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Re-Thinking Group Development in Adventure Programming: A Qualitative Examination

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A QUALITATIVE EXAMINATION

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The purpose of the study was to re-examine the efficacy of Tuckman's (1965) model of group development in adventure programming. More specifically, the researchers were interested in comparing Tuckman's traditional sequential model to more contemporary non-sequential and integrative models that have emerged as alternative ways to conceptualize the process of group development. The researchers used a case study approach (Merriam, 2001) and techniques characteristic of naturalistic inquiry (Lincoln & Guba, 1985) to explore the nature of group development among participants in a weeklong sea kayaking expedition. The researchers concluded that more contemporary models of group development more accurately explained the process of group development in this case study than Tuckman's (1965) traditional model of group development.

Keywords: group development, adventure programming

Background

One of the most well known and commonly used models of group development in the field of adventure programming is Tuckman's (1965) model of small group development (Ashby & DeGraff, 1998; Attarian & Priest, 2002; Blanchard, Strong, & Ford, 2007; DeGraff, & Ashby, 1996; Drury, Bonney, Berman, & Wagstaff, 2005; Jensen, 1979; Martin, Cashel, Wagstaff, and Breunig, 2006; Priest & Gass, 2005). While this model is foundational to our understanding of the group development process, it has been subjected to little empirical scrutiny within the field of adventure programming. Hence, multiple researchers have called for further research into the nature of group development in adventure programming (Ewert & Haywood, 1991; Ewert & McAvoy, 2000; McAvoy, Mitten, Stringer, Steckart, & Sproles, 1996; McKenzie, 2000; Sibthorp, 2003; Sibthorp, Paisley, & Gookin, 2007). McAvoy et al. (1996) argued that outdoor groups defy traditional schemes typified in normative models such as Tuckman's (1965) and that researchers should evaluate group development as it actually occurs in the outdoors. McKenzie (2000) argued that "there appear to be many gaps in our knowledge of how the characteristics of a participant's group affect the impact that an adventure education program has on them" (p. 23). In a study of the Walsh and Golins (1976) Outward Bound Process Model, Sibthorp (2003) stated: "While the preponderance of positive research findings indicates that development (e.g. increases in self-esteem, self-efficacy, trust, group cohesion) through adventure based programs is possible, how and why this development occurs remains less clear" (p. 80). With regard to group process in particular, he noted: "It appears that the social environment posited by Walsh and Golins (1976) is critical to student learning but remains inadequately studied" (Sibthorp, 2003, p. 85).

The purpose of the study was to examine the efficacy of Tuckman's (1965) model of group development relative to other models that have emerged as alternative ways to conceptualize the process of group development. The researchers sought to accomplish this through a qualitative examination of the process of group development during a five-day sea kayaking expedition. The researchers were interested in illustrating the actual process of group development in the case of the group participating in this particular expedition. They were interested in understanding the primary conditions and factors that influenced the process of group development in this particular case. The researchers subsequently sought to examine the extent to which Tuckman's model and more recent models of group development can be used to explain the experience of group development in the case of this particular group.

Models of Group Development

The following review of literature examines various models of group development that have emerged over the past 50 years, focusing in particular on more recent developments in this field of literature. Group development scholars have created a number of group process and outcome models to explain the complex nature of group development (Chang, Duck, & Bordia, 2006; Chidambraram & Bostrom, 1996). These models typically fall under one of two categories: sequential (i.e., linear) and nonsequential. Wheelan's (2005) Integrative Model of Group Development is a third approach that has emerged in recent years combining elements of both sequential and nonsequential models of group development.

Sequential models of group development. The most commonly used group development models are sequential, or linear, in nature. Sequential models conceptualize group development in terms of predictable patterns of change over time. Chang et al. (2006) explained that sequential models frame the development of a group as a gradual and incremental progression through a logical series of stages. Tuckman's model of small group development (Tuckman, 1965; Tuckman & Jensen, 1977) is one of the most commonly known and used sequential models. Tuckman (1965) developed this model based on a meta-analysis of 50 studies, all of which were conducted in laboratory settings. Tuckman's original model included four stages of group development: forming, storming, norming, and performing. In a survey of the group development literature produced from 1965 to 1977, Tuckman and Jensen (1977) found that most new models of group development included a termination phase. Consequently, they added an adjourning stage to Tuckman's original model.

Numerous studies have since sought to verify Tuckman's model of group development, and several adaptations of the model have been proposed. Hingst (2006) proposed the addition of *conforming* as a sub-stage to Tuckman's performing stage. McGrew, Bilotta, and Deeney (1999) found that teams eventually regress once they reach the performing stage and consequently proposed the addition of three decaying stages to explain this phenomenon: *De-norming, De-storming,* and *De-forming.* Others have called for a departure from this Tuckman's model and other sequential models of group development altogether (Cissna, 1984; DeGraff & Ashby, 1996; McCollom, 1990).

Nonsequential models of group development. Nonsequential models of group development are quite different from sequential models. Chidambraram and Bostrom (1996) explained one of the major differences as follows: "Nonsequential models propose no predetermined sequence of events; instead they focus on explaining the underlying factors that cause shifts in group development" (p. 172). These authors also suggested that nonsequential models will not predict when a group will demonstrate its highest level of functioning; rather, they help understand why cohesiveness might be high or low at any given moment.

Gersick (1988) developed the punctuated equilibrium model based on the complete life spans of eight naturally occurring teams. The model consists of two phases: (a) the first half of a group's calendar time is an initial period of inertial movement; and, (b) the second phase occurs at the midpoint of the allotted calendar time in which the groups undergo a transition. Several researchers have considered the decision-making paths of small groups and determined that the traditional unitary or linear sequence models for decision making do not explain the nature of group development for all groups (Poole, 1983a; Poole, 1983b). Poole (1983a, 1983b) proposed a model of group development that considers group development to be centered on a set of "parallel strands or tracks of activity" (p. 326). Each track is representative of a different activity evolving simultaneously and interconnecting in diverse patterns over time.

The Integrative Model of Group Development. Wheelan (2005) proposed the Integrative Model of Group Development as an alternative that combines elements of both sequential and nonsequential models of group development. Wheelan (2005) challenged the basic assumption that groups steadily progress through a series of stages in their development. She argued, for example, that groups often tend to advance and then retreat in their efforts to attain high levels of cohesion and performance. Groups may also remain in particular stages for

extended periods of time or possibly even skip certain stages. Furthermore, she argued that conflict can occur throughout the life of the group. The integrative model consists of five stages similar to most linear models. The first, *dependency and inclusion*, is characterized by high levels of dependence on the leader, while group members test the boundaries of rules, roles and structure within the group. The second, *counter-dependency and fight*, is characterized by conflict among group members, conflict between the group members and the leader, as well as flight from task responsibilities within the group. Wheelan (2005) stated that during this stage, "coalitions begin to form among members with similar ideas and values" (p. 19). The third stage, *trust and structure,* can be characterized by the development of group norms and roles as well as a certain division of labor. The fourth stage, *work,* is characterized by three goals: "1) get the job done well, 2) remain cohesive while engaging in task-related conflicts, and 3) maintain high performance over the long haul" (Wheelan, 2005, p. 18). Coalitions that may have formed during the counter-dependency and fight stage may prove beneficial to accomplishing tasks in the work stage, thus resulting in a positive outcome related to the formation of these coalitions. The final stage of this model is the *termination stage,* which is characterized by an evaluation of the completed work but usually consists of a group regressing to an earlier stage.

Understanding Group Development in Adventure Programming

Numerous studies have investigated the process of group development within an adventure programming context. Ewert and Haywood (1991) examined the influence gender, length of experience, type of course, and group identification had on group development during an Outward Bound experience. The study found that these four variables had varying levels of influence on group development. Oaks, Haslam, Morrison, and Grace (1995) investigated the homogeneity of groups on 26-day Outward Bound-like wilderness experiences and found that groups tended to become more homogeneous over time and that group members were more likely to describe one another in terms of stereotypic in-group norms. In a study of the Outward Bound model, McKenzie (2003) found that increases in interpersonal skills were achieved through effective teamwork. This study also suggested that self-awareness was achieved by interacting with and relying on other group members while working to achieve common goals and tasks. The following components were found to have created positive outcomes for some participants: working as a group, interacting with other group members, and the attitudes towards other group members. However, these same components were also found to have resulted in a negative impact on self-concept, motivation and interpersonal skills for other participants.

Priest and Lesperance (1994) explored the development of teamwork among groups engaged in corporate adventure training programs and found an increase in group cohesion for all groups who participated in the programs. Group cohesion remained higher for groups participating in follow-up activities and diminished for those who experienced no follow-up after the original team building session. The focus of the study was on the longitudinal impacts of corporate adventure trainings. Martin and Davids (1995) explored the influence of outdoor pursuits as a team-building technique for 22 British professional soccer players. While the results suggested that a developmental training course could improve group cohesion, the group "already had a high level of cohesion before participating in the study" (Martin and Davids, 1995, p. 534). Kopf (1996) studied the influence of *sequencing* of challenge course activities on group development. Results indicated that *sequencing* had no impact on group development. Hatch and McCarthy (2005) examined the long-term effects of a challenge course on college students, finding short-term gains in group functioning, cohesion, group effectiveness, and individual effectiveness. No long-term gains were found.

Beames (2004) conducted a study to investigate the key components of a ten-week community service based expedition to Ghana. Four of the five themes identified in his analysis applied directly to the social environment and group development. *Group isolation* (i.e., being confined to one group) typically resulted in the development of community and reliance on other group members. The theme *changing groups* was found to increase relationship development among group members. *Diverse groups* (i.e., diversity among group members) lead to a better acceptance of cultural differences. Finally, *self-sufficient living* (i.e., independence in cooking, sleeping and cleaning) promoted self-reliance and satisfaction in working with a team.

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Cassidy (2007) conducted a meta-analysis of literature related to group development in adventure programming and questioned whether Tuckman's (1965) model adequately described group development for practitioners outside of the context of adventure therapy. Cassidy also stated that practitioners should focus on what drives conflict at each stage of development rather than putting so much emphasis on conflict within a *storming* stage.

Purpose of the Study

Tuckman's model of small group development (Tuckman, 1965; Tuckman & Jensen, 1977) is the most prevalent basis for our current understanding of the process of group development in adventure programming (Ashby & DeGraff, 1998; Attarian & Priest, 2002; Blanchard, Strong, & Ford, 2007; DeGraff, & Ashby, 1996; Drury, Bonney, Berman, & Wagstaff, 2005; Jensen, 1979; Martin, Cashel, Wagstaff, & Breunig, 2006; Priest & Gass, 2005). Jones' model of group development (1973) represents an alternative though much less prevalent approach. In light of the variety of group development models discussed above, it is apparent that empirical and theoretical research related to group development in the field of adventure programming should be expanded. The aim of this study was to examine the developmental process of a group within an adventure programming context. Specifically, the researchers sought to address the following questions:

1. What conditions and factors most influence the process of group development within the context of a wilderness expedition?

2. To what extent does Tuckman's (1965, Tuckman & Jensen, 1977) model of group development adequately explain the nature of group development within the context of a wilderness expedition?

3. To what extent do other contemporary models of group development better explain the nature of group development within the context of wilderness expedition relative to Tuckman's model of group development?

Methods

To address the research questions, a naturalistic research design was used (Lincoln & Guba, 1985; Patton, 2002). Qualitative methods enabled the researcher to participate and gain firsthand knowledge of the nature of small group development within the context of an actual wilderness expedition, thus allowing for a more in-depth understanding of the process of group development in this particular context. A case study approach (Merriam, 2001) and data collection techniques characteristic of naturalistic inquiry (Lincoln & Guba, 1985) were used. A case study approach was used because the study focused on the experience of a single small group participating in a wilderness expedition. Case studies allow for intensive descriptions of single units or bounded systems.

Description of the Case

A Wilderness Education Association (WEA) National Standards Program (NSP) course served as the case for this study. The course was offered through an academic program in recreation and leisure studies at a large mid-western university. The course instructor was a member of the faculty in this program and a WEA certifying instructor. There were also two apprentice instructors, who were graduate students in the same academic program. The apprentice instructors were both males, one 23 years of age and the other 29 years of age. The course participants consisted of ten undergraduate students and two graduate students. Six of the undergraduate students were male and four were female. The graduate students were both male. One occupied the role of participant observer during the course, participating in the course for academic credit while also collecting data for this study. Previous adventure program experience of the participants varied greatly, ranging from novice level participation to those with previous guiding experience. The identities of all participants have been kept confidential by assigning pseudonyms to the participants in the study. The group totaled 15 members, including the course instructor, two apprentice instructors and 12 course participants.

The course consisted of three separate expeditions, each occurring in different geographical locations

and utilizing different modes of wilderness travel. The first was a weeklong sea kayaking expedition on Core Sound along the Outer Banks of North Carolina. The second was a weeklong backpacking expedition in the Great Smoky Mountain National Park of North Carolina. The third was a weeklong canoe trip on the Green Brier River in West Virginia. While data were collected during each of these expeditions, the analysis focused only on data from the first expedition. There were two key reasons for this decision. First, each expedition represented a distinctive group experience bounded by the unique character of the different geographical areas in which the group traveled, the distinct goals and challenges related to living and traveling in these different areas, and the sense of culmination that completion of each expedition represented. Consequently, the group experienced a significant redefinition as it transitioned from one expedition to the next. Second, the group divided into two patrols and separated from one another during the backpacking expedition in the Great Smoky Mountain National Park. Consequently, each patrol took on a life of its own during this portion of the course. By nature, the group that existed during the first expedition no longer existed during the second expedition.

Two key points in the WEA curriculum that related directly to the subject of this study were expedition behavior and group dynamics. Expedition behavior accounts for various interrelationships that typically emerge during a wilderness expedition (Drury, Bonney, Berman, & Wagstaff, 2005). This concept was taught on the third day of the expedition and was explained through comedic descriptions of poor versus good expedition behavior (Tomb, 1994). Group dynamics was taught on the second to last day of the sea kayaking expedition, after the group had already experienced many aspects of the group development process. The student who taught this lesson used Tuckman's (1965) model of small group development to describe the process of group development.

Data Collection

Four primary modes of data collection were used in this study. First, as noted, one of the researchers acted as a participant observer during the course, documenting observations and creating memos in bound notebooks throughout the course (Emerson, Fretz, & Shaw, 1995). Brief notes of observations were recorded throughout each day. More elaborate notes were recorded each evening to provide a *thick description* (Geertz, 1973) of each day's events. Second, the researcher recorded all formal group discussions (i.e., group debriefs) using a digital voice recorder. These discussions were intended to help the group reflect on key learning experiences from each day and to resolve conflicts that might have emerged during the day. These discussions were facilitated by the course instructor. The recordings were selectively transcribed by the researcher after the completion of the course. Third, participants were required to maintain personal journals throughout the course to fulfill academic requirements. A portion of each journal was dedicated to reflections on group development throughout the course. A prompt with several questions was provided to facilitate student reflection, and students were expected to make entries in their journals on a daily basis. The participants' journals were collected at the end of the course, photocopied, and selectively transcribed for data analysis. Fourth, course artifacts were collected. These artifacts consisted of course manuals, maps and itineraries, and information provided by the resource management agencies in each area.

Data Analysis

As noted, the analysis of data focused solely on the group experience during the sea kayaking expedition. The data were analyzed using open and axial coding (Corbin & Strauss, 2007; Huberman, & Miles, 2002). This process allowed the researchers to identify the broad range of themes and trends that existed in the data and to then narrow those themes down to the most central themes related to group development. Field notes, digital voice recordings, and student journals were first analyzed to identify themes related to group development. When comments and themes related to group development were apparent in the data, the apparent themes were noted and that portion of the data was transcribed verbatim. This resulted in 59 double-spaced pages of transcriptions. These transcriptions were then analyzed through focused coding to identify specific themes related to group development and group interaction. The initial list of themes were compared to one another through a process of axial coding, which resulted in the identification of four primary themes that

appeared to influence the process of group development among the participants of the sea kayaking expedition.

Credibility of the Study

A number of measures were used to ensure the credibility, dependability, and confirmability of this study (Miyata & Kai, 2009; Patton, 2002). First, the use of multiple data sources as previously described allowed for triangulation of the data. Second, the method of data collection was rigorous and involved the researcher becoming immersed as a participant observer in the life of the group. This prolonged engagement with the group allowed the participant observer to develop an intimate knowledge of the culture and character of the group. Third, formal member checks were conducted after the data analysis was complete and results were reported. Fourth, the primary researcher participated in peer debriefings with other members of the research team as the study progressed. Finally, the course instructor served as a member of the research team, allowing this member of the research team to help verify the account provided by the participant observer. Combined with the data collection methods described above, these measures provide a strong basis for confidence in the credibility of this study.

Results and Discussion

The purpose of the study was to examine the efficacy of Tuckman's model of group development relative to other more contemporary models of group development. To accomplish this, the researchers sought to illustrate the actual process of group development that occurred during a weeklong sea kayaking expedition. The researchers then sought to determine the extent to which Tuckman's (1965) and other more contemporary models of group development could be used to adequately explain the process of group development in this case. The analysis revealed four primary themes related to the process of group development during this expedition, as well as several sub-themes within one of the four themes. These themes included (1) participant investment in decision-making processes and outcomes, (2) goal conflict within the group, (3) assumption of social roles and role playing within the group, and (4) communication effectiveness of group leaders.

Participant Investment in Decision Making Processes and Outcomes

Participant investment in group decision making was a critical element in the development of this group. The sea kayaking expedition was conducted on Core Sound in North Carolina. The itinerary called for paddling from the town of Lola on the western side of Core Sound to the Cape Lookout Lighthouse on the southern tip of Cape Lookout National Seashore. However, due to persistently strong headwinds (approximately10 knots) and swells of two to three feet, the group failed to accomplish its travel itinerary on the first two days of the expedition. It became apparent that the group was unlikely to accomplish its overall travel itinerary, compelling the group to reassess its original travel plans. The instructor allowed the Leader of the Day (LOD) to facilitate a decision-making process that involved the entire group. The group generated four possible alternatives. One alternative was to forge ahead and try to complete the original itinerary. Two other alternatives involved remaining on the water but altering the take-out point and route of the sea kayaking expedition. The fourth involved taking off of the water altogether, returning to base camp, and starting the expedition anew from a launch point that would allow the group to make it to the Cape Lookout Lighthouse.

Two factions emerged within the group during the decision-making process. One faction wanted to continue to paddle and remain in expedition mode, even if it meant altering the route and not making it to the lighthouse. The other faction wanted to take off of the water and start anew. The four options were presented to the group for a secret vote. Because the faction advocating starting anew voted as a single bloc in favor of that option and the faction advocating remaining on the water split its vote between the other three options, a majority voted to take off of the water, return to base camp, and start anew on the following day.

While driving to back to the base camp, the course instructor made a decision in consultation with his apprentice instructors to re-launch the expedition that same day (late in the evening at that point in the day) rather than waiting until the following day. The instructor made this decision, because the weather forecast was calling for 20-25 knot winds over the next two days, which would prohibit the group from re-launching its

expedition. He wanted to ensure that the group was able to resume the sea kayaking expedition. Rather than returning to the campground that had served as the group's base camp, the group drove to a kayak landing at the Harker's Island ranger station. The LOD announced the change in plans to the group. In spite of a high level of frustration and resentment among several of the group members toward the course instructor over this new decision, the group re-launched from Shell Point at the Harker's Island ranger station and paddled to an island located about a mile north of the launch point.

Previous research has pointed to the relationship between decision making and group development, suggesting that there is a reciprocal relationship between the nature of decision-making processes used within groups and the character of the group (Poole, 1983a, b; Poole & Baldwin, 1996). Wheelan (2005) argued that member satisfaction either rises or falls based on the degree to which group members are included in the decision making process. Higher participation leads to higher satisfaction and vice versa. Members were typically included in all major decisions, with the exception of the decision to re-launch that evening rather than return to base camp. The decision by the instructor to change the plan without consulting the group (essentially usurping the group's earlier decision) resulted in resentment and conflict between group members and the instructor team. This added to frustration and resentment that had emerged earlier between the two different factions as a result of the decision to take off of the water and start the expedition anew.

Goal Conflict within the Group

The decision to take off of the water and start the expedition anew had major ramifications for the group's development. Although everyone participated in the decision, several members were not happy with the outcome. During the group debrief of this decision, it became apparent that group members in the varying factions held different goals related to sea kayaking expedition, some individually oriented and some more group oriented. In short, some participants were less interested in fulfilling course goals and objectives than they were in satisfying their own goals, needs, and interests. This divergence between personal goals and group goals largely influenced the functioning of this group.

During the group debrief, the course instructor asked each of the group members to articulate their motivations for participating in the course. In response, one course participant, Tom, stated:

> First off I think about personal goals of the course. What do I personally want to come away with, and I also think about group goals. I think one of the frustrating things about that is that they don't always go together and I think that is one thing that we are missing completely. We all are pretty set on our own personal goals... I don't think that we have all come together as a group yet. ... It's hard to get everyone involved in the group when the goal for the group is conflicting with your own personal tasks and then you decide that you want to do your own thing today and not focus on the group.

Another course participant, Sam, expressed his disappointment in how this section of the course was going and challenged the instructor team's competency and judgment: "I felt like this whole section was an unattainable goal, to make 40 miles with a head wind on the sound. After the first day I knew [the] wind wasn't going to change and it was pretty much just one unattainable goal after another." As a result, Sam had assumed a negative attitude toward the course and become focused on fulfilling personal goals with little concern for the group. Another participant, Ben, later described his sense of conflict between the course goals and his own goals in his journal:

> This is my first understanding of conflict within myself. On one side I want to become a competent leader and develop qualities that make me useful in helping people enjoy the outdoors. On the other hand, I am 21 on the Outer Banks. I want to have fun by utilizing my time and space to my personal desires.

This journal entry reflected sentiments of all of the students in the faction that voted to start the expedition anew. They wanted to see the lighthouse and spend time playing on the beach.

The group worked through this particular conflict and began to function at a higher level, establishing and achieving daily goals and objectives. Ultimately, the group reached the Cape Lookout Lighthouse

and spent an afternoon playing on the beach. However, even with the improvement in group function, a significant discrepancy existed between the two factions concerning their orientations toward overall goals and expectations for the course. The goals of one faction were aligned more closely with the overall course goals (or they were suppressed for the greater good), while the goals of the other faction were more aligned with personal goals and interests rather than the broader goals of the group. Bennis and Shepard (1956) found that, early in a group's development, two subgroups tend to form in relation to the leader and that one group will remain loyal to the leader while the other group challenges the leader. This was the case in this study. Wheelan (2005) also stated that goals are generally superficial during the first stage of group development due to participant's eagerness to be an accepted member of the group. In this study, the participants' true motives and personal goals did not surface until the group encountered a major group conflict.

Assumption of Social Roles and Role Playing within the Group

Group members occupied a variety of roles during the course, including formal group roles assigned by the instructors, informal roles that emerged based on individual skills and expertise, and task-oriented roles that were shared within cook groups and tent groups during the course. Student performance in these various roles significantly affected the functioning of the group both positively and negatively during the expedition.

Formal role assignments. Students rotated through various formal role assignments each day during the course. Formal group roles included Leader of the Day (LOD), Assistant Leader of the Day (ASLOD), Navigator, Scribe, Smoother, and Sweep. The role of Navigator was assigned to students by the course instructor on a daily basis. The navigator would become the ASLOD and then subsequently the LOD. The LOD was then responsible for assigning the roles of Sweep, Smoother, and Scribe. Members without formal roles were expected to be fully engaged participants.

The changing of formal role assignments on a daily basis appeared to have a negative impact on the functioning of the group. As new leadership teams were established each day, new leadership styles and expectations had to be negotiated each day. Consequently, the group often regressed to lower levels of functioning while new interactive norms were established and participants adapted to new roles within the group. For example, one course participant commented to the LOD during a daily debrief that he appreciated knowing her expectations: "This morning you made the comment to secure all of your gear and to keep this place clean, I thought it good to show us your expectations for the day." Initially, this expectation irritated some members of the group, because it was a new expectation and they felt as though they were being reprimanded. However, it was a behavioral change that needed to occur within the group to keep equipment from being blown away by the high winds, and the group soon began performing according to the new expectation.

At times, it was evident that participants did not possess the skills necessary to perform certain assigned roles. For example, Erin was assigned the role of Smoother on the second day of the sea kayaking expedition, which required her to monitor and attend to the needs of all of the group members while helping to ensure that the group functioned well. However, because of a lack of mastery in sea kayaking, she was so focused on her own performance in the kayak that she failed to adequately attend to the needs of other group members. This contributed to a breakdown in group functioning as kayakers began to spread out on the water, stronger paddlers moving ahead while weaker paddlers fell behind. The course instructor commented during the daily group debrief: "One issue with the management on the water yesterday was that Erin was the smoother and she was having a difficult time keeping up with the group yesterday… She was probably not the best choice for a Smoother. The role of the Smoother is to go around and make sure that everyone is where they need to be." This mismatch of skills had a negative impact on the performance of the group. This finding is reflective of Wheelan's (2005) point that an individual's abilities and skills must match the requirements of the role for effective group performance. The performance of a group will suffer when role designations are inappropriate.

Informal roles. Participants assumed various informal roles within the group during the expedition, as well. Certain individuals possessed interests and skills that distinguished them from the rest of the group. These individuals were relied on from time to time to aid the group and help maintain function and morale. For example, one participant, Dan, had a high level of expertise in stove repair. Anytime a cook group was having difficulty with its stove issue, Dan was called on to help. Another group member, Stella, was an avid birder and really enjoyed seeing and identifying the birds of the region. She gladly helped other participants identify birds and other wildlife during the expedition. Yet another participant, Erin, was always very upbeat and continuously came up with ways to motivate and boost the morale of the group. This finding confirms the idea found in the literature that individuals can fall into certain roles based on their interests and skills (Johnson & Johnson, 2003).

Task oriented roles. Participants also often adopted informal task-oriented roles within their separate cook and tent groups. These smaller groups experienced their own group development processes during the expedition as participants learned to work and live together within these smaller social domains as part of the overall expedition experience. Each cook group and tent group remained together for the duration of the expedition and established their own roles and norms respective to their groups. Members of one cook group, when asked how their cooking process took place, stated: "Everyday one of the three of us has been LOD, so the other two perform the cooking and cleaning duties while the LOD tends to group tasks." Another group indicated that its members also worked together and rotated duties related to cooking. The development of these smaller groups both positively and negatively impacted the functioning of the entire group. One cook group relied solely on one person to do all of the meal preparation and cooking, which this designated person did not appreciate. This caused friction between her and the two other members of the small group which carried over into larger group interactions.

Communication Effectiveness of Group Leaders

Communication within the group was also an important factor in the development of the group. Specifically, the LOD's effectiveness as a communicator appeared to impact the functioning of the group the most, both for better and for worse. The importance of communication is reflected in a comment by Sarah: "I felt really confident when you [the LOD] started asking the group individually how we felt and what we thought… I knew you were going to do what you thought the best thing for the group was." The open communication between the LOD and the group aided in group cohesion allowing all group members to feel like they had a say in the group and that they could address any concerns which ultimately helped the group to function at a higher level.

A number of the participants noted that communication tended to break down when there was stress or conflict within the group. Such instances caused the group to revert to lower functional states. For example, Eric stated: "People were kind of all rushing up ahead, and, in my mind, I was following Erin. And, Erin was no longer that lead boat anymore. Communication kind of broke down at that point." Due to a lack of communication the group did not know who the lead boat was, and, instead of functioning as a team, the group broke down and group members regressed to an individual perspective rather than a group perspective. The theme of communication effectiveness was also often expressed during group debriefs on days when the group felt challenged. Shawn was criticized on his LOD experience for not communicating to the group before conducting a scout. As Eric explained: "You and Pete [the navigator] kind of went out and did a scouting… I didn't feel like you communicated with the group what the hell you were doing. So, like you were gone and discussing, leaving the group in the dark." The lack of communication created frustration and conflict among some group members.

Wheelan (2005) explained that communication is instrumental in the development of a group's culture. Martin et al. (2006) added to this notion by describing how communication in a wilderness group is instrumental to goal attainment, the decision-making process, and conflict resolution. Communication appeared

to effect this group's development in both positive and negative ways. The LOD's communication effectiveness had a greater impact on the group than communication among participants not designated to fill formal leadership positions within the group.

Conclusion

The findings from this study indicate that Tuckman's (1965) model of small group development can be used to explain some aspects of the experience of the group observed in this study. However, Tuckman's model failed to fully account for the nature of group development as experienced by this group. Although this group exhibited all of the stages described in Tuckman's (1965) model, the group did not progress through the stages in a uniform and linear fashion. The group began the expedition experience in what could be considered the *norming* phase of Tuckman's model of group development, initially skipping the *forming* and *storming* stages, due to the fact that most of the group members had previously established relationships prior to the expedition through shared experiences in their academic program at their university. However, after encountering adverse conditions and making a major decision to change the itinerary of the expedition, the group entered into what would be considered the *storming* phase in Tuckman's model. The group debrief that occurred after starting the expedition anew represented attempts within the group to engage in a process of re-*forming* (i.e., getting to know each others' motivations for participating in the course) and re-*norming* (i.e., ensuring that everyone was committed to fulfilling course goals and expectations) so that the group could achieve a positive level performance in fulfilling individual and course goals.

Another limitation of Tuckman's model is that it does not adequately account for the formation of factions or coalitions within groups. Tuckman's model focuses on how the group as a whole develops. Even in the *storming* phase, the model does not highlight how groups can split into factions, which might then separately develop in different ways. In this study, the factions that developed during the decision making process that resulted in changing the itinerary of the expedition remained intact throughout the expedition. This split in the group negatively impacted the functioning of this group in subtle yet obvious ways throughout the course.

The experiences of the group observed in this case indicate that non-sequential models of group development offer a more realistic explanation of the nature of group development than Tuckman's model of group development. As Chidambraram and Bostrom (1996) explained: "Nonsequential models propose no predetermined sequence of events; instead they focus on explaining the underlying factors that cause shifts in group development" (p. 172). As such, nonsequential models do not predict when groups will achieve their highest level of functioning. Instead, they are concerned with the reasons that group cohesion is low rather than high at any given time in the life of a group. The analysis conducted in this study naturally aligned with this approach to considering the process of group development. Rather than finding group development to be a sequential progression from one level of development to another, the researchers found group development to be an on-going process of negotiation of various challenges to group cohesion within the life of the group. The process of negotiating group versus individual goals throughout the expedition serves as one key example of this. The process of role negotiation as students alternated among formal and informal roles within the group serves as another key example. Each of the primary themes identified in the analysis illustrates the sorts of underlying factors that can influence shifts in a group's development. Each instance during which these themes became prevalent represents a point at which the functioning of the group was either enhanced or diminished, depending on how the group members negotiated the situation in which they found themselves.

Wheelan's (2005) Integrative Model of Group Development also seems to better characterize the process of group development in the case of this group than does Tuckman's (1965) model of group development. The integrative model suggests that groups can progress and regress through various stages of development. The model even suggests that groups can skip certain stages, which is reflective of the experience of the group observed in this case study. As noted, this group seemed to initially begin at what would be considered the *norming* stage in Tuckman's (1965) model and what Wheelan (2005) refers to as the *trust and structure* stage in

the Integrated Model of Group Development. The integrative model accounts for the development of coalitions and suggests that these coalitions may be of use if the group reaches the *work* stage when task delegation is required.

Non-sequential models of group development and Wheelan's (2005) Integrative Model of Group Development show great promise as alternatives to Tuckman's (1965) traditional linear model of group development. These newer, contemporary approaches to understanding the nature of group development provide a basis for responding to the long standing call in adventure programming (DeGraff and Ashby, 1996; McAvoy, Mitten, Stringer, Steckart, & Sproles, 1996) to move beyond the traditional linear models on which the field has so long relied in understanding the process of group development.

Limitations and Future Research

A limitation to this study was that most participants had pre-existing relationships prior to the course. While this is typically the case in academic programs such as the one through which this course was offered, it is not typically the case for many other types of adventure programs. Research should be conducted on groups in adventure programming contexts without previously developed relationships. In addition, the development of cliques, coalitions, and subgroups should be further investigated within an adventure programming context. Subgroups tend to experience developmental processes of their own and tend to achieve different levels of functioning in accomplishing internal tasks and goals. Future research should explore the internal nature of subgroups (e.g., cliques, cook groups, etc.) within the context of wilderness expeditions as well as the influence of these groups on the life of the overall expedition. Finally, because this study was a qualitative case study, the results are not generalizable. While the researchers utilized methods and techniques that have helped to establish a high level of confidence in the credibility of the study, transferability lays with the reader.

References

Ashby, J., & DeGraff, D. (1998). Re-examining group development in adventure therapy groups. *Journal of Experiential Education, 21*(3), 162-167.

Attarian, A., & Priest, P. (2002). The relationship between stages of group development and styles of outdoor leadership. *The Journal of Adventure Education and Outdoor Leadership, 11*(3), 13-19.

Beames, S. (2004). Critical elements of an expedition experience. *Journal of Adventure Education and Outdoor Learning, 4*(2), 145-158.

Bennis, W. G., & Shepard, H. A. (1956). A theory of group development. *Human Relations,* 9, 415-437.

Blanchard, J., Strong, M., & Ford, P. (2007). *Leadership and administration in outdoor pursuits* (2nd ed.). State College, PA: Venture Publishing.

Cassidy, K. (2007). Tuckman revisited: Proposing a new model of group development for practitioners. *Journal of Experiential Education, 29*(3), 413-417.

Chang, A., Duck, J., & Bordia, P. (2006). Understanding the multidimensionality of group development. *Small Group Research, 37*(4), 327-350.

Chidambraram, L., & Bostrom, R. (1996). Group development (I): A review and synthesis of development models. *Group Decision and Negotiation, 6,* 159-187.

Cissna, K. N. (1984). Phases in group development: The negative evidence. *Small Group Behavior, 15*(1), 3-32.

Corbin, J. M., & Strauss, A. C. (2007). *Basics of qualitative research: Techniques and procedures for developing grounded theory.* London: Sage Publications.

DeGraff, D., & Ashby, J. (1996). Reconsidering group process in challenge education: Paradigmatic shifts. *Bradford Papers Online, 6,* 89-96. Retrieved May 13, 2008, from http://www.indiana.edu/~outdoor/bponline/bp1996/bp96index.html

Drury, J., Bonney, B., Berman, D., & Wagstaff, M. (2005). *The backcountry classroom* (2nd ed.). Guilford, CT: The Globe Pequot Press.

Emerson, R. M., Fretz, R. I., & Shaw, L. L. (1995). *Writing ethnographic fieldnotes*. Chicago: The University of Chicago Press.

Ewert, A., & Haywood, J. (1991). Group development in the natural environment: Expectations, outcomes, & techniques. *Environment and Behavior, 23*(5), 592-615.

Ewert, A., & McAvoy, L. (2000). The effects of wilderness settings on organized groups: A state-of-knowledge paper. *USDA Forest Proceedings, 3*, 13-26.

Geertz, C. (1973). *The interpretation of cultures: Selected essays*. New York: Basic Books,

Gersick, C. (1988). Time and transition in work teams: Toward a new model of group development. *Academy of Management Journal, 31*(1), 9-41.

Hatch, K., & McCarthy, C. (2005) Exploring of challenge courses' long term effects on members of college student organizations. *Journal of Experiential Education, 27*(3), 245-264.

Hingst, R. (2006, July 6-8). Tuckman's theory of group development in a call centre context: Does it still work? Paper presented at the 5th global conference on Business & Economics-Proceedings, Global Conference on Business & Economics, Cambridge, UK.

Huberman, M., & Miles, M. (2002). *The Qualitative Researchers Companion*. CA: Sage

Jensen, M. (1979). Applications of small group theory to adventure programs. *The Journal of Experiential Education, 2*(2), 39-42.

Johnson, D.W., & Johnson, F. P. (2003). *Joining together: Group theory and group skills* (8th ed). Boston: Allyn & Bacon.

Jones, J. E., (1973). A model of group development. In J. E. Jones & J. W. Pfeiffer (Eds.), *The annual handbook for group facilitators* (pp. 127-129). La Jolla, CA: University Associates.

Kopf, D. M. (1996). The effects of activity sequencing on challenge course group development, *Dissertation Abstracts International, 58*(03B), 1536. (UMI NO. AAI9725912).

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. London: Sage Publications.

Martin, B., Cashel, C., Wagstaff, M., & Breunig. M. (2006). *Outdoor leadership: Theory and practice*. Champaign, IL: Human Kinetics.

Martin, R., & Davids, K. (1995). The effect of group development techniques on a professional athletic team. *The Journal of Social Psychology, 135*(4), 533-535.

McAvoy, L., Mitten, D., Stringer, L., Steckart, J., & Sproles, K. (1996). Group development and group dynamics in outdoor education. In L. McAvoy, L. A. Stinger, M. D. Bialeschki, & A. Young (Eds.), *Coalition for education in the outdoors third research symposium proceedings* (pp. 51-62). Cortland, NY: CEO.

McCollom (1990) *Group formation: Boundaries, leadership, and culture*. In M. McCollom & J. Gillette (Eds.), *Groups in context* (pp. 34-48). Reading, MA: Addison-Wesley.

McGrew, J. F., Bilotta, J. G., & Deeney, J. M. (1999). Software team formation and decay: Extending the standard model for small groups. *Small Group Research, 30*(2), 209-234.

McKenzie, M. (2000). How are adventure education outcomes achieved?: A review of literature. *Australian Journal of Outdoor Education, 5*(1), 19-28.

McKenzie, M. (2003). Beyond "The Outward Bound process": Rethinking student learning. *The Journal of Experiential Education, 26*(1), 8-23.

Merriam, S. B. (2001). *Qualitative research and case-study applications in education*. San Francisco, CA: Jossey-Bass Publishers.

Miyata, H., & Kai, I. (2009). Reconsidering evaluation criteria for scientific adequacy in health care research: An integrative framework of quantitative and qualitative criteria. *International Journal of Qualitative Methods, 8*(1), 64-75.

Oaks, P., Haslam, S., Morrison, B., & Grace, D. (1995). Becoming an in-group: Re-examining the impact of familiarity on perceptions of group homogeneity. *Social Psychology Quarterly, 58*(1), 52-61.

Patton, M. Q. (2002). *Qualitative evaluation and research methods* (3rd ed.). CA: Sage Publications.

Poole, M. S. (1983a). Decision development in small groups II: A study of multiple sequences in decision making. *Communication Monographs, 50*, 206-232.

Poole, M. S. (1983b). Decision development in small groups III: A study of multiple sequences in decision making. *Communication Monographs, 50*, 322-341.

Poole, M. S., & Baldwin, C. (1996). Development processes in group decision making. In R. Hirokawa & M. S. Poole (Eds.), *Communication and group decision making* (2nd ed., pp. 215-241). CA: Sage Publications.

Priest, S., & Gass, M. (2005). *Effective leadership in adventure programming* (2nd ed.). Champaign, IL: Human Kinetics.

Priest, S., & Lesperance, M. (1994). Time series trends in corporate development. *The Journal of Experiential Education, 17*(1), 34-39.

Sibthorp, J. (2003). An empirical look at Walsh and Golins' adventure education process model: Relationships between antecedent factors, perceptions of characteristics of an adventure education experience, and changes in self-efficacy. *Journal of Leisure Research, 35*(1), 80-106.

Sibthorp, J., Paisley, K., & Gookin, J. (2007). Exploring participant development through adventure-based recreation programming: A model from the National Outdoor Leadership School. *Leisure Sciences, 29*(1), 1-18.

Tomb, H. (1994).*The cool of the wild: An extremist's guide to adventure sports*. Chicago: Contemporary Books.

Tuckman, B. (1965). Developmental sequences in small groups. *Psychological Bulletin, 63*(6), 384-389.

Tuckman, B., & Jensen, M. (1977). Stages of small-group development revisited. *Group and Organizational Studies, 2, 419-427*.

Walsh, V., & Golins, G. (1976). *The exploration of the outward bound process*. Denver, CO: Outward Bound Publications.

Wheelan, S. (2005). *Group process: A developmental perspective* (2nd ed.). Boston: Allyn and Bacon.

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