

# Cross-Course Projects: Teaching Students On Changing Business Communication Methods

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## ABSTRACT

The current business environment requires various communication skills to succeed. The skills include the use of a number of technologies that were not available 20 years ago. For this research, students were required to complete a project with students not in their own class using alternative communication methods. A questionnaire was administered to the students after completion of the project and the results are presented in this paper.

**Keywords:** Communication and technology; business technology communication

## INTRODUCTION

Today's business environment is substantially different from that of 20 years ago. The business environment of today is very dynamic, changing rapidly. In order to survive in this environment, it has been necessary for business to adapt and evolve. One of the ways to adapt is to alter one's organizational structure such that it is flatter and, thus, closer to the customer making it easier to adjust strategy when needed (Townsend, et. al, 1998; Dunn, 2007; Ramaseshan, et .al., 2006). Another highly recognized reason for the change in business deals with the increasing globalization of business activities (DeMarie and Hitt, 2000; Townsend et. al., 1998; Dodgson et. al., 2006). Globalization of markets has been a viable strategy for larger corporations for a number of years; however, with the advances in technology and information systems, the global markets are now in reach of smaller companies as well. In fact, the advances in technology and information systems are one of the biggest reasons the business environment has changed so rapidly. These changes will affect students as much of their careers may be conducted via technology with less personal interaction than ever before.

## BACKGROUND AND REVIEW OF SELECTED LITERATURE

As the business environment evolves, so too must our methodologies and tactics. The prevalence of technology is providing a means to change how business is conducted. One of its largest areas of impact deals with communication. Global communication is as easy as turning on a computer and clicking a mouse. Businesses in various countries that previously could not conduct business on a global scale can now actually link with organizations worldwide without incurring substantial costs. According to DeMarie and Hitt (2000), as information technology advances, it is also "changing the way organizational members work and interact. It is empowering workers and creating changes in the relationships among important organizational stakeholders."

Some of the many changes in organizational member interaction are due to the different types of communication technologies now available. In the world of business today we have many ways to communicate through technology. Face-to-face meetings are no longer a necessity to accomplish work tasks efficiently and effectively. Virtual teamwork, telecommuting, telework, e-mail, discussion forums, faxes, voice mail, and similar technologies (often called groupware or web-based collaboration tools) allow for collaboration among workers who may never meet face-to-face. With difficult economic times, budget cuts are forcing businesses to find cheaper, yet

effective, ways to communicate. Travel is curtailed, but the need to converse with multiple suppliers and clients has increased. Through these technologies, employees can share information and ideas and work together on projects without having to incur the expense of travel and loss of work time spent in route.

Research has been conducted concerning computer based communication technologies and their effects on task accomplishments. Findings indicate that technology is here to stay and the utilization of these technologies by businesses continues to evolve. The use of organizational forms such as virtual teams requires that members of an organization find ways to overcome the constraints of “geography, time and organizational boundaries.” (Townsend et. al., 1998). Townsend, et. al., found that effective collaboration means that teams must be able to work collectively as well as independently. Technology is not enough to facilitate effective collaboration. It is also vital that teams be able to utilize the technologies in an efficient manner. To be effective, the team member must be able to utilize the technology so that it is as effective as face-to-face exchanges have been. Several studies have shown that collaborative efforts of this nature are just as successful, if not more so, than the traditional face-to-face meetings providing that certain communication properties are present in the web-based collaboration tools utilized (Burgoon, et.al., 2000; Briggs et. al., 2000; Cascio, 2000; Caswell, 1999; Ray, 1999).

Using various methods of technology to communicate has changed the way business is conducted, the way teams are formed and the way communication occurs. With this change in communication methods comes the need to address issues of how organizational members should be trained in the functioning and use of the web-based collaboration tools (Cascio, 2000). Colleges and universities can assist organizations to this end. Higher education institutions should contribute as much as possible to the learning experiences of its students. As educators, it is also our job to prepare our students to work in the current business environment.

## **PURPOSE OF PAPER**

Colleges and universities should likewise alter the communication methods advocated in the educational process. It is not enough to merely teach students how these technologies operate. Most students understand how to use software, the Internet, and other technology tools. However, it is important to provide students with experience in using these different communication methods in settings similar to those likely to be encountered in the workplace. That is, working on teams with numerous other employees who are not in physical proximity to one another. According to Townsend et. al. (1998), there are numerous skills in which workers must be trained to become effective collaborators in the workplace. Some of these skills include: the ability to change team membership without losing productivity, basic teamwork training and development, training with the new information and communication technologies, training in how to utilize the technologies efficiently, how to overcome cultural differences and use them to increase productivity, and how to be empowered.

Newman and Couturier (2001) point out that utilizing web-based collaboration tools requires different learning strategies. Since it is within the purview of colleges and universities to facilitate learning, they should help provide more effective ways of educating students in current business practices. According to Cascio (2000), “There is really no substitute for a job tryout, such as simulation lab provides.” Many schools do currently provide simulations for certain courses that give students hands on training in decision making. However, few schools have extended this concept to include practice in the most likely business communication methods, web-based collaboration tools.

## **RESEARCH METHOD**

This paper details an attempt at implementing communication methods utilizing technology to facilitate communication between team members registered in separate course sections. Two sections of Introduction to Management Information Systems were assigned a joint project to complete. The instructor formed groups that were composed of students from each section. This study reports the results of this project experience. Primarily, this study examines the different communication methods used to complete the project, the students’ satisfaction with the project, and the students’ beliefs about the correlation of this project to real world work experiences. The study is unique in that the two sections were not able to meet during regular class hours because they were taking the course at two separate times. Given the purposeful schedule conflicts, students were forced to find alternative

means of communication in order to complete the project. This is not unlike the real work environment when various employees, sometimes geographically separated, need to work together on a project and schedules are such that face-to-face meetings are not feasible.

The instructor assigned three or four students from each of the two sections to a group and provided no class time for the groups to work on the project. A group leader was appointed by the instructor based on highest performance on the first exam. The students were required to complete a research project concerning an IT/business topic approved by the instructor and prepare a presentation. While face-to-face meetings were not precluded, the students were required to use e-mail, on-line chat sessions, and on-line discussion boards. The amount of use of each of these methods was not specified. After the project was completed, each student completed a questionnaire prepared by the researcher. The questionnaire contained questions dealing with teamwork, leadership, and technologies used. Each question was answered using a 5-point Likert scale that ranged from strongly agree to strongly disagree.

**RESULTS**

A total of 83 surveys was completed and the data was analyzed. A factor analysis identified five factors. The factors include: teamwork, group leader, methods of communication, experience gained, and work on other collaboration projects. After completing the factor analysis, a frequency analysis revealed information of the student opinions concerning the various factors. A table and discussion are presented for each of the factors. For discussion, the results for strongly agree and agree are presented together, the results for neutral are presented, and the results for disagree and strongly disagree are combined.

**Teamwork**

Table 1 presents the results for the first factor that concerns teamwork and includes four questions. As indicated on Table 1, 71.1 % of the respondents indicated the team worked well together to complete the project with only 4.8% disagreeing with the statement and 24.1% providing a neutral response.

**Table 1  
Teamwork**

| <b>Statement</b>  | <b>Strongly Agree/<br/>Agree</b> | <b>Neutral</b> | <b>Disagree/Strongly<br/>Disagree</b> |
|---|----------------------------------|----------------|---------------------------------------|
| Team worked well together to complete project.                                  | 71.1                             | 24.1           | 4.8                                   |
| All team members shared equally in the work.                                    | 40.2                             | 26.8           | 32.9                                  |
| Would choose same group members.  | 46.9                             | 32.1           | 21.0                                  |
| Project more difficult to complete than when members are all in the same class. | 59.0                             | 25.3           | 15.7                                  |

The next two questions concerning teamwork received more diverse responses. When asked if all team members shared equally in the work to complete the project, only 40.2% of the respondents agreed or strongly agreed with 26.8% neutral and 32.9% disagreeing or strongly disagreeing. However, it is interesting to note the response to the third question indicates that 46.9% would choose the same group members, with 32.1% neutral and only 21% would choose different group members.

Finally, 59% of the respondents agreed with the statement that the project was more difficult to complete than when members are all in the same class. An additional 25.3% were neutral with the statement and 15.7% disagreed with the statement.

**Group Leader**

The factor analysis identified three factors having to do with the group leader and the results are presented in Table 2. A total of 71.1% of the respondents indicated they strongly agreed or agreed with the statement that the

team leader managed the group well. Another 20.5% were neutral with only 8.4% disagreeing with the statement. More than half (56.4%) indicated that the team leader was the strongest member of the group; not surprising considering the instructor assigned the leader based on test scores. Finally, 58.5% of the respondents indicated they would choose the same team leader.

**Table 2**  
**Group Leader**

| Statement                                  | Strongly Agree/<br>Agree | Neutral | Disagree/Strongly<br>Disagree |
|--|--------------------------|---------|-------------------------------|
| Team leader managed the group well.        | 71.1                     | 20.5    | 8.4                           |
| Team leader was strongest leader of group. | 56.4                     | 29.3    | 13.4                          |
| Would choose the same team leader.         | 58.5                     | 23.2    | 18.3                          |

### Methods of Communication

Students were allowed to communicate in whatever methods they chose but were required to include the use of e-mail, on-line chat sessions and on-line board discussions. The factor analysis identified four factors in this category and Table 3 presents the results. Most of us use e-mail extensively and the students indicated that their projects were completed with the help of e-mail. A total of 90.3% indicated that the use of e-mail was important in the completion of the project.

**Table 3**  
**Methods of Communication**

| Statement                                      | Strongly Agree/<br>Agree | Neutral | Disagree/Strongly<br>Disagree |
|--|--------------------------|---------|-------------------------------|
| Use of e-mail important to project completion. | 90.3                     | 6.0     | 3.6                           |
| Face-to-face group meetings were important.    | 61.4                     | 24.1    | 14.5                          |
| On-line chat sessions were important.          | 37.3                     | 32.5    | 30.1                          |
| On-line discussion boards were important.      | 23.1                     | 40.2    | 36.6                          |

However, 61.4% of the respondents indicated face-to-face meetings were important with only 24.1% being neutral and 14.5% indicating that these meetings were not important. Clearly, most students are not comfortable with completing assignments with communication occurring only through technology.

On-line chat sessions were split evenly between those who thought they were important (37.3%), neutral (32.5%) and unimportant (30.1%). On-line discussion boards were important to 23.1%, neutral to 40.2% and unimportant to 36.6%.

### Experience Gained

Overall, the project did as the researchers had hoped. It provided useful experience to students and the factors included in this category are included in Table 4. In all the experience questions, the respondents indicated the project was useful. Respondents felt they gained useful experience with technology services (62.7%), useful experience with teamwork (73.5%), and useful time management experience (63.9%). A total of 72.3% indicated the project helped to develop communication skills for the future and 69.9% believed they developed better people skills. Finally, 61% indicated they learned more about their topic by completing the project using technology communication methods.

### Work on Other Collaboration Projects

The factor analysis identified two factors in this category and they are presented in Table 5. Students were asked if they had worked on similar projects in other classes and 63.8% indicated they had. The researchers believe

the students were referring to group projects, not projects that required the use of the specified technologies. A total of 26.3% of the respondents indicated they had worked on similar projects on the job with 33.8% providing a neutral response, and 40.0 % disagreeing with the statement.

**Table 4**  
**Experience Gained**

| Statement  | Strongly Agree/<br>Agree | Neutral | Disagree/Strongly<br>Disagree |
|--|--------------------------|---------|-------------------------------|
| Provided useful experience with technology services.             | 62.7                     | 31.3    | 6.0                           |
| Provided useful experience with teamwork.                        | 73.5                     | 20.5    | 6.0                           |
| Provided useful time management experience.                      | 63.9                     | 25.3    | 10.8                          |
| Helped develop communication skills for future.                  | 72.3                     | 20.5    | 7.2                           |
| Helped develop people skills for future.                         | 69.9                     | 20.5    | 9.6                           |
| Learned more about topic by completing project using technology. | 61.0                     | 25.6    | 13.4                          |
| Overall, project was positive experience.                        | 81.9                     | 13.3    | 4.8                           |

**Table 5**  
**Work on Other Collaboration Projects**

| Statement                                    | Strongly Agree/<br>Agree | Neutral | Disagree/Strongly<br>Disagree |
|--|--------------------------|---------|-------------------------------|
| Worked on similar projects in other classes. | 63.8                     | 20.5    | 15.7                          |
| Worked on similar projects in job.           | 26.3                     | 33.8    | 40.0                          |

## CONCLUSIONS AND FUTURE RESEARCH

The study indicated that students learned by using technology to communicate to complete the project. In today's technologically oriented society, it is necessary for business leaders to be able to communicate in many mediums. Future research will concentrate on requiring more use of technology to communicate and less face-to-face interaction. The researchers are also discussing the possibility of projects across disciplines.

## AUTHOR INFORMATION

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