During the summer of 1987, 29 students from the Cooperstown High School in New York received scholarships and participated in an Outward Bound course. This report presents the results of a study assessing the impact of the Outward Bound experience on these students. Data gathering instruments included: the Self Report Survey (SRS), developed by Dr. Chris Jennstadt, Department of Psychology, Dartmouth College; a questionnaire sent to parents; and school records. The SRS was administered as a pretest, a post-test, and a six-month follow-up. The following SRS subscales were of primary interest in this study: self-depreciation; sociability; achievement motivation; social consciousness; hopelessness and social pessimism; self-confidence; and general well-being. The Statistical Package for the Social Sciences for the personal computer was used for repeated measures analysis of the SRS data. Five of the subscales showed significant positive change between the first and last administration of SRS. School records were used to gather information on each student's grade-point average and school attendance. There were no statistically significant changes in their academic achievement or school attendance. Analysis of the questionnaire reflecting the parents' assessment of their child's behavior after the Outward Bound experience indicated positive behavioral and attitudinal changes. This report contains six graphs.

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The Cooperstown-Outward Bound Summer Program

An informal look at the program's impact on the lives of students

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Abstract

During the summer of 1987, twenty-nine students from the Cooperstown High School in New York State participated in an Outward Bound experience.

In order to assess elements of psychosocial growth which may have occurred during that summer, pre, post and follow-up measures on the Self Report Survey (SRS) developed by Professor Jernstedt of Dartmouth College were taken; information was also gathered from the student’s academic records and through a questionnaire sent to parents of Outward Bound participants.

The results indicated that statistically significant positive changes were detected by the SRS, on five of its seven subscales. Specific areas of growth included self-confidence, sociability, self-deprecation, social pessimism and general well-being.

Although no statistically significant measures of improved academic performance or attendance were detected, parents reported noticeable positive behavioral and attitudinal changes in their child’s family functioning, and that they overwhelmingly valued the Outward Bound component of the public school program.
Introduction

Since 1985, over 120 students, teachers and administrators from the Cooperstown High School in upstate New York, have participated in an Outward Bound experience at one of the five Outward Bound Schools in the United States. Their participation was made possible by a grant from the Clark Foundation, which provided full program and travel scholarships to successful applicants.

As part of the Clark Foundation's interest in Outward Bound programming, an investigation was undertaken to assess the impact of the Outward Bound experience on the student scholarship recipients. This report presents the results of that informal investigation.

Outward Bound: An Overview

Outward Bound emerged out of the political and social upheavals of World War II. Its founder, Dr. Kurt Hahn, was an educator of German ancestry who believed strongly in the need for values oriented education which provided a complementary mix of academic study, physical activity and community/social service as part of a complete educational experience.

In 1941, with the encouragement and financial support of Laurence Holt, head of the Blue Funnel Shipping Lines in the United Kingdom, Hahn established the first Outward Bound School in Aberdovey, Wales. Through a rigorous four week course involving seamanship, technical rock climbing, and community service through rescue preparedness, this first Outward Bound school fostered within participants a greater sense of confidence, fellowship and commitment to the community.

True to Hahn's original vision, today, Outward Bound Schools throughout the world, seek to enhance an individual's sense of self-worth, confidence and ability to work with others, while fostering within the participants a deeper sense of compassion, commitment to community service and an appreciation of the natural world.

To accomplish these goals, Outward Bound schools conduct programs ranging from a few days to several months, and present challenges, such as rock climbing, canoeing, mountaineering, backpacking and rafting, in a manner which seeks to promote the aforementioned values through a sequencing of events which promote competence, compassion and teamwork.

Conceptually, Outward Bound provides adventure-based, experiential education programs for people 14 years of age or older. The term experiential defines a "doing" approach to teaching and learning, and thus firsthand encounters with the world, i.e., concrete activities, are the
foundation upon which an experiential endeavor is based. Yet, too, it is the transitioning, interplay and linkages between concrete educative activities and abstract undertakings which create a complete, whole experiential lesson.

Complementing the experiential pedagogy of Outward Bound programming is the concept of adventure. Adventure, he-e, means there is an element of risk programmed into the curriculum—risk being broadly defined to include activities of a controlled degree of actual physical risk (mountaineering), perceived risk (ropes course activities) as well as the less obvious yet profoundly risky activities of self-disclosure, personal commitment, group interactions and the intellectual adventure of critical thought, reasoning and knowledge acquisition.

The Study

The focus of this study were the Cooperstown High School students who received scholarships to attend an Outward Bound course during the summer of 1987, n = 29.

In order to assess the impact of the Outward Bound experience on these scholarship recipients, information was gathered in three ways: 1) through repeated administrations of the Self Report Survey (SRS), 2) through a questionnaire sent to the parents of scholarship recipients, and 3) a gleaning of information from available school records. A brief description of each of these data gathering procedures is presented below.

The Self Report Survey:

The Self Report Survey (SRS) is a psychometric research instrument being developed by Dr. Chris Jernstedt of the Dartmouth College Department of Psychology, which is currently undergoing validation and reliability studies. The SRS is specifically designed to measure a variety of psychological factors thought to be affected by an Outward Bound experience and consists of over 86 questions of which many were extracted from well validated and reliable instruments, while others either have strong face validity or simply seek background information. The SRS consists of subsections of which several psychometric subscales have been identified. The subscales which were of primary interest in this investigation were: 1) Self-deprecation, 2) Sociability, 3) Achievement motivation, 4) Social consciousness, 5) Hopelessness & Social pessimism and 6) Self-confidence. Additionally, for the purposes of this investigation, these six subscales were summed together to create a global scale addressing General Well-being. Each of these subscales are defined on the pages to follow.
Self-deprecation: A high score on this variable indicates that the respondent has a low self-concept, worries about what others think, and thus seeks their approval. Moreover, a high score on this variable indicates the individual lacks a sense of self-worth and believes that their abilities are below average.

Sociability: A high score on this variable indicates that the respondent has good social skills and relates easily to others.

Achievement motivation: A high score on this variable indicates that the respondent is a hard worker. This individual will tend to persevere in the face of difficulties and value a job well done.

Social Consciousness: A high score on this variable indicates that the respondent has a concern for and feels connected to others. It also indicates that the individual believes in working for a better world.

Hopelessness & Social Pessimism: A high score indicates that the respondent has a pessimistic outlook on the future. Conversely, a low score indicates that the respondent feels able to influence social forces in a positive way.

Self-confidence: A high score indicates that the respondent is self-confidant, self-accepting and has a positive self-esteem.

General well-being: A high score on this composite variable indicates that the respondent has a positive image of self, good social skills, a positive outlook on society and is optimistic about the future.

The SRS was administered to the participants three times during the course of this study, i.e., a pretest administration took place before the students participated in an Outward Bound experience, a post-test administration took place immediately after the students completed their Outward Bound experience, and a follow-up administration took place six months after the students' Outward Bound experience.

The Parent Questionnaire:

A questionnaire was mailed to the parents of the 1987 summer scholarship recipients after the six month follow-up administration of the SRS to their children. The questionnaire sought information regarding the parents' assessment of their child's behavior subsequent to their participation in the Outward Bound experience, and also tried to determine the parents' general feelings about Outward Bound and its value as an educational experience.
School Records:

The district's central school records were gleaned to find information regarding the summer scholarship recipients' grade point average (G.P.A.) and school attendance.

Results

Prior to this report, a document entitled "The Cooperstown Project: A Preliminary Research Report" described the results of a statistical comparison of the SRS pre and post-test scores as reported by the student participants. Using t-tests to compare mean scores for pre and post-test administrations of the SRS it was found that statistically significant differences were evident for all SRS subscales. Though the lack of a control group clearly limits the value of the investigation as a strict research study, these findings were viewed as encouraging. Operating under these same limitations, the findings for this phase of the investigation were also most encouraging.

Using the SPSS/PC+ package for the IBM PC, repeated measures procedures using simple contrasts were performed on the pre, post and follow-up data for the SRS. The repeated measures analysis is a rigorous statistical procedure which compares means scores of the same variable when measures of that variable have been taken several times. Simple contrasts refers to the nature of the comparisons made during the repeated measures analysis, and more specifically, indicates that mean scores reported for the pre and post-test administrations of the SRS were compared to the mean score reported for the follow-up administration of the SRS. Thus the repeated measures with simple contrast procedure is an effective way to determine if the change reported between the pretest and follow-up administrations of the SRS were statistically significant.

The results reported on the pages to follow graphically illustrate pretest, post-test and follow-up mean scores, and reports the probability (p) for the pretest/follow-up contrast.
Self-deprecation

Findings: Mean scores for this variable were as follows. pretest: 3.13, post-test: 2.65 and follow-up: 2.82; p < .01.

Interpretation: Although the scores on this sub-scale did rebound from the post-test administration to the follow-up administration of the SRS, the gains realized from the pretest administration to the follow-up administration were statistically significant, thus indicating that the participants had a stronger sense of self and were more confident at the final administration of the SRS than they were at its first administration.
Findings: Mean scores for this variable were as follows: pretest: 3.73, post-test: 4.05 and follow-up: 3.91; p < .01.

Interpretation: Although the scores on this sub-scale did decline from the post-test administration to the follow-up administration of the SRS, the gains realized from the pretest administration to the follow-up administration were statistically significant thus indicating that the participants were more comfortable in social situations and were more confident in their communication skills at the final administration of the SRS than they were at its first administration.
Findings: Mean scores for this variable were as follows: pretest: 3.75, post-test: 3.94 and follow-up: 3.78; p > .01.

Interpretation: Although statistically significant positive changes were reported for mean score difference in the preliminary project report, those differences were not evident at the follow-up administration of the SRS. Thus it appears that any gains realized between the pre and post-test administrations of the SRS were not evident six months later.
Social Consciousness

Findings: Mean scores for this variable were as follows: pretest: 3.78, post-test: 3.88 and follow-up: 3.69; $p > .01$.

Interpretation: Although statistically significant positive changes were reported for mean score difference in the preliminary project report, those differences were not evident at the follow-up administration of the SRS. Thus it appears that any gains realized between the pre and post-test administrations of the SRS were not evident six months later.
Hopelessness and Social Pessimism

Findings: Mean scores for this variable were as follows: pretest: 2.68, post-test: 2.37 and follow-up: 2.60; p < .01.

Interpretation: Although the scores on this sub-scale did rebound from the post-test administration to the follow-up administration of the SRS, statistically significant gains were evident between the pretest and follow-up administrations, thus indicating that the participants had a more positive outlook on the future than they did prior to the Outward Bound experience, and that they sensed they could make a difference in affecting positive social change.
**Self-confidence**

**Findings:** Mean scores for this variable were as follows: pretest: 4.02, post-test: 4.34 and follow-up: 4.11; p < .03.

**Interpretation:** Although the score on this sub-scale did decline from the post-test administration to the follow-up administration of the SRS, the gains realized from the pretest to the follow-up administration of the SRS were statistically significant, thus indicating that the participants were feeling more confident at the follow-up administration of the SRS than they did prior to their Outward Bound experience.
General Well-being

Findings: Mean scores for this variable were as follows: pretest: 9.44, post-test: 10.88 and follow-up: 10.08; $p < .01$.

Interpretation: Although the score on this sub-scale did decline from the post-test administration to the follow-up administration of the SRS, the gains realized from the pretest to the follow-up administrations of the SRS were statistically significant thus indicating that the participants' feelings of general well-being and confidence were higher six months after the Outward Bound experience than they were at the first administration of the SRS; moreover, during the same time frame, their general feelings of pessimism, hopelessness and self-deprecation were lowered.
Summary of Statistical Assessment

Five of the seven SRS subscales yielded statistically significant shifts in positive directions as measured by SPSS repeated measures with simple contrasts. This finding indicates that the participants in the Outward Bound summer program grew in measurable ways between the first and last administrations of the SRS.

Although the statistical analyses indicate that growth did occur between the first and last administrations of the SRS, another question of interest concerns how these statistically significant changes manifest themselves in terms of real behaviors as well as attitudes and actions as perceived by significant others in the lives of the students. To assess this element of the investigation, parents of the scholarship recipients were asked to complete questionnaires, and school records of behavior and attendance were reviewed. The results of this aspect of the investigation are reported below.

Measures of Student Behavior

To determine whether the growth measured by the SRS translated into any behavioral changes related to school, the academic and attendance records of the summer scholarship students were reviewed and a questionnaire was sent to the students’ parents.

School Records Data

This aspect of the investigation sought information from the school district’s academic records related to G.P.A. and attendance. In particular, information was sought regarding the students’ G.P.A., legal and illegal absences, as well as legal and illegal late arrivals. Information was also sought regarding the students’ extra-curricula activities, however, no school records were available for this measure.

Upon an examination of the school data for the entire group under investigation, no statistically significant changes in the students’ Grade Point Average or school attendance were discerned. Additionally, an ancillary investigation which sought to determine if differences in G.P.A. and attendance were related to different subgroups within the sample, Chi-square analyses were performed. These analyses failed to discern any statistically significant difference in grade point average and school attendance when the students sex and academic year were examined.
Parental Assessments

In contrast to the findings reported for the school data investigation, assessments made by the parents of scholarship recipients did indicate positive changes.

More specifically, when the parents were asked how the Outward Bound experience affected their child, 85% reported that the experience had a positive effect. Illustrating this point, one parent stated: “My daughter seemed to gain more confidence in her own abilities and strength. She also seemed to have a deeper sense of her own spirituality,” while another observed such changes in his son as “(a) great increase in verbal communication.” Still another commented that her son “takes more responsibility with the care of his brothers and duties around the home” which is complemented by “more interest in self-improvement and in helping others.” Sixty-three percent of the parents also felt that their children returned from the Outward Bound experience with a more positive attitude; seventy-two percent reported that their children seemed more aware of their responsibility to others, while sixty-six percent reported that their children were more willing to assume leadership responsibilities.

These perspectives offered by parents of the summer scholarship recipients led over 85% of them to indicate that they felt more Outward Bound type activities should be included in the formal school curriculum.

Summary and Conclusions

The results of this investigation indicate three important points.

First as indicated by the repeated measures analyses of the SRS, the participants in the summer program grew in some important psychosocial dimensions. More specifically, statistically significant gains were observed on the following SRS scales:

- Self-deprecation
- Social Consciousness
- Sociability
- Self-confidence
- Hopelessness & Social Pessimism
- General Well-being

Such recorded gains indicate that the participants in the Outward Bound programs had a stronger sense of self, were more confident, less pessimistic, and enjoyed improved social communication skills at the six month administration of the test instrument than they did prior to their Outward Bound experience.

Second, in terms of academic achievement and school attendance, no statistically significant changes were noted, i.e., although some of the subjects reported over 10 point gains in their G.P.A. from the academic
year before their Outward Bound experience to the academic year subsequent to their experience, and others reported dramatic improvements in school attendance, a decline in academic achievement and attendance was noted for other students. This finding, based on the examination of the school records, however, is consistent with the non-statistically significant results for the repeated measures analysis of the SRS Achievement Motivation subscale, and thus intuitively affirms its validity. Moreover, this finding suggests avenues for research and program development for Outward Bound, i.e., the consideration of programmatic changes which will have an impact on these factors. For example, program development people at Outward Bound may wish to explore the use of metaphors and language when presenting challenges to their students, which relate directly to school achievement and academic performance. Such a shift in couching metaphors might serve as an effective bridge for the transfer of learning from the Outward Bound experience to the school environment.

Third, parents of the summer scholarship recipients did note important and positive changes in their child’s behaviors at home. This finding is most significant given the fact that the participants’ parents, i.e., individuals who know their children and their behaviors intimately, can discern positive behavioral and attitudinal changes. Concrete examples of the kinds of changes which the parents noted include:

1--qualitatively more compassionate interactions between siblings

2--the assumption of more responsibilities with regard to household chores, and

3--the child’s participation in community service projects, e.g., work with senior citizens and for Special Olympic events.

With regard to these service activities, it is interesting to note that one school official commented that "service to the community by high school students is a new concept which came to Cooperstown following Outward Bound." This perspective on Outward Bound’s impact on the community and the lives of scholarship recipients is also shared by the parents, and thus they too attribute much of the growth they see in their children to Outward Bound, and thus overwhelmingly support Outward Bound’s continued programming efforts as part of the school curriculum.
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