

Training to Improve Trust in Virtual Teams



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INTRODUCTION

Several factors have been shown to affect how effective virtual teams communicate. One of these factors, trust, has received a great deal of attention by researchers. However, most virtual team members do not receive training on how to effectively communicate and promote trust. Several theories have questioned the ability of computer-mediated systems to aid the development of communication, trust, and other interpersonal attributes that are needed to form successful teams. Some researchers suggest computer-mediated communication does not differ from face-to-face communications in terms of the substance but in terms of a slower rate of transfer. However, most academic virtual teams and many organizational project teams meet over the course of several months and are then disbanded, thereby not having enough time to develop the types of links needed for effective, efficient communication. Our research investigates the impact of training on trust development by tracking trust levels among members of virtual teams in an academic environment. We extend the current research on the use of virtual teams by applying team training and tracking the resulting change in trust.

BACKGROUND

The use of the WWW in business and education training has increased at a dramatic rate in the past several years. Organizations and schools are using Internet communication technologies (ICTs) to replace and/or supplement face-to-face meetings and class. In the educational environment, this is referred to as online education or distance education. A variety of ICTs exist to support online education. These systems are used to support meeting and task functions, to display

and describe course material to students, to distribute and share notes among students and to support team interaction. In most distance classes, students work in teams, and generally members: (1) are physically separated; (2) are dependent on communication using ICTs; and (3) have no prior history together (Jarvenpaa & Leidner, 1998).

Problems that can occur with the use of virtual teams in distance classes due to limited social interaction between the students are: (1) retention of students (Carr, 2000); (2) learning retention (Tinto, 1975); and (3) the problem of “fading back” or non-participation (Haythornthwaite, Kazmer, Robins, & Showmaker, 2000). Social cues, social interaction, and the development of trust have been shown to mitigate these problems.

Several theories have questioned the ability of ICTs to aid the development of communication cues needed to develop trust and other interpersonal attributes that are needed to form successful teams (Daft, Lengel, & Trevino, 1987; Short, Williams, & Christie, 1976). Walther (1996) suggests that computer-mediated communication does not differ from face-to-face communications in terms of the substance but in terms of a slower rate of transfer. However, most academic virtual teams meet over the course of a semester and are then disbanded, or may not even meet the entire semester, thereby not having enough time to develop the types of links needed for effective, efficient communication.

The purpose of this study was to investigate whether training could increase the development of trust in virtual teams and to compare development with that of face-to-face teams. This research tracked trust level development among members of virtual teams and members of face-to-face teams and tracked the influences of trust training on those levels. The results were then compared with teams that had not received training.

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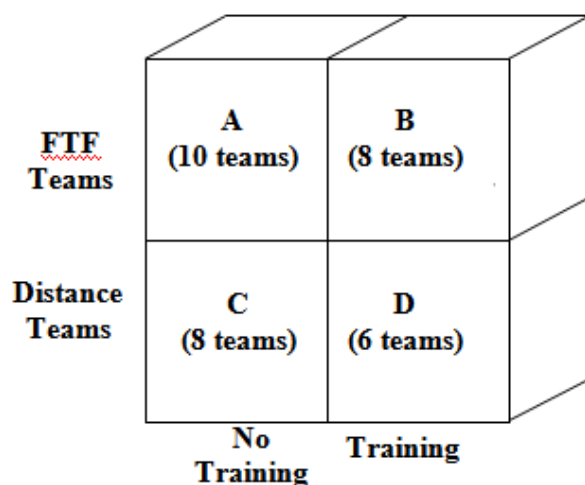
To determine if training methods have a stronger impact on improving trust levels in face-to-face (FTF) teams versus virtual teams, we tracked trust levels among members of virtual teams and FTF teams in an MBA program at a major western university.

Study Design

Figure 1 presents the study design used. The study was implemented over the course of two semesters and involved both campus (FTF) student teams and virtual (distance) student teams. Figure 1 shows our two semester study. Quadrants A and C depict two separate classes, one on-campus and one distance class, who received no training. Quadrants B and D depict two separate classes, again, one on-campus and one distance who did receive training. All four classes were the same topic and taught by the same professor using the same notes, cases, exams, and assignments.

The campus classes were traditional on-campus courses; teams were given some class time to initiate work on each of the team tasks. The distance classes were completely online courses, with students located throughout the United States as well as Asia and Europe. While the campus students had ample opportunity for FTF communication and interaction, the distance students did not.

Figure 1. Study design



There were four tasks assigned throughout the course of the semester and team members evaluated their teammates at two points: following the first two tasks and then again following the second two tasks. The four tasks were case analyses with generally one week given from when material was covered to when the assignments were due. Our timeline for the courses involved administering an initial questionnaire to measure trust prior to team formation. Once teams were formed, training was provided for quadrants B and D prior to any task assignment. A follow-up questionnaire was administered at the end of the semester.

Training

Recent research on virtual team communication has indicated that trust may have an impact on the effectiveness of team member communication (Beranek, 2005; Jarvenpaa & Leidner, 1998). It has been shown that virtual teams that develop high trust levels use behavioral strategies that distinguish these teams from teams that do not develop high levels of trust (Jarvenpaa & Leidner, 1998). Jarvenpaa and Leidner identified behaviors occurring early and later in a team's life. Teams have a life cycle and some actions and behaviors are more effective early on in the team's life. In this study, the trust training was based on the identification of these behaviors.

The behaviors and actions encouraged by the training are of several types. At the beginning of the team life cycle team members are encouraged to make introductions, gather information about one another—social information as well as availability and skills information. This is also where team members want to define the task and determine how to break the task down into steps if appropriate. Defining team member roles and identifying a leader should take place after defining the task. The following outline indicates the behaviors and actions that the training encouraged team members to follow:

- I. **Behaviors and Actions Early in the Team's Life**
 - A. **Communication Behaviors**
 1. Social Communications—social exchanges.
 2. Communications of Enthusiasm—displays of enthusiasm and optimism.

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