/00. 7:45 p.m.).

The group worked hard to achieve a solution to the problem and was very excited and energized to try another problem.

The second activity presented by Susan was the ‘Human Knot’ as described previously in research question one. This activity was more difficult than the first and involved full group cooperation to solve it. The leadership was again shared in this activity and the participants seemed to feel comfortable and safe within the group to offer suggestions to solve the problem. Due to the difficulty of the activity there were times when the group required one member to refocus the task. In observing the problem-solving process it seemed that the group members had become more comfortable with each other and had developed an increased level of respect and trust.

Lincoln and Lathie are both acting as leaders at this point and directing the group as to where, when and how they should move. Brad is laughing at what is happening right now.
“Where is the moon?” (Lincoln)
“You guys, who cares about the moon right now. You guys we need to think of a way to do this. Anybody got an idea?” (Bee)
There were some suggestions about letting go or giving up however, Bee just kept the group on task and kept prompting them. Then she took a more active leadership role and started to direct the group a little more.
“Wait, wait, Brad should go under this arm, I think.” (Bee)
After this comment the group seemed to refocus more on what they had to accomplish. Bee was still in the leadership role at this point and the rest of the group seemed to want her direction.
“Okay, go all the way down okay. Now Hedgehog and Brad come through. Now bend down Lathie and Mold.” (Bee)
At this point the group could see what Bee was trying to do and joined in with other suggestions.
“Wait a second. There is a knot right there. Let’s see what we can do to undo it. You’ve got to go through his arm.” (Hedgehog)
The group members were still working together and following the lead of both Hedgehog and Bee. Brad although he was quiet and not really giving any suggestions at this point was watching what was going on and being involved from a physical standpoint. The group has nearly reached the end of the problem but is having some difficulties with the very last untangling process. They are discussing the problem but not really listening. Everyone seems to be sharing ideas. I heard Brad offer a few suggestions but then went quiet once he realized that no one had heard him. He didn’t give his suggestions again. They seem to be getting a little bit frustrated with what is happening. Lathie has taken a leadership role and Bee is also joining in and giving suggestions. The group has started working again.
With a prompt from Susan, the group started to rethink what they needed to do. They started thinking about who was attached to who and what that would mean in relation to how they moved as a group. Brad gave a suggestion that the group did not hear and with a prompt from myself he repeated it.
“You know about the order, these two are facing out. So you have four faces facing out and three faces facing in because there are seven of us.” (Brad)
Susan gave Brad some positive feedback in front of the group for speaking up and a few of the group also told him good job for giving his idea. Lincoln then put in his suggestion on how to solve the problem. Lathie then agreed that his idea would work and got excited about it. This prompted the group to try and finish the problem. This solution seemed to be making the group work very hard and there were some groans about how to hold on to the other people. Everyone is now trying to get through a really small hole between Lincoln and Lathie’s arms. Brad really had to squeeze through as he is the largest in the group, but he didn’t hesitate about trying it at all. After they tried this they realized that they had gotten about as far as they could. (Field Notes, 3/21/00, 8:15 p.m.).
The impact of these activities on the group dynamics was phenomenal. The group members clearly felt that the activities allowed them to work hard to bond together as a group, as indicated in the following excerpt.

How did that feel that you all had to touch each other and be close?
(Susan)
It felt like a big old family. (Brad)
How would you have felt if I did that right off the bat?” (Susan)
What do you mean?
As soon as you guys got in the van? (Susan)
That would have felt different. (Lincoln)
Why would it? (Susan)
Because we wouldn’t have known each other. (Bee)
Guys we need to listen to each other. (Lathie)
We wouldn’t have known each other at all, so it would have felt kind of weird. I mean some of us would have known each other but not all of us. (Lathie)
We wouldn’t trust them. (Carebear)
You wouldn’t really like understand what they are like. (Mold)
Or have close relationships with them, like now all of us are friends, like close friends we know each other, we’ve been around each other. (Bee)
(Field Notes, 3/21/00, 8:20 p.m.)

In the post-trip interviews a number of participants commented on how the teambuilding impacted them during the trip as evident in the following two interviews.

What was one of the things during the trip that really changed your view of Brad because he’s the one that changed in terms of the trust and the play? (Sue)
Um, I think when we were doing that work together thing. I thought that was really funny. (Carebear)
What was it about that?
Um, I don’t know. He was just funny and I thought it was funny when he ate chocolate.
So you think having to work together and solve that really helped you change your opinion of him?
Yeah.
(Post-trip Interview with Carebear, 3/22/00)

Tell me a few things that you learned on this trip, things you may never have done before. (Sue)
Tried to figure out games. The game that we were playing last night.
(Brad)
Did you enjoy that?
Yeah
Why was that fun?
It made us a whole entire family. You should have joined in.
(Post-trip Interview with Brad, 3/22/00).

Support/Help

An indication of the difference in the group dynamics during the course of the three-day trip was the change in the level of support or help between group members. The first instance where the group had to work together to complete a task was unloading the van and setting up camp. As previously mentioned, the group was very fractionated in this activity. Initially when unloading the van and setting up the tents two of the group members were not involved and off doing other tasks. A common theme throughout the first day and a half of the trip was that the group members did not seem to offer help or support to other participants unless they asked for assistance, or they seemed to be in obvious difficulty. This indicated that the group did not feel very coherent at this time.

The following excerpts support this theme.

Hedgehog was just having a problem putting a tent pole in. The boys have gotten their tent pretty much all the way up. Rather than calling for help he just kept going with it. Brad saw that he was having some problems and went over and helped him. There weren’t many interactions between them but he went over and tried to help Hedgehog. (Field Notes, 3/20/00, 4:00 p.m.)

Lathie and Mold have started climbing. It is very quiet and there isn’t any encouragement from the other kids. Brian and Susan are giving good feedback to both Mold and Lathie. Brad and Lincoln are watching what is happening but are not offering any encouragement to the climbers. The three that aren’t involved in the process are sitting talking amongst themselves. (Field Notes, 3/21/00, 10:15 a.m.)

From the rock Mold shouts that he is stuck and can’t do anything. Immediately both Lathie and Carebear start to encourage him – “Come on
you can do it” “Reach to the left there’s a good hold there” “What a good job you are doing Mold”. (Field Notes, 3/21/00, 10:45 a.m.)

Carebear is climbing right now and Susan is on belay, Lincoln is on back-up belay. Brad is giving directions to Carebear. He’s at the rock telling her where to put her feet and her hands. She seems very nervous and is not sure what to do. She just called down to Susan to hold her because she was going to let go. She is getting a lot of encouragement from Lincoln and Brad. (Field Notes, 3/21/00, 12:30 p.m.)

After the first climbing session the participants appeared very pleased with their accomplishments, seemed comfortable with each other, and more cohesive as a group. This change in the group dynamics was obvious during the evening of the second day.

There were more situations when the group members offered support and help to each other without being asked.

Right now Hedgehog, Brian and Brad are trying to get the fire going for cooking. The rest are all chopping up vegetable and working together to get dinner going. Susan is chopping up potatoes, Mold and Lathie are helping her with this. Carebear is busy chopping the carrots and Bee is also on the carrots. They are working hard together getting everything done for dinner. The sun has dropped now so they know that they have to get it done in a short time here. (Field Notes, 3/21/00, 5:30 p.m.)

At one point Susan asked Mold if she could put him in charge of cooking the noodles. As soon as she did this Brad jumped up from his seat at the fire and went over to help Mold out with the noodles. They spent the next ten minutes cooking the noodles together. (Field Notes, 3/21/00, 6:15 p.m.)

When Lathie was cooking the second batch of noodles as soon as she asked for help and said that she needed a fork, four of the kids were trying to find a fork for her. Obviously they wanted to eat their dinner that may have been why they were so anxious to help, but they really seemed to want to help. Some cooked for each other or cooked the same meal, or when their dinner was in the fire cooking they were helping to make sure that everything was ready. (Researchers Journal, 3/21/00)
The teambuilding activities that were conducted on the second evening really helped strengthen the group cohesiveness. The increased level of support demonstrated this during day three as the following excerpts indicated:

Mold, Hedgehog and Brad all worked together to get their gear out of the tent, to get it packed and to get the tent down. Then the three of them went over to rally the girls and get them up. Brad and Mold even went over to offer the girls some help with their tent once they were up and moving. (Field Notes, 3/22/00, 7:30 a.m.)

Bee is climbing with Susan on belay and Brad on back-up belay. The following conversation ensued:
“I don’t know where to put my feet.” (Bee)
‘Right up in here. That’s good. See that big slab right there, put your foot right on there. There you go. She’s doing good all by herself. She just needs to find it. Push your left foot on that slab.” (Brad)
“I can’t lift my foot up that high.” (Bee)
“Just try it you can do it. Come here Hedgehog. See that slab she could stand on. Lift yourself up. There you go. (Brad)
As Bee gets her foot on the slab Hedgehog and Brad high five each other for helping her.
“There’s another slab there. Okay now your right foot, step on it.” (Brad)
“Hedgehog, help me.” (Bee)
“Put your left hand up.” (Hedgehog)
“Now push yourself up. Lift up your left foot.” (Brad)
Brad really seems to want to help Bee make this climb and is really cheering her on.
“All right! We’re both going to get 150% from her.” (Brad)
“You’re doing good Bee.” (Hedgehog)
“She’s doing good by herself.” (Brad)
(Field Notes, 3/22/00, 10:15 a.m.)

The next climber on this rope is Carebear with Mold belaying and Susan and Brad on back-up belay. Carebear was having trouble with the fisherman’s knot. Brad jumped right in to show her how to do it and Carebear thanked him for his help. Brad continued to help Carebear by showing her the good footholds.
“See that big slab right there? Look down. There it is now pull yourself up. Good you’ve got it.” (Brad). (Field Notes, 3/22/00, 10:40 a.m.)
Trust

The trust checklist was completed by the group members at six different times within the three day trip and one month after the trip. Each time the participants completed the checklist they were asked to rate which of the group members they trusted to help them in the following activity (Appendix C). The participants put a number from 1-5 next to the group members’ names. Number 1 indicated the least amount of trust in a group member to help in this activity. Number 5 indicated the most amount of trust in a group member to help in this activity.

A non-parametric statistical test was conducted on the trust checklist data from the seven participants collected over the three-day trip. The Friedman two-way ANOVA (Friedman, 1937) for the trust checklists found that $\chi^2 = 38.54$ at $p < .05$ ($N = 7, df = 6$). This showed that there was significant difference among the seven checklists at the .05 alpha level. Further analysis of the checklists using the Bonferroni technique indicated that this difference occurred between the third and fourth trust checklist which were completed on the second day($\chi^2 = 7.00$ at $p < .008$, $N = 7, df = 1$).

The level of trust between the participants clearly changed over the three-day trip. Initially most of the participants demonstrated greater trust in the other group members that they already knew, as indicated in Table 4. Lincoln was the exception to this as the only person he knew prior to the trip was Brad, but he gave a five to each participant on the first trust checklist. He had indicated in his pre-trip interview that he felt he could trust all of the group members and this was evident in this checklist. In the pre-trip interviews the reasons given for the choice of participants that group members would
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<th>Participant Checklist</th>
<th>Scores Awarded on Checklist</th>
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<tr>
<td></td>
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</table>

1 = least amount of trust
5 = most amount of trust

Table 4: First trust checklist completed before ‘belay school’ on 3/20/00.

choose to help them with a hard task, was that knowing the person was a factor in trusting them. The participants gave the following responses to the question “If you had to complete a hard task which of the participants would you choose to help you and why?”

Probably the people I know the best, my brother, Carebear or Bee. Because I know them and I can trust them better than someone that I don’t really know. (Pre Trip Interview with Mold, 3/19/00)

I think probably Mold and Hedgehog. Because, like we’re close friends and always around them. And they’re really nice.
Do you trust them? (Sue)
Yeah, I trust them a lot.
(Pre Trip Interview with Carebear, 3/19/00)

Probably Mold. (Bee)
Why is that?
I don’t know. I know him really well.
Do you trust him?
Yeah
(Pre Trip Interview with Bee, 3/19/00)
Probably Lincoln because he is a friend. I know him from other trips. (Pre Trip Interview with Brad, 3/20/00)

The first trust checklist was completed before ‘belay school’ on the first day. Prior to this the group had the opportunity to get to know each other through the van trip, the environmental education activity, and putting up their tents. As previously stated the group had divided into an ‘inside and outside circle’ during this time. This seemed to impact their decisions on the first trust checklist. As indicated in Table 4, some of the group members (Mold & Lincoln) clearly trusted the other participants right away, some (Carebear, Bee & Hedgehog) trusted those individuals they knew the most, Lathie trusted the other girls on the trip more than the boys at this point, and Brad only indicated that he trusted Lincoln at this point even though he had been on other AWL trips with Mold and Hedgehog. Brad received the lowest score from the majority of the other group members on this checklist.

The second trust checklist was given before the group started climbing on the second day. As indicated in Table 5, the activities during the evening dinner and campfire helped to increase some trust between the group members. Between the first and second trust checklists the group members generally maintained or increased their level of trust. There were three exceptions to this. Lincoln decreased his level of trust in Brad, Bee decreased her level of trust in Carebear, Lathie, and Mold, and Brad decreased his level of trust in Lincoln. Brad still received the lowest scores from the other group members on this checklist.

The third trust checklist was completed at the end of the climbing session on the second day. The climbing session appeared to have an impact on the level of trust for some of the participants as indicated in Table 6. Mold increased his trust in both Lincoln
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<th>Hedgehog</th>
<th>Lathie</th>
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1 = least amount of trust  
5 = most amount of trust

Table 5: Second trust checklist completed before the climbing session on 3/21/00.

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</tr>
</tbody>
</table>

1 = least amount of trust  
5 = most amount of trust

Table 6: Third trust checklist completed at the end of the climbing session on 3/21/00.
and Brad after this session. Brad increased but did not participate in the climbing or lead belaying, but he did back up belay for Mold on at least one of his climbs. Lincoln actually belayed Mold on one climb and also acted as a back up belay on another climb. Bee increased her trust in Carebear, Hedgehog, Mold, and Lathie after this session, but decreased her trust in Brad. During the climbing session Mold, Hedgehog, Lathie, and Carebear all played a supporting role for Bee or actually belayed or back-up belayed for her when she was climbing. This appeared to have an impact on her level of trust for these group members. Bee still had a high level of trust in her sister at this time even though Carebear had asked Susan to belay her instead of Bee. Lincoln did not change in relation to Bee’s level of trust, and Brad decreased. Brad did not take an active role in being a back-up belayer for Bee during this session. The level of trust Brad had with the group did not change during the climbing session. This could be a function of Brad choosing not to climb and thus did not have to trust any of the group members during this session. Lathie increased her level of trust during the climbing session in Brad and Lincoln. Brad was supportive of Lathie during her first climb and offered her encouragement and praise during and after the climb, he also acted as a back-up belayer for one of her climbs. Brad also still received the lowest overall scores from the other group members on this trust checklist.

Lincoln acted as lead belayer for Lathie a couple of times during the session and also acted a back-up belayer. In addition Lathie and Lincoln were very supportive of each other during the climbing and were more skilled than the other group participants. It was clear from their comments during the debriefing session after the climbing that they had built more trust in each other. In the debriefing session the group was asked to thank
an individual for something they had done today and, as previously mentioned, Lathie responded “Someone I really want to thank is Lincoln. Because he really was always cheering me on and always thanked me. And he belayed me a lot” (Lathie – Field Notes, 3/21/00, 3:45 p.m.). Lincoln responded “I’d like to thank Lathie for belaying me” (Lincoln – Field Notes, 3/21/00, 3:45 p.m.).

Lincoln did not change his level of trust in the other group members during this climbing session. Hedgehog only changed his level of trust in one group member (Carebear) during this session. Carebear stayed the same in her level of trust with the other participants during this climbing session. This was interesting as the following situation occurred during this climbing session.

During the afternoon there was one point when Carebear was climbing, Bee was belaying and Susan was the back up belayer. From where I was sitting, it was obvious that Bee was having a few problems belaying. Susan was working on it with her and making sure that Carebear was safe as she was climbing. Bee was working hard to make sure that her hands were correct on the rope. There was a little slack in the rope, but as Carebear was on ledge and Susan had asked her not to move there wasn’t a safety problem. At this point however, Carebear called down and asked Susan if she would belay her instead of Bee. Carebear did ask Bee if she would mind if Susan belayed instead of her. Bee said no that would be OK, but seemed a little rejected. Bee continued to back up belay while Carebear climbed. (Field Notes, 3/21/00)

When asked why she had asked Susan to belay Carebear responded,

I was scared that she might drop me and I was more afraid of heights than today. She just weighs lighter than I am. And I don’t know, I was scared. (Carebear)
Was it that Susan was bigger and stronger than Bee?
Yeah. (Post-trip Interview with Carebear, 3/22/00).

The fourth trust checklist was completed after the teambuilding session on the second evening. The teambuilding activities had a great impact on increasing trust
between group members. As indicated in Table 6, prior to the teambuilding not one of
the group members had given a score of five to all of the participants. After the
teambuilding however, the majority of the participants received a score of five from the
other group members (Table 7). The exceptions to this were that Brad remained at a score
of four from Lincoln, Bee and Hedgehog, although he had increased from the previous
score given by both Bee and Hedgehog. Brad still received the lowest overall score from
the other group members on this checklist.

As indicated in Table 7, Brad increased the scores he gave from a one to a five for
all of the group members, indicating a great increase in trust. The teambuilding also
increased Bee’s trust in Lincoln. Mold increased his trust in Brad, and Hedgehog
increased his trust in Brad, Carebear, and Lincoln. For Brad the teambuilding activity
had a great impact in his level of trust for the other participants, as the following excerpt
from his post-trip interview showed.

I know that we were talking briefly up on the rock how your level of trust
and wanting to play with people had changed and you said it really
changed after the group [teambuilding] activity. Why do you think that
was? (Sue)
We got close. (Brad)
So you really started to trust and like people more after that?
Yeah.
(Post-trip Interview with Brad, 3/22/00)

Trust checklist number five was completed on the morning of the third day prior
to the climbing session. As indicated in Table 8, the only change from the scores in the
fourth trust checklist was that Brad decreased from a five to a four on Carebear’s sheet.
Brad still received the lowest overall score from the other group members on this
checklist.
### Participant Checklist

#### Scores Awarded on Checklist

<table>
<thead>
<tr>
<th>Participant Checklist</th>
<th>Bee</th>
<th>Brad</th>
<th>Carebear</th>
<th>Hedgehog</th>
<th>Lathie</th>
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1 = least amount of trust  
5 = most amount of trust

Table 7: Fourth trust checklist completed after the teambuilding session on 3/21/00.

### Participant Checklist

#### Scores Awarded on Checklist

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1 = least amount of trust  
5 = most amount of trust

Table 8: Fifth trust checklist completed before the climbing session on 3/22/00.
The sixth trust checklist was completed prior to leaving Smith Rock State Park on day three. As indicated in Table 9, only two participants changed their level of trust in other group members. Bee increased her trust in Brad and decreased her trust in Lincoln. As previously mentioned, Brad helped Bee on a difficult climb during this climbing session which had an impact on her as shown by this excerpt.

How do you think your level of trust for each of the other group members changed during the trip? From the first time that I had you fill out the survey to right now is there anyone that you trust more? (Sue) Yeah Brad. I didn’t trust Brad very much because I didn’t know him very much. But now he’s been helping me out and stuff and he helped me get up to where I was on the rock-climbing thing. So I trust him more now. (Post-trip interview with Bee, 3/22/00).

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</tr>
</thead>
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<td>Carebear</td>
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<td>Lathie</td>
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</tr>
<tr>
<td>Total</td>
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</tbody>
</table>

1 = least amount of trust
5 = most amount of trust

Table 9: Sixth trust checklist completed before leaving Smith Rock State Park on 3/22/00.
Lathie also decreased her trust for three group members, Brad, Lincoln and Mold. For the other participants the trust level remained high. It appeared that the teambuilding and climbing sessions had a great impact on the participants’ level of trust. When asked why the level of trust had changed over the three-day trip the following reasons were given.

How do you think your level of trust and wanting to play has changed from the first time you filled the sheets out to now? (Sue)
Probably everybody is about a twenty now. (Lincoln)
Really, they’ve gone right up. Why do you think that is?
Um because they haven’t dropped me and we have kind of all helped out and protected each other
(Post-trip Interview with Lincoln, 3/22/00)

We have become closer. We know each other more and better. (Mold)
So through the things you have done you get to know each other more?
(Sue)
Yeah like the teambuilding last night.
Do you think that really helped?
Yeah a lot.
Why?
Cooperation, friendship, getting to know each other. What we’re like, and what we think.
(Post-trip Interview with Mold, 3/22/00)

I think that at first none of us really knew each other so I don’t think anyone would really be that trustworthy of them if you don’t know them. And as we got to know each other and went through the activities and rock climbing I mean we got to know each other a whole lot better. And I think belaying really helped because that like got me the trust of a lot of the people. (Post-trip Interview with Lathie, 3/22/00).

The teamwork activities that we did yesterday. (Bee)
Why did it help? (Sue)
I don’t know, because we all worked together and we were all really like in close things because we had to work it out and use other people’s ideas and stuff. (Post-trip Interview with Bee, 3/22/00).

Brad still received the lowest overall score from the other group members on this checklist.
In a follow-up trust checklist completed one month after the trip the level of trust between certain group members was maintained over that time period. As indicated in Table 10, Brad, Mold, and Lincoln maintained their level of trust for all of the participants one month after the trip. Hedgehog and Lathie decreased their level of trust in certain participants and maintained it with others. Bee greatly decreased her trust in Brad and Lincoln over this time. Brad still received the lowest overall scores from the

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<td>Carebear</td>
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</table>

1 = least amount of trust  
5 = most amount of trust

Table 10: Seventh trust checklist completed one-month after the trip.
other group members on this follow-up checklist. During the one-month period after the
trip Brad and Lincoln had no contact with other group members. Bee, Carebear,
Hedgehog and Mold had been in contact with each other. Lathie had seen Bee and
Carebear once during this time period.

A summary of the trust checklists is provided in Table 11. This summary shows
the total scores obtained by each group member for each checklist and the point
difference between the first and sixth checklist, and the sixth and seventh checklist. It is
clear from Table 11 that the level of trust between the group members increased over the
three day Smith Rock climbing trip. Brad, Hedgehog, and Lincoln increased the most in
relation to trust from the other group members. This increase in the level of trust
between group members was maintained for most of the group one month later.

Although, Brad and to a lesser degree Lincoln decreased in the overall trust scores from
other group members. The teambuilding activities and the climbing sessions had a great
impact on the level of trust between group members.

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Table 11: Summary of Participant Trust Checklists.
Social Relations

Social relations, or how the group members rated each other on a friendship basis, were measured using the sociometric sheet. This sheet was presented to the group five times over the three-day trip and one-month after the trip. This instrument instructed the participants to rate which of the group members they would choose to play with (Appendix D). The participants rated each member of the group on a scale from 1-5. Number 1 indicated the participant chose to play with this group member the least. Number 5 indicated the participant chose to play with this group member the most.

A non-parametric statistical test was conducted on the sociometric data from the seven participants collected over the three-day trip. The Friedman two-way ANOVA (Friedman, 1937) for the sociometrics found that $\chi^2 = 28.362$ at $p < .05$ ($N = 7, df = 5$). This showed that there was significant difference among the seven sociometric sheets at the .05 alpha level. Further analysis of the checklists using the Bonferroni technique indicated that this difference occurred between the second and third sociometric sheet ($\chi^2 = 7.00$ at $p < .008$, $N = 7, df = 1$) which were completed on the second day of the trip.

There was an observable and measurable change in the level of social relations between the group members over the three-day trip. The first sociometric sheet was completed before ‘betty school’ on the first day. The group already had the opportunity to interact and start to get to know each other during the van ride, the environmental education activity, and setting up the tents. As indicated in Table 12, Lincoln, Lathie and Mold gave high scores (4 or 5) to all the group members. Bee, Carebear and Hedgehog gave high scores (4 or 5) to all the group members except Brad and Lincoln. These participants all stated in the pre-trip interviews that they found it very easy or pretty easy
to make new friends. Brad gave all the group members a one except for Lincoln whom he gave a five. In his pre trip interview Brad stated that he knew Lincoln and considered him a friend. Brad received the lowest overall scores from the other group members on this sociometric sheet.

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1 = least desire to play
5 = most desire to play

Table 12: First sociometric completed before ‘belay school’ on 3/20/00.

The second sociometric sheet was completed prior to the climbing session on the second day. It is evident from Table 13 that the time spent during dinnertime and the campfire had an impact on the social relations between some of the group members.
### Table 13: Second sociometric completed before the climbing session on 3/21/00.

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1 = least desire to play  
5 = most desire to play

### Table 14: Third sociometric completed after the teambuilding session on 3/21/00.

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<tr>
<td>Mold</td>
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</table>

1 = least desire to play  
5 = most desire to play
Most of the group members increased or stayed the same in their score over this time.

Lathie, Lincoln and Brad stayed constant with their scores for other group members.

Lathie and Lincoln continued to give everyone a five, and Brad continued to give everyone except Lincoln a one. The decreases in scores came from Mold and Carebear.

As previously stated dinnertime and the campfire proved to be a good opportunity for the group to get to know each other further. Brad still received the lowest overall score from other group members on this sociometric sheet.

The third sociometric sheet was completed after the teambuilding activities on the second evening. This teambuilding session, the climbing and the cooking of dinner appeared to have an impact on the social relations of the group as indicated in Table 14.

The majority of the participants increased their scores for other participants when they were not already at a five. The exception to this was that Brad still gave Lathie a score of one, and Lincoln decreased his score for Carebear. The teambuilding clearly made a difference for Brad as previously stated in his post-trip interview.

Teambuilding activities also seemed to impact the other group members desire to want to play with Brad as indicated in the scores on the sociometric sheet. This was one of the first times that Brad seemed to fully participate in the group activity, but still received the lowest overall score from the other group members on this sheet. The teambuilding also seemed to impact Lincoln’s desire to want to play with the other group members as indicated in this excerpt,

How do you think your level of wanting to play has changed from the first time you filled out the sheet to now? (Sue)
They’re probably about a twenty too. (Lincoln)
Why is that?
Because they’re gentle when they play and they don’t try and rip your arms off. Like in the Human Knot. If something didn’t work they just didn’t do it instead of still trying it and someone getting hurt.
(Post-trip Interview with Lincoln, 3/22/00)

The fourth sociometric sheet was completed before the climbing session on the third day. As indicated in Table 15 there were only a few changes between the third and fourth sociometric sheet. The changes were that Bee decreased her score for Lincoln, Hedgehog decreased his score for Carebear, Lincoln increased his score for Carebear, and Brad increased his score for Lathie. Brad no longer had the lowest overall score from the other group members on this sheet.

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<tr>
<td><strong>Total</strong></td>
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</table>

1 = least desire to play  
5 = most desire to play

Table 15: Fourth sociometric completed before the climbing session on 3/22/00.
The fifth sociometric was completed prior to leaving Smith Rock State Park on the third day. As indicated in Table 16, there were only two changes in the scores between the fourth and fifth sociometric. Lathie and Bee increased their scores for Lincoln. Again, Brad no longer had the lowest overall score from the other group members on this sheet. The interactions between the group members on the van ride back to AWL indicated that the group members had increased their social relations.

During the van ride to Smith Rock, Brad had slept most of the way or did not join in any

<table>
<thead>
<tr>
<th>Participant Checklist</th>
<th>Bee</th>
<th>Brad</th>
<th>Carebear</th>
<th>Hedgehog</th>
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</table>

1 = least desire to play
5 = most desire to play

Table 16: Fifth sociometric completed before leaving Smith Rock State Park on 3/22/00.
of the conversation. However, as previously mentioned and as the following excerpt shows, on the trip back Brad’s interactions with the group were very different.

I have never seen Brad interact with the kids, usually he is sleeping in the van. But when I come to think about it he hasn’t sat in the middle before, he’s always been in the front seat behind the driver. If I were to look into the back of the van I would never pick him out as being anything different, just another one of the kids on the trip. (Susan – Field Notes, 3/22/00)

In addition to the change in social relations that occurred over the three-day trip the follow up sociometric sheets, that were completed one-month after the trip, indicated that this change was maintained for some participants Table 17. Mold and Brad stayed the same in their scores and Bee, Lathie, Lincoln, and Hedgehog decreased their scores for certain participants. Brad received the lowest overall score from the other group members on this sheet.

<table>
<thead>
<tr>
<th>Participant Checklist</th>
<th>Bee</th>
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<th>Carebear</th>
<th>Hedgehog</th>
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</tbody>
</table>

1 = least desire to play  
5 = most desire to play

Table 17: Sixth sociometric completed one-month after the trip.
A summary of the sociometrics is provided in Table 18. This summary shows the total scores obtained by each group member for each sociometric sheet and the point difference between the first and fifth sheet, and the fifth and sixth sheet. It is clear from Table 18 that the level of social relations between the group members increased over the three day Smith Rock climbing trip. Brad greatly increased his overall score from the other group members during the trip. This increase in social relation between the group members was maintained for most of the group one month later. Although, Brad and to a lesser degree Lincoln, decreased in the overall social relation scores from the other group members. The defining moments in this change appeared to be dinnertime, campfire and teambuilding activities.

<table>
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Table 18: Summary of Participant Sociometric Sheets
Self-Efficacy

An observable increase in the participants’ self-efficacy occurred over the three-day trip. There were two main areas of self-efficacy that were impacted: climbing and belaying skills, and social self-efficacy. Although the participants all had experience climbing prior to the trip, it was mainly at indoor climbing walls. Only Lathie had experienced climbing outside on real rock. In addition, only Lincoln and Lathie had any experience belaying. It was clear from the pre-trip interviews that many of the participants were excited about learning to climb on real rock and improving their climbing skills. When asked why they had chosen to participate in this trip and what they hoped to learn, the following responses were given.

Well I just wanted to take the opportunity of going outside and rock climbing. I’ve never been outside to rock climb. I just wanted to see how hard and how easy it is. (Pre Trip Interview with Bee, 3/19/00).

I really hope to learn just more experience from more experienced people. And I want to learn how to belay better. Really want to learn how to belay better. And I want to try more difficult climbs. (Pre Trip Interview with Lathie, 3/20/00).

How to belay. Um what it feels like to be on real rock instead of man made stuff. And I’ve heard they have a lot more holds and stuff. (Pre Trip Interview with Lincoln, 3/20/00).

However, Brad stated that he chose to attend the climbing trip because he had promised one of the staff members at AWI that he would. Although he had been on previous indoor climbing trips with AWI, he had not actually climbed on any of the trips. Susan felt that there might be a chance that Brad would want to try climbing when he watched the other participants on the climbs. In his post-trip interview Brad it seemed apparent that Brad had not increased his self-efficacy in climbing as the following response indicated.
Tell me something that you learnt about the other kids on the trip (Sue)
Rock climbing. I learned it but I didn’t learn how to face my fears. (Brad)
Is that something you think that someday you might want to do if there
was just you and someone else and no one watching?
Say if there was just you and Cory out here do you think that it is
something that you might want to try?
Me and Cory have been friends for like five days when we were at
Outdoor School.
So you have some trust in him?
Yep
So if there was a time if there was just you and Cory out here, and maybe
Brian if he needed some help belaying. Do you think that you might try it
then?
I don’t like rock climbing that’s the only problem.
Is it the heights that you don’t like or are you afraid of falling?
Yeah
Afraid of falling?
Yeah
Is it because there are a lot of people around watching too?
No
Do you think that is something that you might be able to overcome?
I don’t think I can. It’s twice as powerful as I am.
(Post-trip Interview with Brad, 3/22/00).

There was a very definite increase in self-efficacy in relation to the climbing and
belaying skills for some of the participants. Brad was the exception to this as he chose
not to climb or take the role of lead belayer. Carebear clearly increased her self-efficacy
in climbing over the two sessions. In the first climbing session she stated that she was
afraid of heights before she climbed.

Are you ready to climb up this rock? (Sue)
I don’t know. (Carebear)
If there was someone out of this group that had to belay you, which of the
kids would you choose?
I’m afraid of falling. I’d trust Mold, the others I don’t know as well.
Would you feel OK if you were climbing and Brian said that someone else
was going to belay you?
Only if someone else was behind them to back up. I’m so afraid of
heights.
(Informal Interview with Carebear, 3/21/00, 12:30 p.m.).
After her first climb, which she had found difficult, Carebear was concerned about what I had written down about her, which indicated a low self-efficacy for climbing skills.

She did well on the climb but felt that she gave up too easily and apologized when she got down from the rock. She came over to me after the climb and seemed concerned that I would write that she gave up in the climb.
(Field Notes, 3/21/00).

On the second day she appeared more confident and was pleased with her achievements as this excerpt from her post-trip interview revealed.

So how did it feel getting up that rock? (Sue)
Good. (Carebear)
Just good?
It felt great, I used my knees most.
Why did it feel great? What was it about it?
Um I’ve never actually gotten to the top of one of the outside rocks and that was just fun. It had some tough spots but it had some really easy ones.
It made you think a lot and I like that.
How about coming down how did that feel?
Well, when Susan said hold on, ‘I was like okay um’ because I was just sitting at the top and I was kind of scared. Because I didn’t like being up that high.
(Post-trip Interview with Carebear, 3/22/00)

This increased perseverance when the climbing was tough indicated an increase in self-efficacy for climbing.

Lathie had experienced climbing outside but was still eager to learn more and increase her ability as she stated in her pre-trip interview. It was obvious that her self-efficacy for climbing and belaying increased during the trip as the following excerpt showed.

I learned a lot like rock climbing skills. One of the things was how to belay a lot better. The second thing probably would be that I learned a lot about ropes during rock climbing and I learned a lot of knots. And I learned how to rappel..... I think belaying really helped because that like got me the trust of a lot of the people like even Corey and the grown ups and that really helped. I liked how I got to have more experience rock
climbing and how I got to climb on real rock. I learned lots more things about like belaying and a lot of new stuff with rock climbing.” (Post-trip Interview with Lathie, 3/22/00).

Lincoln increased his self-efficacy for climbing and belaying. It started with Corey highlighting his belaying ability after ‘belay school’ by stating that “Lincoln was one of the stronger belayers in the group and I think that really helped to boost his confidence” (Researcher’s Journal, 3/21/00). During the first climbing session it appeared to be important to Lincoln that his climbing achievements were recognized, as the following excerpt indicated.

Lincoln has just finished his climb and there was some encouragement and congratulations from the other group members, but he came over to me and asked me if I saw him climb. He seemed to want praise and recognition from me for his climb. (Field Notes, 3/21/06, 11:00 a.m.) This indicated that his self-efficacy was not exceptionally high at this point in the trip.

On the third day Lincoln had the chance to climb one of the harder climbs which really seemed to boost his self-efficacy. The only other participant that also climbed that route was Lathie. In his post-trip interview Lincoln clearly had a high self-efficacy for his climbing and belaying skills. When asked if he would stay in contact with any of the participants he stated,

Maybe Lathie. Me and her could probably go climbing together. Probably everybody, but Lathie in particular. She’s kind of at the same level as I am and she can do tougher stuff than the other kids can do. But they do good stuff too. It would be more easier for me to go on a trip with her that we could both do instead of me going up and having to take the rope off and going to another one so they could go up. (Post-trip Interview with Lincoln, 3/21/00).

Bee increased her self-efficacy in climbing skills over the three days. On the first day of climbing, Bee was anxious about her climb and it took quite a lot of encouragement to get her going. On the second day of climbing, she attempted a much
harder climb and persevered longer than on the first day. In her post-trip interview Bee 
explained that she felt good about her climbing accomplishments,

I didn’t like going down the rock because on my first try yesterday. I was 
looking down and it was really far up and so I kind of got freaked like I 
was going to drop. (Bee)
And how about today? (Sue)
I wasn’t scared at all.
So it was just that it was the first time that you did it yesterday?
Yeah.
So how did you feel about getting up to the top of the rock twice?
But I didn’t get up all the way.
You got up a good part of the way. How did that make you feel?
Good.
Is it something that you think you want to do again?
Yeah.
What is it about it that you like?
I don’t know I just like it because it is real rock.
Is it a challenge for you?
Yeah. It’s hard to get between the cracks and stuff.
How do you feel when you’ve done it? Do you feel good about yourself?
Yeah.
(Post-trip Interview with Bee, 3/22/00).

This interview seemed to indicate a higher self-efficacy for Bee in relation to climbing 
skills.

Mold experienced an increase in his self-efficacy in relation to climbing skills.

On his first climb Mold had some difficulty in reaching the top of the climb but he 
persevered and got there. This increased his self-efficacy for climbing as he indicated in 
his post-trip interview.

I think I really worked on my rock climbing skills because this is the first 
time climbing outdoors. It is so different from being indoors and climbing 
in a gym. It is a lot harder, and in a way it is a lot more fun. (Post-trip 
Interview with Mold, 3/22/00).

In relation to an increased social self-efficacy, the participants who clearly 
demonstrated this were Lincoln and Brad. The remaining group members stated in their
pre-trip interview that it was easy or pretty easy for them to make friends, indicating a
good level of social self-efficacy prior to the trip. Indeed Lincoln also stated that it was
pretty easy for him to make friends in his pre-trip interview but his actions did not
initially support this. However, as previously stated, it seemed that as Lincoln became
more accepted as part of the group he stopped trying too hard and let the group members
get to know the ‘real’ Lincoln, as noted by Brian.

Instead of the one ups you get to see their true side. It is no longer Lincoln
trying to one up you. He wants to show you why he knows what one of the
birds is etc. Instead of just saying ‘oh yeah I know that’ he’ll explain a
little bit more about that. And that shows that he is becoming more
comfortable with us as well. It’s not that I’ve got prove something to you,
it’s that I want to teach you something. (Interview with Brian, 3/21/00,
8:30 p.m.)

This appeared to indicate that his social self-efficacy had increased, as he became an
accepted member of the group.

Brad stated in his pre-trip interview that it was very hard for him to make new
friends and thus he demonstrated a very low social self-efficacy. This became obvious
early on in the van ride to Smith Rock when after getting into the van he spoke only to
the two adults and then fell asleep with his back to the other group members. As the trip
progressed it appeared that Brad had experienced an increase in his social self-efficacy in
relation to the group of participants on the trip. He was joining in more group activities
rather than excluding himself. On the first evening he seemed to feel more comfortable
and joined in the campfire festivities as the following excerpt indicated.

Brad really started to talk a lot and laugh with the others. They responded
well to this and included him in the conversation more and were laughing
at his jokes. Brad came into the circle more, rather than staying on the
outside. (Field Notes, 3/20/00, 7:30 p.m.)
During the first climbing session Brad made a couple of attempts to be included within a small group of participants which indicated a further increase in his social self-efficacy.

The following excerpt illustrated one such attempt initiated by Brad.

Brad came over to where Carebear, Hedgehog, and I were sitting and asked how we were doing. I was the only one who replied. He seems to be trying to interact more with the entire group but on his own terms and he’s kind of feeling out how to do that. He seems to have taken to Carebear and likes to talk to her and help her out. (Field Notes, 3/21/00).

A defining moment in Brad’s increased social self-efficacy was during the debriefing session when Mold thanked him for his help that day. “Who do I want to thank? [Pause] I’d like to thank Brad, because he was very helpful being a back up belayer. And though he didn’t really climb, he just really helped a lot.” (Mold – Field Notes, 3/21/00, 4:45 p.m.). Brad’s reaction to this recognition showed that he was completely taken by surprise, as the following excerpts indicated.

Brad just lit up at this. His face was first one of complete surprise as though he was not expecting this at all. Then he rocked back on his seat and came up beaming from ear to ear. He raised his arms as though he had just finished the New York marathon. (Researcher’s Journal, 3/22/00)

After Mold thanked him Brad responded by saying, “All I can say is A+ for you! You got more than just one A+, you got a 150 A+’s” (Brad – Field Notes, 3/21/00, 4:45 p.m.).

After this recognition and the teambuilding activity Brad seemed to feel a part of the group and was more comfortable within the group, again indicating that his social self-efficacy had increased. The impact of the teambuilding on Brad and particularly on his social self-efficacy was evident in a follow-up interview with Brad.

Remember the game that we had our hands crossed and we tried to make it into a perfect circle? Well that changed my idea about people. Why did that change it?
I’d never played games like that before with other people, I’d never had as much fun with anybody else.  
(Follow-up Interview with Brad)

As previously stated, on the morning of the third day, the group was trying to take pictures at Smith Rock. This was a situation where Brad could easily have excluded himself but he chose to join in. The anxiousness he felt about social interactions was very evident in Brad’s post-trip interview.

Is there anything that you have learned on this trip that can help you in other areas of your life, like at school or at home? (Sue)
Talk to people more. (Brad)
How will that help you?
I’ll make new friends.
Do you feel you can do that better now?
No.
I think you’ve done a great job, think about the difference between when you first got into the van to how much you are helping people and talking to them now.
But there’s one thing that bothers me.
What’s that?
I’m afraid of heights and plus I have trouble speaking.
What do you mean?
I mess up a lot when I speak.
In what way?
Sometimes I put the wrong words in the sentence. That’s my problem.
So is that why you don’t like to talk a lot?
Yep.
I don’t think you’re doing that right now do you? I think you are speaking very clearly to me.
But when I am saying really big sentences I don’t know I act kind of weird and I speak a different language.
Do you know why you do that?
It just happens.
Is that why you don’t like to talk to people a lot because you are afraid that is going to happen?
Yep.
Have you been afraid that would happen this trip?
Yep.
Has it happened?
Yeah a little.
(Post-trip interview with Brad, 3/22/00)
In addition to this, Brad was very concerned about the other group members’ opinion about him as previously stated in this excerpt from his post-trip interview.

I know that we were talking briefly up on the rock how your level of trust and wanting to play with people had changed and you said it really changed after the group [teambuilding] activity. Why do you think that was? (Sue)
We got close. (Brad)
So you really started to trust and like people more after that?
Yeah.
Do you think they felt the same way?
I don’t know.
I do, they certainly did.
You asked if they like me?
I asked if they liked you and everyone I have spoken to so far really does.
They do? I try my best to be the best person I can be.
(Post-trip interview with Brad, 3/22/00)

After being told that the other group members liked him, this information had a lasting impression on Brad and seemed to demonstrate an increased social self-efficacy as this quote from his follow up interview indicated.

Do you think you’d like to go on another trip with the same group? (Sue)
Yeah. They’d go like ‘There’s Brad’. (Brad)
So do you think you’d join in games with them and interact with them?
Yeah.
How do you think you guys worked together as a group over the trip?
(Sue)
If I wasn’t there on the trip not that many people would have this much fun you know. When I was there they had a lot of fun. They really had a lot of fun with me. I can be one of the most coolest people in the world.
(Follow up interview with Brad)

This information spurred Brad and he really interacted with the group more on the van ride back to AWL as previously mentioned. In a follow-up interview with Brad two-months after the trip he stated that during the van ride he felt more comfortable with the group.

Was there any difference in the two van trips that you took with the group? (Sue)
The only thing that was changed was that I was talking to the kids. (Brad)
Why were you talking to them more on the way back?
Just to have fun.
Did you feel more comfortable talking to them?
Yep.
Did you have fun on the trip back?
Yeah, played games and stuff.
Do you think that might help you if you go on other trips to talk to the kids more?
Same ones?
Same ones or different ones.
I’d rather speak to the ones I’ve talked to before.
(Follow-up Interview with Brad)

It is evident from the above information that Brad experienced an increase in his social self-efficacy with the group of participants on the Smith Rock climbing trip. He included himself in more group activities as the trip progressed. In his follow-up interview Brad stated that he would participate in activities with the same group of participants again. He also stated that he had come to know the other group members over the course of the three-day trip as the following excerpt indicated:

They can learn what I’m like by all the stuff that I give to them through my stories. (Brad)
How does that make you feel to share those stories with other people?
(Sue)
I show them what had been happening to me.
Do you like telling people about your stories?
Only to the people I really know.
So you must have really gotten to know those guys well?
Yeah and they got to know me too.
(Follow up interview with Brad)

However, for Brad this increase in social self-efficacy did not seem to transfer to individuals outside of the Smith rock climbing trip participants.
3) Does the inclusive adventure education experience differ for the participant with and the participants without disabilities?

This question will be answered in relation to how the experience differed for the participant with and participants without disabilities on the Smith Rock climbing trip. Each of the characteristics present in the trip will be discussed from the point of view of the participant with and participants without disabilities. The seven characteristics that will be discussed are: skill development, social interaction, teambuilding, trust, environmental awareness, personal growth and self-empowerment, and safety.

**Skill Development**

The characteristic of skill development present in the Smith Rock climbing trip was different for the participant with and participants without disabilities in relation to the technical climbing skills. This difference was primarily a function of Brad, who was the only participant with a diagnosed disability, choosing not to climb or lead belay. As a result of this choice Brad did not further develop his climbing or belaying skills. The other group members had the opportunity to further enhance his or her technical climbing and belaying skills. In fact with these group members, this development of their skills was an important aspect of the trip as stated in both the pre-trip and post-trip interviews. When asked why she decided to go on the Smith Rock climbing trip, as previously stated in research question two, Bee responded “Well I wanted to take the opportunity of going outside and rock climbing. I’ve never been outside to rock climb. I just wanted to see how hard and how easy it is” (Pre-trip Interview with Bee, 3/19/00). In his pre-trip interview, when asked what he was really hoping to learn on the Smith Rock climbing trip, Mold stated,
I want to learn a lot more. This is our first time that AWL has gone to an outdoor rock-climbing place so it’s going to be a lot different from climbing indoors. Because all the other times we have climbed indoors. We are going to learn about rappelling, and there are going to be different things that we get to do. (Pre-trip Interview with Mold, 3/19/00).

As previously stated in research question two, after the trip when asked what new things he learned on this trip Mold responded,

I think I really worked on my rock climbing skills because this is the first time climbing outdoors. It is so different from being indoors and climbing in a gym. It is a lot harder, and in a way it is a lot more fun. (Post-trip Interview with Mold, 3/22/00).

In response to the same question, Lathie stated that,

I learned a lot like rock climbing skills. One of the things was how to belay a lot better. The second thing probably would be that I learned a lot about ropes during rock climbing and I learned a lot of knots. And I learned how to rappel. (Post-trip Interview with Lathie, 3/22/00).

It seems from these quotes that learning and developing the technical climbing and belaying skills was an important aspect of the trip for the participants without disabilities. This was different for Brad who, when asked what he hoped to learn on the trip, responded “About saving the environment and nature” (Pre-trip Interview with Brad, 3/20/00). Brad did not mention wanting to learn more about climbing at any time during the trip, and chose not to participate in climbing or being a lead belayer. As such, the characteristics of skill development in relation to the technical climbing and belaying skills was different for the group members with and without disabilities.

**Social Interaction**

The characteristic of social interaction present in the Smith Rock climbing trip was different for the participant with and participants without disabilities. The nature of Brad’s disability autism, is often manifested in inadequate or inappropriate social
interactions among other factors (Hawkins, 1996). Indeed Hawkins (1996) contends that “Children diagnosed as having autism exhibit a profound inability to develop appropriate or normal social relationships with other people” (p. 113). As previously stated in research question one, the opportunity for social interaction within the whole group began once all of the participants were in the van on the way to Smith Rock State Park. During the four-hour van trip the group began the process of getting to know each other. However, during much of this time Brad either slept with his back turned to the group, sat and looked out of the window, or engaged in conversation with the adults in the van. There were brief periods of time during the van ride when Brad would allow himself to be included in the group. One such example of this was during a restroom stop at Summit Ski Area on Mt. Hood.

Susan wanted to take a photo of the kids in the snow and was getting them all in one area for this. At this point Brad was talking to me about the icicles he had found hanging off the roof of the building. I told him that Susan wanted to take a picture of the group, but he didn’t seem interested in this. In fact, he went on talking to me about the icicles and it wasn’t until Susan asked him personally to join in that he did. He still seemed a little reluctant to get in the picture. The rest of the group members were laughing and joking around and they asked Brad to join them. Susan told the group that they would have to get closer together so she could fit them all in. With this Brad joined in closer to the others and actually seemed to enjoy this. He even put his hand on Mold’s shoulder while the picture was taken. (Field Notes, 3/20/00, 10:45 a.m.).

However, right after this incident once he was back in the van with the group, Brad chose to sit and stare out of the window and did not engage in the conversation.

The van trip seemed very different for the participants without disabilities. The four hours were spent getting to know each other and to start establishing a pecking order. Four of the group, Bee, Carebear, Hedgehog and Mold already knew each other prior to this trip. Lathie and Lincoln did not know any of these four or each other prior to
the trip. Lathie had also not met Brad prior to this trip, but Lincoln had been on an AWL snowshoeing trip with Brad before. Much of the conversation for these participants during the trip centered on activities they had in common, places they had been, and activities that they liked to do.

This pattern of interaction was continued throughout the first day with Brad choosing to exclude himself from much of the interaction that was occurring. As previously stated in research question two, this appeared to gradually change during the second day and was much more evident after the evening team building activities. Indeed during the van trip back to Smith Rock State Park Brad was fully involved with the group and was initiating interactions with other group members.

Under the social interaction characteristic of this trip, the roles chosen by the participants were different. Brad, the only participant with a diagnosed disability, seemed to view himself as more of an adult, and at times took on the role of mediator between the adults and the participants. This role was noticed by the trip leaders and commented upon during interviews.

He [Brad] feels, because he’s kind of a helper, a pride at being the go between with the instructors and the students. And he’s found himself a niche even though we didn’t create it for him; he created it for himself. (Interview with Corey, 3/21/00).

Even like in the van though when they [the children] were playing around, he [Brad] tends to want to be an adult more. He likes to play that parenting role you know ‘Hey you’re not supposed to be doing that’. Brian said that he asked Brad to climb today and Brad said no. Then Brian said he wanted Brad to have a harness on just in case, and Brad said ‘Okay just in case the kids need help’. He always refers to them as kids too. So when we were in the parking lot I heard Brad say to Brian ‘So if anybody needs help then I will be there as the back-up person and help any of the kids that need help’. (Interview with Susan, 3/21/00).
The role of Brad as helper seemed more apparent when the group was actually climbing. There were incidences during both climbing sessions when Brad was very definitely acting in a helping role. “Right now three of the group are watching Brian belay Corey as he sets up the ropes for the climb today. Brad is helping Brian with the back-up belaying” (Field notes, 3/21/00). In addition to helping the adults, Brad was quick to help the other group members when he could.

The next climber on this rope is Carebear, with Mold belaying and Susan and Brad on back-up belay. Carebear was having trouble with the fisherman’s knot. Brad jumped right in to show her how to do it... Brad continued to help Carebear by showing her the good footholds (Field notes, 3/22/00, 10:40 a.m.).

These situations illustrate how Brad developed a role for himself as a helper for both the adults and other group members. It seemed as though Brad was eager to help during the climbing sessions as it gave him a definite role within the group despite not climbing or belaying.

The other group members without disabilities did not choose to take on the role of mediator or helper. That does not mean that the other participants did not help the adults or other group members when necessary or when asked. However, it was not apparent with the six other group members that it was a role that was specifically chosen.

Teambuilding

The characteristic of teambuilding present in the Smith Rock climbing trip was not different for the participant with and participants without disabilities. The sessions that were presented to the group to foster teambuilding were open to everyone and the trip leaders worked hard to ensure that all the participants were included in these activities. As previously mentioned, the teambuilding activities organized by the trip
leaders had a great impact on the entire group. This impact was not a function of
disability. After completing one of the activities the following conversation took place
during the debriefing session.

Why do you think you were able to accomplish that goal so quickly? (Susan)
It was easy and we did really good teamwork. We all worked together as
a team.
Worked together as a team?" (Susan)
We talked one at a time. And since Lathie had a really good idea about
two people from other directions touching then we went with that. (Bee)
(Field Notes, informal discussion, 3/21/00, 7:50 p.m.).

It is evident from this conversation that the group considered themselves a team during
this activity, and that all of the group members were involved in the process. Thus,
although there was some difference in the teambuilding characteristic at the beginning of
the trip it was not a function of disability, and by the end of the trip the group was
working well as a team.

Trust

The trust characteristic present during the Smith Rock climbing trip was different
for the participant with and participants without disabilities. Although all the
participants’ trust increased over the three-day trip, there was a difference between the
participant with a disability and those without. As may be expected when measuring a
factor such as trust, initially for the majority of the participants it seemed to be a function
of how much the participants felt they knew each other. As previously stated, Lathie felt
that “I think that at first none of us really knew each other so I don’t think anyone would
really be that trustworthy of them if you don’t know them” (Post-trip Interview with
Lathie, 3/22/00). The first trust checklist indicated that the participants trusted those
individuals they knew more than those individuals they did not know. As the group
interacted more and got to know each other at a different level then the level of trust changed over the three-day trip.

As previously mentioned in research question two, one factor that influenced the change in trust between participants was the act of climbing and lead belaying. For those participants that actually climbed and belayed the level of trust with other participants that also climbed and belayed increased more quickly than for those participants that did not climb. Brad chose not to climb or lead belay and as indicated in the trust checklist in research question two, the level of trust of other participants in Brad did not increase at the same time or to the same extent as with participants who did climb and belay. This was evident in the trust checklists that were completed during the first climbing session. Thus the level of trust was different for individuals with and without disabilities due to the choice of the individual with a disability not to climb or lead belay. In the post-trip interview with Lathie when asked how she felt her level of trust had changed over the three days she stated that,

> As we got to know each other and went through the activities and rock climbing. I mean we got to know each other a whole lot better. And I think belaying really helped because that like got me the trust of a lot of the people. (Post-trip Interview with Lathie, 3/22/00).

This quote by Lathie indicated that her level of trust was related directly to the activities of rock climbing and belaying. Thus for a large part of the trip Brad was excluded from this opportunity to gain the trust of other group members as he chose not to participate in the climbing or lead belaying. The teambuilding activities also provided the opportunity for the group to build more trust in each other. The trust that was developed during the teambuilding activities was not a function of disability.
Environmental Awareness

The environmental awareness characteristic present in the Smith Rock climbing trip did not seem to differ for the participant with and participants without disabilities. Each of the participants chose to be engaged in the discussions on environmental issues. There were a few instances when Brad was not as fully involved as other members of the group, but the trip leaders quickly steered him back into the group. The following situation occurred when the whole group was listening to Brian telling them about the Golden Eagles in the park and pointing out where they nested,

Brad, although not a full part of the group, is staying around with the group. There are times that he is off talking to Susan, Corey or myself and not interacting with the others. Corey has noticed this and has joined the rest of the group and asked Brad if he wanted to come and sit on the wall with him. Brad goes over and sits down next to Corey and appears to be on-task. (Field Notes, 3/20/00, 3:15 p.m.).

The trip leaders ensured that all the group members were included in and understood the activities and discussions about environmental issues. This was evident during the debriefing session after the first day of climbing. Brian had asked the group to share some things that had been learned about environmental issues that day.

Be sure that when we leave the campfire to put enough water on it to make sure it is out. (Lincoln).
These people wrote us a letter saying we didn’t put out our fire and they put a big rock in our fireplace, so we wouldn’t do it again. They wrote us a note saying they didn’t like it. And to remember to put our fire out. (Lathie).
Can somebody else tell me why you think they did those things? (Brian).
To help us learn. (Carebear).
The fire won’t spread and burn down the camp, because it is their campsite too. (Mold).
To remember to be responsible. (Bee).
And what was that other R? (Brian).
Respect.
Anything else anybody wants to add to that? What was the thing we talked about mistakes? Who can say a few words about that? (Brian).
That it is not a mistake when you learn from it, and you don’t do it again. (Mold).
Was it a mistake though that we made? (Brian).
Yeah.
But if we don’t repeat it then we have learned from it. (Brian).
(Field Notes, debriefing session, 3/22/00, 4:45 p.m.)

This discussion provides an example of how group members became aware of the impact of the actions of the group on the environment. In her post-trip interview when asked what were some things that she learned on the trip, Carebear responded, “About fires, and that you need to put them out. And you must respect the environment” (Post-trip Interview with Carebear, 3/22/00).

It is seemed that the environmental awareness characteristic present in the Smith Rock climbing trip was similar for all the participants. There was not a difference in this characteristic for the participant with and participants without disabilities. The participants may have gained slightly different experiences but this was not a factor of disability, but seemed to be a factor of previous experience and knowledge.

**Personal Growth and Self-empowerment**

The characteristic of personal growth and self-empowerment present in the Smith Rock climbing trip was experienced by all of the participants. The impact of this experience differed among the participants but it did not seem to be an obvious function of disability. During the post-trip interviews a number of the participants expressed how the trip had impacted their lives. In response to the question “Is there anything you learned on this trip that will help you in other areas of your lives?” Mold stated that “Probably to give it my hardest and to really work on what you need to improve on” (Post-trip interview with Mold, 3/22/00). In response to the same question, Lincoln replied “Maybe to talk more and to listen to other peoples’ ideas” (Post-trip interview
with Lincoln, 3/22/00). Lathie when asked the same question responded that “I think it will help me getting along with other people, working together, having trust in some people. I think that would help a lot” (Post-trip interview with Lathie, 3/22/00). Brad also responded that “Talk to people more... I’ll make new friends.” (Post-trip Interview with Brad, 3/22/00). Carebear when asked the same question responded,

Is there anything that you have learned on this trip that can help you in other areas of your life, like at school or at home? (Sue)
Talk to people more. (Brad)
How will that help you?
I’ll make new friends.

Like when we did that thing together where all the people put their nose on the cup. Like it tells you to focus on that skill that you are working on. (Carebear)
How did you solve that problem? (Sue)
We worked together and we each joined in our ideas. And it was put together like a puzzle.
So how do you think that can help you?
That can help me in my life figuring things out and problem solving. If we all get together then we can figure out the problem. Or like if you just take all the clues you can solve the mystery. (Post-trip Interview with Carebear, 3/22/00)

In addition to the interviews, the field notes indicated that each of the participants experienced some form of personal growth and self-empowerment, as was stated in the previous research questions.

Safety

The characteristic of safety present during the Smith Rock climbing trip seemed to be different for the participant with and participants without disabilities. Safety was an issue that was clearly at the forefront with the trip leaders during the majority of the trip. During the climbing and belaying sessions there were very clear safety rules that were stressed and reinforced with the participants.
Brian is covering the role of the back-up belayer and the safety issues with climbing. He is going over the commands, equipment checks, and the falling command. Before climbing Brian conducted an equipment check on Mold and Lathie and on Susan too. This was good for the kids to see as it reinforces the safety aspect of the climb that they must remember to check. (Field Notes, 3/21/00, 10:05 a.m.).

This aspect of the safety characteristic was different for the participant with and participants without disabilities. This was probably due to the choice Brad made not to climb or lead belay. As such, Brad was aware of the safety issues stressed by the trip leaders during the instruction, but he did not experience the reinforcement of these issues in the same way as the other participants. However, it seemed as though Brad was very aware of the safety issues and rules explained by the trip leaders. There were instances where Brad showed a very strong concern for the safety of the other participants.

Carebear has just left where I am sitting and walked down the hill to get something to lie on because she is tired. Brad took off after her down the hill. At one point when Carebear needed to step around some equipment and down a step, Brad offered her his hand to help her and she accepted his help. Once they came back up to where I was sitting I heard Brad ask Carebear “Do you know why I followed you down the hill. It was to make sure the rock didn’t hit you because I have a helmet on” (Field Notes, 3/21/00, 12:30 p.m.).

Throughout the trip he has referred to the others as the kids and tells us how important it is for us to keep the kids safe. There was one point yesterday when Carebear was taking a picture of Lathie. Brad was standing next to her but slightly up the rock. When Cory asked him what he was doing, he stated that he was protecting Carebear from any rocks that may fall. (Researcher’s Journal, 3/22/00).

This concern demonstrated another way that Brad took on the role of helper within the group.

The difference in this characteristic for the participant with and participants without disabilities again seemed, to a large extent, to be a function of the choice to climb and lead belay which in turn could be a function of his limited self-efficacy in these
skills. As Brad chose not to participate in these activities he did not gain the same experience as the group members without disabilities. At the same time, Brad’s helping role provided him with an experience that demonstrated he thought of the safety issues in a way that the other group members did not.
CHAPTER 5

DISCUSSION, CONCLUSION, IMPLICATIONS

AND RECOMMENDATIONS

This chapter provides a discussion of the findings from the Adventure Without Limits' Smith Rock climbing trip. The discussion of the findings will be presented by research question. To avoid repetition of information, research questions one and three are combined in the discussion and will be presented first, followed by research question two. Following this discussion are the conclusions of the study, the implications for the field, and recommendations for future research.

Characteristics Of An Inclusive Adventure Experience And How They Differed For The Participant With And Participants Without Disabilities

Skill Development

The participants experienced seven different characteristics on the Smith Rock climbing trip. The first characteristic was skill development in relation to camping skills and technical climbing and belaying skills. The participants improved their ability in the three skill areas, which supports the finding from previous literature (Anderson, Schleien, McAvoy, Lais, & Seligmann, 1997; Rynders, Schleien, & Mustonen, 1990). The majority of the participants valued this characteristic especially in relation to the technical
climbing and belaying skills. Indeed this was the primary reason for attending the trip for six of the seven participants. Brad was the only participant who did not choose to attend the Smith Rock climbing trip to further develop technical climbing and belaying skills. It is to be expected that the participants value developing their skills as the group was not an ‘in situ’ group that had contracted with Adventures Without Limits (AWL) for an inclusive adventure experience. The group had deliberately chosen to participate specifically in the Smith Rock climbing trip and knew what was involved in the trip prior to registering. It can be assumed from this that the majority of the participants enjoyed climbing and wanted to further improve their ability in technical climbing and belaying.

Skill development is often cited as one reason for participation in adventure education (Csikszentmihalyi & Csikszentmihalyi, 1990). As previously stated, Brad was the exception among the participants in that he did not choose to attend the trip to improve his technical climbing and belaying skills. Throughout the three-day trip, the only involvement Brad had in the technical climbing and belaying was during ‘belay school’ and acting as a back-up belayer in both climbing sessions. On more that one occasion Brad stated that he was afraid to climb or be the lead belayer. This lack of self-efficacy in these areas and the fear of participation are supported by Bandura (1977). On the Smith Rock climbing trip, Brad’s choice not to participate in the technical climbing or lead belaying was respected by the trip leaders. Although the leaders did try to gently encourage Brad to climb or lead belay, they did not force him to attempt these activities. This reflected the adventure education philosophy of ‘challenge by choice’ (Schoel, Prouty, & Radcliffe, 1988).
The characteristic of skill development was different for the participant with and participants without disabilities. This difference was manifested in Brad’s choice not to participate in the technical climbing or lead belaying. As Brad was the only participant with a diagnosed disability on the trip it clearly meant that his experience would differ from the participants without disabilities. Brad did not have the same opportunities to further develop his technical climbing and belaying skills as the other group members did. The other six participants felt that they had improved their technical climbing and belaying skills during the three-day trip.

Although valued by some of the participants, the camping skills were not considered as important as the technical climbing and belaying skills. For two of the participants, Bee and Carebear, this was their first experience camping. The twins gained knowledge in this area and felt they had improved their skills over the three-day trip. The other participants had experienced camping before and had basic skills, but they felt they developed these skills further whether it was on a physical or cognitive level. Improved skills in campfire cooking, building and extinguishing campfires, keeping warm at night, and the ‘Leave No Trace’ philosophy were experienced by all the participants. The camping skills were different for each of the participants but this was considered a function of previous experience and not disability.

Social Interaction

The second characteristic present on the Smith Rock climbing trip was social interaction, which is considered an aspect of interpersonal relationships present in adventure education (Priest, 1990). Due to the nature of an adventure experience, social interaction occurred as the participants and trip leaders were in close proximity for
extended periods of time. Throughout the trip there were specific situations that were
designed by the leaders to foster social interaction such as the 30-second game, preparing
and cooking food, pitching the tents, and the teambuilding activities. In addition, there
were opportunities for informal social interaction such as during mealtimes, campfires
and free playtime.

The goal of ‘social integration and an awareness of those around you’ is important
to AWL as it is listed as the second goal for all trips in the Adventures Without Limits
Staff Training Manual (AWL, 1999b). Adventures Without Limits is an organization that
specializes in offering adventure experiences for individuals with and without disabilities
in an inclusive setting. Inclusion is a philosophy that had the purpose of providing
opportunities for all individuals to develop the skills and attitudes required to live, learn
and work together in society (Stainback & Stainback, 1990). Within this study the
participants developed a more positive attitude toward each other over the course of the
three-day trip. This was evident in the nature of the social interactions becoming more
positive and meaningful as the trip progressed. Through the social interaction that
occurred during the trip, the participants seemed to look beyond Brad’s disability and
begin to discard negative stereotypes toward him. This indicates that AWL had achieved
this goal cited in the literature for inclusive adventure education programs (Schleien,
McAvoy, Lais, & Rynders, 1993). These findings supported previous findings in the
literature (McAvoy, Schatz, Stutz, Schleien, & Lais, 1989; McAvoy & Schleien, 1988;
Rynders, Schleien, & Mustonen, 1990; Sable, 1995).

The characteristic of social interaction proved to be different for the participant
with and participants without disabilities. The main reason for this difference was
considered to be the nature of Brad’s disability. Autism is often manifested in inappropriate social interactions (Hawkins, 1996), which can lead to the alienation of the individual with autism within a group. Brad did exhibit some behaviors that initially seemed to alienate the group from him. When Brad becomes anxious or uncomfortable in a situation he begins to talk about blowing things up, a fantasy alien world, or talks only to the adults present. This behavior was extremely prevalent throughout the first day, but decreased through the second and third day of the trip. In conjunction with this decrease in Brad’s inappropriate social interactions, there was an increase in positive social interactions between him and the other group members. This indicated that the group had started to achieve the goal of looking beyond a disability at the individual concerned during the course of the trip (Schleien et al, 1993). However, on the one-month follow-up Brad had decreased in his average score from other participants although it was still higher than for the first sociometric. This would seem to indicate that the effects of the increased social interactions with Brad did not last for some of the group members.

It is argued within this study that the nature of Brad’s disability played a factor in his choosing the role of helper or mediator within the group. Brad commented on the fact that he is different from other ‘kids’ and that he tries to be the best person he can be. To compensate for feeling different Brad assumed the role of helper in order to find an accepted place within the group, providing him with a purpose for being there. An aspect of this role for Brad is to act as a mediator between the adults and the participants. It seemed that Brad was initially more comfortable engaging in social interactions with the adults on the trip. It is proposed that this level of comfort materialized from past
experiences with AWL staff that these staff, who has experience working with individuals with disabilities, had not alienated Brad when he demonstrated socially inappropriate behaviors. In addition, research on social interaction and autism has found that children with a type of social impairment termed “active but odd” approached adults more than same-age peers (Wing & Gould, 1979). However, as stated by Wing and Gould (1979), this interaction from the child was often to ‘indulge their own circumscribed interests’. This supports the nature of the interactions from Brad at the beginning of the Smith Rock climbing trip, however, by the end of the trip Brad was initiating interaction with his same-age peers.

Teambuilding

The third characteristic of the Smith Rock climbing trip was teambuilding. On the second evening, Susan conducted a teambuilding session with the group using “Touch My Can” and ‘Human Knot’ initiatives. This session had a great impact on the group in many different levels. As will be explained in more detail in the next section, the teambuilding activities increased the level of trust between the group members, which supports findings in the literature in relation to increased trust during adventure education activities (Anderson & Frison, 1992; Moore, 1986). The teambuilding activities provided an opportunity for the group to focus on teamwork, cooperation, communication, and problem solving skills which are aspects of the interpersonal relationship within adventure education (Priest, 1990). During the teambuilding activities all the members of the group seemed to feel comfortable with and supported by the rest of the group allowing them to take a leadership role or offer suggestions for solving the problem. This was the first time that some of the participants really became involved with the whole
group. Brad seemed to feel ‘safe’ emotionally within the group, which was evident in the way he immersed himself fully in the activities. He even offered a few strategies to solve the problem, and although the group did not seem to pay much attention to these suggestions, Brad kept involved in the activity. In addition, during these activities different group members took a leadership role that they had not prior to this. Bee, Hedgehog, and Lincoln all assumed leadership roles which seemed to indicate that they felt comfortable and safe within the group. According to Joplin’s (1981) model of adventure education, the group was at the support stage during these activities providing an emotionally secure and safe environment for all of the participants. The impact of these activities on the group was evident from comments during the post-trip and follow-up interviews. The participants felt that the activities allowed the group to get to know each other, work together, cooperate, communicate, and become “a family”.

The impact of these activities seemed important to the cohesiveness of the group. Thus, it is contended that some teambuilding activities conducted earlier in the trip would have provided the participants with an opportunity to bond sooner and may have resulted in increased group cohesion. This contention is supported in the literature with the sequencing model proposed by Bisson (1997). In the debriefing session and the post-trip interviews some participants commented that they would not have been as comfortable doing these activities earlier in the trip. However, the leaders could have sequenced the activities to start to build more group cohesiveness and to ensure that the participants felt comfortable with what occurred. Indeed, the trip leaders stated that they had planned on conducting more teambuilding activities earlier in the trip but these were eliminated when time became short.
The characteristic of teambuilding was not different for the participant with and participants without disabilities. The impact of the teambuilding activities was experienced by all of the participants.

**Trust**

The fourth characteristic on the Smith Rock climbing trip was trust. Due to the nature of a trip that focussed primarily on developing technical climbing and belaying skills, trust was an important characteristic. Other group members belayed the participants as he or she climbed. Through this process the participants developed an increased level of trust in the other group members who took an active role in belaying. In addition to the climbing and belaying skills, the participants developed increased trust in the other group members through the teambuilding activities on the second evening, and through social interactions. It is argued here that the climbing and belaying session on the second day enabled the majority of the participants to develop an increased level of trust before the teambuilding session. However, for Brad the trust was developed during the teambuilding activities and the social interactions.

The trust checklist indicated that Brad, Hedgehog, and Lincoln experienced the largest increases in overall trust scores between the first and sixth checklist. Brad’s scores did not increase very much until after the teambuilding activities. This was the first time that the group had really interacted with Brad in a situation that involved trust. After the teambuilding session Brad’s overall score increased greatly. Hedgehog’s and Lincoln’s scores increased slightly after the first day of climbing. However, both still received a score of one from Brad until after the teambuilding session. Again, this was
the first time that Brad had interacted with the other group members in a situation that involved trust.

In the one-month follow-up checklists, Brad’s overall score had decreased the most among all the group members. In particular, Bee and Hedgehog decreased their level of trust in Brad the most over this period. It is felt that due to Brad’s increase in trust coming from the teambuilding activities that it was not as lasting as the trust developed through climbing and belaying. The increased trust developed during this trip supported previous findings in the literature related to the impact of adventure activities on participants’ trust (Anderson & Frison, 1992; Moore, 1986). Trust is an important aspect of adventure education and is a component of the interpersonal relationship as defined by Priest (1990). The trust characteristic was different for the participant with and participants without disabilities on the Smith Rock climbing trip. Brad chose not to climb or act as lead belayer during either of the climbing sessions. Brad did not trust in his ability to belay other participants during the climbing sessions. Due to this Brad did not develop trust in the other group members and vice versa until after the teambuilding activities on the second evening. It is argued here that an opportunity to participate in teambuilding activities earlier in the trip may have impacted Brad’s level of trust in the other group members sooner.

Environmental Awareness

Environmental awareness was the fifth characteristic present on the Smith Rock climbing trip. It is listed as one of the goals for AWL trips (AWL, 1999b). During the trip there were instances of formal and informal instruction in environmental awareness as mentioned in the previous chapter. It is important to include this characteristic in an
activity that takes place in the natural environment. The ‘Leave No Trace’ philosophy was clearly important to the trip leaders and imparted to the group members through activities, education, and role modeling. With an increase in adventure activities that use the natural environment, fostering responsible environmental stewardship is a crucial ethical aspect of adventure education programs.

The environmental awareness characteristic did not differ for the participant with and participants without disabilities on the Smith Rock climbing trip. It was evident in the debriefing session on the afternoon of the second day, and through the actions of the participants, that the leaders had begun to foster an awareness of responsible environmental stewardship.

**Personal Growth and Self-empowerment**

Personal growth and self-empowerment was the sixth characteristic present on the Smith Rock climbing trip. This characteristic was listed as a goal for AWL trips (AWL, 1999b). The personal growth and self-empowerment characteristic occurred throughout the three-day trip, and was a factor in the characteristics previously discussed. Throughout the trip it was evident from the observation and interviews that the participants had experienced a positive improvement in this area. This improvement supported previous findings in the literature base (Anderson, Schleien, McAvoy, Lais, & Seligman, 1997; Meier, 1978; McDonald & Howe, 1989; Rohnke, 1986; Young & Candrell, 1984). The improvement observed had both a separate and a shared meaning for the participants. The shared meaning was the growth the participants experienced in becoming a more cohesive group, and learning about working with individuals of different abilities over the course of the three day trip. The separate meaning was the
growth that the group members experienced personally through the activities each participated in.

An important aspect of adventure education activities is that the participants transfer what was learned from the experience to other areas of his or her life (Gass, 1990). The leaders on this trip on a number of different occasions facilitated this transfer. The trip leaders allowed the participants to set goals for the experience, used a variety of experiences, put more responsibility for learning on the participants, and debriefed the experiences. These factors were consistent with those provided by Gass (1990) that are used to enhance transfer from an adventure education experience.

The characteristic of personal growth and self-empowerment present in the Smith Rock climbing trip was experienced by all of the participants. Although there was a difference in what each participant gained in relation to this characteristic, it was not considered to be a function of Brad’s disability. It was evident through the observations and interviews that Brad made great improvements in personal growth and self-empowerment. These gains were in part due to the nature of Brad’s disability specifically in relation to the gain in appropriate social interactions. However, the other participants also made improvements in their personal growth and self-empowerment. These improvements were considered to be a function of previous experience and self-efficacy rather than disability.

Safety

Safety was the final characteristic present in the Smith Rock climbing trip. This is an important characteristic of any adventure experience (Priest & Gass, 1997). The leaders achieved a physically and emotionally safe environment in a manner that did not
detract from the participants’ enjoyment. Instead, the participants learned valuable lessons regarding safety in a variety of situations. This was evident during the debriefing session on the afternoon of the second day and during the two climbing sessions. Climbing is a high-risk activity and thus the emphasis on safety was very important on this trip. The majority of the participants took heed of what they were told regarding safety issues while climbing and frequently conducted safety check on themselves and each other prior to climbing or belaying. Brad did not climb or belay and as such, although he was aware of the safety rules, he did not have the opportunity to physically practice these to the same extent as the other participants.

In an inclusive environment emotional safety is important. The leaders ensured the emotional safety of all participants through emphasizing respect and modeling a supportive attitude toward all participants. The level of emotional safety developed by the group members over the three-day trip was evident in the increased social interaction experienced toward the end of the trip, such as the van ride back to AWL.

The characteristic of safety differed for the participant with and participants without disabilities. The physical safety aspect differed due to Brad’s choice not to climb or take the role of lead belayer. The consequence of this action was that Brad did not have the opportunity to reinforce the safety rules and techniques through practice. The other group members had multiple opportunities to reinforce these rules and techniques during the two climbing sessions. The emotional safety did not differ for the participant with and participants without disabilities.
Observable Differences in Group Dynamics, Trust, Social Relations and Social Self-efficacy

Prior to discussing these differences, it is considered helpful to situate the discussion in relation to the participants' social self-efficacy and social expectations prior to the Smith Rock climbing trip. As stated in chapter four, six of the seven participants (Bee, Carebear, Hedgehog, Lathie, Lincoln, & Mold) felt that it was easy, pretty easy or not that hard for them to make friends, whereas Brad stated that it was difficult for him to make friends. In addition, the same six participants stated that they expected to or would probably make new friends on this trip. Brad stated that he did not think he would make new friends on this trip. From this information it is argued that Bee, Carebear, Hedgehog, Lathie, Lincoln and Mold have high social self-efficacy, whereas Brad has low social self-efficacy.

Due to the inclusive nature of the Smith Rock climbing trip the attitude of the participants toward individuals with and without disabilities was important to consider. Six of the seven participants (Bee, Carebear, Hedgehog, Lathie, Lincoln, & Mold) were supportive of the inclusive nature of the trip. Brad was the only participant who raised a concern by stating that he would worry about any individuals with disabilities on the trip. This was an interesting statement as Brad was the only participant with a diagnosed disability on the trip. However, as previously stated Brad hears conflicting opinions about whether or not he has a disability from his parents. Thus it is argued that the participants were generally supportive of the inclusive nature of the trip.
Group Dynamics

The difference in the group dynamics will be discussed in accordance with the four themes that emerged: first meeting, getting to know each other, teambuilding, and support/help.

First Meeting

Data from the first meeting indicated that the group was at the forming stage according to Tuckman (1965) and the need for inclusion as proposed by Schultz (1958). The level of social self-efficacy and the expectations of the participants in relation to making friends seemed to be evident with the ease at which the five participants who met at the AWL site bonded. Bee, Carebear, Hedgehog, Lathie, and Mold seemed to find it easy to make friends with each other right away. The four that knew each other prior to the trip accepted Lathie into their group quickly. By the time the other two participants joined the group, these five had become closer.

Although Lincoln stated that it was pretty easy for him to make friends, this was not evident during the first meeting. Lincoln’s actions during the van ride to Smith Rock State Park seemed to slightly alienate him from Bee, Carebear, Hedgehog, Lathie, and Mold, rather than allow Lincoln to make new friends. During this van ride, Lincoln seemed to be trying to prove himself to the group members rather than letting them get to know the real him. The question as to whether this lack of effective social skills was a function of home schooling and the lack of opportunities for social interactions was raised. However, in the post-trip interview Lincoln stated that he had plenty of social interactions with same age peers. By the end of the van ride to Smith Rock State Park, Lincoln had not yet managed to really break into the ‘inside group’ but he certainly was
trying. The actions of Lincoln seemed to indicate that he was focusing on the need for inclusion and affection during this stage of the trip as outlined by Schultz (1958). As previously mentioned, Brad’s behavior on the van ride made it evident to the group that he was not interested in making friends at this time. This is in line with an individual with low social self-efficacy in that little energy is spent accomplishing the task (Bandura, 1997).

Getting To Know Each Other

Over the course of the three-day rock-climbing trip the group underwent the ‘getting to know each other’ process. During this time the group moved through the forming, storming, norming, and performing stages of group dynamics as proposed by Tuckman (1965) and the need for affection and control as proposed by Schultz (1958). This process started when the participants first met. After the can ride it was evident that there was an ‘inside group’ of Bee, Carebear, Hedgehog, Lathie, and Mold, and two individuals (Brad and Lincoln) who were not part of this group. The activities on the afternoon of the first day did not seem to help facilitate Brad’s or Lincoln’s acceptance into the ‘inside group’. During dinner and the campfire that evening they both relaxed a little more and joined in with the other group members. This seemed to break the ice a little and allow both Brad and Lincoln into the ‘inside group’ a little more. Indeed, as previously stated, Lathie saw these times a ‘good bonding time’ for the group. At this point it seemed that the group was moving through the forming and storming stages (Tuckman, 1965), while working on the need for inclusion and affection (Schultz, 1958).

The climbing session on the second day was an important time in the majority of the group ‘getting to know each other’. It appeared as though the group had moved into
the norming stage (Tuckman, 1965) while still working on the need for inclusion and affection (Schultz, 1958). This time allowed Lincoln to break into the ‘inside group’ as was evident with the increased social interactions between him and the other group members after this session. Lathie, who was a respected and accepted member of the group, chose to publicly thank Lincoln for his help and support during the day. This recognition from Lathie assisted Lincoln’s acceptance into the group. However, through his choice not to climb or lead belay, Brad did not have as much of an opportunity to interact with the other group members during this session. As such he did not seem to make much progress breaking into the ‘inside group’.

The teambuilding activities had a great impact on the ‘getting to know each other’ process, as it was the first time that the entire group had participated in an activity together. The trip leaders and participants commented upon the positive impact of these activities on the group cohesiveness. This impact will be discussed further in the next theme. In addition to the teambuilding activities, the campfire was again a time where the group cohesiveness was evident. The climbing session on the third day indicated that the group was more comfortable with each other. The mood was more lighthearted with the participants laughing and joking around with each other. In addition there was an increased level of support and help during this time which indicated a more cohesive group. This will be elaborated upon in a subsequent theme. During this time the group had moved into the performing stage (Tuckman, 1965) and were working on the need for affection (Schultz, 1958).

Finally the van ride back to AWL indicated that the group had become a more cohesive unit. During this van ride, Brad chose to interact with the other group members
for the entire time. Lathie chose to talk to Brad and Lincoln who were sitting in front of her. Hedgehog and Mold also interacted with everyone on the van. This interaction was in stark contrast to the van ride to Smith Rock, everyone was involved and no-one seemed to feel the need to prove himself or herself to the other group members. This increased cohesiveness of the group supports previous findings in the literature in relation to the impact of adventure education and cooperative activities (Anderson & Frison, 1992; Johnson & Johnson, 1997).

Teambuilding

The teambuilding activities that were conducted on the second evening had a great impact on the group cohesiveness and individual group members. These activities allowed the group to interact with, and begin to see each other, in a different way. The process of solving the initiatives enabled the group members to share the leadership role, cooperate, communicate, offer suggestions and trust each other in a way that had not occurred previously. At this point it appeared that the group had moved into the performing stage (Tuckman, 1965) and were working through the need for control (Schultz, 1958). In addition, the teambuilding session seemed to help change some participants’ opinions of and attitudes towards other group members as were evident in the trust checklists and sociometric sheets. This positive change supports previous findings in the literature (Anderson & Frison, 1992; McAvoy, Schatz, Stutz, Schleien, & Lais, 1989; McAvoy & Schleien, 1988; Rynders, Schleien, & Mustonen, 1990; Sable, 1995).
Support/Help

The change in the level of support or help between the group members over the three-day trip seemed to indicate that the group had become more cohesive and moved through four of the five stages of group dynamics proposed by Tuckman (1965). The first day and a half seemed to indicate that the group was in the forming and storming stages (Tuckman, 1965), with the majority of the group working on the need for inclusion and affection (Schultz, 1958). During this time the group members only seemed to offer support or help to other participants if it was asked for or if it was obvious that the participant was having difficulty with the task. This level of support changed after the debriefing session on the second day, when the participants were offering more support or help to other group members without having to be asked or without the participant appearing to be in difficulty. This would seem to indicate that the group was moving through the norming stage and approaching the performing stage (Tuckman, 1965) and focusing on the need for affection (Schultz, 1958). Indeed the teambuilding activities on the evening of the second day, as previously mentioned, indicated that the group was moving into the performing stage according to Tuckman (1965), while working thorough the need for control (Schultz, 1958). This was more evident during the second climbing session when the participants were more supportive toward each other. This supports the contention of Johnson and Johnson (1997), that cooperative groups promoted caring, mutual commitment, and cohesion among group members. However, there were obvious times when certain group members were not being supportive to other members even though the group as a whole seemed to have reached the performing stage. This was
evident when Bee did not offer support or encouragement to Carebear when she was stuck on the same climb that Bee had just successfully completed.

The sequencing of the activities on the trip influenced the change in the group dynamics on the Smith Rock climbing trip. The sequence of such activities which moved from activities designed to allow the group get to know each other, to personal challenge activities, to group challenge activities, is supported by sequencing models proposed by Robb and Ewert (1987) and Roland and Havens (1983). Both of these models focus on the sequencing of adventure activities when working with individuals with disabilities. However, it does not fully support the model proposed by Bisson (1997) which places the personal challenge activities after the group challenge activities. Research related to Bisson’s model indicated that the sequencing used in the model had a direct effect upon group cohesion. Thus, although some of the literature supports the sequencing used on the Smith Rock climbing trip, there is also contradictory literature to support a slightly different sequence. Further research is needed in this area, especially with sequencing adventure activities for inclusive groups.

Trust

The trust of the group members toward each other increased during the three-day Smith Rock climbing trip. Initially it seemed that the participants rated the other group members they knew the most, highest on the trust checklists. After the first evening the participant ratings had not changed too much indicating that the evening activities had not impacted the level of trust between the group members. During both of these checklists Brad received the lowest overall scores from the other group members, indicating a lower level of trust in him from the group. In addition, Brad gave the lowest
scores to the majority of the other group members. These findings were congruent with previous findings in the literature related to popularity and trust (Wentzel, 1991). The first climbing and belaying session seemed to have an impact on some of the participants’ level of trust for other group members. It appeared that the group members who increased their level of trust had experienced that participant belaying or supporting them during the session. Brad did not participate in the climbing and as such did not have any of the group members belay him. After the climbing session Brad did not change his level of trust for any of the group members. Although his scores did increase during the climbing session, Brad still received the lowest overall scores from the other group members. One interesting event that occurred during this climbing session was Carebear asking Bee if Susan could belay her rather than Bee while she was in the middle of a climb. This event did not impact the level of trust between the two twins as may have been expected.

The teambuilding activities seemed to have a great impact on the level of trust between all of the group members, as indicated in the statistical analysis of the trust checklist. After the teambuilding the trust scores increased with most participants scoring five. The only exception was that Brad received a score of four from Bee, Hedgehog, and Lincoln. Therefore, it seems obvious that the teambuilding greatly impacted the trust of the group members. These activities were the first time the whole group interacted in a situation that required trust. This finding supported the contention that cooperative peer friendships and social acceptance by peers promotes trust development (Bernarth & Feshbach, 1995). This was carried on into the next day of climbing, where the scores for each participant remained high (four or five on the trust
checklist). Again during both of the checklists completed on the third day Brad, although his scores had increased from the third checklist, still received the lowest overall score. This indicated that the other group members had increased their trust in Brad but not quite to the same extent as for other group members, which further supported pervious findings in the literature (Wentzel, 1991). This increased level of trust maintained for most of the participants one-month after the trip, with the scores between three and five. However, Brad’s overall scores decreased at the one-month follow-up checklist. This decrease in trust may be due to Brad not belaying the other group members during the climbing sessions.

The level of trust developed for all of the participants over the course of the three-day trip. The activities that seemed to impact this the most were the teambuilding session, and climbing and belaying sessions. Brad seemed to increase his level of trust the most in the group over the three-day period and this was maintained one-month after the trip. Although the other group members increased their level of trust in Brad over the three-day trip he still consistently received the lowest overall score from the group, indicating that he did not rate as high as other group members.

Social Relations

The social relations between the group members increased over the three-day rock-climbing trip. The first sociometric sheet was completed on the afternoon of the first day so the group had some time to interact and begin to get to know each other. It was evident from the scores on this sheet that five of the seven participants (Bee, Carebear, Hedgehog, Lathie, & Mold) rated each other highly in social relations (the desire to play). The other two participants (Brad & Lincoln) received mixed scores from
these five. This seemed to indicate that the group was in the forming stage (Tuckman, 19665). Lincoln gave all the other group members the highest rating whereas Brad gave everyone except Lincoln the lowest rating. As with the trust checklist Brad received the lowest overall score from the group.

The activities on the first evening seemed to increase some level of social relations between the group members as indicated in the scores on the second sociometric sheet. This indicated that the group had moved into the storming, and perhaps norming, stage (Tuckman, 1965) while working of the need for inclusion and affection (Schultz, 1958). However, after the teambuilding activities on the second night the scores on the sociometric sheet greatly increased. Indeed, the statistical tests indicated a significant difference in the sociometric scores after the teambuilding session. All of the group members, with the exception of Lathie who still received a one from Brad, received a score of four or five. It was not clear why Brad only gave Lathie a score of one on the sociometric sheet, and he would not elaborate on this point in his post-trip interview. As with the trust checklist, Brad dramatically increased his scores from a one to a five for six of the seven participants. This was the first time that Brad had really fully participated in any group activities. This increase in social relations continued during the two sociometrics completed on the third day. During each of these sheets Brad did not receive the lowest overall score from the rest of the group. This indicated that by joining in the teambuilding activities Brad had allowed the group to get to know him better and thus increased their desire to want to play with him. This increase in social relations seemed to be congruent with Johnson and Johnson’s (1997) findings that cooperative groups increased social skills.
One-month after the trip the level of social relations had decreased for some participants Hedgehog, Lathie, and Lincoln, but had maintained for Brad and Mold. Thus Brad, who had indicated in his pre-trip interview that it was hard for him to make friends, certainly felt differently at the end of the three-days and one-month after the trip. Indeed in his follow-up interview Brad indicated that this was the first time he had made friends on a trip, and that he would want to participate in another AWL trip with the same individuals. However, Brad’s and Lincoln’s overall score had decreased during the one-month period. This may be due to these individuals having no further contact with the other group members during this time. Bee, Carebear, Hedgehog, Lathie and Mold had some contact with each other during the one-month period which may have influenced the sociometric ratings.

Self-efficacy

The participants seemed to increase their self-efficacy in two areas during the Smith Rock climbing trip: technical climbing and belaying skills, and social self-efficacy. Six of the seven participants indicated that they had increased their self-efficacy in technical climbing and belaying skills. The technical climbing and belaying self-efficacy would be developed through all four sources of self-efficacy information. The participants achieved mastery information in successfully attempting climbing and belaying. The vicarious information was available through watching other participants attempt different climbs and belaying other group members. Other group members, trip leaders, and other climbers provided the verbal source of self-efficacy information during the two climbing sessions. The participants gained self-efficacy information through their physiological responses as they climbed and belayed.
Carebear and Bee overcame their fear of heights during the two climbing sessions and persevered with climbing even when it was difficult for them. This indicated an increase in self-efficacy as they persevered longer on more difficult tasks than previously (Bandura, 1997; Pajares, 1997). Lathie and Lincoln had strong climbing skills prior to the trip and further improved these skills. During the two climbing sessions they both attempted harder climbs which indicated an increased self-efficacy in these skills according to Bandura’s theory (1997). Mold and Hedgehog both indicated an increase in their technical rock climbing skills which was evident in their increased success over the two days, and the fact that they both persevered while on difficult climbs. According to Bandura’s theory (1997), this increased success and perseverance indicated an increased self-efficacy in technical climbing skills during the Smith Rock trip for Hedgehog and Mold. Brad did not appear to increase his self-efficacy in his technical climbing or belaying skills as he chose not to climb or lead belay during either of the climbing sessions. He could have gained an increase in self-efficacy through vicarious and verbal sources of information. However, in his post rip interview this did not appear to have increased his self-efficacy for climbing as Brad was still afraid to climb. The choice reflected a low self-efficacy initially as individuals generally avoid activities about which they have little confidence (Bandura, 1997; Pajares, 1997). Brad did back-up belay frequently during these sessions, he was already confident in his ability to perform this skill and thus had a high self-efficacy prior to the trip.

Five of the participants (Bee, Carebear, Hedgehog, Lathie, & Mold) seemed to have a high social self-efficacy at the beginning to the trip, and this continued throughout the three-days. Lincoln also stated in his pre-trip interview that it was easy for him to
make friends and therefore had a high social self-efficacy. Initially Lincoln’s actions did not indicate that he made friends easily as he was alienating the other group members to a certain degree by his attempts. However, his high social self-efficacy allowed Lincoln to persevere at the task of making new friends even when it did not occur right away. This perseverance is congruent with a high social self-efficacy as postulated by Bandura, (1997).

Brad, on the other hand, stated that it was difficult for him to make friends, and thus he seemed to have a low social self-efficacy prior to the trip. Initially, Brad’s interactions with the other group members indicated this low social self-efficacy. However, as the group went through the ‘getting to know each other process’ Brad became more comfortable with the other group members and began to interact more. This indicated an increase in his social self-efficacy according to Bandura’s theory (1997). Two important events occurred for Brad during this trip that really seemed to impact his social self-efficacy. Being thanked by Mold during the debriefing session and the teambuilding activities seemed to increase Brad’s social self-efficacy within this group. After these two events Brad initiated and joined in more interactions with the other group members. This increase was very evident during the van ride back to AWL when Brad interacted with the four other group members for the entire ride back. This increase in social self-efficacy for Brad was maintained for a period of at least one-month after the trip, but did not seem to transfer outside of the participants of the Smith Rock climbing trip.
Conclusions

The Smith Rock climbing trip had a positive effect on the group dynamics, trust, social relations, and self-efficacy of the participants. Over the course of the three day trip the seven participants became a more cohesive group as they ‘got to know’ each other better. The group moved from being divided into two smaller groups to one whole group. The technical climbing and belaying sessions, dinnertime, campfire activities, and the teambuilding session all had an impact on group cohesiveness. This change was evident in the increased trust, social relations, and support/help between the participants, and the social interactions on the van ride back to AWL. The teambuilding session seemed to have a great impact on the participants. It allowed the group to interact with and view each other in a different way. The trust and social relations between the group members increased immediately after the teambuilding session. The teambuilding had a positive and enduring impact on the participants, especially Brad.

The trust between the participants increased over the three-day trip and was generally maintained one-month after the trip. The exceptions to this were Bee’s trust in Brad and Lincoln which decreased to a score of one, and hedgehogs trust in Brad which decreased to a score of three. The first technical climbing and belaying session impacted the level of trust in other participants for the majority of the group members. The teambuilding session continued the impact for the participants, especially Brad who was not influenced by the technical climbing and belaying session. The social relations between the participants increased over the three-day trip and were generally maintained one-month after the trip. The exceptions to this were the decrease in scores for Brad from Bee, Hedgehog, and Lincoln and the decrease in scores for Lincoln from Bee and
Lathie. The dinnertime and campfire activities on the first evening had a positive impact on the majority of the participants. The teambuilding session had a much larger positive impact on the social relations of all the participants. The Smith Rock climbing trip increased the self-efficacy for technical climbing and belaying skills for the participants without disabilities: Bee, Carebear, Hedgehog, Lathie, Lincoln, and Mold. In addition, Brad demonstrated an increased social self-efficacy over the course of the trip.

Seven characteristics were present during this inclusive adventure experience: skill development, social interaction, teambuilding, trust, environmental awareness, personal growth and self-empowerment, and safety. Four of these seven characteristics (skill development, social interaction, trust, and safety) differed for the participant with and participants without disabilities. Three of these characteristics (skill development, trust, and safety) seemed to differ due to the choice of Brad, the only participant with a disability, not to climb or lead belay. The social interaction characteristic differed as a function of Brad’s disability, autism.

Implications of the Research

This study provides a description and interpretation of an inclusive adventure education program. The field of adventure education is growing with more organizations offering some programs for individuals with disabilities either in a segregated or inclusive setting. It is hoped this study will provide some information regarding the impact of inclusive adventure education programs for individuals with and without disabilities. Five implications for offering inclusive adventure education programs are offered.
1. The Smith Rock climbing trip fostered a change in attitudes of the participants without and disabilities toward the individual with a disability. In addition, the individual with a disability changed his attitude toward those individuals without disabilities. Through participation in the activities on the inclusive adventure education trip, the group members learned about each other’s abilities and began to value each other more.

2. The teambuilding session on the Smith Rock climbing trip appeared to have the greatest impact on the group dynamics, social relations, and trust of the participants. The teambuilding activities helped the participants to view each other in a different light.

3. The variety of activities on the Smith Rock climbing trip allowed all of the participants to experience an increased self-efficacy (as reported by in post-trip interviews) either in technical climbing and belaying skills or social skills.

4. The experience of the trip leaders in relation to the technical skills and working with individuals with and without disabilities was important in providing the participants with the opportunities to experience these changes in attitudes, group dynamics, social relations, trust, and self-efficacy.

Recommendations for Future Research

1. Within this study there was only one participant with a disability. To gain further insight into the influence of an inclusive adventure education program on the participant with and participants without disabilities, more participants with disabilities are needed.
2. This study provided information regarding the influence of one three-day inclusive adventure education trip on the participant with and participants without disabilities. Further research is needed on the influence of longer inclusive adventure education trips.

3. The use of more follow-up interviews to ascertain the level at which this influence was maintained at different time periods after the trip would help strengthen the findings. This study provided information regarding the influence one-month after the completion of the trip.

4. The use of a mixed methods approach to consider the influence of the inclusive adventure education trip on aspects of the affective domain of all participants. Quantitative measures could help triangulate the qualitative findings from this study.

5. The issue of transfer of learning from the experience to other areas of the participants’ lives was briefly considered in this study. Transfer is important when considering the benefits of the adventure experience on participants. Research on the issue of transfer is needed to help establish the benefits of such programs for diverse populations.

6. Further research into the appropriate sequencing of adventure activities for inclusive groups is required.
Dear Parent/Guardian:

I will be conducting a research project which aims to look at how participation in an inclusive adventure education program influences social self-efficacy, social anxiety, and group dynamics. Through this study I hope to show the benefits of participation in such programs for children with and without disabilities. I am conducting this research using the Adventures Without Limits program. I am writing to request your permission for your child to participate in this study. The study will run between March 2000 through June 2000.

The time commitment for your child outside of the adventure trip will be as follows:
- A 30 minute interview prior to the extended adventure trip they have selected to participate in with Adventures Without Limits.
- A 30 minute interview immediately after the trip
- Two measurement surveys to complete one and two months after the trip that will take no more than 45 minutes each time. These surveys will be mailed to your child along with return postage.
- A phone interview, at the cost of the researcher, one and two months after the trip lasting no more than one hour.

In addition to this, during the adventure trip your child will complete different measurement surveys and possibly have informal interviews with myself. These activities will not take much time to complete and will not detract in any way from the adventure trip. The surveys are designed to gain information on your child’s beliefs in his or her ability to interact with other children of a similar age, and how he or she functions in a group situation. I have included some questions from these surveys below so you can see what they are like:

Some kids want to play a game. Asking them to play is (HARD, hard, easy, EASY) for you.
Some kids are arguing about how to play a game. Telling them the rules is (HARD, hard, easy, EASY) for you.
I worry about doing something new in front of other kids. (On a scale of 1-5).
I’m quiet when I’m with a group of kids. (On a scale of 1-5).

All of the tapes, field notes, documents and surveys that I collect will remain confidential. These materials will be stored in a locked filing cabinet to which only I will have access. After the research process all of this information will be destroyed. The results of this study may be published but will exclude the names of the individuals involved as participants.

Participation in this study is completely voluntary, and your child is free to withdraw at any time. If you choose that your child will not participate it will not jeopardize his or her participation in the Adventures Without Limits trip that he or she is registered for, or
any trip in the future. Should you have any questions or desire further information, please feel free to call me at (614) 841-7756 or Dr. Sandra Stroot at (614) 292-8368.

Thank you for your consideration.

Sincerely,

Sue Sutherland
Doctoral Student
Department of Sport and Exercise Education
The Ohio State University

Sandra Stroot, Ph.D.
Professor
Department of Sport and Exercise Education
The Ohio State University
CONSENT FOR PARTICIPATION IN SOCIAL AND BEHAVIORAL

RESEARCH

I consent to participating in (or my child’s participation in) research entitled:

Don’t Judge a Book by Its Cover: A Closer Look at Inclusive Adventure Education

Dr Sandra Stroot or her authorized representative has explained the purpose of the study, the procedures to be followed, and the expected duration of my (my child’s) participation. Possible benefits of the study have been described, as have alternative procedures, if such procedures are applicable and available.

I acknowledge that I have had the opportunity to obtain additional information regarding the study and that any questions I have raised have been answered to my full satisfaction. Furthermore, I understand that my child is free to withdraw consent at any time and to discontinue participation in the study without prejudice to my child.

Finally, I acknowledge that I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Date ____________________ Signed: ____________________

(Participant)

Signed ____________________ Signed: ____________________

(Principal Investigator or his/her authorized representative)

(Person authorized to consent for participant – if required)

Witness ____________________
SEMISTRUCTURED INTERVIEW QUESTION GUIDE: PRE-TRIP

1. Tell me what kind of activities you like to do.

2. Tell me about your friends at school or in your neighborhood.

3. How easy or hard is it for you to make new friends?

4. How easy or hard is it for you to work with a group of kids your age?

5. Tell me about activities that you do every day that you may find easy to do (examples can be given if needed).

6. Tell me about activities that you do every day that you may find difficult to do (examples can be given if needed).

7. Have you been on any other trips with Adventures Without Limits?

8. What is it about the trips that you like?

9. Why did you decide to go on this trip?

10. What are you hoping to learn on this trip?

11. How do you feel about the activities you will be doing on this trip?

12. Tell me about any friends you have on this trip?

13. Do you think you might make new friends on this trip?

14. If you had to complete a hard task on this trip, which of the participants would you choose to help you and why.

15. How do you feel about this trip having both kids with and without disabilities on it?

16. Do you have many friends that have disabilities? What kind of activities do you do with these friends.

17. Do you have many friends without disabilities? What kind of activities do you do with these friends?
SEMI-STRUCTURED INTERVIEW QUESTION GUIDE: POST-TRIP

1. What did you like about the trip?

2. What did you not like about the trip?

3. Tell me a few things that you learned on this trip?

4. Tell me something you learned about the other participants on this trip?

5. Is there anything that you learned on this trip that will help you in other areas of your life such as school, at home etc.?

6. Did you make any new friends on the trip?

7. If you did make new friends do you think you will remain friends after the trip?

8. If you didn’t make any new friends can you tell me why that might be?

9. How do you think your level of trust for the other group members changed during this trip?

10. Will you sign up for another trip with Adventures Without Limits?
TRIP LEADERS INTERVIEW QUESTIONS

1. Tell me a little about your background. How much experience you have had leading trips and working with kids with disabilities?

2. Tell me about your experience in Adventure Education.

3. How many trips have you led for AWL or have been on?

4. How do you think the kids are coping with the camping and cooking?

5. Do you see the difference in interaction between when you met the kids yesterday and today?

6. Do you see any times that Brad has become part of the group?

7. Do you think it has changed for Lincoln in becoming more accepted into the group?

8. You know the focus of my study, so is there anything that you want to talk about that you may feel is relevant?
APPENDIX C
**Trust Checklist**

Which members of your group do you trust to help you in this activity? Please rate each member of the group by putting a number from 1-5 next to each of the names listed below.

- Number 1 means that you trust this person to help you the least in this activity.
- Number 5 means that you trust this person the most to help you in this activity.

There is not a limit on how many times you can choose a number. For example, three group members may get a score of 5, and no group members get a score of 1. **Please be honest about how you feel. No one else in this group will see this list except for Sue.**

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**Sociometric**

Next to the name of each group member please rate how much you would choose to play with him or her on a scale of 1-5.

- Number 1 means that you would choose to play with this person the least.
- Number 5 means that you would choose to play with this person the most.

There is not a limit on how many times you can choose a number. For example, three group members may get a score of 5, and no group members get a score of 1.

**Please be honest about how you feel. No one else in this group will see this list except for Sue.**

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LIST OF REFERENCES


