The Impact of Participation in an Inclusive Adventure Education Trip on Group Dynamics

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Abstract

The purpose of this ethnographic case study was to understand the impact of participation in an inclusive 3-day rock climbing trip on the group dynamics of seven participants ages 10-14 years that included a 13 year old male diagnosed with High Functioning Autism. The five stage model of group development (Tuckman, 1965; Tuckman & Jensen, 1977) was used as the lens to guide the design and data analysis of the study. Not withstanding the limitations of this study the findings suggest that the participants in this 3-day inclusive rock bonded as a group over the duration of the experience. The catalyst for the change in group dynamics on this trip was the explicit teambuilding session conducted by the trip leaders. Recommendations are provided to help to facilitate positive group dynamics within inclusive groups.

KEYWORDS: Inclusion, Teambuilding, Sequential stage theory, Autism

Adventure education (AE) 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 AE programs is that an increased level of self-awareness is brought about by the positive change experienced through participation. According to Priest and Gass (1997), AE can impact the affective domain of participants through intrapersonal relationships (how the individual functions within him or herself—emotional development) and interpersonal relationships (how an individual functions within a group—social development).The main goals of AE programs are to foster both emotional and social development through increases in self-esteem, self awareness, self confidence,

trust, communication skills, cooperation with others, and problem solving skills (Bisson, 1998; Prouty, 1999).

Much of the research on the outcomes of AE programs has focused on the affective domain. Indeed, research has shown that participation in adventure activities has produced positive effects in terms of: increased self-efficacy (Sibthorp, 2003), the development of group cohesiveness in adolescent participants (Glass & Benshoff, 2002), improved social and behavioral development of adolescents (Garst, Scheider, & Baker, 2001), and improved self-confidence and self-concept (Davidson, 2001; McDonald & Howe, 1989). The research base for programs with participants who have disabilities is more limited in scope and the most researched variable is the change in attitude toward an individual with a disability as a result of participation in inclusive AE programs. While attitudinal change is an important outcome from participation in inclusive adventure education programs, there are other outcomes that AE is purported to achieve, such as emotional and social development and group cohesion or dynamics, which have not been studied within an inclusive group setting. Inclusion is a term that is somewhat ambiguous in nature and often not clearly defined within the literature. Within this study, inclusion is referred to as 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). Therefore, our view of inclusive AE programs is that they provide opportunities for individuals with and without disabilities to experience and benefit from participation in activities that impact their cognitive, physical, and emotional and social development.

Despite the increase in inclusion within all aspects of society, there is limited research addressing the social and emotional development of participants in inclusive AE programs. As more individuals with disabilities participate in AE programs there is a need to understand the experience of participating in an inclusive AE program for all participants. The purpose of this ethnographic case study was to understand the nature of participation in an inclusive 3-day rock climbing trip on the group dynamics of seven participants ages 10-14 years, including a 13 year old male diagnosed with High Functioning Autism. The five stage model of group development (Tuckman & Jensen, 1977) was used as the lens to guide the design and data analysis of the study. This model has been proposed as explaining group dynamics within AE programs (Bisson, 1998; Priest & Gass, 1997). However, no research was found related to the use of this model to understand the nature of participation in an inclusive AE experience on group dynamics.

Literature Review

The power of the natural environment can have positive effects on both individuals and groups within wilderness or wilderness-like settings (Ewert & McAvoy, 2000) and these positive effects are often stated as an outcome of AE programs. The empirical evidence to support this outcome is limited but does indicate that being in the natural environment impacts the participants in AE programs. Paxton and McAvoy (2000) found that being in the wilderness was important in helping the participants to "define themselves" (p. 204) and that it was a "significant component of the experience" (p. 205). Greenway (1995) found that participants

"described an increased sense of aliveness, well-being, and energy" (p. 128) related to their wilderness experience. Although exploring the phenomenon of the power of the natural environment on the participants was not a goal of this research, it is important to recognize the impact of the place (environment) within AE trips.

Inclusive Adventure Education

With the passage of the Americans with Disabilities Act (ADA) occurring in 1990, the field of inclusive AE is still relatively young and the research on such programs is somewhat limited. Within this field of research participation in AE has shown positive effects in relation to: self-concept (Robinson,1994), acceptance of and positive attitude toward individuals with disabilities (McAvoy, Schatz, Stutz, Schleien, & Lais, 1989; Sable, 1995), decrease in levels of trait anxiety and positive effect upon interpersonal relationships (McAvoy, et al., 1989), positive change in relationships/social integration (Anderson, Schleien, McAvoy, Lais, & Seligman, 1997), personal growth/challenge, self awareness, relationships with others and valuing personal or spiritual connection with others (McAvoy, Holman, Goldenberg, & Klenosky, 2006), and outdoor skills, level of satisfaction and social/socialization abilities (McAvoy, Smith, & Rynders, 2006). In a study exploring social interactions between individuals with severe disabilities and individuals without disabilities during a two week camping experience, Rynders, Schleien, and Mustonen (1990) found an increased amount of social interactions and friendship ratings of children without disabilities toward children with disabilities. 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. The above summary of the research indicates that the measurement of changes in attitudes as a result of participation in inclusive AE programs has been the most researched variable. It is postulated here that this change in attitude could be due in part to the development of positive group dynamics.

Group Dynamics and Sequential Stage Theory

Group dynamics can include the social, intellectual, and moral forces that produce change in a group of individuals (Cartwright & Zander, 1968). Johnson and Johnson (1989) contend that "learning to work together in a group may be one of the most important interpersonal skills a person can develop" (p.32). A group can be defined as two or more individuals who experience positive interdependence while working together to achieve mutual goals (Johnson & Johnson, 2002). For the purpose of this study, group dynamics is defined as "the forces operating in groups" (Cartwright, 1951, p. 383). The social status of individuals within a group is one of the 'forces' that is important to consider when exploring group dynamics. One of the major methods used to identify social status with children is peer ratings. In peer rating methods, group members rate other group members using a 5 point likert scale on how much they like them or would like to play with them (e.g. Singleton & Asher, 1977). Peer ratings can help to provide insight into the dynamics of a certain group and how the social status of individual group members may change over time.

Social status may be influenced by trust between individuals and therefore, trust is an important aspect of group dynamics (Johnson & Johnson, 1997). There are two main aspects to trust: trusting behavior and trustworthy behavior. Trusting behavior can be defined as a person's willingness to risk positive or negative effects in making themselves vulnerable to group members (Johnson & Johnson, 1997). Trustworthy behavior, on the other hand, can be defined as treating other group members in a manner that provides them with positive consequences (Johnson & Johnson, 1997).

One of the main theories of group dynamics is the sequential stage theory. Here groups move through defined phases or stages of development in a specific sequence or order. The most cited sequential stage model of small group dynamics (Burn, 2004; Johnson & Johnson, 2002) is the model originally proposed by Tuckman (1965). This model proposed that groups move through fours stages of development (forming, storming, norming, and performing). Tuckman and Jensen (1977) then added a fifth stage (adjourning) after a review of the research on the 1965 model. According to Tuckman (1965) there are two dimensions to group development: interpersonal and task. The interpersonal development relates to the interpersonal structure and behaviors of the group, how members act and relate to each other as people. Task development is concerned with the content of the interaction in relation to the task the group was working on. For the purpose of this study we will concentrate on the interpersonal dimension relative to group development. The behaviors demonstrated within a group in each of the five stages of group development proposed by Tuckman (1965; Tuckman & Jensen, 1977) are illustrated in Table 1.

Table 1: Behavioral Characteristics Associated with
Each Stage of Group Development

Stage of Group Development	Group Behaviors
Forming	Testing – determining what behaviors are accepted within the group Dependence – looking to leader, powerful group member, or existing norms for guidance Tentative interactions and polite conversation Concerned with being accepted into the group
Storming	Group members recognize and confront differences Conflict – uneven interactions, infighting, lack of unity, ideas being criticized, and individuals being interrupted when talking
Norming	Development of group cohesion – establishment of norms of behavior, harmony, avoidance of conflict, increased supportiveness, development of a 'we-feeling', openness to other group members
Performing	Working together as a group Group members take on flexible and functional roles with in the group, Increase in cooperation and problem solving between group members
Adjourning	Disbanding – group members may experience regret and increased emotionality

While Tuckman (1965) found that the forming, storming, norming and performing stages were present in all groups, the duration of the group life has implications on how quickly groups may move through each stage. The model does not delineate how long groups will stay in each of the stages. The length of time the group has together and the tasks they face would influence the time spent in each stage. Groups who had a shorter group life (as little as a few hours) moved into the performing stage more quickly than groups who were together for longer periods of time. The nature of the task faced by the group also may have an influence on how the group moves through the stages. More impersonal and concrete tasks allowed the groups to move to the performing stage more quickly than did interpersonal and complex tasks. Tuckman's model of small group development (1965) has been applied in research studies in a wide range of disciplines including health promotion (Davoli & Fine, 2004), software development (McGrew, Bilotta, & Deeney, 1999), general practitioners within the National Health Service (Walker & Mathers, 2004), and co-leader development (Fall & Wejnert, 2005). Despite the popularity of Tuckman's (1965) model of small group development, one of the main criticisms of the model is the proposed linear progression through the stages (Rickards & Moger, 2000) and the nature of the groups (therapy versus naturally occurring groups) (Cassidy, 2007). Tuckman (1965) recognized that while his model explained group development in the literature he reviewed he cautioned that it was not a perfect fit. Despite this caution, within the field of AE the model of small group development (Tuckman, 1965) is often cited as one of the models that matches what occurs in AE (Priest & Gass, 1997; Bisson, 1998) relative to group dynamics. However, no research that has used this model related to inclusive AE has been found in the literature.

High Functioning Autism

As one of the participants in this study was diagnosed with high functioning autism (HFA), it is important to include a brief review relative to autism. Autism is characterized by severe impairments in the areas of social interaction, communication, and a restricted repertoire of activity and interests (American Psychiatric Association, 2000). Autism is represented by a continuum of ability levels related to these three areas ranging from high functioning to low functioning. The research has shown that, in general when compared to typically developing peers, children with autism spend less time interacting, experience lower quality interactions, spend more time in purposeless or no activity (Lord & Magill-Evans, 1995), receive less social initiations from peers, and focus less on other children (McGee, Feldman, & Morrier, 1997). Social isolation of children with autism is primarily the result of their own behavior rather than avoidance by others (Sigman & Ruskins, 1999).

Individuals with autism who possess average or above average IQ are determined to have high functioning autism (HFA). Research has shown that individuals with HFA have the ability to reach higher levels of social relationships than individuals with low functioning autism (Kasari, Chamberlain, & Bauminger, 2001). However, social deficits which can develop as the individual matures, can lead to social isolation for individuals with HFA (Webb, Miller, Pierce, Strawser, & Jones,

2004). Buaminger, Shulman and Agam (2004) contend that for children with HFA, the development of self and the development of social relationships are of foremost concern.

In a review of the research regarding social interactions and development of children with autism, McConnell (2002) stated that ecological interventions (manipulation of the physical or social environment) had been utilized with this population with some success. Inclusion is considered to be an ecological intervention but inclusion alone did not result in a significant increase in social interactions (Myles, Simpson, Ormsbee, & Erickson, 1993). Manipulating other variables within an inclusive environment, such as the use of a cooperative group structure, resulted in increased social initiations toward children with autism but the interactions from children with autism toward their peers did not increase (Schleien, Mustonen, & Rynders, 1995). Initiations from typically developing peers toward children with autism may increase social interaction in situations where "activities bring children into closer proximity, and as task demands of these activities occasion coordinated or joint effort" (McConnell, 2002, p.360). Inclusive AE programs can provide opportunities for individuals to work together to find solutions to particular activities or tasks. As highlighted previously, individuals with disabilities often experience positive outcomes through participation in AE programs. However, to date no studies were found related to inclusive AE and individuals with HFA.

Context

A 3-day inclusive rock climbing trip organized by No Limits (pseudonym) was studied to understand the nature of participation in the trip upon group dynamics of seven participants ages 10-14 years, including a 13 year old male diagnosed with High Functioning Autism. The study was framed within the theory of group development as proposed by Tuckman (1965; Tuckman & Jensen, 1977). This theory provided a basis to compare and contrast findings rather than providing a priori categories in which to force the findings (Morse, 1994).

No Limits is a private non-profit organization located in Oregon. The organization is an inclusive outdoor education/recreation organization that provides hands-on learning experiences to participants with and without disabilities in the natural environment to foster empowerment of all participants, to develop new skills, and to facilitate growth in social and emotional development. A 3-day inclusive rock-climbing trip to Smith Rock provided the backdrop for this study. The first day of the trip involved the van ride to Smith Rock, environmental education activities, setting up camp, belay school, and campfire activities. The second day consisted of a hike into and out of the gorge at Smith Rock State Park, a five hour climbing and belaying session, a debriefing session, a teambuilding session, and campfire activities. The third day included breaking camp, 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.

The participants in this study consisted of seven individuals who attended the Smith Rock Trip and the three trip leaders. To protect the identity of the participants, pseudonyms chosen by each participant were used in reporting the data.

All participants assented to be included in the study. The seven participants who attended the trip ranged in age from 10-14 years. There were three female (Bee, CB, & Lathie) and four male (Brad, HH, Linc, & M) participants. Within the seven participants there was a set of twin 10-year-old females (Bee and CB) and two brothers HH (age 10) and M (age 11). Brad (age 13), who was diagnosed with High Functioning Autism, had participated in previous trips with HH, Linc (age 13), and M. Linc had participated in one other No Limits trip and knew Brad. Lathie (age 14) had not participated in any previous No Limits trips and did not know any of the other participants. Figure 1 shows the relationships between participants prior to the 3-day rock climbing trip.

The three leaders on the Smith Rock trip had varying levels of experience in Adventure/Outdoor Education and working with inclusive groups. Jane was in her late 20s, held two Master's degrees in adapted physical education and physical education, and had over five years of experience with inclusive adventure/outdoor education. Bill was in his late 20s, had an undergraduate degree in Outdoor Education and had over eight years of experience in the field of adventure/outdoor education. Kevin was in his early 30s and had worked in the field of outdoor experiential education for over 12 years. Bill and Kevin both had limited experience working with inclusive groups.

Figure 1: Participant Relationships Prior to 3-day Inclusive Rock Climbing Trip
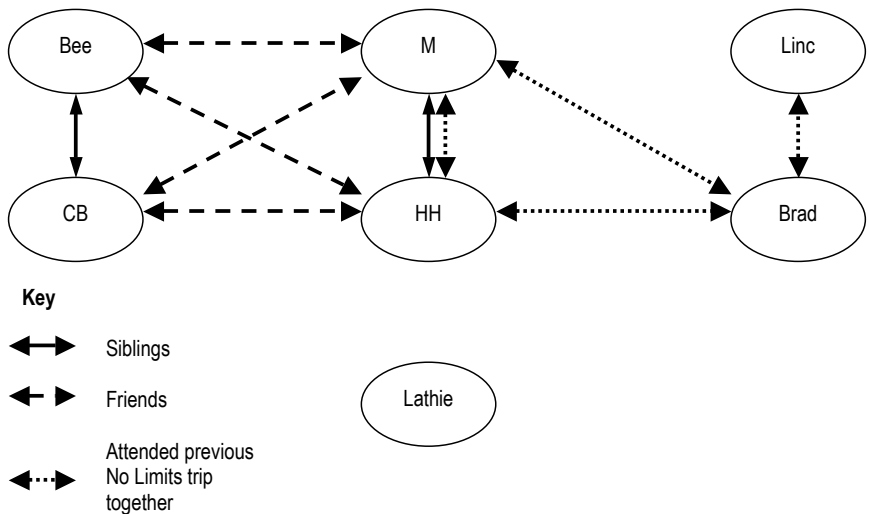
Role of the Researcher

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 in-

strument. Therefore it is important to disclose this information for the lead author and to recognize these effects on the data. Involvement in the field of adventure education for the past 15 years in the role of both participant and facilitator leads me to assume that such programs can increase an individual's self-awareness. In addition to this I have been involved in programming for individuals with disabilities for over 17 years in the fields of physical education, recreation, and adventure education. This involvement has led me to become a strong advocate for the rights of individuals with disabilities to participate in all areas of society alongside their peers without disabilities. This advocacy has included hands-on teaching, educating others on the abilities and rights of individuals with disabilities, and involvement in the formation and on-going programming of a private non-profit aimed at providing adventure activities for individuals with disabilities.

My role in this study was as a non-participant observer included on the entire 3-day trip. Prior to the start of the 3-day trip, I had participated in a one-day indoor climbing trip as part of a week long trip to No Limits. During this trip I met and interacted with the No Limits staff, briefly met five of the participants (Bee, CB, M, HH, and Brad) on different occasions, built rapport with the three trip leaders, and began to understand the No Limits organization. Prior to the start of the inclusive AE trip, I also spent four days at No Limits interacting with staff and building rapport with the trip leaders. Upon completion of the trip, I stayed at the organization for an additional three days to follow-up with the trip leaders on their perceptions of the trip.

Methods

This study employed ethnography both as a way of looking and a way of seeing (Wolcott, 2008). The focus in ethnography is on understanding the culture of a particular group or sub-group and, as such, is interpretive in nature. In this particular study the culture being explored was a 3-day inclusive rock climbing trip with seven participants ages 10-14 years. On a practical level, ethnography can be understood as a form of social research that encompasses: a) strong emphasis on exploring the nature of social phenomena, b) working with "unstructured data" that is data that is not coded as it is collected, c) exploring one or a small number of cases in detail, and d) analysis of data involving explicit interpretations of the meaning and function of human action (Atkinson & Hammersley, 1994). This study was conducted from an educational ethnography standpoint which is "an approach to studying problems and processes in education" (LeCompte & Preissle, 1993, p9). In this case the process was an inclusive adventure education trip. A case study design was utilized, which for this study is considered as a choice of object to be studied rather than a methodological choice (Stake, 2008). Further, the nature of this study placed it as an intrinsic case study, which was examined to gain an understanding of the culture of the 3-day inclusive rock climbing trip organized by No Limits.

Data Collection

Three sources provided data for this study: direct observations (field notes), face-to-face and phone interviews (semi-structured and open-ended), and a participant checklist that measured levels of trust and desire to play among participants.

Direct Observation

Field notes were taken during study 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 written field notes contained sections denoting observation notes, theoretical notes, methodological notes, and reflexive notes. Included in the taped field notes were the data collected through informal conversations with the participants and leaders that occurred throughout the 3-day trip.

Interviews

Interviews were used to collect data using both face-to-face and telephone interviews. All interviews lasted between 30-60 minutes, were audio-taped with the permission of the participants, and transcribed for analysis. In addition to this, notes were taken during the interview. Immediately after the interview, time was spent listening to the tape, elaborating upon the interview notes, and reflecting upon 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 same questions and interview protocol were used for all seven participants during the study. The pre-trip interviews focused on gathering background information about the participants relative to prior experience with No Limits, experience with rock climbing, reasons for participating in the Smith Rock trip, and their attitude toward and experience with inclusion, working in groups, and making new friends. The post-trip interview explored what occurred during the trip relative to likes and dislikes, what they had learned about themselves and others, what they had learned that might help them in other areas of their lives, friendship, and trust of others. The purpose of the follow-up interview was to understand if there was any longer lasting outcomes from participation in the 3-day trip. Open-ended interviews were conducted during the trip to clarify and elaborate upon situations occurring during, or themes emerging from, the observation periods.

Checklists

Simple checklists were used to gauge the participants' level of trust for and desire to play with group members throughout the three day trip. These checklists were developed specifically for this study using the work of Rotenburg (1980) for trust and Singleton and Asher (1977) for play. The checklists were administered five (play) or six (trust) times during the trip and one-month after the trip. The trust checklist was given before a particular activity and asked the participants to rate each group member on the degree to which they trust each member. The play checklist was given at different times during the trip and asked the participants to rate how much they would like to play with the other group members. Each

time the checklists were administered, the participants rated each group member using a five point Likert scale from 1-5, with 1 indicating the least amount of trust or desire to play to 5 indicating the most amount of trust or desire to play. Both checklists were pilot tested with an inclusive group of 10-14 year olds prior to being used in this study. The pilot test was used to ensure that the checklist was easy to understand and complete by participants within this age range. The purpose of the checklists was to provide the group members with an easy way to indicate their level of trust and play at particular times during the experience. This information was then further probed with each participant during both face-to-face interviews and informal conversations.

Analysis

All of the interview and observation data were transcribed verbatim and analyzed using line by line coding (Glaser, 1978; Strauss & Corbin, 1990) and constant comparison method (Patton, 2002). Although some may question the use of grounded theory analyses within ethnography, we align with Charmaz and Mitchell (2007) who contend that using these analysis methods can allow ethnographers' to "create astute analysis" (p. 160) and provide a "more complete picture of the whole setting" (p. 161). In conducting the analysis, the data were read and re-read and line by line coding was conducted which resulted in initial themes emerging from the data. These codes and themes were then constantly compared and contrasted through several re-readings of the data. In this process, the 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.

Five strategies were used to establish trustworthiness in this study (Lincoln & Guba, 1985). Although the inclusive climbing trip was only three days in length, data were gathered prior to the trip (pre-trip interview), during the entire three day trip through direct observation and interviews, and one-month after the trip (phone interview). Thus prolonged engagement with the participants occurred during this study. Second, the use of different sources of data collection allowed for the triangulation of data using field notes and interview data. Emerging themes were cross checked against all data sources and were accepted or rejected based on this evidence and interpretation. Third, member checks were used in the form of the trip leaders reviewing the information collected and the researcher's interpretations. This process allowed the leaders to agree or disagree with the interpretations and enabled the collection of more rich data. Fourth, peer debriefing, which is the process where the researcher invites others to comment on their interpretations (Lincoln & Guba, 1985) was utilized to help keep the researcher honest in the methodological procedures chosen and the interpretations of the data. Three colleagues with expertise in qualitative research and inclusion were used periodically throughout this process. Finally, negative case analysis was used to refine or revise tentative themes in the data (Patton, 2002). This process helped to ensure that all aspects of the data were taken into consideration, not just those that strengthened the emerging themes.

Findings

The analysis of the data from this study resulted in two themes relative to understanding the nature of participation in a 3-day inclusive rock climbing trip on the group dynamics of seven participants ages 10-14 years that included a 13 year old male diagnosed with High Functioning Autism. There was an observable difference in the group dynamics over the three-day trip. The difference will be described and discussed using the themes that emerged from the data. It is important to note that while Tuckman (1965; Tuckman & Jensen, 1977) proposed a five stage model of group development, we allowed the themes to emerge from the data rather than fitting the data into these stages. These themes are: *The struggle to fit in* and *Importance of teambuilding.* Due to the nature of the experience and the focus of the study these themes will be presented as they occurred, sequentially during the trip. In addition to the themes, the mean scores from each of the trust and play checklists are presented in Tables 2 and 3 and will help to enlighten the findings in each theme.

Table 2: Mean Scores for Trust Checklist

Name	Day 1	Day 2 am	Day 2 pm	After Teambuilding	Day 3 am	Day 3 pm	Follow up
Bee	25	25	25	30	30	30	30
Brad	18	19	18.5	27	26	27	20.5
CB	25	24	24	30	30	30	29
HH	22	23	25	30	30	30	28
Lathie	25	25	26	30	30	30	29
Linc	21	21.5	23	30	30	28	25
M	24	24	25	30	30	29	29

Table 3: Mean Scores for Play Checklist

Name	Day 1	Day 2 am	After Teambuilding	Day 3 am	Day 3 pm	Follow up
Bee	25	25	30	30	30	30
Brad	18.5	22	28	29	29	22
CB	24	25	29	29	29	28
HH	25	26	30	30	30	29
Lathie	25	24.5	26	30	30	30
Linc	24.5	26.5	30	28	30	24
M	25	26	30	30	30	29

The Struggle to Fit In

The first meeting of a group of individuals is often crucial in setting the tone for subsequent interactions. Due to the geographic location of the participants, the first meeting of the group occurred in two phases, which set the stage for the interactions during the first part of the Smith Rock trip. The five participants (Bee, CB, HH, Lathie, & M) who met at the No Limits headquarters quickly bonded as a consequence of contributing factors. Four of the participants (Bee, CB, HH, & M) knew each other well (with two sets of siblings) and they considered themselves friends prior to the trip. Bee and CB's mother had expressed concern to the trip leaders about her daughters being too young to be away from home for three days. This led the twin's mother to facilitate the initial interactions among the three girls. Lathie, the "new girl", was the oldest participant on the trip and outgoing and confident in her interactions with Bee, CB, HH, and M and she quickly became one of the leaders in the group. This became more evident in the seating arrangements in the van and the conversation during the start of the van trip.

> 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 CB and Bee because they both wanted to sit next to Lathie. (Field Notes, Day 1)

It was natural that the three girls were drawn to each other at the start of the trip as they had all expressed an expectation of making friends on the trip. Indeed, Bee and CB immediately looked up to Lathie and wanted to form a friendship with her. Lathie, who was an only child, also seemed to enjoy being cast in the "big sister" role by the twins. What started out as a conversation among the three girls progressed into a group conversation about family, school, likes, dislikes, and prior experience with rock climbing. By the time Brad and Linc joined the trip, Bee, CB, HH, Lathie, and M had over an hour to talk and were clearly in the forming stage (Tuckman, 1965).

The logistics of the trip were such that Brad and Linc were at a slight disadvantage from the start of the trip relative to the early group dynamics. The jovial and friendly mood changed as Brad and Linc were picked up. As Brad emerged from his Dad's truck and retrieved his bag, there was some laughter and snickering among the five participants already in the van. M and HH knew Brad from other No Limits trips and from school but Bee, CB, and Lathie had not met him before. This reaction to Brad was in contrast to some of the supportive statements toward inclusion made during the pre-trip interviews by the five participants. When asked how they felt about having individuals with and without disabilities on the trip CB stated that she felt good because "people with disabilities should have the chance to try…and I feel that I should support that" (pre-trip interview). Lathie felt that individuals with disabilities "have the right to do this stuff too" (pre-trip interview). The reactions may be indicative of issues of social desirability and indicated that Brad may struggle to fit in with the group.

Brad's behavior during the van ride to Smith Rock did not help his situation in terms of becoming part of the group. For the majority of the remainder of

the 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. In addition, the other group members did not try to engage Brad in any conversation. In his pre-trip interview Brad commented that it was not easy for him to make friends or work in a group. According to the No Limits staff, Brad is usually considered the loner on such trips in that he does not interact with other participants. Therefore Brad's behavior during the beginning of the Smith Rock trip was very typical for him. Nonetheless, the fact that Brad has been diagnosed with High Functioning Autism must be taken into account when considering his social interactions and relationships. Autism is often manifested in inappropriate social interactions (Hawkins, 1996), which can lead to the alienation of the individual with autism within a group.

On the other hand, Linc seemed eager to become accepted into the group. His behavior of trying to impress the other participants by continually stating that he had already done the activities they were talking about or visited the places they had was starting to alienate some of the other participants. His earlier contention that it was pretty easy for him to make friends was not evident during this part of the trip. He was working too hard to prove himself rather than letting them get to know the real Linc.

The beginning of the Smith Rock trip resulted in the formation of a close group of five participants, Bee, CB, HH, Lathie, and M. Brad and Linc were, for different reasons, clearly on the outside of the group of five. The first trust and play checklists were given before belay school on the first day and also indicated that there was a clear bond between five of the participants. Bee, CB, HH, Lathie, and M all rated each other at a 4 or 5 on both checklists. However, Brad and Linc received scores ranging from 1-5 from these five participants. Linc gave all the other group members the highest rating whereas Brad gave everyone except Linc the lowest rating. Brad received the lowest overall score from the group on both checklists. The trip leaders recognized that there was a core group of five participants early on the first day.

> There are a set of twins, 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. (Bill, Day 2)

> A few of the kids were trying to set the precedent for themselves and seeing where they fit…That's when I kind of felt that there were a couple of kids left out. (Kevin, Day 2)

However, despite recognizing the situation that had developed within the group the trip leaders did not intervene to attempt to bring the whole group more together.

The breakthrough for Linc in joining the group occurred during the belay school and had an important effect upon his status within the group. Bill highlighted Linc as one of the stronger belayers within the group of participants. Although the impact of this statement was not apparent at the time, it did have a positive effect on Linc's status within the group as noted by Bill.

My observation from Linc right at the very beginning is that he kind of got clumped in the far outsider group. And because he was a little more skilled at climbing he earned some respect from some folks. And because some of the girls, basically it was Lathie who also excelled at climbing, looked at him as a peer instead of just a boy, it changed everybody else's response. All of the sudden he is on the inside circle instead of on the outside circle. (Bill, Day 2)

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 as the following excerpt demonstrates,

At the campfire last night, there was some great interaction. All the kids were there and all were involved. There was not 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. (Researchers Journal, Day 2)

This was the first time that Brad had been fully involved with other participants. He was helping to lead songs, talking to M and Linc, and telling stories to the whole group. The campfire was a good opportunity for all of the group members to interact with each other and to begin to let their guard down. Indeed during the post-trip interview Lathie felt that the campfire was important for the group. When asked if there were other activities that helped the group bond together she replied "I think the really, really good bonding time was like at dinnertime and the campfire" (Lathie, Post-trip Interview). Indeed the second trust and play checklists, which were given after the campfire on the first day, indicated that the group had begun to get to know each other more. Brad and Linc received slightly higher scores on these sheets. Brad however, still gave a 1 to all group members except Linc who he gave a 5 on both sheets.

Linc became more accepted into the group during the climbing session on day two. His technical skills allowed him to demonstrate his ability level, elevating his status within the group as one of the strongest climbers. The third trust checklist was given after the climbing session on day two and Linc's scores from the other participants increased which reflected his acceptance into the group. Lathie further facilitated Linc's acceptance by her public recognition of his role during the climbing session. When asked during the debriefing after the climbing session to publicly thank one person, Lathie, who had been established as one of the leaders, recognized Linc, "Because he really was always cheering me on and always thanked me. And he belayed me a lot." (Lathie, Day 2). As Linc became more accepted by the other participants he stopped trying to prove his worth and became accepted within the group. The following interaction illustrates Linc's acceptance into the group.

Lathie and Bee were teasing Linc to see if he would take some of the very bad tasting candy that Bill had handed out earlier…they 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 group. (Field Notes, Day 2)

The change in Linc's status was recognized by the trip leaders, "They were all staying a little clear at first because of his [Linc's] one upping, but because he's dropped that facade that he is being more included now" (Bill, Day 2). On the other hand, Brad was still more of a loner at this point in the trip. His choice not to climb or take the role of lead belayer during the climbing session further prevented him from becoming fully accepted into the group. 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 and was not interacting with the other group members. Thus, due to the choices Brad made not to climb or belay which served to exclude him from the group at times, he did not demonstrate his skills or engage in the same interactions as other group members. This was evidenced in Brad's scores on the third trust checklist which was administered after the climbing session on day two. Although his scores increased slightly from checklist two, Brad still had a range of scores from 1-4.5 and received the lowest overall score from the group. However, Brad developed a place for himself within the group as a helper. He was keen to help with back-up belaying and when other group members needed help with their climbs.

Importance of Teambuilding

The second theme to emerge from the Smith Rock trip was representative of a true shift in the group dynamics of the seven participants. This shift was triggered by the teambuilding activities conducted on the evening of the second day. Two activities (Touch My Can and Human Knot) 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 Jane. After the teambuilding session, the group members clearly felt that the activities allowed them to work hard to bond together as a group. In the post-trip interviews a number of participants commented on how the teambuilding impacted them during the trip. For Brad in particular the teambuilding, session was extremely powerful as he stated that participating in the activities "felt like a big old family".

When asked to share what he learned on the trip Brad answered, "Tried to figure out games. The games that we were playing last night…It made us a whole entire family…we got close" (Post-trip Interview). M also commented that as a result of the teambuilding, "We have become closer. We know each other more and better" (Post-trip Interview). This was echoed by Bee who stated that the teambuilding had helped them to become closer, "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). The impact of the teambuilding activity provided an opportunity for the group to view each member in a different light. This was particularly true for Brad. When asked to elaborate on why she had increased her level of trust and wanting to play related to Brad, Bee responded "when we were doing that work together thing. I thought that was really funny" (Bee, Interview Day 3). CB was also asked the same question and responded,

> When I first met Brad I didn't really, well I think I judged him. You know how people say "don't judge a book by its cover". Well, I think I was doing that and I think it was really wrong of me. I think he is very helpful right now and I shouldn't have done that. (Interview, Day 3)

Bill also commented on the difference he observed in the group after the teambuilding activity,

> They have become more accepting of Brad. He is really 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 just accept him, for who he is, and his abilities and not his lack of ability. (Bill, Day 2)

The trust and play checklists that were administered after the teambuilding session were a clear indication of the power of the experience on the group dynamics. Most of the participants received a score of 5 on the trust and play checklist. The exceptions were that Brad received a 4 on the trust checklist from Bee, HH, and Linc, and Brad awarded a 1 to Lathie on the play checklist, although he would not elaborate on a reason for this.

The level of support or help between group members increased on day three. The participants had become more cohesive and were willing to provide support for each other without having to be asked. This behavior was in contrast to the first two days when they would only help others when prompted to do so. This change was clearly illustrated on the last day after the boys had packed up their tent, Brad, HH, and M "went over to offer the girls some help with their tent." (Field Notes, Day 3).

The difference in the group dynamics that had developed during this trip was further observed during the van ride back from Smith Rock. Although the group dynamics were changed due to the absence of Bee and CB, who travelled separately, there was a very clear difference in the interactions of the rest of the group. Brad, HH, Lathie, Linc, and M were talking, laughing, telling jokes, playing games, and interacting for the duration of the van ride. This was in stark contrast to the group interactions and dynamics during the van ride to Smith Rock. Jane commented on the difference in the group dynamics of the Smith Rock group as compared to her experience with other inclusive groups.

> What I have usually seen on trips is that. You know, why would I want to talk to those guys...I honestly cannot remember having a group like this before. I mean to an extent but not like the whole family concept and the whole playing together. There was always an odd one out in the past. Always. (Jane, Day 3).

When asked to elaborate on why this might be the case, Jane indicated that this was the first time that the trip leaders had conducted a purposeful teambuilding session. In the past, the activities of the trip (putting up a tent, hiking, preparing food, etc.) had been used to foster group cohesion using a problem solving approach. However, on this trip the leaders actually took the group through two problem solving activities designed to foster increased communication, cooperation, and problem solving skills. It seemed evident to Jane that the teambuilding

event had an important impact on the group dynamics of this particular group of participants.

Discussion

The purpose of this study was to understand the impact of participation in an inclusive 3-day rock climbing trip on the group dynamics of seven participants ages 10-14 years that included a 13 year old male diagnosed with High Functioning Autism. The findings from this study suggest that the group dynamics changed over the course of the trip and that participants became a more cohesive group. This is in line with previous research on group cohesion in adventure education (Glass & Benshoff, 2002). We would contend that the purposeful teambuilding session conducted on the second evening was the activity that provided the greatest impetus for the change in the group dynamics. It was not our intent to fit the themes to the life cycle of a group model (Tuckman, 1965; Tuckman & Jensen, 1977); rather we attempted to highlight similarities and differences to the model.

The first part of the Smith Rock trip was characterized by the group getting to know each other where the focus in relation to the interpersonal dimension was on becoming oriented to each other and accepted within the group. The actions of the group members during this part of the experience demonstrated that they were working to find their place in the group. This finding aligns with previous research within the field of adventure education. Fabrizio and Neill (2005) contend that the beginning of an outdoor adventure experience is characterized by feelings of excitement, anticipation, and euphoria. This certainly seemed to be the case with the majority of the participants. The nature of the interactions between group members would indicate that they were working through the forming stage of group development (Tuckman 1965). During this phase of group development, participants are stimulated by getting to know each other but they spend time observing the dynamics of the group and gaining an understanding of the expectations (Fabrizio & Neill, 2005). However, Brad's behavior was in contrast to this and could be attributed to his past experience in group situations. The No Limits staff reported that Brad usually did not interact with other participants. Kerr and Gass (1995) contend that an individual's past experience with other group situations in their life will impact their actions in a new group situation. Brad's social behavior could also be a function of his autism (Hawkins, 1996) which can result in alienation within a group. As was evidenced in the early part of the Smith Rock trip, Brad did not display appropriate social interactions with other group members which seemed to influence his level of acceptance into the group. The impact of his behavior on the group dynamics is in line with previous research (Webb et al., 2004; Myles et al., 1993; Lord & Magill-Evans, 1995).

During the first day the group worked through the process of Linc's attempts to become an accepted member of the group. Initially this caused Linc to be somewhat ostracized. He was trying too hard to prove himself and this caused the group of five to reject his attempts to join their group. Although this rejection was not overtly stated by the other group members, it was visible in their reactions to Linc during this time. The issues of power and status, communication styles, and group values were evident during the early part of the trip. In addition, the

actions of Brad during the first day did not help to endear him to the other group members. It was evident through his behavior that becoming part of the group was not high on Brad's agenda. The actions of the participants during the first day indicated that they had experienced aspects of the storming stage (Tuckman, 1965) in Linc's attempts to join the inner group. The storming stage may also be exhibited through a group member refusing to take part in the activities or to interact with other group members (Fabrizio & Neill, 2005) as was the case with Brad, although Brad's lack of social interactions with other group members are clearly in line with the autism literature (Lord & Magill-Evans, 1995; Webb et al., 2004; Myles et al., 1993). Fabrizio and Neill (2005) contend that there is a danger that if a group is unable to work through these issues it could have detrimental effects on the group members. However this was not the case in this study, in fact, quiet the opposite occurred. Although the group clearly moved through this stage, and indeed seemed to revisit it a couple of times during the rest of the trip, it was short lived, supporting Tuckman's (1965) contention that groups who experience a short life cycle move to the norming stage more quickly than groups who have a longer life cycle. The fact that the group revisited the storming stage at different times during the experience could align with more of a cyclical approach to group development as opposed to a sequential stage approach. This would support the criticism of Tuckman's (1965) model in relation to the linear progression through the stages (Rickards & Moger, 2000).

The interactions on the second day indicated that the seven participants had become closer as a group. Linc had become accepted into the group through his climbing and belaying skills. It became evident after the first day of climbing that a leadership structure was beginning to be formed, at least in relation to technical climbing skills. This had positioned Linc to take on more of a leadership role within the group. Beyond the actual climbing sessions, the interaction among the group members was very different from the previous day and indicated that the majority of the group members had drawn closer together. Indeed while Brad did not fully engage with the rest of the group either socially or physically in relation to climbing, he was an accepted member of the group. Comments by CB and Bee related to Brad being a helper indicated that he was valued as a member of the group. The overall behavior of the group members during this phase of the trip align with the norming stage of the life cycle of a group proposed by Tuckman (1965). The group had become more cohesive, developed a structure which now included all group members, and exhibited increased supportiveness. During the norming stage the group is clearly working to establish a set of norms regarding social interaction (Fabrizio & Neill, 2005). This was evident during the debriefing session on the afternoon of the second day where the group talked about the impact of the day's climbing and how that influenced their feelings toward other group members.

The teambuilding session on the evening of day two provided the impetus for a dramatic change in the group dynamics. The teambuilding activities were the first time the whole group interacted in a situation that required trust and cooperation. Given the experience of the trip leaders both relative to AE and inclusion, it was somewhat surprising that these activities were not conducted until

the evening of the second day rather than earlier in the trip. However, the participants did not feel that they would have been able to work so well together had the session occurred early in the trip as they would not have known each other. The reasons given for this consensus included not knowing each other, not having developed trust, and not being as close (friendship). This is interesting to note as the activities chosen for this session were more problem solving in nature rather than working on communication or cooperation (although obviously both of these elements were present in each activity). The participants felt that the second evening was the right time for these activities to be introduced to the group which would be in line with stages of group development and the focus of the teambuilding activities presented (Frank, 2004; Bisson, 1998). However, we contend that in a 3-day trip initial community building activities should have been conducted earlier in the experience to provide the participants with an opportunity to come together as a community.

After the teambuilding session, Brad became accepted into the group both in relation to how he viewed his role in the group and how others viewed him. There was a noticeable decrease in Brad's awkward social interactions and an increase in positive social interactions between him and the other group members. The teambuilding session had provided the opportunity for the group to work closely together to solve the task which aligns with previous findings relative to groups with participants who are typically developing and those who have autism (McConnell, 2002). Indeed the teambuilding session caused some of the group members to reevaluate their perceptions of Brad, and for Brad to examine his perceptions of the other group members. The change in the perception of Brad by some group members indicated that they were able to look beyond a disability at the individual concerned (Schleien, McAvoy, Lais, & Rynders, 1993). The interactions of the group members during and after the teambuilding session align with the performing stage (Tuckman, 1965). The performing stage can be characterized by the group's mastery of the task requirements and cohesion among group members. This stage can be difficult to reach in short outdoor adventure programs (Fabrizio & Neill, 2005) but this can be enhanced through the intensity of the program and the sequencing of the activities (Bisson, 1998).

While it was inevitable that the participants on the Smith Rock climbing trip would experience the dissolution of the group, it was not evident in their actions that this part of the process caused any reaction within the group. This lack of reaction to the end of the trip may have been due to a number of reasons. First, it was only a 3-day trip and the initial focus was to learn rock climbing skills. Second, four of the participants considered themselves friends prior to the trip and therefore would continue this relationship after the conclusion of the trip. Thus, although the nature of the trip provided the group with the opportunity to move into the adjourning stage (Tuckman & Jensen, 1977) there was no observable characteristics associated with this phase of the model. It is important to note that the trip leaders did not plan a debriefing activity at the end of the trip where the participants could work through any negative feelings they had associated with the end of the trip, or to transfer their learning to their life beyond the Smith Rock trip, and they were left to do this on their own. It is argued here that this

is an important aspect of adventure education programs and should have been included within the trip.

Conclusion

This ethnographic case study provided insight into the impact of participation in an inclusive adventure education experience on group dynamics. The limitations of the study include: single case study, the short duration of the trip, only one participant with a disability, and High Functioning Autism being the only disabling condition included in the study. Not withstanding the limitations of this study, the findings suggest that the participants in this 3-day inclusive rock climbing bonded as a group over the duration of the experience due to the following three conditions: the teambuilding session was an important catalyst for all group members allowing them to view each other in a different light, the experience of the trip leaders in relation to the technical skills of rock climbing, and the experience of one trip leader in working with individuals with and without disabilities was important in creating a safe and successful inclusive environment for all participants. Using a "Challenge by Choice" approach, the trip leaders allowed Brad to find a role within the group as a helper. This provided an opportunity for all of the group members to learn about each others' abilities and began to value each other more. In light of the findings of this study we make the following recommendations for AE programs to help to facilitate positive group dynamics within inclusive groups of participants. First, the important role of appropriately sequenced (Frank, 2004; Bisson, 1998), purposeful activities designed to facilitate a sense of community should not be overlooked or minimized. The inclusion of these activities should occur early in the trip. If possible start the trip with an initial icebreaker activity and then design activities to use during the van ride that help to foster community. Second, it is essential in inclusive trips that at least one facilitator has knowledge and experience working with individuals with disabilities and an understanding of the practical and programmatic implications of different disabilities. Third, due to the diverse nature of the group it is vital that the leaders create an environment that is physically and emotionally safe for all participants. This can be initiated by introducing a Full Value Contract (Frank, 2004) early in the trip where all participants work together to establish acceptable (e.g. respect others, use I statements) and unacceptable (use of put downs, use of sarcasm) behaviors toward each other. This can be facilitated by the trip leaders but the behaviors should not be set by the leaders as this will lessen ownership by the participants. Fourth, the use of Challenge by Choice or a flexible approach to the participation level of each individual allows each group member to have some control over his or her experience. Finally the trip leaders should facilitate a debriefing session with the participants to help them to reflect on, understand, and apply the learning that occurred on the trip to other areas of their lives (i.e., transfer).

McAvoy, Mitten, Stringer, Steckert, and Sproles (1996) called for more qualitative research in the area of group dynamics and adventure education. This is one study that has answered that call, and adds to the literature by extending the use of Tuckman's (1965; Tuckman & Jensen, 1977) model to an inclusive group of

seven participants ages 10-14 years that included a 13 year old male with HFA. Our findings clearly support the linear progression of the model of small group development with an inclusive adventure education group of seven participants and, as such, we do not agree with Rickards and Mogers' (2000) criticism of the linear progression of the model. However, while the group experienced characteristics associated with four of the stages proposed by Tuckman (1965) they did not spend very long in the storming stage and the group members did not appear to be affected by the dissolution of the group at the conclusion of the trip. Based on our findings we suggest that the adjourning stage is not relevant for this type of short adventure education trip where the focus is on skill development, in this case climbing, rather than on interpersonal dynamics. Tuckman's (1965; Tuckman & Jensen, 1977) model is supported as an analysis tool to explain group dynamics in a short inclusive adventure education trip.

Clearly, there is much more work to be conducted if we are to truly understand how participation in an inclusive adventure education experience can impact the development and dynamics of a group. We need more studies that explore the process of group development rather than confirming that it does occur. In light of this study, we believe that further exploration of what factors within the experience can impact the group's movement through the stages, and the within stage development of groups would be beneficial to understanding the impact of adventure education on this process (DeGraaf & Ashby, 1996). In addition, research needs to move beyond the concept of group dynamics and group development to look at the impact of the participation in a group on the individual, both short and long-term.

The findings of this study indicate how inclusive AE programs, with an explicit teambuilding session, can build community and foster interpersonal and intrapersonal growth. Participation in the inclusive AE program provided an opportunity for the group members to learn to look beyond a person's disability, break through personal and/or social barriers, build friendships, communicate with each other, work cooperatively, embrace both strengths and weaknesses, and to trust each other. Society would surely benefit from such a lesson.

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