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An Analysis of Transformational, Transactional and Laissez-Faire Leadership Styles Between Professional and Student Leaders in Collegiate Outdoor Programs

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ABSTRACT

This thesis is a quantitative research project that investigates the leadership styles of collegiate outdoor program leaders. The purpose of this study was to gain knowledge of the leadership style(s) of collegiate outdoor program leaders, particularly between student and professional leaders. A purposive sampling method was used to select outdoor programs as well as to solicit participation using an email listserv maintained by the Association for Outdoor Recreation and Education (AORE). A total of n=113 leaders responded, resulting in 80 complete sets of data. The Multifactor Leadership Questionnaire Short (MLQ5x) was used to determine leadership styles. A repeated measures ANOVA shows that collegiate outdoor student and professional leaders share the same leadership styles.
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CHAPTER ONE - INTRODUCTION

Overview

“The potentially hostile environment confronted in wilderness/outdoor activity necessitates quality leadership if disaster is to be an avoidable consequence” (Aguiar, 1986, p. 3). With 128 collegiate outdoor programs created between 1976 and 1999 (Webb, 2000) and with 1/3 of the Association of Experiential Education (2000) membership consisting of school or college outdoor programs, there is a need to understand the similarities and differences between student leaders and professional leaders of collegiate programs.

This need to understand the differences stems from how outdoor programs are usually implemented. Usually programs are implemented in one of two ways, programs which primarily utilize professional leaders to lead trips and run the administrative aspect of the program or programs which utilize professional staff to run the administrative portion while student leaders organize and lead trips. The decision to use student or professional leaders often comes down to the cost of hiring fulltime professional staff as well as the mission of the program to either provide outdoor recreation experiences for the collegiate community or to develop student outdoor leaders.

When deciding to utilize professional or student outdoor leaders, awareness of their leadership differences are rarely considered. Experts, such as professional outdoor leaders, see the world in different ways, think about it
differently, and understand their own limitations (Galloway, 2005) better than novice outdoor leaders.

This is significant; inappropriate leadership style or timing is potentially devastating (Priest & Dixon, 1991). Outdoor leadership is an emotionally, mentally, psychologically, and physically demanding style of leadership (Rillings & Jordan, 2007), and knowing the theory of when and how to perform outdoor related skills are not the same as being able to execute the skills in-situ (Galloway, 2002). Collegiate administrators need to know the differences and similarities in leadership characteristics between student and professional outdoor leaders in order to appropriately staff an outdoor program.

**Purpose**

The purpose of this study is to gain knowledge of the leadership styles of collegiate outdoor program leaders, particularly the differences and similarities in leadership style between student and professional leaders. As of this writing, no known study has compared student and professional leadership styles in a collegiate setting. This study will add new knowledge to the current body of knowledge on outdoor leadership.

**Research Questions**

The leading question for this study is:

What are the leadership styles of professional and student outdoor collegiate leaders and how are they similar or different?
Statement of the Problem

Collegiate outdoor programs often have the expectation that their student leaders are professionals. Yet because of their youth, maturity level, and inexperience, there is in the investigator’s experience, a level of expectation student leaders cannot reach. These expectations appear to be placed without accurately knowing the styles professional leaders often use. It will be helpful to know the leadership styles of student and professional collegiate outdoor leaders in order to form accurate expectations for student leaders, particularly if professional leadership styles are used as the measure to form student leader expectations.

Definitions

The definitions provided below are meant to clearly convey who and what are discussed or investigated. When possible, pre-existing definitions from the recreation field are used.

Outdoor recreation – human powered activities that require a natural environment. For example, running, mountain biking, road biking, canoeing, rock climbing, skiing or hiking.

Outdoor program – structured outdoor programs are those that have a stated purpose and an organized curriculum aimed at providing participants with opportunities to develop outdoor skills, knowledge, and experience (Propst & Koesler, 1998).
Adventure recreation – a subset of outdoor recreation that requires more skill and contains a higher degree of risk such as drowning, avalanche, lighting, falling or concussion. Hiking, bird watching, and fishing are outdoor recreation while backpacking, fly fishing, climbing, and skiing are adventure recreation.

Student leader – an undergraduate employee of an outdoor program who is tasked with leading outdoor and adventure recreation clinics and trips. Must lead at least one official outdoor program trip or clinic during and at minimum have first aid and CPR.

Professional leader – employed through an outdoor program to lead outdoor adventure recreation clinics and trips and perform administrative duties as a career choice. Must have at least a wilderness first responder medical certification and 3-5+ years experience working full time in the field.

**Significance**

As of this writing, only three known studies (Aguiar, 1986; Bartley, 1985; and Easley, 1985) specifically investigated the qualities of professional outdoor leaders. No known study has investigated collegiate leader characteristics. Such an analysis will help collegiate student leader training programs know the leadership styles of professional leaders. This knowledge may also help outdoor program directors create an accurate level of expectations for student leaders, who are often required to act and work as a professional, even though outdoor leaders with significant field experience respond differently (Galloway, 2007).
**Limitations**

The findings from this study are applicable to higher education outdoor programs. The findings may not generalize accurately to guide services or other adventure/outdoor organizations such as Outward Bound, National Outdoor Leadership School or Adventures Cross Country.

Additionally, the Multifactor Leadership Questionnaire is a self-assessment survey, which requires the participant be able to accurately and honestly decided which leadership qualities s/he has. If a participant is not able to accurately decide which leadership qualities s/he has, or chooses to not accurately report these leader qualities, then the results of this survey will not be accurate.

**Delimitations**

In order to achieve a sufficient number of respondents (n=30+), only three outdoor programs were contact and only one professional outdoor leadership association (the Association of Outdoor Recreation and Education) was contacted. Inclusion of other outdoor programs or professional outdoor associations may influence the findings.

All leaders must have a medical certification. Student leaders must have at minimum first aid and CPR, while professional leaders must have at minimum a Wilderness First Responder (WFR). Professional leaders with only a Wilderness Advanced First Aid (WAFA) were not eligible to participate.
Student leaders must have led at least one officially sponsored outdoor program trip during the spring 2008. Professional leaders must have worked in the outdoor recreation field at least 3 years.
CHAPTER TWO – LITERATURE REVIEW

Introduction

This literature review discusses the purpose of leadership, both from a general point of view and from the narrow view of outdoor leadership. With this understanding, several theories of leadership are discussed, such as transformational, transactional, trait and the Conditional Outdoor Leadership Theory (COLT). Moving away from these two theoretical sections, the next section discusses the tangible aspects of leadership such as leader characteristics and desired skills.

The Purpose of Leadership

There are many definitions of leadership (Jordan, 1998) stemming from the needs and vocation of the definer. While certain aspects of leadership cross all definitions and fields, each field creates a definition of best fit unique to its leadership situation.

The definition of best fit for outdoor leadership is that leadership is the process of decision-making and negotiating a complex environment in order to achieve the goals as required by the program, the moment, the participants, and the needs of the instructor (Galloway, 2005).

When defining what it means to be a leader, one must remember, leadership is not an end in itself (Palmer, Walls, Burgass, & Stough, 2001) and
there is no one right way to be a leader (Jordan, 1998). Effective leaders use a
diversity of styles (Palmer et al.) and will exhibit different characteristics as
needed.

Outdoor leadership is a “...very emotionally, mentally, psychologically, and
physically demanding type of leadership” (Rillings & Jordan, 2007, p. 193). It is
demanding because of the outdoor setting, the perceived risk of outdoor activities
and the extended leadership periods (Jordan, 1989) that all outdoor leaders
engage in as a part of their profession. It is a unique situation that defies using
leadership theories from other professions; outdoor leadership requires direct
and constant involvement with followers, rather than an indirect involvement
with followers such as in the business profession. It is this style difference that
places a unique demand on leadership theory (Jordan).

Outdoor recreation practitioners have acknowledged that successful
outdoor leadership requires one who is skilled both in people-oriented,
expressive traits as well as agentic, task oriented traits (Jordan, 1991) and who is
also able to physically keep up with or surpass their students. An outdoor leader
is called upon to have a higher degree of soft skills, such as empathy, hard skills,
such as emergency medicine, and conceptual skills, such as knowing when to defy
protocol, more often then required of leaders in other fields.

Leadership is the critical component of all outdoor programs (Bartley,
1987), and requires knowing what theories of leadership best apply to the
outdoor setting, what general personality characteristics leaders have, what skill
sets are required and requires knowing the differences between expert and novices.

**Leadership Theories**

"It is recognized that whatever the nuances of leadership are, they are connected to relationships between leaders and those who follow" (Jordan, 1998, p. 6). There are as almost as many theories of leadership as there are definitions. There are theories based upon the measurable traits of a leader, such as height, weight, personality, and age, agreeably called ‘trait theory.’ There is situational theory, theorizing the correct style of leadership depends upon the situation which is best served by a particular style of leadership (Ogilvie, 1993). Then there are the autocratic, meritocratic, bureaucratic, laissez-faire, democratic, transformational, transactional, Conditional Outdoor Leadership Theory (COLT), behavioral, group and humanistic styles of leadership.

Which theory outdoor leaders will use may depend upon their concern for tasks (making it to the summit) or concern for relationships (ensuring participants get along) (Priest & Gass, 1997). A leader with a strong desire to obtain a goal will typically use a more autocratic, transactional based theory; whereas, a leader whose desire is a strong working team will use a more abdicratic, laissez-faire style, or transformational style. While there is no one right way to lead, there is a wrong style of leadership for a particular group, the goals or the time; effective leaders use a variety of styles (Wittmer, 2001).
In the outdoor recreation and education field strongly leaning towards one style of leading, with the variety of variables a leader must juggle, results in a leader failing to be fully effective (Priest & Gass, 1999). While business leaders may use an autocratic style to become the biggest trinket maker at any cost, outdoor leaders who always use an autocratic style to push their group to the top of a mountain at any cost will come down the mountain a smaller group.

Because most theories of leadership derive from the business or military environment, these theories do not generalize well to outdoor leadership. As such, the prime theory discussed here is the Conditional Outdoor Leadership Theory (COLT) developed in 1991 by Priest & Dixon. The tenet of COLT is that the leadership style required depends upon the favorability of conditions (Priest & Dixon, 1991), rather than only a concern for task or concern for relationship. To fully understanding COLT, it helps to understand the idea of transformational and transactional leadership styles, which are discussed briefly following the section on COLT.

**Conditional Outdoor Leadership Theory (COLT)**

Established leadership theories, whether transformational, situational, or group theory only partial explain the effects of leadership in a wilderness setting; these established theories fail to address the needs of leadership in a wilderness context (Priest & Gass, 1997). Jordan (1989) pointed out that the nature of leading in a wilderness setting confounds most leadership theories because these
theories do not allow for uncontrolled “...external effects upon the leadership experience” (p. 39).

In order to develop a theory that does allow for external effects to influence leadership, Priest and Gass mailed surveys to 100 experts from Canada and United States in two rounds; final number of participants, n=56. The surveys consisted of twelve outdoor related scenarios, with each scenario changed to represent the possible combinations of COLT: high and low task orientation; high and low relationship orientation; and high, medium, and low favorability. The experts were given a hypothetical problem in the scenario with three options to choose. The three options represented a leadership style: democratic, autocratic, and abdicratic. The second round surveys consisted of the same scenarios but asked the experts to compare scenarios and rate, on a scale of 0 (low) to 4 (high), their concern for task, relationship and conditional favorability for each scenario.

The authors used step-wise multiple regression to analyze the contributions of concern for task, relationship and conditional favorability from the second round surveys to the expressed leadership styles from the first round surveys. “Data fitting the COLT model resulted in 42.5% of the variance on concerns being able to explain the variance on style. For the data which did not fit the model, the explained variance was much less (20.5%)” (Priest & Gass, 1997, p. 166).

COLT expects the style of leadership to vary according to concern for the task, concern for relationships based upon conditional favorability. This is what
they found. Concern of the conditional favorability accounted for three quarters of the variance.

The interactions between the leader and their concerns fall along the X/Y continuum from an autocratic style of leadership to an abdicratic style. Here, COLT is similar to the continuum between transformational and transactional leadership on concern for task or concern for relationship. It is with the addition of the Z axis factor, ‘favorability of condition,’ which allows COLT to adapt to such external factors, as weather, terrain, group cohesion, objective dangers and others.

COLT is particularly strong because of its ability to combine transformational, transactional and situational leadership theories into a theory that is applicable to the wilderness leadership setting. However, using COLT as a leader requires consistent cognitive processing and evaluation of external (task and group), internal (leader energy, knowledge, and experience) and environmental factors. As Ogilvie (2003) noted, considerable effort is required to understand and apply it, which is its also its weakness. COLT only explains the type of leadership style leaders can use depending the leaders’ concern for task or concern for relationship accounting for the favorability factor. COLT does not suggest in which situations leaders should have a concern for task, relationships or balanced in-between. Novice leaders may not have the cognitive abilities to process all the factors that COLT requires. See figure 1.
Figure 1. Conditional Outdoor Leadership Theory
**Transformational and Transactional Leadership Theories**

In the current era, there has been a leaning towards seeing followers as more than manipulated pawns, accomplishing goals in exchange for money. "Transformational leadership is the leader’s ability to motivate followers to achieve beyond what was originally thought possible" (Sivanathan & Fekken, 2001, p. 198). To this extent, Sivanathan and Fekken found that transformational leadership was positively correlated with perceived effectiveness of student resident assistants, as rated by their charges and supervisors, while transactional leadership was negatively correlated with perceived effectiveness.

When given a choice, people prefer the transformational leadership style compared to the transactional leadership style (Jordan, 1998). With transactional leadership, the notion exists that one has to be viewed and validated as a leader by followers in order to be effective (Jordan). Transactional leaders are thought to have an exchange-based relationship with their followers (Sivanathan & Fekken, 2001). In this transactional style of leadership, leaders give followers guidance and rewards; in return, followers give leaders a job well done (Jordan, 1998).

**Leader Characteristics and Skills**

In Rilling and Jordan’s (2007) review of skill and trait competencies for outdoor leaders, they noted that desired leader competencies are plentiful and varied. In their review, the competencies a leader must have to be effective are: technical skills, environmental skills, philosophical understanding skills, human
relation skills, conceptual skills, and personality traits. Priest (1993) listed 14 components in ranked order of importance for outdoor leaders, providing more specificity than Rillings et al. (2007).

While the review provided by Rillings et al. (2007) and Priest (1993) differ in their designation of what is the most important characteristic or skill, there is a reasonable agreement of the skills and traits a leader must possess (Priest, 1999). Older studies (Galpin & McEwen, 1987; Green, 1981; Priest, 1985, 1987; Riggins, 1985; Swiderski, 1981) rated technical knowledge as the most important element in outdoor leadership, while more recent studies (Clement, 1997; Jordan, 1998; Rilling et al. 2007; Sheridan, 2004) deem the human skills as more important. This change derives from the notion that human skills are difficult to measure and therefore more difficult to master (Jordan, Daniel, & Cashel, 2003), unlike technical skills which are easy to learn and measure.

The review herein is a summary of the agreed upon characteristics and skills by the aforementioned authors, of effective outdoor leaders by the aforementioned authors

*General Leader Characteristics*

While trait theory is not well received in the contemporary leadership literature, there are trends in the trait characteristics leaders share. Aguiar’s (1986) study of Outward Bound leaders found successful leaders, as determined by their ability to meet program objectives as judged by their supervisors, have more education, higher levels of experience, are considered bright, dominant
(r=.50, p < .03), tender-minded, forthright, creative, enthusiastic, tactful, and skilled in interpersonal relations (r=.49, p < .04).

The mean years of education for successful leaders was 16.4 years as compared to mean 14.9 years of education for less successful leaders. Successful leaders had a mean of 24.9 months of experience while less successful had a mean of 13.3 months of experience.

Unfortunately, on its own, Aguiar’s (1987) finding has limited transference because of a small sample size (n=17), which is related to its case study methodology. Because Aguiar only studied Outward Bound, his finding may not generalize to a broader population. However, other researchers (Easley, 1985; Hendy, 1975; Riggins, 1985; Sirois, 1980), using the same organization or other similar (such as National Outdoor Leadership School, Boojum Institute, or Wilderness Ventures) organizations, have found similar characteristics.

Easley’s 1985 study of the National Outdoor Leadership School (NOLS) instructors found that NOLS leaders differed significantly in 13 of 16 categories on a 16 Personality Factor (16PF) assessment survey from the general population. In Easley’s study, the NOLS instructors’ results from the 16PF survey show they are more abstract thinking, emotionally stable, less impulsive, slightly bolder more tender-minded, more trusting, more imaginative, more forthright, substantially more self-assure, more liberal in viewpoints, slightly more self-sufficient in decision-making, more careless of social rules and more relaxed then the general population. NOLS instructors do not differ from the general population on reserved vs. outgoing scale, assertive vs. humble scale, and
expediency vs. conscientious scale. These results from the 16PF mirror the traits found by Aguiar (1987). Other common leader characteristics according to Jordan (1998) found by House and Aditya (1997) and Bass (1990) mirror Easley (1985) and Aguiar (1987) findings. But as Jordan (1989) argued, there are desired personality traits for leaders but these traits do not make a leader. “There is too much emphasis on individual characteristics/behaviours [sic] and not enough importance placed on related qualifications necessary to be a competent outdoor leader” (Jordan, 1989, p. 38). House and Aditya (1997) noted, there are few if any universal traits associated with effective leadership.

**Required Outdoor Leader Skills**

Outdoor leaders are seen in many ways as teachers (Easley, 1985). The field is perhaps one of the few that requires a leader to have the same, if not better, skills than their students. A leader must act like and be seen as a leader (Porter, Ges, & Jenning, 1983), requiring every leader to have the appropriate skill set.

Outdoor leaders do not just teach in a classroom setting on topics such as avalanche safety or kayaking whitewater. While there may be classroom sections on avalanches or river running, leaders must take their students into the field for proper context and use of classroom knowledge. In the field, leaders must move with ease and confidence, modeling the skills the students are seeking to learn.

There are a variety of names and categories for the skills outdoor leaders should have. Swiderski (1987) used hard skills, soft skills and conceptual skills as
the preferred terms. According to Swiderski, hard skills are the processes and techniques required for an activity. In rock climbing, for example, a hard skill is the ability to correctly tie a figure-eight knot. Soft skills are the inter/intra personal skills leaders should have, for example the ability to empathize or taking personal responsibility. Conceptual skills are the general analytic skills that combine the use of hard and soft skills in such skill as judgment and creativity. Priest’s (1997) categorization is similar to Swiderski’s but uses the term meta-skills rather than conceptual skills to cover such ideas as judgment, problem-solving, and decision-making skills. Sheridan (2004) is a bit more specific positing an outdoor leader should have hard skills, soft skills, judgment skills, and certifications. While these studies researched what skills a leader should have, Rilling and Jordan (2007) looked at the skills question differently. They investigated what skills a leaders emphasized as related to their leadership style.

Rilling and Jordan (2007) surveyed 18 leaders through a ‘Q-Methodology’ style. Rilling and Jordan found that the type of skills desired depended upon the leaders leadership style. In their study, task-oriented leaders placed greater emphasis on technical, environmental, and safety skills. Whereas, leaders who had a greater concern for relationships placed great emphasis on having human-relation skills. So while Priest (1997), Sheridan (2004), and Swiderski (1987) state that leaders should have the full range of skills, leaders in Rilling and Jordan’s study only focus on the skills that relate to their style of leadership.

The next section outlines the particulars of each type of skill set and why leaders should have the soft, hard and conceptual skill sets. This study will use
Swiderski’s (1987) definitions for hard, soft and conceptual skills on the basis that conceptual skills are a collection of interacting processes and not stand alone meta-skills as Priest (1997) defined.

**Hard, Soft, and Conceptual Skills**

Hard skills are generally the presumed competencies required for the outdoor activity (Priest, 1993). These skills are often stand-alone skills unique to a particular activity. For instance, hard skills in rock climbing are the ability to cleanly and smoothly climb at a certain grade of difficulty. For whitewater kayaking, it is the ability to navigate a rapid safely. Either person can do a particular skill at most times or they cannot. Hard skills can also be as simple as the ability to cook a meal on a backcountry stove or setup a tent. Safety and environmental skills are sometimes included as a hard skill (Priest, 1999).

Hard skills are easy to judge, only requiring direct observation of an observable action. While hard skills provide opportunity for observation, “soft skills are almost maddeningly difficult to measure...” (Sheridan, 2004, p. 2) in part because they are not easy to observe. Soft skills also have a subjective nature (Jordan et al. 2003). Although soft skills are difficult to observe and measure, it is becoming apparent that soft skills are becoming equally essential for effective leaders (Jordan, 1989) as hard skills.

Soft skills are the people skills. Like hard skills, soft skills are broken down into types of competencies: social, psychological and communication (Swiderski,
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1987), or organizational, instructional, and facilitation (Priest, 1999) competencies.

While soft skills are thought to be the most difficult to measure, conceptual skills are the hardest to teach. According to Swiderski (1987), conceptual skills contain the reasoning, logical, and analytic skills of a leader. Of conceptual skills, judgment is often cited as the first or second most important skill a leader should have (Clement, 1997; Priest, 1993). Good judgment is one’s ability to accurately estimate variables when they are unknown or unclear (Sheridan, 2004) then making a good decision with incomplete information concerning either the outcomes or the factors (Clement, 1997).

Judgment skills are the hardest to teach because such skills often take time to develop, often in response to a unique experience and it is this memory of past decisions on which one draws (Clement, 1997). Students do not understand the importance of judgment in outdoor leadership (Fox & Reed, 1994) because they do not have enough past decision-making experience to draw parallels between past experiences and current situation; whereas, more experienced leaders have developed their conceptual skills over time, obtaining an intuitive sense of a situation based upon deep understanding and experience (Galloway, 2002).

Following Swiderski’s (1987) thinking, creativity is the other important aspect of conceptual skills. According to Priest (1993), “the creative phase...uses techniques such as brainstorming new ideas when the analytical procedures reach a bottleneck or standstill, and when answers to question are not immediately obvious to outdoor leaders” (p. 14). Creativity and judgment create
tension, with one relying on past experience and protocol (judgment) and the other (creativity) figuring out new methods which have unknown effectiveness and results.

Conceptual, soft, and hard skills are requisite for any effective outdoor leader. It is clear in the literature: each skill area must be learned and used; it is not enough to have a well-developed soft skills background, without having developed conceptual and hard skills.

**Conclusion**

This literature review discussed the purpose of leadership and several theories of leadership that may influence outdoor leaders. Through the use of one leadership theory, the Conditional Outdoor Leadership Theory (COLT), it is possible for leaders to determine which style of leadership they should use based upon their concern for task or concern for relationship, depending upon the favorability of conditions. However, the use of COLT requires that leaders have the appropriate skill sets and leader characteristics, as covered towards the end of the literature review.
CHAPTER THREE – METHODOLOGY

Overview

This thesis used a purposive sampling (Babbie, 1990) method in order to determine the differences and similarities between professional and student outdoor leaders using a previously developed questionnaire. This sampling method was used because of the investigator’s knowledge of the population selected (Babbie), namely knowledge of the characteristics possessed by student and professional leaders who worked for collegiate outdoor programs and the expectations that are placed upon each. The desired sample size was 30+ participants for student and professional leaders, respectively.

In order to achieve a proper sample size, two methods were employed to recruit participants. The first method involved contacting three known collegiate outdoor programs that employ student leaders to lead trips. Because these programs usually only employ one to two professional staff members, the Association for Outdoor Recreation and Education listserv was also utilized. An email to this listserv asked professional and student outdoor leaders to participate in this study.

Participants of this study completed the MLQ5x Short in order to collect data concerning their style of leadership as determined by the Multifactor Leadership Questionnaire (Bass & Avolio, 1997). This survey was chosen for its validity and its prior use in outdoor recreation studies. Hayashi and Ewert (2006)
and Phipps and Hayashi (2005)) have used the Multifactor Leadership Questionnaire (MLQ) in outdoor recreation studies.

**Measures/Questionnaires**

*Multifactor Leadership Questionnaire 5x Short (MLQ)*

The MLQ is much broader than other leadership questionnaires in use (Avolio & Bass, 2004). The MLQ measures a broad range of leadership types from passive leaders, to leaders who give contingent rewards to followers, to leaders who transform their followers into becoming leaders themselves. Additionally, the MLQ has been under review and in use since its inception in the early 1990s.

Reliability and validity.

The 3rd edition of the MLQ 5x Short has been used in over 300 studies, dissertations, and theses between 1995 and 2004 (Bass & Avolio, 2004). The Cronbach’s Alpha for total items and for each leadership factor scale ranged from .74 to .94 (Bass & Avolio). This meets the minimum accepted standard for social research of .70. The .70 and higher cut off indicates that an instrument provides a consistent and reliable response, even if the questions are replaced with other similar questions (Reynaldo & Santos, 1999).
*Population/Sample*

Data were collected from undergraduate student outdoor leaders and full time professional or graduate assistant leaders from three collegiate outdoor. To qualify as a student outdoor leader, each participant must have led, assisted or shadowed at least one officially sponsored day trip during the spring 2008 semester. Professional collegiate leaders must make their living leading officially sponsored day or multiday trips for their collegiate program. These programs were selected on the basis of their availability and the number of student or professional leaders available at the time of this study. In order to achieve a proper sample size, an email was sent to the Association for Outdoor Recreation and Education (AORE) listserv. This email asked professional and student leaders to participate in this study.

*Data Collection*

All MLQ5x surveys were completed via a web interface at the convenience of the participants. Before participants could begin the survey, they were shown on the website an informed consent form approved by the University of Tennessee Institutional Review Board (IRB). Below the informed consent, was a “continue” button. Participants, by clicking “continue,” gave their consent to participate. The informed consent informed participants that all data collected will be kept confidential to prevent any possible identification. Participants were also reminded they can stop their participation at any point in the survey. Additionally, participants were informed there is no compensation nor any
known risk involved and any potential benefits of this study applies to the field of recreation and leisure through the production of knowledge.

Data were collected during the middle part of February 2008 through the end of February 2008, after receiving IRB approval. Permission was granted to disseminate the surveys through the consent of each programs’ director. Dissemination of the survey was also completed via an email to the listserv maintained by the Association for Outdoor Recreation and Education (AORE).

**Data Analysis**

Only complete sets of data were used. Any incomplete or unanswered participant data resulted in the removal of that data from analysis. At the most basic analysis, measures of central tendency and variability were calculated. These calculations consist of the mean, median, mode, and standard deviation.

Once basic descriptive statistics were performed, a repeated measures ANOVA was computed to determine the interactions between leadership styles among all leaders. A repeated measures ANOVA allows for a test of difference between the means of each leader style (i.e. the means of transformational, transactional and laissez-faire styles of leadership) and if there are significant interactions between each leader style (i.e. transformational to transactional; transformational to laissez-faire and so forth). This repeated measures ANOVA procedure was used in a similar fashion by other researchers (Johnson & Dipboye, 2008; Kane & Tremble, 2000; Maher, 1997) who used the Multifactor Leadership Questionnaire to determine leadership styles. Additionally, a
repeated measures ANOVA is appropriate when sample members have been matched to some important characteristic (University of Texas --Austin Statistical Services, 1997), in this case leadership type. “Furthermore, when sample members are difficult to recruit, a repeated measures ANOVA is economical because each member is measures under all conditions” (University of Texas – Austin Statistical Services)

A pairwise comparison was computed to determine if there are significant interactions between pairs (transformational and transactional, transformational and laissez-faire, transactional and laissez-faire, for example). A Bonferroni adjustment was computed for the pairwise comparison in order to remove the finding of significance by chance alone (Garson, n. d.).

Data collected derived from a Likert scale. Each individual question addresses a particular leadership sub-style. Four questions address a single leadership sub-style. Each question for a leadership sub-style is summed and divided by the number of items in that scale (4 questions per sub-style). These sub-style scales make up 3 leadership styles. The result is interval data out of raw ordinal data.
CHAPTER 4 RESULTS

This study was designed to compare leadership styles of student and professional college outdoor program leaders using the Multifactor Leadership Questionnaire Short (MLQ5x). The statistical results of this questionnaire are presented here. Discussions of the results are presented in chapter 5.

**Descriptive Statistics**

The total population for this study was 113 leaders. Of the 113 responses, 80 responses were fully completed; these 80 respondents did not leave a blank response and they successfully finished the survey. Of the 80 leaders, 37 leaders were student leaders, while 43 were professional leaders. See table 1.

Of the 80 viable respondents, 28 were female and 52 were male, with 35% of the respondents being female and 65% of the respondents being male. Student and professional leaders represented 50 collegiate programs; three leaders did not provide their program or collegiate

| Table 1 - Frequency Count for Professional and Student Leaders |
|---------------|-------------|-------------|-------------|-------------|
|               | Frequency  | Percent     | Valid Percent | Cumulative Percent |
| Valid Student Leader | 37         | 46.25       | 46.25        | 46.25        |
| Professional Leader  | 43         | 53.75       | 53.75        | 100.0        |
| Total             | 80         | 100.0       | 100.0        |              |
name. The mean age for this group was 27.22 years of age with a standard deviation of 8.16, with a range of range of 35 years.

Three leadership styles were measured using the MLQ: transformational, transactional, and laissez faire. The mean for transformation leadership was 4.15 with a standard deviation of .34. The mean for transaction leadership was 3.40 with a standard deviation of .47. The mean for laissez-faire leadership was 4.10 with a standard deviation of .41.

**Results of the MLQ 5x Short**

A repeated measures ANOVA was computed for the three leadership styles, transformational, transactional and laissez-faire for all leaders. The results show that there are differences in leadership styles used, $F(2, 78) = 102.37$, $p < .001$. Pairwise comparisons show that transformational and laissez-faire leadership styles are used more ($p = 1.00$) by all leaders and transactional leadership is used less by all leaders then transformational and laissez-faire ($p < .001$). See table 2.

A repeated measures ANOVA between student and professional leaders showed no differences between leadership styles, $F(2, 77) = .163$, $p = .85$. The leadership styles of student and professional leaders are the same. See table 3.

An alpha coefficient was computed for each leadership style. The reliability for the transformational style of leadership was .752 (n=20). The
Table 2 - Pairwise Comparisons for Leadership Styles

<table>
<thead>
<tr>
<th>(I) type</th>
<th>(J) type</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig. (a)</th>
<th>95% Confidence Interval for Difference (a)</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>.718(*)</td>
<td>.051</td>
<td>.000</td>
<td>.594</td>
<td>.843</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
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<td>.718(*)</td>
<td>-.843</td>
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<td>.057</td>
<td>.000</td>
<td>-.837</td>
<td>-.557</td>
<td></td>
</tr>
<tr>
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<td>-.021</td>
<td>.041</td>
<td>1.000</td>
<td>-.121</td>
<td>.078</td>
<td></td>
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<tr>
<td></td>
<td>2</td>
<td>.697(*)</td>
<td>.057</td>
<td>.000</td>
<td>.557</td>
<td>.837</td>
<td></td>
</tr>
</tbody>
</table>

Based on estimated marginal means
- The mean difference is significant at the .05 level.
- a Adjustment for multiple comparisons: Bonferroni.
- 1 – transformational, 2 – transactional, 3 – laissez-faire

Table 3 - Repeated Measure ANOVA between Student and Professional Leaders

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>101.32(a)</td>
<td>2.000</td>
<td>.000</td>
</tr>
<tr>
<td>type * LeaderType</td>
<td>Wilks’ Lambda</td>
<td>.996</td>
<td>.163(a)</td>
<td>2.000</td>
<td>.850</td>
</tr>
</tbody>
</table>

b Design: Intercept+LeaderType Within Subjects Design: type

reliability for the transactional style of leadership was .565 (n=8). The reliability for the laissez-faire style of leadership was .681 (n=7). Only the reliability coefficient for transformational leadership meets the commonly accepted social science cut off of a .70 alpha (Nunnally, 1978). The transactional and laissez-faire styles of leadership do not meet the accepted cut off of .70. Implications of this finding are discussed in the last chapter.
CHAPTER 5 – SUMMARY

Discussion

The statistical tests used in this study show there is a difference among leaders on leadership styles. Leaders, regardless of student or professional leader designation, tend to use a transformational or laissez-faire style of leadership over a transactional style of leadership.

It must be pointed out that the alpha coefficient for the MLQ5x survey as reported by Avolio and Bass (2004) has a range .74 through .90. However, the internal consistency of the MLQ5x with this survey population group does not meet this expected alpha coefficient, nor meets the commonly accepted alpha coefficient minimum of .70. Comments received from participants indicate that there was confusion as to what questions meant, other participants’ comments asked for examples. Because of the potential confusion and more importantly the low internal consistency, the results of this study are called into question.

Keeping in mind the nature of the results, the results received are surprising. Hayashi and Ewert (2006) found in their study that outdoor leaders tend to favor transformational leadership or transactional leadership over a laissez-faire style of leadership. Phipps and Hayashi (2005) also found this pattern. Hayashi and Ewert tested a similar subject population, who ranged in age from 18-58, with a mean age of 31.5 (SD = 12.5) with a total population of n=46. Phipps and Hayashi did not report their demographic data but because the
data was collected on a multiday college outdoor course, it should be possible to
surmise that the study population was predominantly college age.

Because the demographic age and gender data are similar to these two
studies, it is unknown why this study shows such a marked difference between
leaders indicating a transactional leadership style or laissez-faire leadership style.
Based upon the guiding theory for this study, it may be indicative that outdoor
leaders often change their leadership style upon the situation. Each leadership
style, transformational, transactional, and laissez-faire, under the COLT
umbrella, is considered acceptable depending upon the situation.

**Recommendations and Future Research**

Several recommendations arise from the results obtained in this study.
These recommendations have to do with the use of the MLQ5x survey.

As of this writing, there are now three known studies (including this one)
that used the MLQ5x with outdoor collegiate leaders. Further testing on the
applicability of this survey with outdoor leaders is strongly warranted based upon
the difference in findings resulting from this study.

It is recommended that future research attempt to use a more diverse
method of obtaining participants. Most participation appeared to result from the
Association of Outdoor Recreation and Education listserv rather than from direct
communication with outdoor programs. This may have resulted in a homogenous
group. There are other professional collegiate outdoor associations one could
include as well as direct communication with substantially more outdoor programs.

Future research might test a much larger sample population of outdoor collegiate leaders. Other future research may involve using a case study method where the leader(s) fills out the MLQ5x and those that work with the leader(s) fill out the MLQ5x rater form on their perceptions of the leader(s) leadership style. This may allow a researcher to know if the self-reporting of leadership style is accurate. Future research may also investigate how age, gender, or experience affects outdoor leadership styles.
REFERENCES


APPENDIX A – MULTIFACTOR LEADERSHIP QUESTIONNAIRE
This questionnaire is to describe your leadership style as you perceive it. Please answer all items on this answer sheet. If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits you. The word “others” may mean your peers, participants, supervisors, and/or all of these individuals.

Not at all; Once in a while; Sometimes; Fairly often; Frequently, if not always

0 1 2 3 4

1. I provide others with assistance in exchange for their efforts.

2. I re-examine critical assumptions to question whether they are appropriate.

3. I fail to interfere until problems become serious.

4. I focus attention on irregularities, mistakes, exceptions, and deviations from standards.

5. I avoid getting involved when important issues arise.

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VITA

Brad Beggs, though born in the flatlands of Ohio, intends to pursue his vocation of teaching outdoor recreation in the mountains and rivers of the world as an outdoor instructor of a collegiate outdoor program. He graduated from Hampshire College, in Amherst, MA. in 2003, where he first learned to climb, kayak, mountain bike and teach outdoor skills. For three years he worked for St. Elias Alpine Guides in McCarthy, AK. leading climbing and backpacking trips. In the summer of 2006, he started to work towards his master degree in recreation.