

**Beyond “Because It’s There”**  
*Motivations for Pursuing Adventure Recreational Activities*

**Alan Ewert**

Indiana University

**Ken Gilbertson**

University of Minnesota Duluth

**Yuan-Chun Luo**

Tzu Chi Education Foundation

**Alison Voight**

Indiana University

**Abstract**

Since 2009, participation rates for adventure pursuits such as kayaking and climbing have increased over 25% (Outdoor Industry Foundation, 2011). This study investigated the reported motivations for participation in adventure recreation over a six-year period using the independent variables of gender, experience level, and activity type. The study consisted of 801 participants engaged in four different adventure activities (rock climbing, whitewater kayaking, sea kayaking, and canoeing). Using factor analysis, three factors emerged: *Social*, *Sensation-Seeking*, and *Self-Image*. Of these three factors, subsequent analyses using three-way ANOVAs, revealed significant differences regarding activity type, gender, and experience level. Using discriminant analysis, the *Social* factor was the most successful in predicting group membership regarding gender, activity type, and level of experience.

*KEYWORDS: Adventure, motivations, recreational risk-taking, specialization*

---

Alan Ewert is a professor in the Department of Recreation, Park, and Tourism Studies at Indiana University.

Ken Gilbertson is an associate professor in the Department of Health, Physical Education, and Recreation at the University of Minnesota Duluth.

Yuan-Chun Luo is an educational specialist at the Tzu Chi Education Foundation.

Alison Voight is a faculty member in the Department of Recreation, Park, and Tourism Studies at Indiana University.

Please send correspondence to Alan Ewert, phone: 812, 855-8116, [aewert@indiana.edu](mailto:aewert@indiana.edu)

## Introduction

Little did George Leigh Mallory suspect that when asked why he was going to attempt to climb Mt. Everest for the third time, his response, "Because it's there," would become the quintessential reason explaining why people deliberately take chances and place their lives at risk in recreational settings (*New York Times*, March 18, 1923). Moving forward from his statement in 1923 to the present, recent data from the outdoor industry suggests that since 2009, participation rates in recreational pursuits involving risk and danger have increased up to 25% (Outdoor Industry Foundation, 2011). This growth is reflected in both the level of participation and the types of recreational activities engaged in. For example, the Outdoor Foundation (2011) reports that between 2009 and 2010, the number of participants in whitewater kayaking has increased by 35%, sea kayaking by 21%, and rock climbing by 20%. Along with these increases in the number of participants are corresponding increases in the numbers of fatalities and injuries (Ahamad & Tator, 2008; American Alpine Club, 2010). Thus, in both professional practice and theoretical development, it is increasingly important to understand the motivations underlying an individual's participation in adventure recreational activities, particularly where risk and potential injury or death are inherently part of the experience.

The types of activities examined in this study are generally defined as adventure recreation and involve activities that contain inherent elements of physical, emotional, or psychological risk and potential danger, often with an uncertain outcome and typically involving a close interaction with the natural environment (Ewert & Vernon, 2013, p. 323). A growing number of adventure recreation activities now exist and include mountaineering, rock climbing, whitewater boating, sea kayaking, standup-boarding, wilderness trekking, and SCUBA.

### Theoretical Constructs of Motivation in Adventure Recreation

Beginning with such salient works as Wilfred Noyce's (1958) *Springs of Adventure* and Samuel Klausner's (1968) *Why Man Takes Chances*, a number of theories have been used to describe why people pursue recreational activities containing potential risk and danger. These theories have included instinctual drive (Klausner, 1968; Noyce, 1958), arousal seeking (Berlyne, 1960), attributional constructs (Heider, 1958; Weiner, 1974), the peak experience (Maslow, 1962), and expectancy valence theory (Atkinson, 1964). Complementing these earlier theories has been the development of more contemporary perspectives regarding motivations for adventure recreation such as normative influences (Celsi, Rose & Leigh, 1993), flow (Csikszentmihalyi & Csikszentmihalyi, 1990), and edgework (Lyng, 1990). More recently, Buckley (2012) developed a classification system involving adventure recreation that uses internal motivations such as fear, control, skill development, and sense of achievement, and external motives such as social-based factors defined as friends, image, escape, and competition with others or the environment.

In an earlier work, Ewert and Hollenhorst (1989) also examined the concept of internal and external motivations within an adventure recreation context. Based on the Theory of Specialization (Bryan, 1977), the Adventure Recreation Model (Ewert & Hollenhorst, 1989; Todd, Anderson, Young, & Anderson, 2002) depicts a

relationship between the level of engagement in a particular adventure-based activity, the specific setting, and individual attributes sought out by the individual. That is, as the level of engagement increases, there will be a corresponding increase in skill, frequency of participation, internalized locus of control, and preferred level of risk. (See Figure 1).

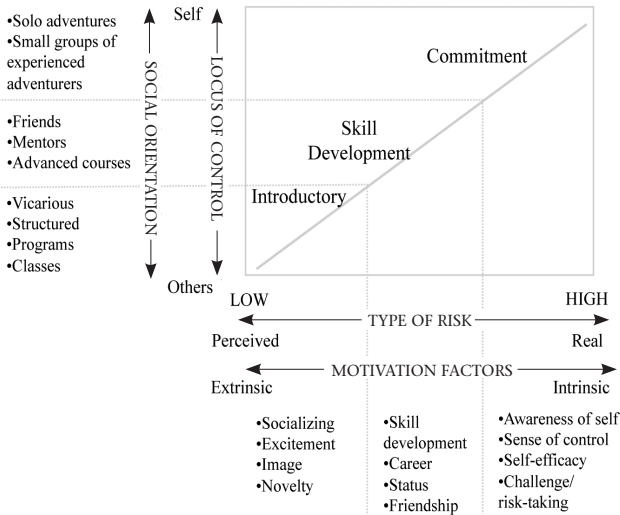


Figure 1. The Adventure Model (Ewert & Hollenhorst, 1989)

Both Buckley (2012), and Ewert and Hollenhorst (1989) hypothesized that as individuals become more engaged in a particular adventure recreation activity, motivations for participation will become more aligned with internal motivations such as challenge, achievement, control and risk-taking, as opposed to external motivations such as feeling pressured by friends or family to participate. In the Ewert and Hollenhorst study, internal motivations were defined as motives that originated directly within the individual, while external motives were more likely to be other-directed, that is, emerging from factors outside of the individual, such as other people. Thus, the theoretical underpinning of this study focuses on the concept of internal/external motivations originally hypothesized by Ewert and Hollenhorst and carried forward by Buckley.

### Challenges in Studying Motivations of Adventure Recreation Participation

Several challenges occur in attempting to identify the motivations underlying participation in adventure recreation activities. One challenge is the "fluid nature" of motivations. For example, in a previous work, Ewert (1994) reported that motivations for participation in mountaineering were dynamic and subject to change depending on the outcome of the trip (i.e., did or did not accomplish the activity as anticipated). Thus, motivations often present a "moving target" both in terms

of their relationship to the outcomes of the experience as well as when the motivations are actually measured (Manfredo & Driver, 1996).

A second challenge is understanding the influence that *level of experience* plays on motivational patterns. A growing body of research suggests that level of experience can play an important role in the motivations for adventure recreation participation (Creyer, Ross, & Evers, 2003; Todd, Anderson, Young, & Anderson, 2002). For example, Ewert (1994) reported consistent differences in the number and complexity of motivational factors when comparing the motivations of highly experienced mountaineers with those of less experience. Highly experienced participants reported more complex sets of motivations. In addition, less experienced participants placed higher levels of importance on motivations related to technical skill development while more experienced participants placed greater importance on motives related to personal and aesthetic factors.

Manning (2011) points out that experience has been measured in a number of ways ranging from a single-item variable to composite indexes, and is linked to a variety of items such as attitude, preferences, and behaviors (p. 253). For this study, a "level of experience" index was developed that consisted of a multidimensional scheme using six measures of experience (see Method section).

A third challenge involves the question of whether motivations vary across the variable of *activity type*. That is, do motivations for participation differ for those involved in rock climbing, compared with those participating in whitewater paddling, or sea kayaking, and so forth? Galloway (2012) found a moderate effect of activity on motives for participation. In addition, he found differences in the motives reported for whitewater kayaking and fishing.

A fourth challenge is in determining the influence that *gender* plays in the motivations for participation. For example, some studies in adventure recreation suggest that gender can play an important role in the motives deemed most important for participation, with males often indicating higher levels of motivation attached to items such as challenge and competition, while females placing more importance on social items (Cazenave, Le Scanff, & Woodman, 2007; Estes & Ewert, 1988; Jackson & Henderson, 1995; Thapa, Confer, & Mendelson, 2004). Few studies, however, have examined the interaction between gender, specific adventure activities, and experience level with respect to the motivations for participation.

Finally, while motivations for participation in adventure recreation activities can be both dynamic and subject to change, they can also defy precise understanding without an *experiential base* from which to draw upon (Buckley (2012). Lyng and Snow (1986) allude to the same challenge of understanding motives for adventure recreation participation by suggesting that in order to understand the activity a person has to actually "do" the activity.

### **Importance of This Study**

Most motivational studies in adventure recreation have involved asking participants in a single adventure-based activity to indicate the level of importance they place on a set of potential motives. Surprisingly, few studies have compared patterns of motivations across different adventure activities. For example, do whitewater kayakers have the same motivations for participation as rock climb-

ers? In addition, the relationship between gender and experience level and motivations for participation has not been fully understood within the adventure recreation context (Kerr & Houge Mackenzie, 2011). Thus, uncertainty exists in understanding whether females and males, highly experienced versus less experienced individuals, or individuals engaging in different adventure recreation activities have differing sets of attendant motivations that drive their participation in adventure recreation. This study explores the relationship between activity type, gender, and experience level and their impact on motivations for participation.

Developing a better understanding of the types of motivations and variables that influence these motivations in the adventure recreation setting is important for several reasons. First, as previously mentioned, risk and potential danger are often inherently part of the adventure recreational experience. Thus, identifying what specific motives are involved in this form of recreational pursuit will provide a better understanding of why people initiate engagement, continue or cease engagement, and make choices regarding that engagement in activities that contain the potential of serious injury or death (Weiner, 1992, p. 17). Additionally, understanding what people look for in the adventure recreation experience can be useful from the perspectives of destination marketing for adventure activities (Swarbrooke, Beard, Leckie, & Pomfret, 2003), and revealing constraints to participation in adventure activities (Alexandris, Tsorbatzoudis, & Grouios, 2002). Further, from a commercial perspective, having knowledge of what motivates people to participate in adventure can aid in designing marketing strategies (Williams & Soutar, 2009), and choreographing specific experiences (Pomfret, 2011; Wu & Liang, 2011).

Second, from a recreation resource management perspective, settings that are appropriate for adventure recreation activities are rarely managed for a single use but typically involve multiple uses and a broad spectrum of users with varying expectations surrounding the recreational experience. Within this context, numerous authors have suggested that recreation resource managers should use diverse information, such as motivations for participation, to aid in planning and policy decision-making (Hendee & Dawson, 2002; pp. 373-411). In particular, knowing what motivates an individual to engage in an adventure recreational activity and how these motives interact with specific variables, such as gender and experience level, would be important information for resource planners and organizations designing the recreational experience (Galloway, 2012; Hammett, Backlund, & Bixler, 2004).

Based on these issues, this study attempts to provide a unique contribution to the understanding of motivation in adventure recreation activities in three ways: (a) It uses a large sample size that exceeds most of the studies previously conducted in the adventure education area; (b) It examines the interaction of activity type, gender and experience level upon motivations for participation; and (c) A "level of experience index" was developed to measure the experience held by an individual. To date, this approach has not appeared in the adventure recreation literature in determining participation motives using a combination of different adventure activities, over a relatively long period of time (six years), while subsequently examining the influence of both gender and level of experience. Experience was measured using a six-item index rather than a single self-reported question.

Moreover, understanding how motivations can vary across activities can be important as specific adventure activities are often viewed as similar in nature by both the public and resource managers despite the fact that motives for participating in them may differ. Managers and the public often have different and inaccurate perceptions as to why people are engaging in the same adventure recreation activity (Manning, 2011, pp. 76-79).

This study was guided by the following research questions:

**RQ<sub>1</sub>:** What is the underlying motivational structure for participants who engage in adventure recreation?

**RQ<sub>2</sub>:** Do these motivations vary with respect to gender, activity type, and level of experience?

**RQ<sub>3</sub>:** Which motivation factor/s are the most important predictor in determining membership to gender, activity type and level of experience categories?

## Method

### Sample

Data were collected over six summers (2000, 2002, 2003, 2006, 2007, & 2008). The setting used in this study was a university-based outdoor program in the upper Midwest of the United States that provides outdoor adventure instruction during the summer for a variety of activity types at varying skill levels, including instructor certifications. Participants were principally from throughout the U.S. with a mean age of 28.0 years and a median age of 23.0.

To provide a spectrum of adventure activities the following activities were selected: canoeing (flatwater conditions), whitewater kayaking, sea kayaking, and rock climbing. These activities represent typical adventure recreation endeavors with courses ranging from novice for people new to the activity (beginner), to people with much higher levels of experience and skill (advanced).

### Instrument

The instrument used in this study consisted of a 40-item questionnaire that was adapted from a study by Ewert & Hollenhorst (1989). The first 18 items asked participants to rate their skill and experience levels relative to the selected adventure activities. To determine the experience level of each respondent within each activity type, a set of questions established the extent of experience for each respondent (e.g., "How many times per year do you participate in 'x' activity?" or, "I am usually a leader, co-leader, or follower when participating with a group of people in this activity"). For example, being able to sea kayak in 5' waves implies both a high level of skill and experience on the part of the respondent. In this case, sea kayaking experience level was measured in the following ways: (a) "What is the highest level of difficulty that you feel comfortable sea kayaking?" Flat, calm water; 1'-3' waves; 4'-6' waves; or, 7'+ waves); (b) "Who are the people you prefer to participate with?" (e.g., alone; part of an organized group; with a group of

friends); and (c) "What is the frequency of participation?" (including number of years they had been involved in the activity).

**Level of experience index.** In order to develop a level of experience index for each respondent (beginner, intermediate, advanced), the following sequence was used: (a) Self-reported skill and experience levels in a particular adventure activity was recorded and used to initially determine each individual's experience level (beginner, intermediate, advanced); (b) Self-reported skill levels for each participant were cross-referenced with each respondents' reported experience level in the same activity; (c) If a respondent's self-reported experience level was incongruent with his/her reported skill level (e.g., one respondent indicated he/she had no experience but was comfortable paddling a class VI rapid), the experience level was equated with the reported skill level for the activity in which the participant was enrolled, or he/she was eliminated from further analysis depending on the extent of the incongruity; and (d) The researchers did a second cross-reference of experience with skill level in order to determine a final category for the individual respondent experience level as beginner, intermediate, or advanced. For example, an individual reporting the ability to paddle comfortably in a class II rapid with corresponding experience such as, "I paddle 10 times/year" was categorized as intermediate. The determination of skill levels (beginner, intermediate, advanced) followed outdoor industry standards, such as the American Canoe Association or the American Mountain Guides Association, for all the adventure recreation activities utilized in this study. Interestingly, few participants reported skill levels that were not congruent with the course skill level for which they had registered (< 10). Participants were asked to respond to the instrument prior to the beginning of the course and course instructors asked participants to complete the survey only once, unless they were participating in a different activity type.

**Motivation index.** The final 22 items assessed respondents' motivations for participating in their activity. Each degree of motivation item was measured using a 5-point Likert scale (e.g., "I rock climb for the sense of accomplishment:" Not Important – Very Important) and was based on the collection of theories cited in the introduction (Kuentzel & McDonald, 1992; Lee, Graefe, & Li, 2007; Buckley, 2012). Face, construct, and content validity were determined through a panel of experts that consisted of five doctoral graduate students who had training in both scale construction and adventure education programming. Instrument reliability was reported at a = .85 for the 22 motivation items. Instructions on how to administer the instrument were provided during pre-season staff training, and also on-site by one of the researchers prior to the beginning of the adventure activity course.

### **Data Analysis**

To identify the underlying factor structure of the motivation instrument (RQ<sub>1</sub>), an explanatory factor analysis (EFA) utilizing four steps was conducted. In Step 1, and due to the six-year time span of the study, the 24 items were checked for consistency across all six years. Due to not being included before the year of 2006, seven items were deleted from further analysis. In Step 2, an EFA with 17 items was conducted to examine the initial factor structure with varimax rotation being used to facilitate the interpretation of the factors. In order to decide the number



of factors to retain, multiple factor analyses with a set factor number using three-factors, four-factors, or five-factor solutions were conducted (Step 3). A criterion of 0.32 on factor loading was used as the cut-off criteria for interpretation for the EFA (Costello & Osborne, 2005). After examining all three solutions, a three-factor solution was retained because it best described the underlying factor structure of the instrument. In Step 4, upon examining the factor loading for each item, three items were dropped because of the low factor loadings.

Following the EFA, three-way ANOVA's were conducted to identify the main effects of gender, level of experience, and activity type and any interactions (RQ<sub>2</sub>). In addition, to determine if participants' gender, level of experience, and likely activity type could be predicted more accurately than random chance by using their reported motivations for participation, a stepwise discriminate analysis was conducted (Mertler & Vannatta, 2005) (RQ<sub>3</sub>).

## Results

There were 930 respondents over the six-year span of data collection. Non-respondents were not specifically recorded although very few participants elected not to participate in the study (fewer than 10 as reported by the activity specialists). Although responses were anonymous which prevented us from screening for redundant responses, discussions with course instructors revealed that there were very few returning participants (< 20). A small number could have responded again if they chose to take a course at a higher skill level or in another activity type. However, this situation would be the exception and was rarely noted. Finally, all raw data were entered into SPSS software and analyzed using SPSS 19. After the data were cleaned the sample size was reduced to 801 (see Table 1). The primary reason for elimination from subsequent analysis was missing data from the instrument. A visual inspection of where these missing data were occurring revealed no identifiable patterns or systematic bias on the basis of gender, activity type, or experience level.

Relative to RQ<sub>1</sub>, the EFA identified a three-factor structure identifying the overall reasons people in this study participated in the selected adventure recreation activities. These factors were labeled: *Social*, *Sensation-Seeking*, and *Self-Image*. The three-factor solution using the 14 items accounted for 47.39% of the total explained variance (Table 2). For reasons that will be examined in the Discussion section, it would appear that the internal/external dichotomy may be less useful in providing a motive classification system as originally depicted in the Ewert and Hollenhorst (1989) study. For example, does the *Social* factor actually represent an external type of motivation while *Sensation-Seeking* and *Self-Image* represent motivations that have a more internal disposition? The point will be made later that these factors could fall in either an external or internal category.



**Table 1***Descriptive Findings Based on Cleaned Data Used for Modeling (N = 801)*

<b>Variables</b>	<b>Categories</b>	<b>N (%)</b>
<b>Age</b>	Mean = 28.3 ( <i>SD</i> = 11.86)	
	Median = 23.0 (range = 13-68)	
<b>Gender</b>	Male	469(58.5%)
	Female	316(39.5%)
	Missing	16(2%)
<b>Year</b>	2000	210(26.2%)
	2002	131(16.4%)
	2003	133(16.6%)
	2006	128(16.0%)
	2007	102(12.7%)
	2008	97(12.1%)
	Total	801(100%)
<b>Activity Type</b>	Canoeing	170(21.2%)
	Whitewater Kayaking	239(29.8%)
	Sea Kayaking	244(30.5%)
	Rock Climbing	147(18.4%)
	Missing	1(0.1%)
	Total	801(100%)
<b>Experience Level</b>	Beginner	245(30.5%)
	Intermediate	228(28.5%)
	Advanced	328 (41.1%)
	Total	801(100%)

To address RQ<sub>2</sub>, three ANOVAs' (3-way) were conducted to understand the effects of the IVs of experience level, gender, and activity-type on the three different motivation factors. For the *Social* factor, the ANOVA results indicated the main effects from all three IVs were significant but without interactions (see Table 3). Post-hoc comparisons using Scheffé's test suggested beginner and intermediate experienced participants reported lower social motives than individuals with advanced levels of experience. Females had significantly higher social motives than males. In addition, participants in canoeing had significant higher social motives than participants in sea kayaking, whitewater kayaking or rock climbing.

**Table 2***Exploratory Analysis Factor Loadings for 14 Items<sup>a</sup>*

Item	Factor		
	1 Sensation	2 Social	3 Self-Image
test myself	.715		
to be physically and emotionally challenged	.677		
for the exhilaration	.631		
for the sense of accomplishment	.581		
to develop my skills	.503		
to face the risk and danger	.419		
to have a close interaction with other people		.878	
for the friendship(s)		.820	
to be part of a group or team		.767	
to be known as a sea kayaker (rock climber...etc.)			.835
to show other my skills			.710
for self-expression			.484
to be in control and make decisions			.449
to use my equipment			.421

Note. Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser Normalization.

<sup>a</sup>Rotation converged in 5 iterations.

**Table 3***ANOVA Results for Social Motives by Activity Type, Experience, and Gender*

Source	Sum of Squares	Df	Mean Square	F	Eta <sup>2</sup>
Corrected Model	141.598	31	4.568	5.949	
Intercept	3941.685	1	3941.685	5133.32	
Activity-Type	33.059	3	11.020	14.35*	.054
Experience	9.114	3	3.038	3.96*	.015
Gender	7.988	1	7.988	10.40*	.013
Activity-Type – Experience	6.856	9	.762	.992	.011
Activity-Type – Gender	2.156	3	.719	.936	.004
Experience – Gender	1.646	3	.549	.714	.003
Activity-Type – Experience – Gender	6.347	9	.705	.918	.010
Error	543.647	708	.768		.890
Total	8218.111	740			

Note. \* $p < .01$ . Eta<sup>2</sup>: small effect 0.0–.0099, medium effect .0099 – 0.0588, large effect 0.0588 – 0.1379. (Cohen, 1988, p. 283).

For the *Sensation-Seeking* factor, the ANOVA results showed a significant main effect from activity type and an interaction effect between activity type and experience (see Table 4). Post-hoc analysis suggested participants in rock climbing had significant higher sensation-seeking motives than participants in sea kayaking and canoeing. For the interaction effect between activity type and experience, participants with higher levels of experience (advanced) reported significant higher sensation-seeking motives than beginners in sea kayaking and rock climbing. Participants with advanced experience reported significant lower sensation-seeking motives than beginners in canoeing. Participants who had advanced levels of experience also had higher levels of sensation-seeking motives in rock climbing compared to all of the other water-based activities.

**Table 4**

*ANOVA Results for Sensation-Seeking Motives by Activity Type, Experience, and Gender*

Source	Sum of Squares	<i>Df</i>	Mean Square	<i>F</i>	Eta <sup>2</sup>
Corrected Model	50.319	31	1.623	4.423	
Intercept	4340.784	1	4340.784	11828.47	
Activity-Type	12.515	3	4.172	11.37*	.043
Experience	.352	3	.117	.320	.001
Gender	.337	1	.337	.918	.001
Activity-Type Experience	12.988	9	1.443	3.93*	.045
Activity-Type – Gender	.465	3	.155	.423	.002
Experience – Gender	.115	3	.038	.105	.000
Activity-Type – Experience – Gender	3.363	9	.374	1.018	.012
Error	259.820	708	.367		.896
Total	8947.928	740			

Note. \* $p < .01$ . Eta<sup>2</sup>: small effect 0.0–0.0099, medium effect .0099 – 0.0588, large effect 0.0588 – 0.1379. (Cohen, 1988, p. 283).

For the *Self-Image* factor, the ANOVA results showed the main effect from activity type was significant and there was an interaction effect between activity-type and experience (see Table 5). The post-hoc analysis suggested participants in canoeing had significant lower self-image motives than participants in rock climbing, sea kayaking and whitewater kayaking. Participants reporting beginner levels of experience level also indicated higher levels of self-image motives in whitewater kayaking than in canoeing, sea kayaking and rock climbing. For all participants reporting advanced levels of experience, self-image motives were higher in rock climbing than in canoeing and whitewater kayaking.

To find what factor/s were most successful in classifying group membership according to gender, activity-type and level of experience (RQ<sub>3</sub>), three stepwise discriminate analyses were conducted (Klecka, 1980; Mertler & Vannatta, 2005). An overall Chi-square test was significant on predicting group membership for gender for both *Social* and *Sensation-Seeking*, with the *Social* factor being the best single predictor (Wilks  $\lambda = .958$ , Chi-square = 33.366,  $df = 2$ , Canonical correlation = .204,  $p < .001$ , standardized function coefficient = .929). In addition, females were correctly classified 61.7% and males 53.9 (See Table 6).

**Table 5***ANOVA Results for Self-Image Motives by Activity Type, Experience, and Gender*

Source	Sum of Squares	df	Mean Square	F	Eta <sup>2</sup>
Corrected Model	50.463	31	1.628	3.359	
Intercept	1886.498	1	1886.498	3892.52	
Activity-Type	11.003	3	3.668	7.57*	.029
Experience	.041	3	.014	.028	.000
Gender	.549	1	.549	1.133	.001
Activity-Type Experience	15.511	9	1.723	3.56*	.041
Activity-Type – Gender	.549	3	.183	.377	.001
Experience – Gender	1.492	3	.497	1.026	.004
Activity-Type – Experience – Gender	8.301	9	.922	1.903	.022
Error	343.130	708	.485		.902
Total	4374.250	740			

Note. \* $p < .01$ . Eta<sup>2</sup>: small effect 0.0–.0099, medium effect .0099 – 0.0588, large effect 0.0588 – 0.1379. (Cohen, 1988, p. 283).

**Table 6***Correct Classification of Group Membership*

		Expected % correct	Predicted % correct
<b>Gender</b>	Male	50	53.9
	Female	50	61.7
	Overall	50	57.1
<b>Activity Type</b>	Canoeing	25	66.5
	WW Kayak	25	43.9
	Sea Kayak	25	37.7
	Rock Climb	25	40.8
	Overall	25	46.3
<b>Experience Level</b>	Beginner	33.3	46.3
	Intermediate	33.3	16.8
	Advanced	33.3	10.6
	Overall	33.3	33.5

In testing the group membership for activity type, the overall Chi-square test was significant on predicting group membership with all three factors (*Social, Sensation-Seeking and Self-Image*) with the *Social* factor once again being the best single predictor (Wilks  $\lambda = .716$ , Chi-square = 265.585,  $df = 3$ , Canonical correlation = .479,  $p < .001$ , standardized function coefficient = .992). In this case, canoeing was the most correctly classified activity at 66.5 percent, with the other activities at less than 50 percent. (See Table 6).

For group membership in level of experience, the overall Chi-square test suggested that *Social* was the only significant factor useful in predicting the group membership based on level of experience (Wilks  $\lambda = .892$ , Chi-square = 85.276,  $df = 3$ , Canonical correlation = .328,  $p < .001$ ). This finding was confirmed when both *Sensation-Seeking* and *Self-Image* were dropped with a resultant decrease of only 1.9% decrease on reclassifying subjects correctly into their original level of experi-

ence group. For level of experience all the categories (beginner, intermediate, and advanced) were correctly classified at 33.5 percent (See Table 6).

As displayed in Table 6, the classification results using the discriminant analyses show that knowing the self-reported motivations increases the ability to predict who the participants are (relative to gender), what their level of experience is, and what type of adventure activity they are likely to engage in above what would be expected from random chance. As displayed in Table 6, this model is particularly useful in the case of gender and activity type but less so with experience level, where the beginner level was the only category successfully predicted above random chance.

In addition, building on the findings from the EFA and the ANOVA analyses, the data point to the importance of the *Social* factor in successfully predicting group membership on the basis of gender, activity type, and level of experience. To reiterate, the *Social* factor was composed of three items including: "to have a close interaction with other people," "for the friendship(s)," and "to be part of a group or team." The following summarizes the results from the data analyses:

- All three independent variables (experience, gender, and activity-type) had significant effects on social motives.
- There is a significant interaction effect between experience and activity type on sensation-seeking motives.
- There is a significant interaction effect between experience and activity type on self-image motives.
- The *Social* factor was the most successful in predicting group membership for all three independent variables.

## Discussion

One purpose of this study was to identify the motivations of individuals who engaged in the four different adventure recreation activities of canoeing, white-water kayaking, sea kayaking and rock climbing. What emerges is a motivation structure that includes the factors of *Social*, *Sensation-Seeking*, and *Self-Image*. Thus, individuals may engage in rock climbing because of the sensations they feel while on a rock face but also because they like to engage in challenging and exciting recreation with their friends or a like-minded group of people, or they value being known and recognized as a "rock climber." The reality is that for people involved in adventure recreation, all three factors probably play important roles in their decision to participate (RQ<sub>1</sub>).

Moreover, the variables of level of experience, type of adventure activity engaged in, and gender served as important predicting variables and influenced the self-reported motives for participation of individuals (RQ<sub>3</sub>). As listed in Table 7, activity type, level of experience, and gender interacted in a variety of ways with the three motivation factors. For example, participants in canoeing had higher social motives and sensation-seeking motives, but lower self-image motives than for the other three activities. With regard to level of experience, participants with higher levels of experience reported higher social motives and higher sensation-seeking

motives for kayaking and rock climbing, but lower sensation-seeking for canoeing. For self-image motives, more experienced participants had higher scores for rock climbing. In terms of gender, only social motives scores were significantly higher for females, than for males. That is, women reported higher levels of importance for items “close interaction with other people,” “for friendships,” and “being part of a group or team.”

Several phenomena may be at work in explaining these results. First, as previously discussed, females may typically report higher levels of importance for social engagements than their male counterparts (Lee, Graefe, & Li, 2007). Higher levels of experience may also predispose individuals to seek out higher levels of sensation, namely because their individual skill level is generally higher, and this higher skill level promotes a willingness to engage in more challenging, and presumably, more sensation-rich activities.

Perhaps of greater importance, however, are the characteristics of the activity itself. In a general sense, canoeing and sea kayaking typically offer less dramatic and physically or psychologically, demanding environments than do rock climbing and whitewater kayaking. To be sure, both canoeing and sea kayaking can present exceptionally high levels of challenge and requisite skill level on certain rivers and other bodies of water, but as a general rule, they involve lower levels of skill acquisition and physical demands than do whitewater kayaking or rock climbing. Because of these attributes, different sets of motivations may be driving participation in each activity. Thus, the motivations that drive participation may be importantly linked to the attributes associated with the specific adventure activity and become part of the “experience pattern” first discussed by Hull, Stewart, and Young (1992) as they described the dynamic nature of the recreation experience.

### **The Intrinsic/Extrinsic Dichotomy**

The results from this study suggest that people initiate engagement and make choices relative to that engagement in recreational activities that contain inherent elements of risk or danger, and a close interaction with natural and challenging landscapes, because they are seeking a variety of sensations, they enjoy the social atmosphere (e.g., being part of a team), and/or they simply like the image they project as an adventure recreationist. While we argue that the factors of *Sensation-Seeking* and *Self-Image* can be thought of as belonging in an intrinsic motivation category, and the *Social* factor might be more likened to an extrinsic motivation category, as suggested by Deci and Ryan (1985). Intrinsic and extrinsic categories appear too broad of categories for a precise labeling of these factors. For example, seeking out motives related to the *Social* factor might also be thought of as being aligned with intrinsic motivation because they are related to internal needs and desires on the part of the individual. In a similar fashion, *Self-Image* could be construed as being externally located and thus considered as belonging to the extrinsic category. Even *Sensation-Seeking* could be construed as an external motive if one considers that much of the “sensation” could be considered a constructed phenomenon subject to how individuals believe they should feel after scaling a mountain peak or kayaking down a whitewater river.

Upon closer examination of the individual items that loaded into each factor, it would appear that motives such as “being challenged” and “to test myself,” “sense of accomplishment,” “to develop skills,” and “for the exhilaration” all fall under the sensation-seeking rubric. Likewise, the *Social* factor included items such as “friendship,” “to be part of a team,” and “interaction with others,” while motives adhering to self-image included “to be known as a sea-kayaker,” “to show others my skills,” and “to make decisions.” Thus, it would appear that engaging in the adventure recreation experience is linked to a spectrum of motivations. Rather than simply attaching a singular motivation to participation, this study reveals a multi-factor motivational construct. These motivations involve sensation-seeking through physical and challenging engagement, often within a supportive social environment that also provides individuals with a unique picture of themselves, either for personal consumption or to be projected to others.

This study also suggests that these multiple motivating factors can be connected to the variables of activity types, gender, and level of experience (RQ<sub>2</sub>). For example, in the *Social* factor, when compared to the males in the sample, females reported higher social motives, as did individuals with higher levels of experience as well as those engaged in canoeing. This finding is congruent with other works that suggest females often place more importance on social motives, enjoying nature, or motives related to creativity (Cazenave, Le Scanff, & Woodman, 2007; Jackson & Henderson, 1995; O’Connell, 2010) than do their male counterparts. When examining the *Sensation-Seeking* factor, the variables of greatest importance were activity type and level of experience with significant interactions occurring between these two variables. A similar finding was noted for the *Self-Image* factor with both activity type and experience levels resulting in either significant main effects or interactions (See Table 7).

Mitchell (1983) suggests that the adventure recreation experience offers individuals an opportunity to exert considerable influence over the outcome of a particular adventure by the virtue of their skills, strategies, and perseverance. The data from this study suggest that gender, level of experience, and the type of adventure activity engaged in also play important roles in what motivates individuals to participate in recreational activities that often contain inherent threats to life and limb.

What is particularly relevant in this current study is the diversity of motives and the reality that not all people engaging in adventure recreation have the same set of motivations. Thus, a more contemporary response to Mallory’s declaration of “because it’s there” would be “it depends.” This dependency would be contingent on the individual, the specific adventure activity, and the experience level held by the person. As demonstrated by many of the interaction effects noted in these data, all three of the independent variables (gender, level of experience, and activity type) can act in consort with each other in order to produce an adventure experience that can be personally meaningful and unique to the individual.



**Table 7**

*Summary of Motivation Factors for Experience Level, Gender, and Activity Type*

Motivation Factors	Independent Variables		
	Experience Level	Gender	Activity Type*
<p><b>Social</b> (belonging; being part of a team; friendship)</p> <p>[Social is the highest predictor of all group membership]</p>	<ul style="list-style-type: none"> <li>•Lower social motives for beginner &amp; intermediate levels of experience</li> <li>•Higher social motives for advanced experience levels</li> </ul>	<ul style="list-style-type: none"> <li>•Females have higher social motives than males</li> </ul>	<ul style="list-style-type: none"> <li>•Canoeists have higher social motives than all other activity types</li> </ul>
<p><b>Sensation-seeking</b> (risk; danger; nature; challenging landscapes; exhilaration)</p>	<ul style="list-style-type: none"> <li>•Rock climbers have higher sensation seeking motives than sea kayakers and canoeists</li> <li>•Advanced experience rock climbers have higher sensation-seeking motives than beginners in sea kayaking, canoeing &amp; rock climbing</li> </ul>	<ul style="list-style-type: none"> <li>•Males have higher sensation-seeking motives than females</li> </ul>	<ul style="list-style-type: none"> <li>•Advanced canoeists have lower motives than beginner canoeists</li> <li>•Beginning sea kayakers have lower motivation for sensation seeking</li> <li>•Advanced experience sea kayakers and rock climbers have higher sensation seeking motives than beginners</li> </ul>
<p><b>Self-Image</b> (to be known as an adventure recreationist; show skills; decision-making)</p>	<ul style="list-style-type: none"> <li>•Advanced rock climbers have higher motivation for self-image than beginner rock climbers</li> <li>•Advanced experience rock climbers have higher self-image in rock climbing, than advance experience canoeists and whitewater kayakers</li> </ul>	<ul style="list-style-type: none"> <li>•Males have higher self-image motives than females</li> </ul>	<ul style="list-style-type: none"> <li>•Canoeists have lower motivation for self-image than all other activity types</li> <li>•Beginner whitewater kayakers had highest motivations for self-image than all other activity types</li> </ul>

*Note.* Activity types = canoeing, sea kayaking, whitewater kayaking, and rock climbing.

## Conclusion

This study suggests that what motivates an individual to participate in an adventure recreation activity can be linked to social, sensation-seeking, and self-image motives. In order to deliver a high quality recreational experience, it is incumbent upon adventure recreation providers to offer a range of adventure activities that allow for a more complex and diverse set of motivational factors than just challenge and risk-taking. In addition, these program offerings need to take into account different motivations based on activity type, gender, and levels of experience. For example, recreation providers should not assume that skill development is the same for males and females. Rather, unlike males, females may be less motivated in achieving higher levels of sensation-seeking, or risk-oriented activities, and more invested in the social components of the experience. This may, in part, explain why adventure activities such as rock climbing or white-water kayaking tend to be a predominantly male-oriented activity when compared to canoeing or sea-kayaking. Thus, adventure recreation providers may consider developing new or varied adventure recreation opportunities to attract a different and broader clientele.

Through these findings, adventure recreation providers and managers have an opportunity to enhance the adventure opportunities they provide by marketing adventure experiences that are more socially-oriented and less sensation-oriented, especially for female or mixed group participants. Other examples include providing more focus on opportunities for sensation-seeking for advanced rock climbers and advanced sea kayakers. Conversely, they can conduct activities for beginning sea kayakers in a more nature-oriented setting that is more risk-averse. Further, they can provide materials such as souvenirs, t-shirts, or post adventure activities that lend to participants' self-image for beginning whitewater kayakers. In addition, providers can leverage the finding that social motivations are often more important for categories such as higher levels of experience, females, and canoeists, by encouraging the development of clubs, email communication, and other avenues to foster a sense of belonging to a team or meeting new people. One sector of the adventure industry that has been highly successful at capitalizing on the concept of social motivations has been the SCUBA industry with its clubs, Facebook, emphasis on the social aspects of dive trips and being part of a SCUBA team. Thus, the results of this study provide some additional information for the adventure recreation provider to market to a better-defined target audience and provide the most appropriate adventure opportunity that meets the motivations of each specific audience type.

### Future Research

The findings from this study suggest the following future research efforts:

1. Conduct a trend analysis to determine motivational stability over time by activity type and gender.
2. Study instructor development and motivations over time. That is, what motivates a person to become an instructor rather than continuing an adventure activity simply to become an expert? What and where is the divergence in motivations to instruct rather than simply focus on one's own skill development?

3. Expand the knowledge concerning “true experts” in adventure activities to determine their motivations. This type of research is often more challenging because of cost and time to access the “expert” individual but can illuminate our understanding regarding individuals who face extraordinary high levels of risk and inherent danger in the activity. Other samples and situations that study these elite adventure recreationists may shed new light on the reasons for participation.
4. The third factor in this study, *Self-Image*, has received far less attention than the other motives examined. Both researchers and practitioners know little beyond anecdotal or personal reports as to what these images “look” like, how pervasive they are, and how stable they are over time. Future efforts should examine how the issue of self-image manifests itself in both participation motives and actual behaviors.
5. Finally, the importance of risk remains under-investigated. This study and our own personal experience as long-term instructors in adventure recreation suggest that actual risk-taking in adventure recreation is poorly understood or overestimated.

Adventure recreation has become a widely utilized leisure pursuit that involves a significant number of participants. This study has provided some additional insight into why these individuals choose this form of recreation, what they are seeking, and how these motivations for participation may change with respect to different variables and situations.

### References

- Ahmad, Y., & Tator, C. H. (2008). Canoeing. In C. H. Tator (Ed.), *Catastrophic injuries in sports and recreation: Causes and prevention, a Canadian study* (pp. 131-191). Toronto: University of Toronto Press.
- Alexandris, K., Tsobatzoudis, C., & Grouios, G. (2002). Perceived constraints on recreational sport participation: Investigating their relationship with intrinsic motivation, extrinsic motivation, and amotivation. *Journal of Leisure Research, 34*(3), 233-252.
- American Alpine Club. (2010). *Accidents in North American Mountaineering*. Golden, CO: American Alpine Club.
- Atkinson, J. W. (1964). *An introduction to motivation*. New York, NY: Van Nostrand.
- Berlyne, D. E. (1960). *Conflict, arousal and curiosity*. New York: McGraw-Hill.
- Bryan, H. (1977). Leisure value systems and recreational specialization: The case of trout fishermen. *Journal of Leisure Research, 9*(3), 174-187
- Buckley, R. (2012). Rush as a key motivation in skilled adventure tourism: Resolving the risk recreation paradox. *Tourism Management, 33*, 961-970.
- Cazenave, N. Le Scanff, C., & Woodman, T. (2007). Psychological profiles and emotional regulation characteristics of women engaged in risk-taking sports. *Anxiety, Stress, & Coping, 20*(4), 421-435.
- Celsi, R. L., Rose, R. L., & Leigh, T. W. (1993). An exploration of high-risk leisure consumption through skydiving. *Journal of Consumer Research, 20*, 1-21.

- Cohen, J. (1998). *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment Research & Evaluation, 10*(7). Available online: <http://pareonline.net/getvn.asp?v=10&n=7>
- Creyer, E.H., Ross, W.T., & Evers, D. (2003). Risky recreation: An exploration of factors influencing the likelihood of participation and the effects of experience. *Leisure Studies, 22*, 239-253.
- Csikszentmihalyi, M., & Csikszentmihalyi, I. S. (1990). Adventure and the flow experience. In J.C. Miles & S. Priest (Eds.), *Adventure Education* (pp. 149-156). State College, PA: Venture.
- Deci, L., & Ryan, M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Eccles, J. & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology, 53*, 109-132.
- Estes, C., & Ewert, A. (1988). Enhancing mixed-gender programming: Considerations for experiential educators. *The Bradford Papers Annual, 3*, 34-43.
- Ewert, A. & Vernon, F. (2013). Outdoor and adventure recreation. In Human Kinetics (Ed.), *Introduction to recreation and leisure* (2<sup>nd</sup> ed.) (pp. 321-340). Champaign, IL: Human Kinetics.
- Ewert, A. (1994). Playing the edge: Motivation and risk taking in a high-altitude wilderness-like environment. *Environment and Behavior, 26*, 3-24.
- Ewert, A., & Hollenhorst, S. (1989). Testing the adventure model: Empirical support for a model of risk recreation participation. *Journal of Leisure Research, 21*, 124-139.
- Galloway, S. (2012). Recreation specialization among New Zealand river recreation users: A multiactivity study of specialization and site preferences. *Leisure Sciences, 34*(3), 256-271.
- Hammett, W., Backlund, E., & Bixler, R. (2004). Experience use history, place bonding and resource substitution of trout anglers during recreation engagements. *Journal of Leisure Research, 36*(3), 356-378.
- Hendee, J. C., & Dawson, C. P. (2002). *Wilderness management: Stewardship and protection of resources and values* (3<sup>rd</sup> ed.). Golden, CO: Fulcrum Publishing.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Hull, R. B., Stewart, W. P., & Young, K. Y. (1992). Experience patterns: Capturing the dynamic nature of the recreation experience. *Journal of Leisure Research, 24*(3), 240-252.
- Jackson, E., & Henderson, K. A. (1995). Gender-based analysis of leisure constraints. *Leisure Sciences, 17*, 31-51.
- Kerr, J. H. & Houge Mackenzie, S. (2011). Multiple motives for participating in adventure sports. *Psychology of Sport and Exercise, 13*, 649-657.
- Klausner, S. (Ed.). (1968). *Why man takes chances: Studies in stress-seeking*. New York: Anchor Books.
- Klecka, W. R. (1980). *Discriminant analysis*. Sage University Paper, No. 19. Beverly Hills, CA: Sage.

- Kuentzel, W. F., & Heberlein, T. A. (2008). Life course change and competing leisure interests as obstacles to boating specialization. *Leisure Sciences, 30*, 143-157.
- Kuentzel, W. F., & McDonald, C. D. (1992). Differential effects of past experience, commitment, and lifestyle dimensions on river use specialization. *Journal of Leisure Research, 24*(3), 269-287.
- Lee, S., Graefe, A. R., & Li, L. C. (2007). The effects of specialization and gender on motivations and preferences for site attributes in paddling. *Leisure Sciences, 29*, 355-373.
- Lyng, S. (1990). Edgework: A social psychological analysis of voluntary risk taking. *The American Journal of Sociology, 95*, 851-886.
- Lyng, S. G., & Snow, D. (1986). *Vocabularies of motive and high risk behavior: The case of skydiving*. In E. J. Lawler (Ed.), *Advances in group processes, Vol. 3* (pp. 157-79). Greenwich, CT: JAI.
- Manfredo, M., & Driver, B. (1996). Measuring leisure motivation: A meta-analysis of the recreation experience preference scales. *Journal of Leisure Research, 28*, 188-213.
- Manning, R. E. (2011). *Studies in outdoor recreation* (3<sup>rd</sup> ed.). Corvallis, OR: Oregon State University Press.
- Maslow, A. (1964). *Religions, values, and peak experiences*. Penguin Books: New York.
- Mertler, C. A., & Vannatta, R. A. (2005). *Advanced and multivariate statistical methods* (3<sup>rd</sup> ed.). Glendale, CA: Pyrczak Publishing.
- Mitchell, R. G. (1983). *Mountain experience: The psychology and sociology of adventure*. Chicago: University of Chicago Press.
- Noyce, W. (1958). *The springs of adventure*. New York: The World Publishing Company.
- O'Connell, T. S. (2010). The effects of age, gender and level of experience on motivation to sea kayak. *Journal of Adventure Education and Outdoor Learning, 10*(1), 51-66.
- Outdoor Industry Foundation. (2011). *Outdoor Recreation Participation Report 2011*. Boulder, CO: The Outdoor Foundation.
- Pomfret, G. (2011). Package mountaineer tourists holidaying in the French Alps: An evaluation of key influences encouraging their participation. *Tourism Management, 32*, 501-510.
- Swarbrooke, J., Beard, C., Leckie, S., & Pomfret, S. (2003). *Adventure tourism: The new frontier*. Oxford: Butterworth/Heinemann.
- Thapa, B., Confer, J. J., & Mendelson, J. (2004). *Trip motivations among water-based Recreationists*. Retrieved from <http://www.metla.fi/julkaisut/workingpapers/2004/mwp002-30.pdf>
- Todd, S. L., Anderson, L., Young, A., & Anderson, D. (2002). The relationship of motivation factors to level of development in outdoor adventure recreationists. *Research in Outdoor Education, 6*, 124-138.
- Weiner, B. (1974). *Achievement motivation and attribution theory*. Morristown, NJ: General Learning Press.
- Weiner, B. (1992). *Human motivation: Metaphors, theories, and research*. Newbury Park, CA: Sage.
- Williams, P., & Soutar, G. N. (2009). Value, satisfaction and behavioral intentions in an adventure tourism context. *Annals of Tourism Research, 36*, 413-438.

- 
- Woodman, T., Cazenave, N., & Le Scanff, C. (2008). Skydiving as emotion regulation: The rise and fall of anxiety is moderated by alexithymia. *Journal of Sport & Exercise, 30*, 424-433.
- Wu, G. H.-J., & Liang, R.-D. (2011). The relationship between whitewater rafting experience formation and customer reactions: A flow theory perspective. *Tourism Management, 32*, 317-325.
- Zuckerman, M. (2008). *Sensation seeking and risky behavior*. Washington, DC: American Psychological Association.