ABSTRACT
The purpose of this study was to investigate the relationship between the nonverbal behavior of touch as used in the context of an experiential (adventure) training intervention and its impact on trust among members of work teams. Twelve teams from eleven different industries (N=126), participated in a one-day team building training. Three matched sample groups (existing work teams that were demographically similar) were compared in three similar training interventions (with the exception of the touch dimension). The experimental groups (human touch and object touch) participated in adventure team building training programs. The control group participated in a no-touch team building training program. Participants took pre, post and post-post tests (with two instruments) to measure the behavioral change in trust among the team members four (4) weeks back on the job. The results partially support the hypothesis that physical touch significantly and positively impacts trust among members of work teams in the context of an adventure training when compared with no-touch work teams in the same context and that there are significant differences in the impact of touch on trust between men and women.

INTRODUCTION
Teamwork has been recognized by business managers and organizational consultants alike as one of the essential factors necessary to improve corporate productivity. In an effort to maximize the efficient use of their people and to achieve these results, organizations are increasingly turning to experiential-based (adventure) training. These corporations are spending millions annually for a type of training for which there is much anecdotal evidence, but little empirical data, as to how it adds value and how the specific mechanisms work.

There are numerous assertions about the value of adventure training for teams: building trust, opening communication, and developing goal setting and problem solving skills are a few. One speculation of how it works is that adventure training is a holistic approach to change (Eddy, in Roland, 1981), emphasizing interpersonal relationships rather than task skills and employing experiential learning techniques (utilizing the cognitive, affective and the physical aspects of the individual), Long (1987). Long added the fact that adventure training requires touch. She concluded that the ‘physical support and touching helps to lower barriers, increases communication, and adds to the bonding of the team”. No research was presented by these authors to validate their claims.

RESEARCH QUESTION
In the context of an experiential (adventure) training intervention, does the use of physical touch enhance the level of trust among members of a work team? Sub question: Are there differences in the impact of touch on trust between men versus women of work teams in the context of an adventure training?

RESEARCH DESIGN
The study was a quasi-experimental study which utilized a 2 x 3 factorial (a repeated measures design: with gender by group and the measures being repeated three times with a pretest, posttest, post-posttest used) to test the hypothesis. The independent variables were 1) touch (human touch, object touch, and no touch and 2) gender (male and female). The dependent variable was trust.

Sample Size. The sample size for this study was N = 126 with 42 participants in the human touch group, 43 participants in the object touch group and 41 participants in the no touch group.

Sampling Design. A non-random “convenience” sampling procedure was used for the actual study. The participants in the study were members of existing (intact) work teams employed across a broad spectrum of industries: medical, high-tech and commercial manufacturing, communications, aerospace engineering, electronics, restaurant, utilities, state government, banking, judicial, accounting, retail and wholesale industries.

Instrumentation
The study utilized two instruments to operationalize the dependent variable of trust among members of work teams. The first instrument, the Trust (Team) Inventory (Dixon & Priest, 1994) is a 26 item, self-report semantic differential scale. The second instrument this study utilized was the Trust in Work Environment Questionnaire (Team Scale), a 34 item, self-report, Likert scale (Garrity, Holliman, & Bushardt,1993).

RESULTS
There was a significant difference between the touch groups on the Team Scale but not on the Team Inventory. In an analysis of variance, on the Team Scale, the experimental (human and object touch) groups showed a significantly greater
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amount of change/increase (p<.05) in the mean trust scores between the pre and post tests and remained higher (p<.05) four weeks later in the post-posttest for both males and females than did the no touch group. There were no significant differences in gender found on the Team Scale.

However, there were significant differences in gender found on the Team Inventory. In an analysis of variance, males significantly differed from females. From the post test to the post-post test, the mean trust scores of males (with all groups) decreased significantly (p<.05) back on the job, whereas the trust scores of the females varied. Females in the high touch and no touch groups decreased less than the males whereas females in the object touch group increased. In a t-test of males versus females (of all groups) on this same instrument, females scored significantly higher in the pretest than males, p<.05. In the post-post test of the Team Inventory, females also scored significantly higher than males, p<.01. However, in the posttest, although females scored higher than males, it was not significant.

In a t-test comparing homogeneous gender dominated teams, (teams comprised of all or nearly-all male or females members) with heterogeneous teams (teams comprised of mixed genders), the homogeneous teams (of all three groups) scored significantly higher than the heterogeneous teams on the Team Inventory: in the pretest, p<.001; in the post test, p<.001; and in the post-post test, p<.01. On the Team Scale, there was no significant effect between the homogeneous and the heterogeneous teams.

In a further t-test analysis of the homogeneous teams, comparing the all or nearly all male teams against the all or nearly-all female teams, the female teams (of all three groups) scored significantly higher than the male teams on the Team Inventory.

In an analysis of variance of the three subscales of the Team Scale, it was found that the amount of trust in management between the pretest and the posttest increased significantly (p< .01) after the adventure training experiment. In addition, there was an interaction effect (p<.05) between touch and gender. However, trust in management decreased from the posttest to the post-post test. Support for this researcher's observation that the male employee’s trust in management decreased substantially back on the job was confirmed. Regarding the Peer Trust scale, there was a significant amount of trust (p<.05) among peers indicated from the pretest to post-post test.

This study investigated the research topic using quantitative analysis with a qualitative component for additional insight and understanding into the participant’s learning. The unique contribution of this research is that it provides the research literature with a study that has external validity: a) participants were directly and actively involved through the context of experiential exercises, in the experience of physical contact and trust between their follow team members, b) the team building training’s were actual OD (organizational development) interventions conducted with intact work teams from a broad base of industries (11 different) who paid money for the services and received benefit from their participation and c) the study not only measured the impact of the training (and touch) directly after the intervention, but it also assessed behavioral changes of the team members back on the job four weeks later.

REFERENCES


BIOGRAPHY

Dennis S. Reina, Ph.D. of Chagnon & Reina Associates, Inc. is an Organizational Development Consultant with offices in Waterbury, VT and Washington, D.C. In his practice, he helps organizations in private industry, state government, higher education and health care deal with change and transition. The firm specializes in strategic planning, management training and development, organizational analysis, group facilitation and team building. Dennis’ particular area of expertise is team design and development. As an adjunct faculty member, he has taught management courses at Trinity and Champlain Colleges in Burlington, VT. His main office is: 111 Stowe St., Waterbury, VT 05676, (802) 244-1544.