

Managing international consulting projects and international business courses using virtual teams

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ABSTRACT

The Instituto Tecnológico y de Estudios Superiores de Monterrey and Texas Wesleyan University used technology based courses to enhance internationalization of their curricula. These courses required students to use computer technology as the distance communication medium and to complete an applied international consulting project as part of each course. Students used computer technology to conduct chat sessions, threaded discussions, and video conferencing sessions. Cross-campus teams of students shared information and research regarding logistics, marketing, pricing, and legal issues to formulate a business plan for a U.S. or Mexican sponsor company interested in import/export activities. Students from each campus also participated in exchange visits to the U.S. and Mexico to observe foreign business practices firsthand and to increase their cultural awareness. At the completion of the course, students were required to present the project results to the sponsor company's owner or representative.

INTRODUCTION

Texas Wesleyan University (Texas Wesleyan) is a private, liberal arts university located in Fort Worth, Texas. Texas Wesleyan offers a variety of undergraduate degrees and graduate degrees through its schools of business, education, and law. The total enrollment of the university is approximately 3,100 students and the university has approximately 100 international students enrolled in its various programs in any year. The Tecnológico de Estudios Superiores de Monterrey (ITESM) is a private, large university in Mexico which has campuses located in more than 25 different cities throughout Mexico.

In the spring of 1999, faculty and staff members of the ITESM Saltillo campus began seeking to partner with a university in the Dallas/Fort Worth area to develop a collaborative course to provide students with greater international experiences. The Fort Worth International Center suggested that ITESM partner with Texas Wesleyan because the schools are similar in both size and goals.

An objective of Texas Wesleyan's internationalization goals is "providing international experiences for faculty and students." To meet this goal faculty members are encouraged to develop study abroad programs that enable students to learn in an environment different from their own and to experience the cultures of other countries first hand. Two types of courses are offered in the study abroad programs. First are regular courses offered on the Texas Wesleyan campus that take advantage of the unique opportunities provided in the locations abroad. Second are specialized courses created solely to be offered abroad. Students participating in a study abroad program receive credit as if they were taking the course on campus. The courses apply toward the program of study just as an on-campus course would.

PROGRAM/COURSE DEVELOPMENT

Texas Wesleyan and ITESM jointly developed general course goals and objectives while leaving specific course content and pedagogy up to the instructors of their respective campuses. As part of the program, Texas Wesleyan established two separate three-hour courses. One course provided students credit for a required advanced economics course and the other was a business elective focused on conducting research and preparing business plans for companies desiring to expand internationally. Students from ITESM enrolled in a daily six-hour course which counted as two summer courses of three credits each. These two courses were elective courses in their curriculum.

Students enrolled in the courses were required to have internet access for the courses because both the asynchronous and synchronous modes of discussion were internet-based. In addition, students were screened prior to enrollment to ensure that they were capable of interacting with business owners and other sponsor company contacts to obtain information necessary to complete the requested project.

COURSE GOALS AND EPISTEMOLGY

When applying the constructivist theory, we should allow students to define their own goals for a course, giving only the rough guidelines about what they need to learn. Considering that initially, the development of the courses at both Texas Wesleyan and ITESM was exploratory, we wanted to define only general knowledge goals so that students could participate in setting specific goals. Some general goals of the courses as outlined for the students were that they were to:

- Work and communicate with people in another country interactively using Internet based technology
- Attend, participate in, and moderate business meetings

- Work on cross-campus teams to complete an applied business project based on issues submitted by sponsor companies
- Understand and prepare documents as requested by the project sponsor such as business plans, budgets, etc.
- Develop and present an executive summary of project results to the project sponsors
- Visit the partnering university's country to observe and experience cultural and socio-economic differences
- Make site visits to companies located in the partnering university's country to observe business practices

According to Ausubel's theory of learning (Ivie, 1998), the cognitive structure in the learner's acquisition of new information is obtained by fitting present experience into what the learner already knows. This theory of learning assumes the existence of a hierarchical structure of knowledge. A cognitive foundation anchored in ideas that serve as logical, organized structures will serve to support meaningful learning that will be retained longer than knowledge acquired without such a foundation. For the summer courses, this foundation was obtained by students in their previous coursework, and was also supported by the necessary readings in the following areas:

- Overview of NAFTA possibilities and threats
- Texas and Northern Mexico trading possibilities
- Strategies for performing market analysis
- Legal aspects of international trade, liabilities and entity selection
- Arranging and structuring financing for international ventures, currency exchange, and cash flow projection techniques

TECHNOLOGY SELECTION

Larden (1999) states that "...any Distance Learning application requires self-motivation, self-discipline, organization, and superior analytical skills on the part of the learner...". As developed, the courses at ITESM and Texas Wesleyan did not require faculty physical presence. Contact with the professor could be made via e-mail and discussion groups. The professor could use the discussion groups to post comments, questions, and ideas for discussion and then require students to respond both to his/her comments and the comments of other class members. The students were also expected to check the discussion board regularly and to respond in a timely manner to any requests for information. This methodology requires a mature student who accepts responsibility for his/her own learning.

Students at both campuses were required to work in cooperative learning groups. According to Romiszowski (1997) their formation is very easy and "...in fact, is often fostered by the design of the network and system". To facilitate group development, we chose WebCT as the platform through which to deliver course. WebCT allows the creation of different discussion group areas (one for each topic: legal, financial, market) as well as a chat area and a resources area.

Deciding to use virtual teams to develop international relationships meant that we had to pay attention not only to what makes virtual teams work but also how the cultural differences would affect the team. After the initial class in summer 1999, we realized that the students needed to be guided in developing relationships before the students met face-to-face. In the subsequent class, we established a time for the students to introduce themselves and chat informally before they began work on the project. The instructors attended these sessions to encourage the students to interact. We also scheduled a face-to-face meeting earlier in the semester so that the students would form a more cohesive group. Net meetings with cameras

could be used to support this process also but the technology was not readily available on both campuses at the time that we held the classes.

To facilitate better team-building, we established procedures for conducting asynchronous communications. Students were to check their email and discussion forums at regular intervals and to respond to requests for information within one day.

The technology requirements for conducting the class were not extensive. WebCT, a course delivery system that many campuses use, or any similar course delivery system would have the required modules: chat rooms, threaded discussions, file sharing, and scheduling/calendar function. The emphasis should not be on the technology itself, but on the development of efficient, effective cross-cultural teams using the technology to augment other communication media. Alternatively, students could use Google groups, yahoo groups, or a similar system to provide a group “meeting place”. Also, Skype could be used for real time communications. WebEx and other programs can be used to facilitate group meetings. These types of tools are becoming more common and many provide free access with adequate shared storage for a project of this scope. WebCT was used for the courses discussed here because most of the tools mentioned were not yet readily available for the students.

STUDENT DEMOGRAPHICS

ITESM students enrolled in the course were typically International Trade majors, both male and female students (almost in equal percentages), approximately 19-21 years old, born in different cities of northern Mexico, and had a TOEFL score of at least 480. All students had experience with the use of technology in the classroom as part of the redesign of the teaching-learning process going on at ITESM. For some of the students, this course represented their first international academic experience, although most had previously traveled internationally.

The students at Texas Wesleyan had more varied demographic and academic backgrounds. The Texas Wesleyan courses were offered to all business majors and satisfied an advanced economics requirement (International Business) and an advanced elective requirement. The courses were taken predominantly by female students who were generally International Business or Accounting majors, with ages ranging from 21 to 46. The socio-economic level of the majority of Texas Wesleyan students was middle to lower-middle income with many being first generation college attendees. Because Texas Wesleyan is a private University, many of the students had full-time or part-time employment to cover their school tuition and expenses. Texas Wesleyan is considered an “urban university” and a good option for non-traditional students (adults, single mothers, minorities, etc.) because of its weekend and night programs and its level of institutional funds available for tuition assistance.

PROJECT RECRUITMENT

Because the courses lasted only six weeks, instructors identified and contacted potential project sponsors prior to the beginning of the courses. Typically, sponsors were small locally owned companies that were not currently importing or exporting products to the U.S. or Mexico. Project sponsors were identified and recruited through various methods including prospecting by faculty, staff or student, and through referral. It is important to consider and screen multiple project sponsors prior to accepting and assigning a project to the students. A list of considerations to be used when evaluating project sponsors should include:

- How viable is the project and how committed to action are the project sponsors?
- How knowledgeable are the project sponsors about technology and do they have access to technology resources?
- Are the project sponsors willing to participating in information sessions including chat sessions and to provide timely project information to students and faculty?

- Are project sponsors willing to cover out-of-pocket expenditures relating to the project?
- Will the project sponsors participate in media disclosure and project events (such as student meetings/presentations)?

STUDENT TEAMS

Once a project has been selected and presented to the students, students were divided into teams to begin discussions of issues in four functional areas: logistics, marketing, financing, and legal. Each team consisted of students from both campuses and team assignments were made by the instructors on the Texas Wesleyan and ITESM campuses.

Students interacted asynchronously in the discussion groups and synchronously in the chat rooms. The chat room discussions served as interacting areas not only among students, but also among the students, professors and project sponsors.

Because of the cultural profile of Mexican students, many of the ITESM students were expected to show high levels of anxiety from establishing communication with strangers (Gudynkust, 1997). To decrease this anxiety level, professors began the semester with a videoconference or other introductory session between the student groups on both campuses. Students were also required to develop a personal web page within WebCT including a personal photo and biography.

Because the project sponsors were located either in Mexico or the U.S., an on-line introductory session between the student groups and the project sponsor was held early in the semester as well. This session provided students with the opportunity to ask questions directly to the project sponsor and helped to establish a better sense of “ownership” by the students for the project. In addition, such a session can demonstrate to the sponsor the students’ commitment to the project and help establish the students rather than the instructors as the contact persons for the sponsor.

PEDAGOGY

As previously mentioned, the Texas Wesleyan and ITESM courses were collaboratively developed with similar goals in mind, but were taught by professors on the respective campuses using their own methods. Whereas the ITESM courses were taught as a single six-hour course, the Texas Wesleyan courses consist of two separate three-hour courses. The ITESM faculty members generally taught their course as a self directed course and conducted few formal class lectures or otherwise had class meetings. The Texas Wesleyan courses met regularly (either in person or via the internet) with some lecture and discussion component. This difference in approach was necessitated by the previously mentioned fact that all of the ITESM students participating in the courses were International Trade majors whereas the Texas Wesleyan students were not. Thus, the Texas Wesleyan students required some introduction and guidance in researching applied international issues. In addition, because many of the Texas Wesleyan students were employed, a required class meeting ensured initially that those students participated in on-line discussions with each other and their ITESM counterparts.

Students enrolled at ITESM and Texas Wesleyan received instruction and guidance regarding international theory primarily via internet-based technology. In addition, all correspondence by the students and faculty relating to the applied project was conducted using internet-based technology (with the exception of the site visit period discussed later).

The following matrix provides a sample overview of the different technology modes used in the courses and the role each played during the semester:

Technology Mode	Students' Role	Instructor's Role	Time Frame
Discussion Groups	To post and discuss with their counterparts their findings and to request information needed to advance the project	To guide and assess the findings and information needs of the students from both universities.	Increasing frequency as students become more familiar with the project.
Chat Rooms	Online discussion about information collected and needed to advance the project. Opportunity to ask questions and resolve issues.	To guide synchronous discussion through important topics that need to be covered or clarified.	Recommended to be done twice a week or at each group's discretion. At least one session per week should be scheduled by the instructor.
Resources Area	To access readings regarding the main guidelines and topics needed to develop the project (formats, pictures, logos, etc.,)	To post important reading, visual and audio materials for the students to start their project and to add more material as needed.	Students should be able to access it as frequently as needed for guidelines posted by instructor.

Each mode was supported by WebCT and, as noted in the matrix, instructors generally served only as facilitators of learning in accordance with the constructivist theories of learning. Monitoring and control of the students was accomplished by observing student participation in discussion groups and chat sessions. WebCT's administrative system also allowed the instructors to print out discussion logs from its chat rooms and generic metrics of participation such as number of times and minutes students were logged into the system.

SITE VISITS

As part of the courses developed by ITESM and Texas Wesleyan, students and faculty traveled to the counterpart country for a one week visit to the university campuses, local businesses, and cultural attractions. During this visit, students met to discuss project objectives and conducted necessary site visits relating specifically to the project. Based on our experience, the best combination of trips resulted when the students from the university located nearest the project sponsor made their visit abroad first, and the counterpart students made a trip abroad at the time of the final presentation. It is also important to note that the summer climate in Texas and parts of Mexico can be dramatically different.

Due to the relative proximity of the ITESM and Texas Wesleyan campuses, both groups of students and instructors traveled to their counterpart location using vans or similar vehicles. This method of transportation was necessary to ensure local transportation availability and was also the most cost effective. Although highly efficient, this method of transportation required that at least two faculty or staff members accompany the students and it also limited the number of students that could make the trip.

ITESM students and faculty toured various manufacturing facilities such as Ball Corporation, Bell Helicopter Textron, Lockheed Martin, Tandy Cable and Wire, Mrs. Baird's, Motorola, and Texas Instruments. Site visits were also sponsored by non-manufacturing facilities such as Alliance Airport, Deloitte and Touche, Fort Worth International Center, and RadioShack.com. These visits provided important illustrations of the similarities and differences between U.S. and Mexican manufacturing and professional enterprise practices. Students and faculty alike were able to witness firsthand the quality and method of production, planning, and controls used by companies in the counterpart country.

Texas Wesleyan faculty generally arranged all business site visits and tours while staff from the Texas Wesleyan International office provided assistance arranging for social and cultural activities. Tours and site visits had traditionally been arranged with sponsors with whom

faculty or students had existing relationships. The working non-traditional student population at Texas Wesleyan was advantageous in this regard. In addition, numerous contacts were made and maintained by the faculty as a result of the graduate program in the School of Business.

PROJECT OUTCOMES

The inaugural project (summer 1999) assigned to students enrolled in the Texas Wesleyan/ITESM program related to the exportation of “chamoy” candies and gourmet fruit platters from a Mexican manufacturer to the U.S. Specifically, students were asked to assess the potential market for certain types of chamoy candies and fruit platters in the DFW area. In addition, they considered potential outlets, pricing, warehousing and display, and residency issues relating to family members wishing to reside in the U.S. for the purpose of overseeing operations.

Sample candy products were provided to the Texas Wesleyan students for purposes of evaluation and use in marketing studies early in the semester. However, the site trip to Mexico was delayed until late in the semester. As a result, Texas Wesleyan students did not observe the complete product line, manufacturing facilities, nor meet with the project sponsor until the semester was almost completed. Instead, the students had to rely on information provided to them by their ITESM counterparts and faculty.

After the Texas Wesleyan students completed their site visit to Mexico, the ITESM faculty and students immediately made their visit to the Dallas/Fort Worth (DFW) area. The ITESM and Texas Wesleyan students used much of the time during the visit to the DFW area to finalize and refine the project deliverables. Unfortunately, the project was completed after the Texas Wesleyan students’ trip to Mexico. Thus, they were not present when the final results were presented to the project sponsor and were unavailable to assist in the presentation or hear any sponsor feedback firsthand.

The second project related to the importation of jewelry and clothing accessories from Mexico to the U.S. Initially, the project sponsor wanted to consider importing clothing from Mexico, specifically, men’s and women’s suits. Students from the ITESM however advised against this idea due to the limited manufacturing and quality of suits in Mexico, thus, the sponsor received immediate and valuable feedback concerning his idea.

Students from ITESM and Texas Wesleyan were able to engage in online chat sessions with one another for a period of two weeks prior to discussing the project with the sponsor. This provided the students with time and opportunity to develop questions in their respective functional areas in advance. In week three, the sponsor engaged in a one and one-half hour interactive chat session with all the students to answer questions, provide feedback, and give guidance and clarification. This approach marked a significant improvement over the approach and timing of the information disclosures used in the first project.

In week four, students from Texas Wesleyan conducted their site visits in Mexico. During this time, students and faculty met for work sessions regarding the project. Students from both campuses also used this week to conduct visits to local jewelry manufacturers to discuss supply arrangements, pricing, and other contractual issues. After the visit, students on both campuses had photos and other information available from which they drafted final project recommendations and conclusions.

During week six, the students from ITESM visited the DFW area to participate in site visits, cultural activities, and to work on a final project presentation. Because of their desire to practice presentations in English, only students from the ITESM campus participated in the oral presentation of the project results to the project sponsor. It should also be mentioned that because of space limitations, not all of the ITESM students involved in the project were able to make the trip. Therefore, students from the ITESM that made the trip utilized Microsoft Netmeeting for their presentation so that students located in Mexico could participate in the presentation.

Also in attendance at the project presentation were the Texas Wesleyan students, faculty, and students from two graduate courses of the MBA program. The feedback from the project sponsors was extremely positive and they were very pleased with the outcome of the project. As part of the deliverables for the project, the sponsors were provided with cost, pricing, logistic information, and a proforma contract with the Mexican jewelry supplier. This information was presented in both PowerPoint and written forms to the project sponsors.

FINDINGS/RECOMMENDATIONS

Based on the authors' experiences, several changes and revisions made between years one and two enhanced both the learning experience of participants in the program and the quality of deliverables provided to the client. Those changes or revisions included:

- Encouraging earlier student interaction through use of web pages, chat sessions, and team assignments.
- Scheduling early interaction between students and project sponsors through the use of interactive chat.
- Rescheduling visits so that students work together midway during the semester and so that all are on-site at the time of the final presentation.
- Student assessment data collected as pre- and post-measures.
- A requirement that students maintain a consulting log to document student activities and time spent on the project during the course.
- A personal trip log kept by the students was added as requirement of the course.
- The preparation of a formal case study for the project to document activities and outcomes.

This consulting log was used for final grade determination and also provided historical documentation of the time spent by the students during the course. The personal trip log was used to help students document their experiences and to compare them to their prior expectations. This personal trip log also provided the instructors information about students' experiences so that we can better prepare students for future trips. Finally, students were required to use the consulting and personal logs to draft the case study of the project and the findings. This case study, along with the final PowerPoint file, provide valuable documentation and examples of the work conducted during the course of the semester.

In anticipation of a third year of the program several additional changes were undergone to continue improving the quality of the program. First, the faculty from Texas Wesleyan have attended continuing education programs or obtained recent certifications in Importing as well as certification in NAFTA Importing. The ITESM campus added video conferencing technology that is compatible with the existing Texas Wesleyan video conferencing system so that this mode of communication can also be utilized in the future. Finally, plans for more effective print and media publicity will be used to more effectively to publicize and enhance the visibility of the program to increase the opportunities for projects and potential funding.

Another possible addition to the project will be a final assessment made by the sponsor of the project in terms of the feasibility to start operating with the program proposed. This would be an element of forcing students to think in terms of cost-effective decisions as well as implementation troubleshooting.

Finally, as bandwidth increases and access to internet based group software, shared spaces, and other internet based communication tools, implementation of courses and/or projects such as these should become more common. The primary impediment is finding an appropriate partner school and professor who is willing to incorporate a project such as this into the curriculum.

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