

## SEER 2006 Abstract

# Study of Self-Efficacy in a Freshman Wilderness Experience Program: Measuring General Versus Specific Gains

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The original study on which this follow-up was based investigated the global self-efficacy of 28 incoming freshmen in a wilderness orientation program. According to Bandura (1998), self-efficacy is defined as a belief in one's ability to organize and execute the course of action required to attain a given outcome. Previous studies have supported the notion that adventure-based recreation increases self-efficacy (Davis-Berman & Berman, 1989; Ferguson & Jones, 2001; Kelly, Coursey, & Selby, 1997; Paxton & McAvoy, 1998; Propst & Koesler, 1998; Richardson, 2003; Sutherland, 2001).

The purpose of the original study was to further investigate the link(s) between wilderness programs and the development of self-efficacy in first-year college students and to identify if participants in the wilderness group varied on their self-efficacy based on personal characteristics. The purpose of this study was to further investigate the link(s) between this program and the development of self-efficacy in first-year college students. Research questions included: (a) Did the participants in the wilderness group continue to increase their [general] self-efficacy over time?; (b) Were any self-efficacy gains generalized to the university environment, or more specifically related to the students' outdoor skills?; and (c) Were there differences based on gender or previous experiences?

## Methodology

The original study had the consenting freshmen in the wilderness experience program complete the Perceived Competence of Functioning Inventory (PCFI) (Hays & Williams, 2000). The PCFI is a 16-question survey used to measure self-competence, role competence, and relational competence. The survey was completed on campus before leaving for the trip (T1) and again immediately following the trip before driving from the wilderness site back to campus (T2). Approximately two months after the completion of the trip, students who participated in the program completed a reflection paper. Students who consented to be in the treatment group all agreed to permit investigators to make use of information in these reflection papers for qualitative analysis. A third PCFI was administered (T3) in October, when they turned in the final reflection paper noted above.

Participants then completed further testing (T4) toward the end of their first year—almost nine months post-experience. This research was conceived following discussion regarding research that states it is a general misconception that general efficacy beliefs spawn specific efficacy beliefs (Bandura, 1998). According to Bandura (1998) researchers need to draw on conceptual analysis and expert knowledge about what it takes to succeed in a given pursuit. Using a general self-efficacy scale in a study leaves out this conceptual analysis, instead assuming that self-efficacy gained in one area can be transferred to another. The intent of this secondary study was to allow the investigators to not only ascertain whether a specific outdoor self-efficacy survey correlates with general self-efficacy results, but also if the generalized PCFI self-efficacy scores continued to increase over time, as was reported in the original study.

The investigators also desired to measure the effect of the wilderness experience itself. The initial study that investigated self-efficacy gains in participants also yielded rich qualitative information regarding: (a) the effects the wilderness setting had on the participants; and (b) the most important knowledge that participants felt that they gained while on the trip (which included outdoor skill knowledge). The follow-up study, mainly completed in a focus group format, asked participants to respond to the following: “As a group, you all reported in your essays that you felt the most important knowledge you gained included a number of outdoor skills including one-match fires, preservation, and canoeing and camping. A) Do you believe that the outdoor experience and knowledge that you gained on the New Adventures trip affected your behavior in and about the outdoors over the school year? B) Did you participate in outdoor activities over the school year? If so, describe the length and type of activities. If not, what stopped you from doing so? C) Did you have a

chance to practice any of the skills you learned or honed on the New Adventures trip?"

### Findings

Results from the first phase of the initial study showed that PCFI scores increased both at the posttrip and 8-week-post intervals, though the increases were not statistically significant except at the 8-week-post interval. Results from the second phase also produced no significant differences between T4 ( $p = .731$ ) and the other testing periods. The researchers were unable to analyze data regarding the connection between general and specific self-efficacy due to a low response rate. However, upon analyzing the Outdoor Recreation Self-Efficacy Scale (ORSE), Cronbach's Alpha and the Cronbach's Alpha-Based on Standardized Items resulted in an alpha of .907 and .927, respectively, providing positive feedback that the researchers may be in the beginning stages of developing a worthy instrument. Descriptions of the respondents' conversations with the investigators regarding their outdoor behaviors will be shared.

Due to difficulty with garnering interest in the follow-up study (T4), seven of the original 21 participants were available to be included for statistical analysis therefore limiting validity and reliability; the investigators are unable to state specific implications of the study. It is hoped that by incorporating an outdoor-specific self-efficacy survey, the researchers will be better able to determine the impact of a wilderness program on students' outdoor behaviors. In addition, further evidence from this initial investigation regarding the importance of friendship connections during the freshman wilderness experience has also spawned a new line of research with this program that will investigate the human connections the students make during this time period and throughout the first quarter of the school year. These results will be compared with students who have participated in other freshman experiences unrelated to the outdoors and students who did not participate in any experiences for incoming freshman.

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