An Interactive Virtual Global Cultural Course: Building a Real Time Cost Effective Global Collaborative Learning Environment

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Abstract—A virtual collaborative environment was created at East Carolina University, using videoconference technology via regular internet to bring students from 18 different countries, 2 at a time, to the same classroom in real time to learn about each other's culture. Students from two countries are partnered one on one,, they meet for 4-5 weeks, and submit a joint paper. Then the same process is repeated for two other countries. Lectures and student discussions are managed with pre-determined topics and questions. Classes are conducted in English and reading assignments are placed on the website. Administratively all partners are independent, students pay fees and get credits at their home institution. Familiarity with technology, knowledge in cultural understanding and attitude change were assessed, only attitude changes are reported in this paper.

Index Terms—Interactive cultural learning, International experience in local classroom, Real time virtual learning, Virtual collaborative environment

I. INTRODUCTION

In the beginning of the 21st century, there are many unknowns. We do not know and cannot even imagine what the future will bring. However, in this unpredictable world, there are not many people who would argue against the inevitability of two issues. 1) the world is becoming smaller, while boundaries of countries still exist, the cultures, the understand and the flow of people have definitely transcended national boundaries; and 2) technological advances will continue to flourish and we will continuously enter into an ever higher technology world. Based on this assumption, we pioneered a project to use technology to bring people from the world together in a meaningful and collaborative way. We named this our Global Academic Initiatives Project (GAIP). GAIP is roughly defined here as using state of the art technology such as teleconferencing to create an environment whereby students from different cultures in different geographical locations can be brought together virtually in real time to learn and work collaboratively on some joint project.

Specifically, our goal is twofold, to provide: 1) a basic understanding of the culture of some other countries; and 2) an environment where people from different cultures can work together, learn more from being together, collaborate on projects, and develop a sense of trust and positive attitude.

The first goal emphasizes the importance of providing a basic understanding of other cultures. As the world gets smaller, we are already witnessing individuals working with others from other cultures in many geographical areas, and unfortunately sometimes this mingling of cultures have led to misunderstandings and undesirable consequences. One way to prevent misunderstanding is to send our students abroad so they can learn about the values and traditions and behavioural patterns of the other cultures. This has long been recognized as a desirable goal, and most universities have study abroad programs. However, in reality, only a very small percentage of students can take advantage of these programs. The average of students who go abroad to study nationally is about less than 2% (IIE Statistics). There are many reasons for this small percentage. First and foremost is cost, it is expensive and beyond the means of most students to study abroad for one year or one semester. Other inhibiting factors include comprehension about staying in a culture where one does not know the language and where one cannot have the comforts of home; long distance from home; safety factor, especially after 9/11; fear of illness such as SARS; etc. If we can bring students virtually from another culture to the classroom here, we can eliminate all these inhibiting factors. The best alternative is to go abroad, but our project is a more feasible, much more cost-effective and safe alternative to study abroad.

The second goal emphasizes an increase in positive attitude toward people from other cultures after working and collaborating with students from different cultures. In this day and age, any student can surf the web and can easily find information on almost any subject that is more up-to-date than the notes of their teachers. Furthermore, much of the information on the web is presented in more interesting format than a t lecturer standing in from of a classroom, even with a PPT. So, why does a student come to the university for the sheer transmission of information? Universities offer degrees that certify students have the knowledge. But if knowledge is the ultimate goal, and if students can get the knowledge via other modes that are more fun and more updated rather than information transmitted in a classroom, why not? In the future, for universities to survive, they must offer something that each student cannot find simply by surfing the web. Universities can offer a collaborative environment where experts on a topic can be brought in, where students can learn to chat and discuss and work collaboratively. This is something one cannot get on one's own. In addition, we

foresee employees in almost any organization to be made up of workers of different nationalities. The employee of choice would be one who has had some experience in working collaboratively with foreign students.

In preparation of this project we surfed the web looking for existing examples. We found nothing that will accomplish what we propose. While many universities describe themselves as virtual universities, or offer virtual programs and courses, on closer perusal, the "virtual" primarily means online education using only email without visual or audio input. There are many cases where the teacher is brought via teleconference to the students, and students can ask questions, etc. However, we have not found any existing course where students from two countries are brought to the same classroom and faculty and students can have synchronous cross-cultural discussion and interaction. Undaunted, we decided to try this international course to see whether it can achieve our goals and explore how this new technology will work. The following is an example of the course we developed and a report of results of attitudinal change for students who have taken this course. Results reported here are for US and Muslim country students. We have specifically chosen many Muslim partners because we feel that at this day and age, it is vitally important for out students to gain an understanding of the Muslim culture, and for the Muslim students to have a feel of "real" Americans. Results on other countries will be reported in a subsequent paper.

II. METHODOLOGY

A. Participants

Participants included 56 American students at East Carolina University (14 students in each section from 4 sections of the Global Understanding course) and 70 students in each section from 5 Muslim partner institutions: Tlemcen University in Algeria; The Gambia University in the Gambia; University of Terengganu in Malaysia; Institute for Language and Communication Studies in Morocco; and Azad Jammy & Kashmir University in Muzaffarabad, Pakistan.

B. Procedure

Two ECU Professors, a cross-cultural psychologist and a network technology expert, visited each partner country to mentor the host partner in the pedagogy and technology of this virtual course. During the visit ECU professors also visited the CEO and the CAO of the host country to gain their support in providing human and other resources to start the course and to solve any problem that may arise in the future. In the training phase several video links will be with ECU to assure that the host country has enough bandwidth and capability to conduct classes via video conference technology. ECU professors also talk to teachers who are interested to help publicize the course and to students to help recruit them into classes. The visit usually takes 3-4 days. Upon return, the two partner faculty members started working on the course content, reading materials, and other issues pertaining to the course.

The operational details of the global understanding course at ECU include partners from 3 other cultures. The 15 week, three credit hour course is taught in four week sessions, with each session bringing a different partner into the ECU classroom. So the first four weeks might be spent with Russia, and the second four weeks might be spent with China, and the final four weeks with The Gambia. While ECU is meeting with one culture, the other two cultures are meeting so that students from all four countries develop a broad view of the world. Students in each country are assigned a partner in each other culture. Partners email each other on a daily basis. Each class session is conducted using live video so that students see and hear one another in real time. During the first class of each session the faculty and students introduce themselves to each other and an overview of each culture is provided by the participating faculty member. The following class sessions are devoted to guided student discussions on the four topics: family; cultural traditions; work; and the meaning of life. Student discussions are conducted in two formats. Half of the students join in small group video based discussion with their partners from the other culture while the rest of the students discuss the same topic individually with their partners. At the end of the session the student partners work collaboratively to create a joint paper which is submitted to each professor. Then the next session begins with the next culture.

Students participating in the Global Understanding Course were asked to complete both a pre-questionnaire dealing with their expectations about the course, their beliefs about other cultures, and their familiarity and comfort with the technology to be used in the course. At the end of the course, students were again asked to complete a questionnaire. Many of the belief questions were repeated and questions about their satisfaction with their experience in the course were added. Results for this paper are taken from these two surveys.

In the very beginning of the course a pre-course survey is administered to the students at all institutions, such as, "Getting to know someone of another culture is generally an uncomfortable experience for me" "I believe I could trust someone from another culture as much as I could trust someone of my own culture". These sentiments are measured on a five point Likert scale. In the last week of class a post course survey was administered to all students. It included all the items in the pre-survey, plus a few extra items such as "I plan to continue to email my partner after the course is over" The data presented in this paper are taken from these two surveys.

III. RESULTS

We would like to state here that the actual academic results based on tests given in the course showed students in every class have made very satisfactory grades. Students themselves commented that the course was interesting; they "wanted" to learn about the other countries so they spent more time studying! Some even commented that they would like to visit some of their partners. Thus the increase in understanding can be taken for granted from their grades. In this paper we will concentrate on the change in attitude toward people from different cultures.

Repeated measures analyses of variance were computed for each of the questions in the pre- and post- course surveys. The questions were almost identical except for a word or two. E.g. in the pre-course survey we asked "Are you optimistic about the potential of this class?" in the post-course survey we asked "Are you satisfied with the potential of this class"

Table 1 shows the effect of the Global Understanding course in the attitude changes toward people who come from a different culture than one's own. All six items measure this general concept. The US data show that 4 items show significant difference below the .05 level, all toward more positive attitude. There was no significant difference for two items, however, even on these two items the change was in the more positive direction. The Muslim data also indicate that 4 items are significantly more positive from the pre- to the post- course survey and no significant difference on two items. Again, all items showed positive change in attitudes. It is interesting to note here that some of the changes are different for the two samples. The biggest change is that after taking the course American students did not feel that getting to know person of another culture is so uncomfortable as shown in item 4. However there was not much difference for the Muslim students. The opposite was true for item 5, Muslim students felt strongly that "Knowing how a person differs from me enhances our friendship" whereas taking the course did not make much difference on this attitude for American students. The percentages shown in Table 2 clarify the statistics presented in Table 1

TABLE I.
EFFECT OF GLOBAL UNDERSTAND COURSE IN ATTITUDE CHANGE FOR US AND MUSLIM STUDENTS

Question	U. S.			Muslim Countries		
	Pre Mean N=34	Post Mean N=34	Sig. Level	Pre Mean N=38	Post Mean N=38	Sig. Level
Q1 Optimistic about potential of class/Satisfied with	4.09	4.71	.005	4.39	4.79	.003
Q2 Hard to feel close to person of another religion	1.94	1.52	.011	1.51	1.27	.095
Q3 Important that friend agree with me on most issues	2.35	2.00	.032	2.87	2.42	.048
Q4 Getting to know person of other culture uncomfortable	1.76	1.35	.001	1.51	1.29	.134
Q5 Knowing how differ enhances friendship	4.03	4.18	.304	2.89	3.63	.006
Q6 Can best get to know someone after know how they differ	3.94	4.26	.133	2.58	3.61	.903

TABLE II.
FREQUENCY OF ATTITUDE CHANGE AFTER TAKING THE GLOBAL UNDERSTANDING COURSE FOR US AND MUSLIM STUDENTS

Question	U.S.					Muslim				
	Pre	Post	+	No	-	Pre	Post	+	No	-
Q1	76.5	97.0	44.2	44.1	11.8	89.54	97.4	39.5	52.6	7.9
Q2	73.6	84.8	12.1	45.5	42.4	79.0	97.3	10.8	67.6	21.6
Q3	55.9	73.5	17.6	41.2	41.2	44.8	47.4	21.1	34.2	44.7
Q4	79.5	91.1	2.9	58.8	38.3	87.2	94.7	10.8	70.3	18.9
Q5	67.6	78.8	27.3	57.6	15.1	31.6	55.2	52.7	28.9	18.4
Q6	73.5	73.6	38.2	52.9	8.7	65.8	55.3	31.7	39.5	28.9

Numbers represent percentages of students in the first (or last) two categories on the Likert Scale
+   percentages changed toward more positive for item
-      percentages changed toward more negative for item
No   percentages showing no changes

IV. DISCUSSION AND SUMMARY

Results support our notion that a global understanding course where students from different cultures actually sit in the same classroom, see, talk, communicate, interact and work on a joint project not only enhances greater understanding of people from other cultures, but this understanding actually helps to form more positive attitudes. There are many anecdotes that bear witness to the value of this course. One key example is the comment made by a female student from America after the course was over "I still do not understand how my partner, the third of 4 wives in her culture, can be happy sharing her husband with three other women. But, I do believe she is happy, and I do believe that system works in her culture.

Dr. Chia, if you taught me this in class, I would never have believed you". The fact that many of the student partners continue to communicate after the class ends indicates that this mind and heart approach to teaching about culture can produce personal interest and friendship. Several students have applied for Study Abroad programs after taking this course and they told us this course was what aroused their interest in going abroad to find out more about other cultures.

Colleges and universities face numerous challenges as they seek to provide students with diverse cultural experiences so they can succeed in a global community. Nothing can take the place of travelling to another country but in today's realities of continually increasing educational costs and security concerns associated with

travelling beyond our country's borders, creating a global classroom with the aid of technology is a valuable educational alternative. Its cost-effectiveness and sustainability make it not only appealing to American universities but also feasible even in the less developed countries.

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