Determined were the effects of the Outward Bound experience on the anxiety levels and self-concepts of 33 male and 11 female participants in a Colorado Outward Bound School course held in May 1973. Participants ranged from 16 to 38 years old, with the majority in the college age bracket. The course consisted of 23 days of intensive wilderness experience in the San Juan Mountains of southwest Colorado. Pre- and post-course tests were administered. Real and ideal self-concepts were measured through Gough Adjective Check Lists. State and trait anxieties were indexed by the State-Trait Anxiety Inventory. The comparison of pre- and post-course tests revealed that at the conclusion of the experience real self-concepts became more positive and more closely approached ideal self-concepts. Both state and trait anxieties decreased following participation. Low state and trait anxiety scores were found to be related to positive real self-concept measures. Females exhibited higher ideal self-concepts while males displayed a smaller discrepancy between real and ideal selves. Because the direction of all changes was the same for both sexes, it was concluded that Outward Bound participation had similar effects on male and female state anxiety, trait anxiety, real self-concept, and ideal self-concept. (Author/NQ)
THE EFFECTS OF OUTWARD BOUND PARTICIPATION UPON ANXIETY AND SELF CONCEPT.
Sharon M. Koepke, The University of Texas at Austin

This study involved 33 male and 11 female participants in a Colorado Outward Bound School course held in May 1973. Tests were administered at the beginning and at the conclusion of the course. Real and ideal self concepts were measured through Gough Adjective Check Lists; state and trait anxieties were indexed by the State-Trait Anxiety Inventory. The comparison of pre-course and post-course tests revealed that at the conclusion of the experience real self concepts became more positive and real self concepts more closely approached ideal self concepts. Both state and trait anxieties decreased following participation. Low state and trait anxiety scores were found to be related to positive real self concept measures. In the comparison between male and female participants, females exhibited higher ideal self concepts while males displayed a smaller discrepancy between real and ideal selves. Because the direction of all changes was the same for both sexes, it was concluded that Outward Bound participation has similar effects upon male and female state anxiety, trait anxiety, real self concept, and ideal self concept.

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THE EFFECTS OF OUTWARD BOUND PARTICIPATION UPON ANXIETY AND SELF CONCEPT.
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Each individual views himself from a unique perspective: he is both the subject and the object of his observations. The sum of all the ideas and feelings that a person may have regarding his body, his mind, and his personal characteristics composes his self concept (Jersild 1963). Two basic components of the self might be identified in the concepts of real self, containing the attitudes and ideas about what I am really like, and the ideal self, including the ideas of what I wish or want to be (Jersild 1963). Self influences and is influenced by all the situations the individual encounters.

One such situation is that which is perceived as physically or psychologically dangerous. Spielberger (1972) classified objective external conditions of danger under the heading "stress." When conditions are perceived as stressful, the threat of possible physical or psychological injury to the organism is signaled by anxiety; the warning issued by anxiety helps to mobilize the human organism's resources to a higher level of functioning (Basowicz et al. 1955). Individual anxiety reactions may vary according to anxiety proneness, termed trait anxiety. The more anxiety prone an individual may be, the easier it will be to elicit the situationally specific anxiety response called state anxiety (Spielberger 1966).

The stress situations that evoke an anxiety response need not be harmful to the individual. As Bernard (1966) maintained, certain types of stress may constitute exciting, adventurous, thrilling experiences. One example of a voluntarily pursued stressful experience is found in the Outward Bound program. An Outward Bound course consists of three weeks of vigorous backpacking, sailing, or canoeing, and includes rock climbing, rappelling, and a solo experience; both psychological and physiological stresses are therefore inherent in the course structure. The stressful nature of the course may invoke anxiety; confronting these stresses and coping with that anxiety may influence one's perception of one's self. Indeed, Bernstein (1972) recognized that a wilderness program such as Outward Bound could provide a behavior setting conductive to improved self functioning; such a program elicits "coping" rather than "defensive" behavior and provides positive reinforcement in mastering challenges.

Many schools, both at the secondary and college levels, have incorporated the Outward Bound experience itself or Outward Bound techniques into their programs (Outward Bound, Inc. 1971; Jones, Nye and Remley, 1972). Other schools have established instructional courses in physically and psychologically stressful sports such as skiing, SCUBA diving, sky diving, and mountaineering (Wendel 1972; Carlson and Wignall 1972; Ritchy 1972). Relatively little research has been conducted to determine the effects of such programs. Surveys conducted by Fletcher (1970), by Schylze (1970), and by Lovett (1971) all revealed that Outward Bound

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participants viewed themselves more positively at the conclusion of the experience. Psychologi cal tests were administered to Outward Bound participants by Clifford and Clifford (1967) and by Kelley and Baer (1968) indicated that real self concepts were more positive at the conclusion of the experience. Similar results were found by Schroder and Lea (1967) and by Stimpson and Petersen (1970) in programs based upon the Outward Bound concept. The majority of these studies, however, dealt with the effects of Outward Bound upon specific groups of underprivileged or delinquent adolescent males. Research involving female participants was minimal.

The purpose of this study was to determine the effects of the Outward Bound experience upon the anxiety levels and self concepts of male and female participants. The subjects of this study were the participants of Course C-104 conducted by the Colorado Outward Bound School, May 7 to May 29, 1973. Data was analyzed for 33 male and 11 female participants. Although these participants ranged from 16 to 38 years old, the majority were of the college age bracket (mean age = 20.4; median age = 19). The following description is of the program as structured and conducted by the Colorado Outward Bound School; no modification of this program was made by the researcher.

The Colorado Outward Bound course C-104 consisted of 23 days of intensive wilderness experience. This particular course took place in the San Juan Mountains of southwest Colorado. The course basically was comprised of a series of expeditions into natural areas. Students were divided into nine-person coeducational groups called patrols. Each instructor was responsible for the patrol assigned to him; the instructor worked closely with his patrol during both instructional and expedition phases of the course. Among the specific activities covered in course C-104 were: map and compass reading; orienteering; rock climbing; rappelling (including a 150 ft. rappel); snow climbing; work on skis and snowshoes; campcraft; a ropes course; first aid; and mountain rescue involving the construction of litters and practice evacuations. Although basic instructions may have taken place in specific locations, many of these activities were then practiced during the actual backpacking expeditions. Other major activities included: the marathon, a nine mile cross country endurance run; the solo, three days and nights spent alone with a minimal amount of equipment; and the peak climb of the 14,017 ft. Wetterhorn.

The majority of the activities of course C-104 were typical of standard Colorado Outward Bound School courses. Because this course was held in late spring, certain adaptations had to be made to compensate for adverse weather conditions. Snowstorms impeded certain activities; the resulting six feet of soft snow found in the high country made other activities difficult. Final expeditions are normally chosen and executed by the students themselves. Because of the snow conditions in this course, safety precautions were taken; final expeditions were shorter than usual and groups were accompanied by instructors. Thus course C-104 included both scheduled stressful activities (rock climbing, etc) and natural stressful conditions (snowstorms).
Self concept was evaluated by means of the Gough Adjective Check List. This 300 word list was administered first for real self concept and again for ideal self concept. For the purposes of this study, 23 scales were evaluated for the Adjective Check Lists.

Anxiety levels were determined through the State-Trait Anxiety Inventory. Both situationally specific state anxiety and generalized trait anxiety were examined.

Testing sessions took place at the beginning and at the end of the Outward Bound course. All tests were administered by the course director. Self concept and anxiety were examined in the analysis of data. In addition to pre- and posttest comparisons within the group, self concept and anxiety were compared between male and female participants. Because of the ordinal nature of the measurements, data were analyzed using nonparametric techniques including the Wilcoxon Matched-Pairs Signed-Ranks test, the Mann-Whitney U test, and the Spearman Rank Order Correlation Coefficient test.

Summary of Findings
The analysis of the data obtained from test administrations at the beginning and at the conclusion of the Outward Bound course revealed the following findings:

1. Following the Outward Bound course participants ascribed significantly fewer unfavorable adjectives to their real selves and found themselves less likely either to solicit sympathy from others (succorance) or to express feelings of inferiority through self-criticism (abasement). In addition the conclusion of the course brought a significant increase in the number of favorable adjectives checked, defensiveness, self-confidence, self-control, personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation, and heterosexuality.

2. On both pre- and posttest self concept tests, males checked a significantly higher total number of adjectives than females in addition to obtaining higher achievement scores on both tests. Pretest results also showed males to be significantly higher than females in order. On both pre- and posttests, females scored higher in change.

3. No significant differences were found between pre- and post- ideal self concepts.

4. The comparison of male and female ideal self concepts revealed that on both pretests and posttests males checked more adjectives, checked more unfavorable adjectives, and scored higher in succorance and deference; males also scored higher in abasement during pretest measurements. Both before and after the course, females ascribed more favorable adjectives to themselves and were more self-controlled, autonomous, and changable; pretests results also found females to score higher in defensiveness, self-confidence, personal adjustment, and dominance than the male participants.
5. The comparison of real and ideal self concepts on the pretest revealed higher ideal self scores in defensiveness, number of favorable adjectives checked, self-confidence, self-control, personal adjustment, achievement, dominance, endurance, order, intraception, nurturance, affiliation, and exhibition. The ideal self scored lower than the real self in number of unfavorable adjectives checked, autonomy, aggression, change, succorance, and abasement. The comparison of real and ideal self concepts on the posttest indicated higher ideal self scores for self-control, personal adjustment, achievement, dominance, endurance, and order; the ideal self scored lower in number of unfavorable adjectives checked and succorance.

6. The discrepancies between real and ideal self concepts were found to be significantly smaller on the posttest for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, self-confidence, personal adjustment, dominance, intraception, nurturance, affiliation, succorance, and abasement.

7. The comparison of male and female real-ideal discrepancies on the pretest indicated that males had smaller discrepancies for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, self-confidence, personal adjustment, achievement, dominance, intraception, nurturance, affiliation, succorance, and abasement. On the posttest, males revealed significantly smaller real-ideal discrepancies for defensiveness, number of favorable adjectives checked, number of unfavorable adjectives checked, achievement, dominance, exhibition, succorance, and abasement.

8. Both state and trait anxiety scores were significantly higher on the pretest than on the posttest.

9. No significant differences were found between males and females on either pretest or posttest state and trait anxiety.

10. For real self concept and state anxiety, pretest comparisons revealed negative correlations between pretest state anxiety and the personal adjustment and intraception scales; positive correlations were found for succorance and abasement. Posttest comparisons between real self concept and state anxiety indicated negative correlations with self-confidence, achievement, and dominance; positive correlations were found for number of unfavorable adjectives checked, succorance, and abasement. For trait anxiety add real self concept comparisons, negative correlations were found on both pretest and posttest for the scales of defensiveness, personal adjustments, achievement, dominance, endurance, order and intraception; common pretest and posttest positive correlations were found for number of unfavorable adjectives checked, succorance, and abasement. In addition, the posttest trait anxiety was negatively correlated with number of favorable adjectives checked, self-confidence, nurturance, and affiliation; it was positively correlated with deference as well.

11. The correlation of ideal self concept with state and trait anxiety measures revealed the following relationships: Pretest trait anxiety was positively correlated with exhibition; posttest state anxiety was positively correlated with succorance; and posttest trait anxiety was positively
related to exhibition and negatively related to deference.

Conclusions

The following conclusions were made on the basis of the foregoing findings and are specific to this study in which a coeducational Colorado Outward Bound School course provided a physically and psychologically stressful experience. These conclusions were reached:

1. Female Outward Bound participants set higher ideals for themselves than do the males in this program. As compared to the females, the males' perceptions of what they are more closely approach what they would like to be. In general, however, male and female Outward Bound participants are more similar than dissimilar in respect to anxiety and self concept.

2. In relation to self concepts, Outward Bound participants experience the following changes at the conclusion of the course:
   a. they view themselves more positively; and
   b. their perceptions of what they are more closely approach what they would like to be.

3. In relation to anxiety, Outward Bound participants exhibit the following:
   a. they experience a high anxiety level just prior to the course, indicating that they perceive the oncoming program as either physically or psychologically stressful or threatening; and
   b. those participants with positive perceptions of themselves are also characterized by low levels of anxiety. Thus the Outward Bound experience does alter the self concept and anxiety levels of participants.
REFERENCES


Fletcher, Basil A. 1970. Students of Outward Bound Schools in Great Britain: A Follow-up Study. Research report published by the University of Bristol School of Education.


