

# INFORMATION SYSTEMS EDUCATION JOURNAL

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# Virtual Teams and Synchronous Presentations: An Online Class Experience

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## Abstract

Global expansion, cost containment, and technology advances have all played a role in the increase of virtual teams in today's workplace. Virtual teams in an online graduate information technology management class prepared and presented synchronous presentations over a business or non-profit sector case. This paper includes a brief literature review of virtual teams and synchronous presentations, strategies suggested for virtual teams, the process used for this assignment, and feedback from the students in the course. The students in the course overwhelmingly recommended the format of the virtual team synchronous case assignment for other online projects. Lessons learned as recommendations for future implementation are also included.

**Keywords:** virtual teams, synchronous presentations, online classes, teamwork skills, online collaboration software.

## 1. VIRTUAL TEAMS

Virtual teams have three common attributes. A virtual team must have interdependent tasks and share responsibility for their outcomes, be geographically dispersed, and rely on technology for communication (Cohen & Gibson, 2003). Virtual teams are becoming increasingly common in today's organizations due in part to rising fuel and office space costs (Bullock & Klein, 2011) and advances in information and communication technologies (Bell & Kozlowski, 2002). Accordingly, a survey of senior leaders and hiring managers of Fortune 500 companies reported that 40% of the respondents stated at least 40% of their employees work on virtual teams and 56% of the hiring managers expected the trend to increase (Bullock & Klein, 2011). Benefits to organizations include the ability to select the most qualified individuals for a virtual team project without concern for location, to respond more quickly to increased competition, and to offer employees increased flexibility (Bell & Kozlowski, 2002). Companies not willing to

use virtual teams could miss opportunities in today's increasingly competitive and quickly changing global economic environment (Berry, 2011).

To prepare to be effective virtual team members, college graduates need to develop virtual teamwork skills including communicating effectively, working with team members to solve problems, negotiating with colleagues, resolving conflicts, and collaborating with people from other cultures (Goold, Augar, & Farmer, 2006). Building these skills is important for successful careers so incorporating practice into graduate work is appropriate (Lee, Bonk, Magjuka, Su, & Liu, 2006). In addition, virtual team activities can increase student interactions and idea sharing which can both contribute to more reflective thinking (Lee et al., 2006). Since online students are already geographically dispersed and rely on technology for communication, incorporating virtual team projects into online courses is a logical step.

Ubell (2010) suggests including a team project in every online class.

## **2. SYNCHRONOUS PRESENTATIONS**

Synchronous presentations can be included as a part of an online virtual team project. Synchronous presentations require all participants to be online at the same time for the presentation. Assignments that require students to practice communication and presentation skills can be beneficial to their future career. Presentation and communication skills continue to be listed as some of the most valuable skills to industry employers (American Marketing Association, 2010; Ubell, 2010). In a survey of over 2,000 managers, over 80% of respondents agreed that employees are annually evaluated on their communication skills while under 50% believed their employees had above average communication skills (American Marketing Association, 2010). Presenting online offers new challenges for students as there are fewer visual cues and an increased level of technological expertise required. With the trend toward virtual teams and meetings, students who have online presentation skills will likely be valued by employers (Flatley, 2007; Ubell, 2010).

To help students gain experience with both virtual teams and synchronous presentations, an online graduate Information Technology (IT) Management course required students to participate in an assigned virtual team and make two formal synchronous presentations.

## **3. TEAMING AND PRESENTATION PROCESS**

Students in the IT Management fall online course were online MBA students who were geographically dispersed making face-to-face meetings impossible. Prior to dividing the students into virtual teams, the students participated in multiple threaded discussions. The first one was the typical course introduction. The next discussion was over electronic document management and virtual teams, a topic that was being studied early in the course. The discussion was a starting point to get students to think about the best ways for virtual groups to share files and collaborate on tasks. While students seem to prefer sharing files through email attachments (Berry, 2011), this discussion provided the forum for students to read text and watch videos to learn how businesses share files and collaborate on team

projects. In this discussion, SharePoint, Dropbox, Google docs, and SkyDrive were among the topics discussed. In addition to electronic document management, the students also did research and posted articles about best practices for virtual groups. Since students would need to be available at the same time for synchronous presentations, the next discussion was an availability discussion that asked students to respond to the days of the week and time(s) of day that would work best for them to meet. Once the students had all posted their time availability, the instructor used this information to assign teams of 4-5 students. While students may like the idea of forming their own team, self selection of work teams is not real world (Goold et al., 2006) and can be challenging in an online course where students are not physically meeting.

Once the virtual teams were created, the instructor created groups within the course management system so each team would have a document sharing area and a dedicated threaded discussion area where only the instructor and team members could view documents and entries. Having a shared common space is essential for virtual teams (Ubell, 2010). The students could also email their team through the group management feature in the course web site.

There were several required assignments to help the teams form and get started on the case assignments that they would present. These requirements provided a sense of connection, clear rules for expected participation, and a project plan for completion (Berry, 2011; Koh, Barbour, & Hill, 2010). Establishing communication norms is important as the patterns started early tend to persist (Cramton & Orvis, 2003; Cummings, 2008).

First, students were to post another more detailed introduction in the team's threaded discussion area. A challenge with virtual teams is to get them comfortable with each other so they will share information early (Berry, 2011). This requirement facilitated early conversations. Next, they were to discuss ideas for document management and a plan for their first assignment. While all teams had a document sharing area on the course web site, other online services offer different or better features so the teams were not required to use the course web site for document management. They also were

to generate a plan and time line for their first assignment so all members would feel comfortable with the team's progress. Since some online students wait until the last minute for participation and submission (Goold et al., 2006), this plan was meant to help all students with time management and accountability. The last discussion point was to determine some common meeting times so they could all meet with the instructor to give their online synchronous presentations.

The synchronous presentations were given using Elluminate, an online collaboration tool. The instructor had previously used Elluminate software to create audio PowerPoint lectures over each of the textbook chapters so the students had seen the Elluminate room, but these videos were prerecorded so they had not interacted in the room. The Elluminate room provides a space for multiple people to enter the collaborative online space to use audio and video, upload files, participate in a chat, raise their electronic hands to ask a question, mark up slides, or write on a whiteboard. Since technical and behavior training are important when using online collaboration technology (Chilton & McHaney, 2008), and online students can experience frustration with technology problems (Koh et al., 2010), students were provided with instructions and links to Elluminate training. In addition, the instructor had six open sessions where students entered the Elluminate room, tested their audio, uploaded a PowerPoint file, advanced through the slides, and practiced using the other features such as raising their hand and drawing on slides. All students were required to participate in one of these sessions. This was an important step as it allowed them to feel more comfortable with the software and address any technical issues with their computer or microphone prior to the team presentations.

The assignments for the online presentations in this class were business or non-profit sector cases involving information technology. Students were given the case background and potential questions to address and then were to use current research to explore other technologies, businesses, or organizations. The deliverables were PowerPoint presentations with additional details and references in the notes pages. All teams emailed the instructor three different meeting times that would work for a presentation. The instructor selected a time that would work and responded via email and posted the schedule on the web site. The team

members and instructor entered the room at the scheduled time, and the virtual student team gave their presentation, with the students taking turns advancing slides and using audio to share more details about the topics listed on the slides. Following the presentation, the instructor asked questions about their presentation and the team members were able to take turns and answer the questions.

Students were given the opportunity to complete a team evaluation form to provide feedback on the contributions of all team members. The feedback from these forms affected an individual team member's grade. Since most students had a positive experience, very few student grades were negatively impacted by the peer evaluation forms.

This process was repeated in a summer online course with MBA and computer science graduate students.

## 5. FEEDBACK

A total of 58 students (22 in the fall course and 36 in the summer course) answered follow-up questions regarding their experience with the synchronous presentations. While 67% of the students had participated in a virtual classroom, only 19% of them had presented using online collaboration software. Overall, they reported a good experience with 97% of the students recommending the format for other online class projects. Since virtual presentations using web conferencing software such as GoToMeeting, WebEx, and Live Meeting are gaining popularity (Boulton, 2009), these virtual group case presentations appeared to play a positive role in the course and the career preparation for the students.

The students shared both benefits and disadvantages of the virtual team presentations. In analyzing the student comments on the benefits of working on a virtual team, three common themes emerged. One, students appreciated the introduction to new technology tools. They valued the exposure to and experience with both the online collaboration and presentation software and the various software tools the teams used to share their files and ideas as they prepared their cases. Two, the virtual teams provided students flexibility. They mentioned that they liked being able to work at their own location without travelling to meet at a

physical location. Since many graduate students have other commitments such as full-time jobs and families, this was a common benefit cited. Three, many of the students recognized that virtual teams currently are or will be a part of their careers so they appreciated the practice with a virtual team. Some mentioned the virtual team in the classroom resembled their current work environment and others liked the experience of working remotely with other students on a team. Some students appreciated the chance to get to know students from other parts of the world, realizing culturally-diverse work teams may be a reality in their careers.

The students also shared disadvantages of the virtual work teams, and two main themes were apparent. The first issue was technology problems. Slow Internet service, weather-related outages, and other computer issues affected a few students. The second disadvantage related to common team issues for both traditional and virtual teams. Challenges shared included not enough communication between team members, a lack of informal conversations, differences in work pace, and scheduling issues.

## 6. LESSONS LEARNED

Virtual team projects will continue to be a part of the IT Management online graduate course so learning from past experiences and student feedback is an opportunity to improve for future assignments. The required posts in the team threaded discussion area and the project plan assignment will remain part of the course so students can begin the teaming process. In addition, the project plan assists teams in establishing clear guidelines that can help with task effectiveness (Lee et al., 2006). The training over the software and the practice sessions will also continue as an integral part of the experience. Several students mentioned the value of the practice session prior to the synchronous presentations.

Increased informal communication between team members and between team and instructor would be one enhancement to make for future virtual team projects. Frequent informal contact may be a fundamental way to check in with a dispersed group (Cummings, 2008). In addition to monitoring communication, an instructor should be prepared to intervene when necessary (Cramton & Orvis, 2003). In future courses, the

instructor could send more frequent emails to check in with teams and to make sure they are on track. These could be helpful, especially if there are teams with members not communicating or contributing. In virtual student teams, common sources of conflict are going silent, low work quality, and accusations of plagiarism (Ubell, 2010). In one team, the instructor did help team members "fire" a student from the group as the student was not participating. Since these groups were not assigned a team leader, the instructor intervened to help deal with this problem. If more frequent posts in the threaded discussion were required or an opportunity to reply to an email from the instructor was available, this problem might have been addressed earlier.

A second improvement is to incorporate contingency planning into the assignment. While students need to learn how to troubleshoot simple technical issues such as audio not working, they also need to be prepared for some issues beyond their control. During one presentation, one team member's Elluminate session repeatedly terminated. No one else in the group could do his part so the team struggled to complete the presentation. Now as part of the project plan, teams are to have a contingency plan for each student in case there is a technical issue or other emergency that prevents their attendance. As part of the plan, students can also brainstorm other backup procedures including conference calls or the use of other collaboration software.

## 7. CONCLUSION

An IT management course where students learn both business and technical topics is an appropriate place to provide students with virtual team project experience including synchronous presentations. Students in the class learn how current technology trends impact business information systems used in today's companies and organizations. They can then practice using the new technologies in their virtual teams. The opportunity to give synchronous presentations allows students to enhance their teamwork and communication skills for future business or technology careers.

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