

# Developments In Business Simulation & Experiential Exercises, Volume 19, 1992

## INSTALLING AND CONSOLIDATING WORK-TEAM VALUES: THE EFFECTS OF A MULTICULTURAL OUTDOOR EXPERIENTIAL PROGRAM

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### ABSTRACT

The work-group values of seventy subjects, regularly enrolled in the University of Denver's MBA program, were assessed both before and after a required four-day Outward Bound experience. Approximately one-third were international students (not US citizens). Differences are found between the values of US and Non-US respondents; between respondents before and after training; and between US and Non-US respondents. After training an increase is found in the total group's estimate of the importance of trust; decreases are found in the group's estimates of the importance (1) of *work-group design*, and (2) of a *team member's "doing whatever is needed."* Differences in value profiles which existed between US and Non-US students prior to outdoor training were not present after the outdoor experience. Outdoor Experiential Training results in both individual change and group agreement.

### ABOUT EXPERIENTIAL PROGRAMS

Simulations and case studies are increasingly used to give students vicarious experience in such business-related activities as planning (Anderson, 1991), retailing (Fairhurst and Good, 1991), negotiating (Gentry, 1991), innovation and creativity (Halterman and Sampson, 1991), general management (Klepeter, Edwards & Farley, 1991; Oddou, 1990 Roach, 1986); marketing (Wolfe, 1991), ethics (Maddox, Armstrong and Wheatley, 1991), as well as performance appraisal (Psyarchik, Thorndike and Huddleston, 1991). In addition, working with these simulated and experiential situations has afforded both trainers, researchers and participants an opportunity to learn more about (and how to cope with) ethnic diversity and gender differences. For example, Anderson (1991) identified and overcame semantic problems with case problems in Mexico; Gentry (1991) perfected a role-play situation to sharpen participant awareness of critical differences between American and Japanese interaction patterns; and Wolfe (1991) developed procedures to make existing marketing games compatible and consistent with socialist cultures. Halterman and Sampson (1991); Feldman (1989); and Dingle (1989), all dealt with gender differences, and the latter two also were active in exploring and improving minority career patterns.

### Outdoor Experiential Programs

Now that the trend toward outdoor experientially based training situations has accelerated, more research on the effectiveness of experiential learning is critical, say Roland (1982) and Wagner, Baldwin and Roland (1991). Information gathered across the "Outdoor Experience" industry indicates that the majority of such programs are each tailored around similar activities; and that improving communication, team-building, self-esteem, leadership, problem-solving and decision-making are the most common training objectives

In general, trainees use permanent equipment or simple props to tackle a wide range of problems that *cannot be solved by one or two people working alone*. In responding to these challenges, the team members (or "patrols," as the groups are often called) become entirely involved physically and intellectually. Trainee leadership styles, personalities, decisions, conflict, creativity, risk-taking, are all brought under scrutiny during the experience (and reconsidered by individuals, as a result of it). Like the afore mentioned simulations and case-solutions, the results of such outdoor learning experiences are construed to be metaphorically related to real-life and the workplace. They are meant to help shape (or reshape) the participant, and to aid in reorienting his or her work values and managerial style (See Bolt (1990); Chapin (1990); Galagan, (1990); Matteson, (1990); Perini, (1990); Prud'homme, 1990; and Thompson, (1991).

### Outdoor Training at the University of Denver

The College of Business at the University of Denver has adopted a new MBA curriculum with a heavy emphasis on managerial communication. Their current master's degree program is designed to produce MBA graduates with creative ability; an appreciation of the human implications of ones decisions and actions; and, in particular, strong interpersonal competence (University of Denver, 1991). To build momentum to the drive toward these requirements for MBA students, the school schedules each person for an outdoor 'Outward Bound' experience early in his or her academic program. Other schools have reported similar moves toward a deeper and protracted experiential involvement of students. Naffziger, Fields and Dobson (1991), Klepeter, Edwards, and Farley (1991) and Van Eynde and Spencer (1988) are a few such examples.

Even though there are well over 100 training organizations offering outdoor programs, only about half of the providers are felt to have credible evaluation procedures. According to Wagner, Christopher and Roland there is an "evaluation void." As a first step, this research attempts to evaluate the DU outdoor experience by defining its immediate results. It seeks to understand the DU outdoor experience in terms of participant changes and cross-cultural effects.

### The Actual Experience.

At 1500 on a Friday in September 1991, the 70 students departed for the training site in rural Colorado. They were divided into 10-person "patrols." As the facilitator explained, "Fewer than 8 in a group is too little; more than 12 are too many!" The first actual performance was a "rock-climb," where climbers scale a rock-face as individuals, with others "belaying" them by taking up slack (when necessary) and paying out rope (as required). On the first day one-half participated in problem situations (such as *acid-river*) while the rest climbed. Schedules were reversed for the second day. These activities were followed by a "peak-climb," where they challenged the Colorado high country. The patrols planned intensively for this---it was awesome---but they thought about it, discussed it, laid it out, and then did it. Ordinarily, this activity takes 18 hrs, but it was shortened a little on this occasion, due to time constraints. Students got on the road by six AM, and spent several hours conquering Mt. Galena and two other peaks. The night solo" activity was the final experience. This is where each individual, alone, "takes stock" of himself or herself and relives the outdoor experience throughout the several quiet hours. Here, by themselves, participants record their innermost thoughts and impressions in a diary of events. In discussing this later, a participant exclaimed: "This was an experience in self-realization." Then she added quietly: "It really changed my life!" (Hoagland, Sept. 1991).

### The Instrument.

Management characteristics critical to the performance of successful work-groups have been converted into behavioral aphorisms (Halterman, Dutkiewicz and Halterman, 1991). The application of these workplace characteristics has been reinforced by other investigators (Menzel, 1991; and Neslund, 1991). The instrument proposed eight specific statements to be assessed (see Exhibit 1., below). Respondents were asked to indicate "the extent to which you believe [the particular statement] is necessary for an effective team. They replied on a 5-point Likert scale, where "1" represented 'applies well' and "5" represented "doesn't apply."

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## METHOD

From the seventy students who participated in the outdoor experience,

EXHIBIT 1.  
STATEMENTS USED TO EXPRESS TEAM CHARACTERISTICS

- A. Team members know the project's goals, and are challenged by them.
- B. The team is designed to get results.
- C. Team members know their jobs, and how to get them done.
- D. Members will do whatever is needed for the project's success.
- E. Members like, trust, and help each other.
- F. Team members have high performance standards, and expect high performance from each other.
- G. The project gets outside support, resources, and recognition.
- H. The team leader is seen as competent, respected, and fair.

Cronbach reliability of the scales: .7448

sixty-six usable pre- and post-experience responses were obtained. One-third of the students were international (not of US origin) Hypotheses Three hypotheses were posited to order the analysis, all in null form:

Hypothesis, There are no differences in the way students assess the importance of work-team characteristics, when pre-training and post-training participants' responses are compared.

Hypothesis There are no differences in the way students assess the importance of work-team characteristics, when US and NON-US participants' responses are compared.

Hypothesis. There are no differences in the way students assess the importance of work-team characteristics when male and female participants' responses are compared.

### The Statistical Approach.

Data were examined by analysis of variance techniques. F-scores and t-scores are reported. Ordering of responses is shown below in tables 1 through 5, below. Processing was by SPSSX.

TABLE 1.  
ALL SUBJECTS BEFORE AND AFTER EXPERIENTIAL TRAINING

	Total n=132	Before Tng. n=66	After Tng. n=66					
	Mean	SD	Mean	SD	Mean	SD	F	Sig:F
(Lowest Mean = Highest Importance)								
Goal	1.30	.59	1.36	.65	1.23	.52	1.78	.185
Trust	1.71	.93	1.91	.94	1.50	.88	6.65	.011*
Jobs	1.74	.82	1.56	.77	1.91	.84	6.22	.014*
Lead	1.77	.96	1.68	.88	1.86	1.04	1.18	.279
Expect	2.17	1.14	2.08	1.10	2.27	1.17	.99	.321
Design	2.21	1.17	1.86	1.05	2.56	1.18	12.86	.000*
Do	2.27	1.06	2.26	1.03	2.27	1.09	.02	.935
Suprt	2.28	1.04	2.15	.92	2.41	1.14	2.06	.154

Pillais Test=(.024;Sig=.000). \*Significant results. After training the 66 respondents place a higher value on trust (*members like, trust, and help each other*); they also place a value on jobs (*members will do whatever is needed...* and on team leadership (*the leader is seen as competent, respected, and fair*).

TABLE 2.  
US & NON-US STUDENTS BEFORE EXPERIENTIAL TRAINING

	Total n=66	USA Subj. n=45	NON-USA n=21					
	Mean	SD	Mean	SD	Mean	SD	t	Sig:t
(Lowest Mean = Highest Importance)								
Goal	1.36	.65	1.38	.72	1.33	.48	.30	.768
Trust	1.91	.94	1.93	.92	1.86	1.01	.29	.771
Jobs	1.56	.77	1.56	.84	1.57	.60	-.09	.930
Lead	1.68	.88	1.71	.94	1.62	.74	.43	.669
Expect	2.08	1.10	1.82	.81	2.62	.31	-2.38	.025*
Design	1.86	1.05	1.69	.90	2.38	1.26	-1.79	.083
Do	2.26	1.03	2.24	.96	2.29	1.89	-.14	.890
Support	2.15	.92	2.18	1.01	2.10	.70	.39	.701

Significant results. Before the experience there are differences between the values of US and Non-US students. Non-US students place a significantly lower value on standards of performance (*Team members have high performance standards, and expect high performance from each other*); they also hold a lower regard for work-group design (*The team is designed to get results*).

TABLE 3.  
US & NON-US STUDENTS AFTER EXPERIENTIAL TRAINING

	Total n=66	USA Subj. n=45	NON-USA n=21					
Variable	Mean	SD	Mean	SD	Mean	SD	t	Sig:t
(Lowest Mean = Highest Importance)								
Goal	1.23	.52	1.27	.59	1.14	.35	1.18	.243
Trust	1.50	.88	1.55	.79	1.41	1.05	.54	.595
Jobs	1.91	.84	1.91	.88	1.91	.75	.00	1.00
Lead	1.86	1.04	1.80	1.00	2.00	1.13	-.73	.471
Expect	2.27	1.17	2.20	1.07	2.41	1.37	-.61	.543
Design	2.56	1.18	2.43	1.13	2.82	1.26	-1.22	.231
Do	2.27	1.09	2.13	1.11	2.55	1.01	-1.50	.141
Support	2.41	1.14	2.34	1.16	2.55	1.10	-.70	.488

[No Significant Differences.] After the outdoor experience there are no statistically significant differences between the values reported by US students and Non-US students.

TABLE 4.  
MALE & FEMALE DIFFERENCES BEFORE EXPERIENTIAL TRAINING

	Total n=66	FEMALES n=23	MALES n=43					
Variable	Mean	SD	Mean	SD	Mean	SD	t	Sig:t
(Lowest Mean = Highest Importance)								
Goal	1.36	.65	1.22	.42	1.44	.73	-1.58	.120
Trust	1.91	.94	1.78	.80	1.98	1.01	-.86	.395
Jobs	1.56	.77	1.39	.58	1.65	.84	-1.47	.147
Lead	1.68	.88	1.57	.90	1.74	.88	-.78	.440
Expect	2.08	1.10	2.04	1.07	2.09	1.13	-.18	.861
Design	1.86	1.05	1.83	.89	1.88	1.14	-.23	.821
Do	2.26	1.03	2.30	.97	2.23	1.07	-.28	.784
Support	2.15	.92	2.22	1.09	2.11	.82	.39	.698

[No significant differences.] The two widest differences between males and females after training (liking and trusting each other and a competent, respected and fair leader) are not statistically significant.

## RESULTS

TABLE 5.  
MALE & FEMALE DIFFERENCES AFTER EXPERIENTIAL TRAINING

	Total n=66	FEMALES n=25	MALES n=41					
Variable	Mean	SD	Mean	SD	Mean	SD	t	Sig:t
(Lowest Mean = Highest Importance)								
Goal	1.23	.52	1.20	.41	1.24	.58	-.36	.721
Trust	1.50	.88	1.32	.58	1.61	1.02	-1.49	.141
Jobs	1.91	.84	1.96	.84	1.88	.84	.38	.703
Lead	1.86	1.04	1.60	.96	2.02	1.06	-1.68	.099
Expect	2.27	1.17	2.20	1.07	2.41	1.37	-.61	.543
Design	2.56	1.18	2.28	1.06	2.27	1.25	.04	.968
Do	2.27	1.09	2.12	1.20	2.37	1.02	-.85	.398
Support	2.41	1.14	2.44	1.29	2.39	1.05	.16	.872

[No Significant results.] The two widest differences between males and females before training (*Importance of the goal, and knowing one's job*) are not statistically significant.

Hypothesis is rejected (see Table 1). At the .05 level of significance there are changes in the values placed on Trust, Jobs, and Design.

Hypothesis is rejected (see Tables 2 and 3). Prior to training US and Non-US students differ at the .05 level of better on the need for high performance standards. After training, there are no significant differences.

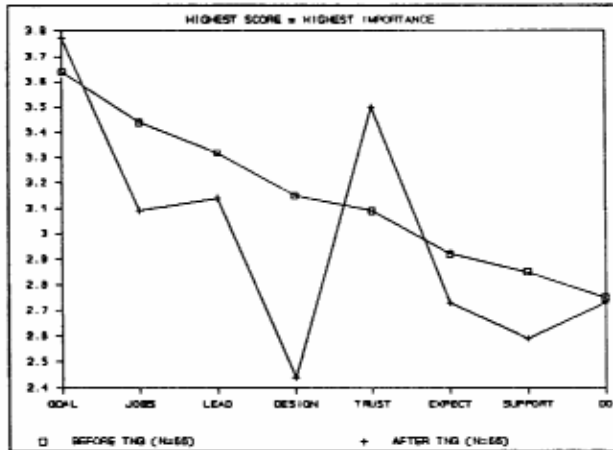
Hypothesis is not rejected (see Tables 4 and 5). Neither before or after training are there any significant differences between male and female respondents. (Subsequent data analysis indicates a probable interaction between national origin and sex (Pillais Sig. = .007). Since some data cells are very small, and the exact nature of the interaction can not be adequately diagnosed.)

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## DISCUSSION

The basic question is "Do trainees show evidence of changes after outdoor experience?" Table 1 provides statistical evidence that they do. The differences are additionally examined in Figure 1. Raw data from the tables

**Figure 1. ALL STUDENTS BEFORE AND AFTER OUTDOOR EXPERIENCE.** Variables (X-axis) are ordered in their importance to the students BEFORE training. Y-axis values in figures have been transformed.

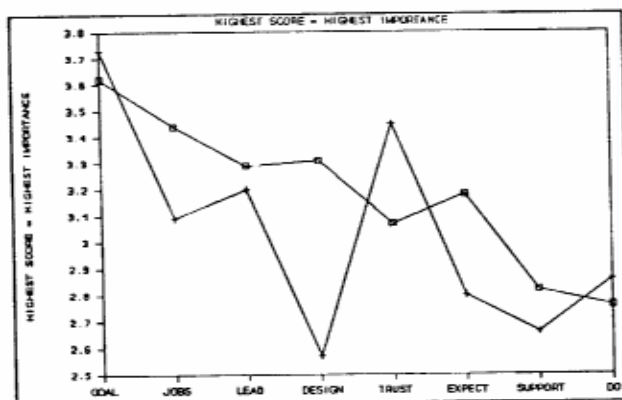


have been transformed (reverse ordered) in both this figure and those that follow, so that the highest value data points fall conventionally furthest from the Y-axis origin. The scale categories above are ordered from the left to right, in the pre-training descending order. The post-training line in Figure 1 (+) indicates that "trust," "jobs," and "design," shift in their values to the respondents.

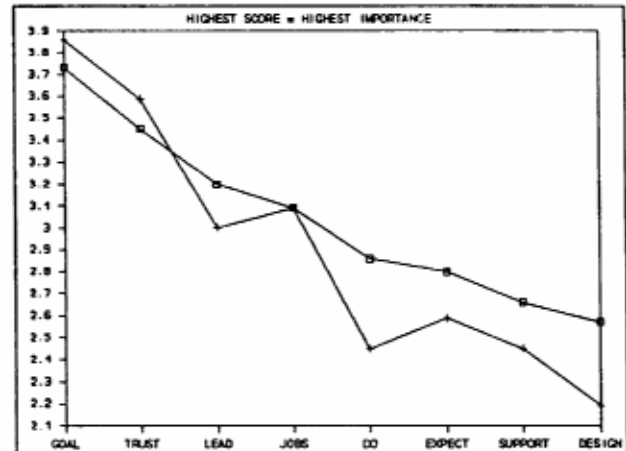
Figure 2 shows how the subcategory "US students" change as a result of their experience. There are detectable differences (between this category and the total sample), in both the starting levels and the end results of change. As a result of the outdoor experience *co-worker trust* is seen as more important, whereas the value of *work-team design* declines. Examination of Figures 1 and 2 reveals that although the culturally-mixed total group of individuals and the subgroup of US respondents started out with somewhat noncongruent profiles, their post-training profiles are noticeably alike.

The next question to be answered is 'exactly what happens to 'Non-US students'?' Tables 2 and 3 indicate that both the US respondents and the Non-US respondents shift as a result of the experience. Figure 3 displays

**Figure 2. US STUDENTS BEFORE AND AFTER OUTDOOR EXPERIENCE.** X-axis variables are ordered in their importance BEFORE training. The ending profile (+) shows how US MBA's change after training.



**Figure 3. US AND NON-US STUDENTS COMPARED AFTER OUTDOOR EXPERIENCE.** X-axis variables are ordered in their importance AFTER training. The close similarity in profiles is apparent.



how the two profiles compare after Outward Bound.

The X-axis scales in Figure 3 are arranged in their post-training ordering (in the order that they were assessed as important after training). Figure 3 shows the major dissimilarities, which are also displayed in Table 2. Of the two differences shown in Table 2 (with t-scores of -.238 and -1.79) the first was

Significant at .05. The two cultural groups are fairly similar in their responses to the other scale items. The ending profiles in Figure 3 display a very reasonable concordance between US and Non-US students. This reflects the data in tables 2 and 3 which indicate that there are no absolute differences after training as great as those that existed prior. None of the differences between the two cultural groups after training are significant.

## CONCLUSIONS

This research determined that, in terms of a participant's estimates of work-team characteristics, an outdoor experiential situation causes significant change in managerial attitudes. This experience also changes individual perceptions, reduces dissimilarities among cultural groups, and modifies values. As a result, the stage is set for improved communicability among the participants, and facilitates an energized environment for growth. In order to more sharply focus the outdoor-training technology, however, additional research on the relationship between more specific learning objectives and the outcomes of tightly defined outdoor training experiences is recommended.

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