Research In Outdoor Education: Group Development And Group Dynamics

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Much of the practical and scholarly attention in outdoor education has focused on the individual and personal growth dimensions of outdoor education processes and experiences. Outdoor education, however, is usually not a solitary process. It happens in the context of a course, a trip, an outing, a lesson, a group. Practitioners in the field know that what happens within and to that group is one of the major influences on the personal growth dimension. The group is the milieu in which the personal growth processes happen. Research indicates that for participants in some outdoor adventure programs "the group" was the highlight of the experience. Anecdotal evidence from outdoor leaders and educators indicates that for participants in outdoor education programs, most lasting impressions about the program revolve around the success or failure of their group. Most outdoor leaders can recount programs or trips where everything went according to plan (the weather was great, all agency goals were reached, all lessons were a success, and all tasks were accomplished). But, if the group dynamics did not work the participants left the program disappointed because something about the experience just did not live up to their expectations. Conversely, leaders can recall other programs or trips where everything seemingly went wrong (inclement weather, poor food, tasks or goals not reached, lessons not completed) and yet if the group experience was positive, the participants loved the program, left fulfilled, and were ready to return for another experience.

A number of writers in the outdoor education field have claimed that group development and group dynamics are the cornerstones of outdoor and adventure education (Brower & Brower, 1980; Buell,1983; Ford & Blanchard,1985; Kalish, 1979; McAvoy, 1987; Mitten, 1986; Walsh & Golins,1975). The purpose of this paper is to explore the literature to see what we know about group development and group dynamics in outdoor learning environments and programs, what we know about relationship development between two or more individuals in outdoor programs, and how groups of individuals interact in such situations. Another purpose of the paper is to evaluate the level of understanding we have about groups in an outdoor education context and to provide a qualitative opinion on the status of research in this area. Lastly, another purpose of this paper is to suggest areas of research that are needed to advance our understanding of group development and dynamics in outdoor education.

Most outdoor education practitioners work with groups regularly. The more one understands about group development and dynamics, the more one can maximize the constructive aspects of groups and minimize the destructive ones. To promote effective group functioning, one needs to know what an effective, positive group is and have the group skills necessary to enhance group effectiveness. It is hoped that this review of literature will assist outdoor education practitioners and scholars in that process.

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The sources used in this literature review included personal reviews of texts in group dynamics and in outdoor/adventure/experiential/wilderness education, reviews of the major journals and professional publications in these areas, and personal contacts with scholars in these topic areas. We also consulted a number of library data bases including ERIC, PsycLIT, and DISSERTATION ABSTRACTS (using key words outdoor education, wilderness, experiential education, group dynamics, and communication).

Groups, Group Dynamics, and Group Development

Before presenting literature on groups in the context of outdoor education, it will be beneficial to present some common definitions and information on groups from the psychology, sociology, and communications literature. The field of group study is interdisciplinary and covers a wide range of literature. We found that the most useful sources for an understanding of groups, and how outdoor education scholars could transfer this information to their work, were group dynamics and theory texts by Cartwright and Zander (1968), Corey and Corey (1992), Forsyth (1990), Johnson and Johnson (1987), Napier and Gershenfeld (1983, 1989), Olmsted and Hare (1978), and Shaw (1971). The text by Forsyth was particularly helpful in understanding definitions, theories and recent trends in group understanding and research.

There are a number of definitions of a group in the literature. Forsyth's (1990) definition of a group, and the definition used throughout this review, is that **a group is two or more individuals who influence one another through social interaction.** The key component to this definition, and to most others found in the group literature, is **social interaction**— relations to one another, face to face communication, influence, status, and roles. The literature also reveals a number of characteristics that define a group. Again, Forsyth's list of characteristics of a group seem appropriate for outdoor education. These characteristics are:
- **Interaction:** Patterns of mutual influence that can be physical, verbal, nonverbal, emotional.
- **Structure:** A stable pattern of relationships including roles, norms, intermember relations.
- **Goals:** Intrinsic or extrinsic reasons for the group's existence.
- **Cohesiveness:** The perception that the group is a unified whole rather than simply a cluster of people in physical proximity of each other.
- **Dynamic interdependency:** A developmental process with a beginning, stability, disruption, and change over time.

"Group dynamics" as a term was developed and popularized by Lewin (1951) when he applied Gestalt concepts to the study of groups and found that the whole was greater than the sum of the parts. The behavior of the group member is determined by the interactions of the individual's personal characteristics with environmental factors, which include features of the group, the group members, and the situation (Forsyth, 1990). There are also numerous definitions of group dynamics. Two of the most prolific researchers, Cartwright and Zander, define it as "...a field of inquiry dedicated to advancing knowledge about the nature of groups, the laws of their development, and their interrelations with individuals, other groups, and larger institutions " (1968, p. 7). We have chosen in this review to use Forsyth's simpler definition, which holds that **group dynamics is the study of the behavior of groups.** Favorite topics of researchers in group dynamics have been group development, leadership, group performance, and interaction (Bales, 1965, 1980; Hare, 1976; Schutz, 1958).

"Group development" is defined as the patterns of growth and change that occur in groups throughout their life from formation to dissolution (Forsyth, 1990). Over 100 theories have been proposed by group researchers seeking to describe the kinds of developmental changes seen in most groups. There appear to be three main categories of these developmental theories: sequential stage theories, recurring phase theories, and cyclical/synthesis theories. The sequential stage theories describe a typical order of the stages a group goes through in its developmental life cycle. For example, Tuckman (1965) describes four stages of development as: the **forming** stage, where group members meet and begin learning about each

other and group tasks; the storming stage, where the group members sort out individual roles and deal with issues of power and decision making; the norming stage, when group members establish individual roles and the group generates its own norms and patterns of interaction; and the performing stage, where the group accomplishes its goals and tasks as a cohesive unit. A fifth stage often added to this model is transforming or adjournment which is the process of disbanding the group (Tuckman & Jensen, 1977). Jones proposed a four stage model and labelled the stages as dependency, conflict, cohesion, and interdependence (1973). Garland, Jones and Kolodny proposed a five stage model, with the stages being pre-affiliation, power and control, intimacy, differentiation, and separation (1973).

The recurring phase theorists believe not only that certain issues tend to dominate group interaction during early phases of development, but that these issues can occur later in the life of the group as well. As an example, Bales' equilibrium model holds that group members strive to maintain a balance between task oriented actions and emotionally expressive behaviors (1965). The group tends to oscillate back and forth between these two concerns. Most recent theorists recommend a synthesis of the stage and phase approaches, this has been called the synthesis or cyclical approach. As the group goes through various stages, basic themes tend to become relevant at certain times and must be dealt with by the group. These themes include anxiety, power, norms, relationships, and personal growth. Because the issues underlying the themes are never completely resolved, the stages and phases can recur (Forsyth, 1990).

Research in Group Development and Dynamics in Outdoor Education

Since group development and group dynamics are such interdisciplinary topics, it seemed logical to try and establish a method of categorizing the topics and the research to make the literature search more manageable and to make the presentation of the resulting information understandable. We adapted a classification system developed by Weber (1982) and modified it to fit the topics relevant for outdoor/adventure/experiential/wilderness education. This adaptation resulted in a list of general dimensions or topic areas of research and information. We then used the group dynamics literature to generate a list of specific topic areas within each dimension area and went to the literature to see if research was available on those topics in the context of outdoor education. Some of the topic areas and dimensions overlap, and some research articles address more than one topic. The authors attempted to reduce duplication and so the focus of this report is on the primary studies found in each topic area. The remainder of this paper is a report of the literature found according to this classification system. The general dimension categories we established were:

1. Individual and Personal Dimensions: How do the personal characteristics individuals bring to groups influence group dynamics and development?
2. Group Process and Structure: How do groups develop and operate, how do process and structure influence groups?
3. Group Functions and Tasks: What is the relationship between functions and tasks in groups, do groups operate differently according to functions and tasks?
4. Leadership and Power: How do leaders and leadership influence group development and dynamics?
5. Environmental: How do forces from outside the group influence group dynamics and development?

Tables 1-4 list the first four dimension categories and list specific research topics within each dimension. This review did not include the "environmental" dimension because it was included in the environmental research topics paper in another section of this symposium.

Individual and Personal Dimension

The topics in the individual and personal dimension (Table 1) have received little attention in the outdoor education literature. We looked at the literature trying to find studies that showed if or how these dimensions influenced group dynamics and group development in outdoor education programs or environments. As an example, does the literature tell us

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anything about how an individual's intrapersonal or introspective capabilities influence group dynamics in outdoor education, or a person's coping skills, or a person's gender? Although we found little research addressing any of these topics we did find some information related to gender, age, and ability/disability. Henderson and Bialeschki (1991) have suggested that gender plays an important role in leisure patterns. Dickie (1990), Hardin (1979) and Mitten (1985, 1989) used anecdotal and experience based observation information to suggest that gender influences group dynamics in outdoor education. Fox (1990) found that young girls were typically discounted by their male peers in an environmental education simulation for junior high students. This made the group less accessible for the girls. Van Hove (1990) used a standardized measure in determining that gender impacts group interaction and cooperation. Conversely, Ewert and Heywood, in a recent study (1991) of Outward Bound participants, found no significant gender differences in levels of expectation of group development or in the actual realization of those expectations during the trip. There also were no significant differences according to age of participants. McAvoy and Schleien (1988) and McAvoy, Schatz, Stutz, Schleien and Lais (1989) found no significant differences in group development or group interaction according to ability/disability (physical or developmental) in integrated outdoor education or outdoor adventure programs.

TABLE 1.   Individual/Personal Dimensions

Personal Factors	Role Choice	Intrapersonal/Introspective Capabilities
Past Experience		
Family of Origin		
Gender		
Class		
Ethnicity		
Diversity		
Ability/Disability		
Social Skills		
Age		
Coping Skills		

Group Process and Structure Dimensions

The group process and structure dimension topics (Table 2) have received some attention in the outdoor education literature. Much of the writing has been reports of models for practice, but there also has been some empirical research. On the communication topic, Mason (1987) described the potential benefits of increased intimacy and communication among family members on wilderness experiences. Neumann (1989) and Neely and Kling (1987) found increased communication capabilities in college students and adolescents respectively as a result of experiential-adventure based experiences. Harris (1985) studied interaction patterns of adolescents in school and recreation settings and found some differences between outdoor education and outdoor recreation settings. Stoltz (1989) conducted a major literature review of communication in the training and development and Outward Bound literature as part of a study of Outward Bound

Training and Development courses. In his data based research he found no significant increase in communication skills as a result of participation in such a course.

TABLE 2.   Group Process/Structure Dimensions

Norms	Processing
Conflict	Sequential Stage Models
Roles	• Jones 4 stage model
Communication	• Tuckman 5 stage model
Special Groups	• Garland, Jones, Kolodny model
Problem Solving Ability	Recurring Phase Model - Bales
Cohesion/Non-Cohesion and Team Building	Cyclical Synthesis Model
Authority/Hierarchy Structure	

The cohesion/non-cohesion and team building topics have been a major emphasis of adventure/ experiential based training and development programs, which have become increasingly popular in the past five years. Intended mainly for management and professional level workers in corporations, these team development programs utilize physical and mental challenges as metaphors for professional challenges in the corporate organization. They often include group problem solving and management events as part of the group development experience. The theory underlying these programs is that if a team atmosphere can be created in an experiential setting, then this atmosphere can perhaps be transferred back to the corporation, resulting in increased productivity, morale and a more positive work climate. Long (1984, 1987) and Petrini (1990) described these programs, listed the potential benefits in team building and group cohesion, listed specific programs (Petrini), and gave anecdotal evidence as to the impact these programs have had on participant groups. Oddou (1987) examined various wilderness training programs through a literature review and phone interviews with program managers. He found that the primary objectives of the programs were increasing self confidence and team building. Oddou also found that the evaluation of such programs is largely qualitative. In addition to these studies, there appears to be research being conducted within a number of these training and development programs seeking to document the impact the programs have on individuals and groups. Little of this research has yet been published in the research literature.

Special groups, particularly persons with physical or developmental disabilities, have been receiving increased attention in the outdoor education literature. Robb and Ewert (1987) reported on the positive benefits in group interaction with these groups in outdoor education programs. McAvoy and Schleien (1988) found increased social interaction and social acceptance as a result of participation in integrated outdoor education programs. McAvoy, Schatz, Stutz, Schleien, and Lais (1989) reported increased social interaction, tolerance of others, and peer acceptance as a result of participation in integrated wilderness programs. Their results differed from the study by Engstrom (1982), which found no significant difference between public school and outdoor education laboratory school settings regarding frequency of interactions or sociometric attitudes between sixth grade children with and without disabilities.

The group stages topic is a popular one in the outdoor/experiential/adventure education literature. Much of the literature has concentrated on adapting and applying the accepted group stage models from the group development literature to the particular context of outdoor education (Jensen, 1979). Little actual research has been reported on how these stages or the process of developing through them influences the group or the individuals in the group. Ewert and Heywood (1991) used the Jones (1973) model as a theoretical basis for their research of Outward Bound course participants and found that participants do pass through several stages developing mutual commitments and becoming effective functioning groups. Phipps (1986, 1991) used the Jones model in developing and testing the Group Dynamics Teaching Model and found a positive impact on group dynamics when leaders track and intervene to enhance those dynamics (Phipps &

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McAvoy, 1988). (See further discussion of Phipps' model below in section on leadership and power.)

An expanded version of the Jones model of group development stages is presented in the model by Garland, Jones and Kolodny (1973). This five stage model has been adapted and applied to adventure education in a comprehensive article by Kerr and Gass (1987). Their paper is not a report of research but is an in-depth treatment and explanation of the model stages (pre-affiliation, power and control, intimacy, differentiation, and separation) and how these stages demand different responses from group leaders. Kerr and Gass applied the five stages represented by the model to the three central program approaches or scenarios of adventure education: skill development programs, social development programs, and therapeutic programs. They then described what the group would look and act like (group indicators) in each of the five stages and outlined the specific role the instructor should assume in each of the five stages within each of the three scenarios. Kerr and Gass concluded that if instructors understand what is happening in each of these stages and scenarios they will be better equipped to select activities and strategies appropriate for the group at that particular stage.

Group Functions and Tasks Dimension

As in some of the other dimension areas, little research or scholarly material was found on the influences that group functions or tasks have on group development and dynamics in outdoor education (Table 3). Ewert and Heywood (1991) found that there were significant differences between white-water and land-based participants in the group stage process behaviors of cohesion and interdependence. They reported that participants of white-water courses believed their groups were more cohesive, interdependent, and problem-solving oriented than participants on land-based programs. Ewert and Heywood speculated that this may have been due to the unique environmental settings of white-water activities, which forced participants to use teamwork, be in close proximity to one another, and deal with constantly changing conditions.

TABLE 3.   Group Functions/Tasks Dimensions

Goals	Relationships
Tasks	Decision Making
Action Plans	Outcomes/Results
Problem Solving	

The topic area of outcomes and results addresses the influence that group functions and tasks can have on the success or failure of the group to accomplish tasks or goals. Kanki (1990) studied mountain climbing teams looking at the relationships between team size and structure, leadership styles, authority structure, and successful team performance as measured by the team accomplishing its goal, which was in this case, reaching the summit. The study was developed to evaluate the usefulness of the mountain climbing environment as a high risk space analog. The article includes a number of useful references on team and group issues from the space and military research literature. In spite of some control and small sample size problems (22 climb teams, 122 individuals), Kanki tentatively concluded that group size is a major predictor of group performance and group member satisfaction, with the smaller teams (2-4 members) being the most successful. Also, a level of pre-event familiarity between group members correlated with group success.

Leadership and Power Dimension

The leadership and power dimension is the topic area which has generated the most attention in the outdoor and experiential education literature (Table 4). Much of this writing has been an attempt by the professionals in the field to formulate and standardize effective, safe, ethical leadership approaches that would facilitate individual and group growth in outdoor programs. Our review is not intended to be a review of leadership research in outdoor programs, but rather a review of literature and research that has addressed how leadership influences group development and group dynamics in the context of outdoor programs. Table 4 lists the primary topic areas in the leadership and power dimension. Even though there is a relatively large amount of literature on leadership in outdoor programs, there is very little research that documents or explains the influence these leadership and power dimensions have on group development or dynamics.

TABLE 4. Leadership And Power Dimensions

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Ethics
Multi-cultural Considerations
Leadership Emergence
Leader Effectiveness/Leadership Traits
Dependence/Counter Dependence/Interdependence
Managing Group Dynamics
Team Building
Leadership Models
        Situational - from Hersey and Blanchard
        Ethical - from Terry
        Other Outdoor Leadership Models
            •  Knapp - Humane Climates Model
            •  Phipps - Group Dynamics Teaching Model
            •  Priest - Conditional Outdoor Leadership Theory
            •  Jordon - Comprehensive Interaction Expectation Model
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Leader effectiveness and the desired traits of outdoor leaders have been primary areas of professional writing in outdoor education for a number of years. Readers seeking information on these dimensions can consult major texts by Cockrell (1991), Ford and Blanchard (1985), and Miles and Priest (1990). Most of the research in this topic area has centered on surveys of outdoor program managers and leaders to determine opinions on desired leadership traits.

Two major models of leadership have been drawing attention from outdoor education scholars recently. The **Situational Leadership Model** and the **Ethical Leadership Model** appear to offer some reasonable explanations as to how a leader and a group interact in the context of the tasks and the relationships that are a part of outdoor programs. The situational leadership approach (Hersey & Blanchard, 1984) hypothesizes that group goals lie on a continuum between enhancing human relationships and accomplishing group tasks. The leadership style that is most appropriate for a given situation depends on the maturity level of the group and the demands of that situation. Different leadership styles (telling, selling, participating, and delegating) result in different outcomes on the relationship/task continuum. This model appears to be attractive to some outdoor education professionals because of the changing situations which usually surround outdoor programs and because of the model's attention to relationships as well as tasks. Phipps (1986, 1991) has studied the relationship between the situational leadership model and group dynamics in a number of outdoor education and other contexts. He has connected the situational leadership model of Hersey and Blanchard with the group development model of Jones (1973) to present interesting research and practice approaches. His 1986 study used these two models as a theoretical basis to measure the effectiveness of a leader training approach intended to increase leadership adaptability and effectiveness, as well as to increase group dynamics. He found that a systematic approach, which included teaching the situational leadership model and a group dynamics model, resulted in a positive relationship between leader effectiveness and participants'

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perceptions of group dynamics. Hardin (1979) also used the situational leadership model as the basis for her literature review and field observational study, assessing factors important in designing and leading outdoor experiences aimed at promoting lasting psychological gain for adult women.

Some outdoor education practitioners and scholars consider the situational leadership model as problematic. They believe the model is too dominated by task goals and does not provide an effective representation of the person centered goals and interactions that characterize modern outdoor programs. They also see the situational leadership model as being linear, compartmentalized, and too oriented to the corporate goals of accomplishing tasks and increasing productivity. These leaders want to focus more on the individual and group growth dimensions. The ethical leadership model described by Terry (1986) is the choice of many of these scholars to portray the ideal relationship between leaders and groups. Hunt has called for ethics in outdoor programs for a number of years (1986). However, Terry's ethical leadership model was developed for use in the context of corporations, politics, and other organizations and has only been recently applied to outdoor programs.

Ethical leadership is characterized by the leader employing social-ethical practices regarding participants. It focuses on caring, concern, attention, empowerment, and person centering. This model emphasizes the active nature of leadership which is practiced in concert with followers. The model is based on seven interrelated and interdependent ethical principals: authenticity, dwelling, freedom, justice, participation, love, and responsibility. To date there has been little research linking this model to group dynamics. However, a number of case study and qualitative reports of ethical leadership have been completed centering on Woodswomen, an adventure program serving primarily women (Dickie, 1990; Lehman, 1991; Mitten, 1989). This model appears to offer opportunities for future research.

Other leadership models are being developed in the outdoor education field and researchers are beginning to explore these models for effectiveness and for influence on group dynamics. Most of this research, however, is based on case studies or is descriptive in nature and often consists of opinion surveys of outdoor program leaders regarding the usefulness of the models in practice. **Knapp's Humane Climates Model** (1988) gives direction in building intentional communities within outdoor programs using self-knowledge, interpersonal skill enhancement, and environmental awareness values. Phipps' **Group Dynamics Teaching Model** (1991) was described above in the discussion of the situational leadership model. He has conducted research documenting the effectiveness of the model and has also developed an instrument to measure group climate in outdoor programs. Priest and colleagues have developed the **Conditional Outdoor Leadership Theory** (Priest & Chase, 1989; Priest & Dixon, 1991), which is based on the levels of concern for task and relationship and on the favorability of the conditions at the time. This model is currently being tested by using qualitative research methods in a number of outdoor programs. Jordan (1989) has proposed the **Comprehensive Interaction Expectation Model** as a combination of group based theory and situation based theory which focuses on the dynamics of leader role behaviors within the scope of the leader-group-situation interactions. Research on this theory has not yet appeared in the literature.

Recommendations for Future Research

Future research in the areas of group development and group dynamics in outdoor education should move away from simply using surveys of leaders or participants and toward the use of research designs and measurement techniques described in the group dynamics literature. Forsyth (1990) describes three major research designs which seem appropriate: in depth case studies of single groups; correlational analyses of relationships between various aspects of groups; and experimental designs requiring manipulation of various aspects of the group situation. Specific research and measurement methods that would be appropriate include self report measures, like sociometry and multi-item scales, to measure environment, attitude, and cohesiveness in the group (see article by Ewert and Heywood in 1991 for an example of a multi-item scale). Observational techniques are particularly powerful research methods that have not

been employed widely in the outdoor education field, but which are vital if we are going to better understand the true workings of a group in outdoor situations. Participant observation and structured observation techniques like the SYM-LOG system of multiple level observation in groups (Bales, 1980) seem to offer guidance in developing more in depth research to study groups in outdoor education.

Conclusion

An overall evaluation of the status of research on the topics of group dynamics and group development in outdoor education is that there is very little research available documenting the group dimensions of outdoor education experiences and programs. If researchers or graduate students are searching for an area of research where they could make a significant contribution, group dynamics and development would be a fertile area for scholarly inquiry. Very few of the dimensions and topics listed on Tables 1-4 have been addressed at all in a research context. Much of the research that has been completed has consisted of opinion surveys of outdoor leaders and program managers regarding the effectiveness of leadership models or opinion surveys of participants reporting on some aspect of group dynamics within programs. Appropriately designed and implemented research is needed to assist outdoor education scholars and practitioners in understanding group dynamics and group development.

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