

# Social Psychological Benefits of a Wilderness Adventure Program

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**Abstract**—Wilderness-based outdoor adventure programs are intended to produce positive change in participants. There are a significant number of these programs, with Hattie and others (1997) reporting that in 1994 alone, there were over 40,000 students participating in Outward Bound programs. Not all of these programs occur in wilderness, but significant portions of them do. A major goal of these programs is the improvement and development of participants' self-concept and self-efficacy through wilderness-based activities. These activities provide opportunities for physical, emotional and cognitive challenges and opportunities for success. Research has demonstrated that these programs have an impact on participants' awareness of themselves and others (Hattie and others 1997). Another goal of some programs is to create and foster a wilderness/environmental awareness that enhances the participants' ability to perceive and identify with the environment and to generate concern and commitment to the continued preservation of nature and wilderness (McAvoy 1987).

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There has been little research on the long-term benefits of wilderness programs. Most previous studies have focused on immediate benefits. This research project examined how a wilderness adventure program influenced the self-efficacy of participants, how participants transferred their experiences from their wilderness program to their everyday lives and if these programs have a lasting impact on the participants' attitude towards wilderness.

Self-efficacy is important for an individual's general mental health. Research has found that for individuals to function proficiently and have a sound sense of well-being, positive self-efficacy is fundamental (Gecas and Burke 1995). Many previous studies conducted on self-efficacy while participating in a wilderness adventure course have overlooked the relationship between positive self-efficacy acquired through an adventure course and the application to the participants' everyday lives.

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## Self-Efficacy and Wilderness Adventure Programs

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Self-efficacy refers to our beliefs about our ability to execute control over our own level of functioning and the events that affect our lives. We depend on our self-efficacy to accomplish tasks, from the mundane to the complex. As Albert Bandura (1986) states,

...knowledge, transformational operations, and constituent skills are necessary but insufficient for accomplished performances. People often do not behave optimally even though they know fully what to do. Self-referent thought mediates the relationship between knowledge and action.

This "self-referent thought" is efficacy. A resilient sense of efficacy is needed to sustain a continual effort, which is needed for success in any situation (Bandura 1986 1991a; Gass 1993). Efficacy involves a creative propensity in which cognitive, social and behavioral sub-skills must be organized into an integrated course of action to serve innumerable purposes (Bandura 1977 1986 1991a).

Efficacy can be derived from past failures and / or accomplishment (Bandura 1982 1986 1989; Ewert 1982; Gass 1987 1990). However, the accomplishment and / or failures of the specific activity do not have to be specific to the particular situation a person is contemplating in order for that individual's efficacy to increase (Bandura 1977 1982 1986a 1986b; Gecas 1986 1989). Self-efficacy is learned from all of our prior experience and then used by the self and incorporated into self beliefs to help achieve future tasks.

An individual's positive judgment based on their efficacy promotes active involvement in activities and contributes to the growth of competencies needed in that activity (Bandura 1977). The opposite is true for perceived self-inefficacy, which retards people from developing to their fullest by preventing corrective change. Large misjudgments of personal efficacy in either direction have consequences to the individual that prevent them from being able to function to their fullest potential (Csikszentmihalyi 1975).

Individuals' knowledge of their judgment skills and their perceived capability to influence their thought patterns and emotional reactions depend greatly on their self-efficacy (Bandura 1991a). People's thoughts and emotional reactions to their actual and perceived environments are influenced by their judgments. If one judges him/herself as inefficacious, s/he perceives potential problems and difficulties as more formidable than they really are (Beck 1976; Lazarus and Launier 1978). People with a strong sense of self-efficacy organize their attentions and efforts toward the

task and, when provoked by obstacles, muster even greater effort to overcome the stressor (Bandura 1982 1991a; Csikszentmihalyi 1975 1991). Bandura (1986) has summed up how the perception of self-efficacy makes a difference in the human experience:

People who see themselves as efficacious set themselves challenges that enlist their interest and involvement in activities; they intensify their efforts when their performances fall short of their goals, make causal ascription for failures that support a success orientation, approach potentially threatening tasks non anxiously...

Bandura's theory has guided research on studies of outdoor/adventure education (Brody and others 1988; Priest, 1993). This theory identifies some of the determinants and consequences of self-efficacy. It can help us understand how to better help participants achieve the goals of wilderness adventure programs.

Kurt Hahn, the modern-day father of outdoor/adventure education, believed that youth would take pleasure in learning if the environment were attractive to the total person (the emotional, physical and social aspects of a person). Both intra and interpersonal lessons are the basis for experiential education—that is, the total person is involved in the learning process. Experiential and adventure education has used this philosophy as the cornerstone of their development. One essential element of this philosophy is a series of intense experiences in a natural setting that produce increasingly complex and difficult challenges for an individual to master to go on to the next challenge. This is the format of the typical wilderness adventure program. Through the process of trying to succeed at accomplishing these challenges, the individual builds a sense of selfworth and concern for those in danger (Hahn, 1970).

Studies focused on aspects of self-efficacy and outdoor programs have found that efficacy improved immediately following the adventure experience. Brody, Hatfield and Spalding (1988) found that there was a direct increase in self-efficacy specifically related to high-risk sports (Klint 1990). Similarly, Koelser (1994) found that efficacy related to outdoor leadership increased immediately following a wilderness adventure program, and this increase was maintained one year following the program.

The concept of transference is an integral part of the wilderness adventure experience, though this part of the experience takes place after the actual experience has ended. Transference is the application of what the participant learned on their wilderness program (about themselves, about others, new skills, etc.) to some new challenge after their experience (Gass 1993). Gass (1993) also states that transference is one of the "most significant issues" in the adventure education model.

## Method

The sample population for this research came from Voyager Outward Bound Schools headquartered in Minneapolis, Minnesota. The participants were 68 students on standard 21-day wilderness adventure courses. Eighty-four percent of the subjects had not participated in wilderness activities for an extend period of time (over two days) prior to this trip. The program format was the same for each of the

courses. However, the courses differed in the physical environment in which they took place. The instructors of the courses varied depending on the physical environment (location) and the particular expertise that was required for that course. All instructors for the Voyager Outward Bound courses have been through Voyager Outward Bound Schools' training for instructors and follow the standard course format required by the school.

A control group that consisted of 50 University of Minnesota students enrolled in a third-year Kinesiology class was used in this study. This group of students closely matched the characteristics of the experimental group in age, race, education level, gender ratio, wilderness skill levels and employment status.

This research was conducted in two phases over one year. In phase one, instruments were given to the control group and the experimental group. These instruments were administered to the experimental group on the first day of their wilderness adventure program, the last day of the program and six months after their program. The control group received their instruments while attending the University of Minnesota. The three instruments used in the first phase of this research were: the Self-Efficacy Scale (adapted for this research from Bandura 1995), the Sphere-Specific Measures of Perceived Control (Paulhus, 1983), and the Multattributional Causality Scale (Lefcourt and others 1979). In addition to the three instruments, each survey included a series of open-ended questions.

Phase two of this research consisted of semi-structured telephone interviews one year after the completion of the subjects' wilderness adventure course. Phase two interviews were conducted with 20 of the 68 subjects from phase one. This group consisted of 10 males and 10 females representing all the different courses that were involved in this study. These data were then compiled and analyzed with phase one's data.

## Results and Discussion

The results show a significant and enduring increase in the participants' self-efficacy from pre-test through post-test and to the six-month follow-up (table 1 and 2). There were no significant gains in the control group. Not only did the self-efficacy levels increase during the 21-day wilderness course, but also they kept increasing, even up to six months after the course. This is demonstrated in figures 1 and 2.

**Table 1**—Mean differences on efficacy between pre and post-test 1.

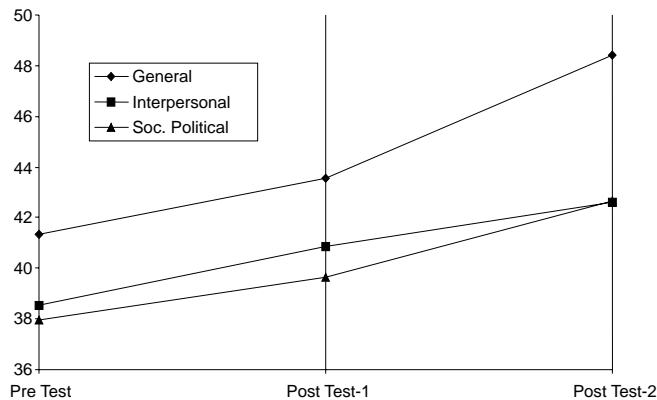
Variable	Pre mean	Std. dev.	Post 1 mean	Std. dev.	T-value
Leadership	75.93	12.93	84.90	8.74	7.772***
Work	80.97	12.05	88.05	8.63	6.563***
General	41.31	3.20	43.55	2.40	4.207**
Interpersonal	38.52	4.59	40.85	3.64	1.868#
Socio-political	37.95	3.60	39.64	2.24	2.929*

#a < .10 \*a < .05 \*\*a < .01 \*\*\*a < .001.

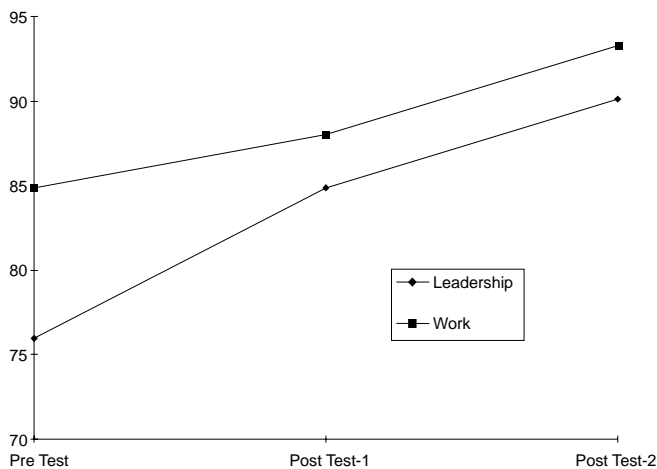
**Table 2**—Change in efficacy levels between post-test 1 and post-test 2.

Variable	Post 1 mean	Std. dev.	Post 2 mean	Std. dev.	T-value
Leadership	84.90	8.74	90.09	10.32	3.894**
Work	88.05	8.63	93.31	7.86	8.328**
General	43.55	2.40	48.43	3.50	10.181**
Interpersonal	40.85	3.64	42.59	3.84	1.896
Socio-political	39.64	2.24	42.67	4.78	3.790**

#a <.10 \*a <.05 \*\*a <.01 \*\*\*a <.001.



**Figure 1**—Graph of the pre test, post 1 test, and the post 2 test means of general, interpersonal, and social-political efficacy.



**Figure 2**—Graph of the pre test, post 1 test, and the post 2 test means of work and leadership efficacy.

## Discussion

The interviews and the open-ended questions in the surveys indicated that the increased self-efficacy that resulted from participation in this wilderness adventure program was being transferred into the personal, social and work spheres of participants' lives. The participants who were interviewed indicated that participation in this wilderness

program had resulted in increased feelings of competence, acceptance of failure as a learning opportunity and personal control.

Transference of confidence gained on the Outward Bound program to confidence in the participants' every day lives are exhibited in many of the participants' responses. A male participant on one of the canoeing courses wrote the following: "I have begun feeling more confident in my abilities as a person, stronger, that I am capable of a lot and have the power to do it." A female participant on one of the river trips reported this same sense of increased efficacy when she wrote that "I can trust my decisions and I am more motivated and determined by my own belief in myself."

Participants also demonstrated a belief in their abilities to achieve a given task, even if it meant attempting a particular goal more than once. For example, a male participant demonstrated this ability to continue through adversity in his answer to the question "Have you used any of what you learned on your Outward Bound course in your daily life:"

I use the mentality that there is more than one way to do something and I can find a way for me to do it [that is, accomplish the task]. I don't back down if I don't achieve my goals the first or second time. I find a new way and then I see myself achieving it.

With these feelings of personal control and accepting failure as a learning experience, participants indicated a continued feeling of connection to the wilderness, even after being home for up to a year. All those interviewed stated they used the wilderness experience to help make decisions about their lives. Many of the participants spoke about how they reflect on their wilderness experience for guidance and perseverance in their life back home. A female from a canoeing course responded in the following manner when asked about what she took with her from the adventure course:

I would say definitely it has had a major impact on all aspects of my life. . . . I've just learned to take everything one step at a time and it is so much easier to do it [succeed at challenges] that way and it makes you feel so much better. I took it [the adventure course] as a challenge. I take everything one step at a time and I look back on my trip and say I did it. I tell myself that when I face new challenges now, I did that, I can do this. I have learned to trust in myself and my abilities. I know I can do it.

The wilderness experience was also pivotal in helping the participants define themselves. For example, one female, when asked what stood out about her course, responded: "I think it was kind of a personal experience for me. I think it basically made me believe in myself a lot more. It gave me a lot more self confidence." Another participant said that

This experience has helped me in finding myself, I now am able to better understand myself and what type of person I want to be. I feel like I know myself now in a way I never did before.

Many participants voiced this feeling of finding themselves. At the same time, participants would speak about how the "place" (the wilderness) made this possible.

All of the participants that were interviewed display feelings of stewardship of the wilderness where their experience took place. One participant said, "I feel a bond to the land, I want to always feel this so I decided that I need to take

care of that land any way I can.” The wilderness was a significant component in the experience for these participants. The majority of the participants interviewed acknowledged that they have become more involved in issues regarding preservation of wild lands and want to be able to revisit these areas.

Participants indicated that they want to preserve these areas so their family and friends have the opportunity to feel and experience what they themselves have experienced in the wilderness. The majority of the participants interviewed wanted to be active in the wilderness in the future, on a much less intense level than that of an Outward Bound course. Participants spoke about wanting to use their future time in the wilderness for contemplation and reflection. One participant voiced this in the following manner

I love the woods, but I want to enjoy the wilderness the way I enjoyed it on solo. I don't need to test myself any more, I want to walk in the solitude and enjoy the peace of the place.

Another participant stated that “I want to take time to understand what and who I am, all I want to do now is to canoe into the wilderness and just be with the wilderness.” A female participant said this about how she uses the wilderness and wants to use the wilderness:

I want to enjoy my time out [in the wilderness]. I have already tested my skills and I know that I can accomplish what I want to or need to in the wilderness. What I want to do is understanding myself and that can only come from being in the wilderness.

This study indicates that wilderness adventure courses have a lasting impact on the attitudes of participants regarding their ideas of self and their connection to wilderness. The benefits-based management models can incorporate these findings by recognizing the lasting benefits to participants of wilderness adventure programs. The basic tenants of benefits-based management is managing for desired outcomes (Driver 1999). Understanding that wilderness adventure programs produce the outcomes documented in this study will help wilderness managers decide how to manage wilderness areas. By using a benefits-based management model, policy-makers and managers can decide on how to provide opportunities that will assist in developing these benefits. Benefits-based models can incorporate these findings by acknowledging that management can draw on these participants' enduring interests in wilderness to manage and preserve wild land areas.

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