

Virtual study abroad: A case study

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Over 90 percent of US universities sponsor study abroad programs. Students are encouraged to engage in such programs to enhance their educational experience and increase their global awareness in our interconnected world. However, despite these efforts, students who engage in such programs are a rarity. Only 1% of US students pursue a study abroad experience each academic year. In order to address this and make key aspects of the study abroad experience available to a wider range of students, two professors decided to link their classrooms, separated by 5,102 miles, via teleconference and create a virtual study abroad class.

Keywords: Study Abroad, Cultural Awareness, Virtual Education, Teleconference

INTRODUCTION

Schools are encouraging more students to participate in study abroad programs. During the past decade, the US higher education enterprise, from community colleges to umbrella associations such as the American Association of Colleges and Universities, as well as the Federal Government and business community have promoted and encouraged study abroad as a means for universities to graduate students who are intellectually competent (Twombly et al. 2012). It has been argued that the study abroad experience is a very valuable component for higher education; researchers have shown that a study abroad experience enhances a student's ability to understand and manage complexity (Burn et al. 1990; Citron 1996) and universities have an interest in enhancing a student's understanding of diversity, critical thinking ability and ethical conduct (Mckeown 2009).

Unfortunately, students who indulge in such an experience are a rarity. Even though over 90 percent of US universities offer study abroad programs (Hoffa & DePaul 2010), in 2010-2011, only 1%, or 270,604 out of the 20 million US students enrolled in higher education participated in a study abroad experience according to a report published by Institute of International Education in partnership with the U.S. Department of State's Bureau of Educational and Cultural Affairs (Institute of International Education, 2011). For many students, both from the US and other countries, cost is often a deterrent, with nearly 75% of US students citing this challenge (Fischer, 2013).

Noting the value of the study abroad experience, but recognizing the challenges of getting students to either embrace the idea of venturing abroad or being able to financially handle the experience, Middle Tennessee State University in Murfreesboro, TN and the University of Pécs in Pécs, Hungary decided to use modern telecommunications technology in the spring semester of 2013, and began an experiment to develop a virtual study abroad experience.

The initial efforts were quite successful and while studying with students from another country in 1 hour class blocks is less intense than total immersion in another culture, the researchers observed that their students gained significant exposure to the other culture and expressed a desire to learn more about their counterparts' academic experience, employment prospects, and lifestyle.

For years, the US researcher had used telecommunication ranging from dedicated video conference systems to his own USB camera plugged into a classroom computer and Skype to bring guest speakers from around the world into his classes. It was often difficult to conduct classes in a dedicated teleconference room, either because the room was already committed as a standard classroom, the facility was too small to house his class, or the guest lacked access to complimentary technology. Skype was an easy alternative, but the quality of the connection was often mediocre and due to limited sound quality from the classroom, it was often difficult for the students to interact with the guests. However, the novelty of being able to speak with a live business person from Shanghai, China or Santiago, Chile who could provide a real-world, global insight on topics that we were discussing in class compensated for most of the technological shortcomings.

At the end of the 2011-2012 academic year the US researcher's university, Middle Tennessee State, announced that they were renovating several of the classrooms in the business school and one was going to be a dedicated teleconference classroom. Seeing this opportunity, the US researcher moved to develop a class where he could co-teach with an international professor and link their courses using the technology. His initial intention was to work with Santa Maria University in Santiago, Chile as he had an established relationship with the school, but unfortunately the course could not be approved by Middle Tennessee State to be offered until the spring semester and that conflicted with Santa Maria's "summer"

break which encompasses January and February. The US researcher had to work with a school in the Northern hemisphere or wait until the Fall of 2013 to offer the class. The decision was made to find a new partner.

Twenty-plus years prior the US researcher had completed a summer program at the University of Pécs in Pécs, Hungary and was familiar with the numerous English language programs at the university. However, having had no contact with the university since his undergraduate days, he was unsure of their interest in such an experiment, but he sent a blind email to their business school dean, who passed the US researcher's suggestion for this experiment along to his Vice Dean. Coincidentally Pécs had also just installed a new teleconference classroom and they were seeking ways to make use of the technology in the classroom. This seemed like a perfect experiment. The Pécs Vice Dean gave the idea his full support and guaranteed that the class would be scheduled and have the necessary scheduling flexibility to overcome most foreseen challenges.

The US researcher had no prior relationship with the current faculty at Pécs. Pécs tapped an experienced professor in Pécs' English language program who additionally had experience working with international students thanks to the university's involvement with the ERASMUS program, a program which brings European students from across the continent to Pécs. To set things up, the US and Pécs researchers would meet via teleconference to discuss the details and structure the course. During their first teleconference meeting, both researchers agreed that establishing a course would be valuable to students in both countries, but neither had a model to follow, a mutually agreeable syllabus, or a complete understanding of how their counterpart would view the course.

THE BASIC REQUIREMENTS

Flexibility was going to be the key. Universities are notoriously bureaucratic and the

needs of this course went outside the norms. The first challenge was to align academic calendars. Both schools had different start and end dates for their semester. As it turned out, the two schools could only overlap for 12 weeks given the timing differences and lack of alignment on spring breaks. It was agreed that certain aspects of the class would have to be covered independently given this limitation. However, the academic calendar was not going to be the only challenge. The clock added another element which would require adaptation. The US and Hungary change their clocks for daylight savings time during different weeks. There would be a 2 week period when the clocks would be out of sync. Fortunately, the researcher at the University of Pécs agreed that he would shift the meeting time of his class to accommodate this complication.

To set the agenda, it was agreed that the course should follow a textbook to add structure. The agreed upon text was *International Business*, 14e by John Daniels. The book provides a general overview of international business and covers all core areas including marketing, finance, and human resources. The sequence of the chapters provided a rough structure for the course and outlined the subject material. However, the US researcher was adamant that he did not want a course that simply followed a textbook. The academic content was obviously important, and thus all the core material from a traditional course would be covered. However, the concept behind this course was to go beyond the core academic material; specifically, to encourage student discussion and promote cultural awareness while augmenting the course content with international guest speakers to bring the academic topics to life.

With a blank sheet of paper and the freedom to dream big things, the initial thought was to get the students working together. The US researcher wanted the students to do small experiential learning projects, working together on small projects for companies in the Nashville area who

were interested in learning more about Europe. The Hungarian researcher suggested having the students work together on case studies, which would provide a more structured activity. Either way, to do this, the students would need to use telecommunications outside of class to facilitate group projects. In order to help make this work, it was decided to recruit an expert. A US IT professor was recruited to teach the students to use various telecommunication tools ranging from Skype and Google Documents to more immersive tools such as Second Life to facilitate student meetings and encourage interaction. However, given the expected variability in both students' abilities and desires to use this technology to engage in formal out-of-class projects, it was decided to not engage in these projects during the first semester since, if there were difficulties in mastering the technology, this would take away from the main goals of the class. The IT professor did deliver a lecture on these using these technologies to facilitate international team projects and, as anticipated, student reviews were dichotomous. Half of the students wanted to learn more on the subject and rated her class as one of the best sessions during the semester and half of the students gave the session very low scores and questioned the value of the topic. Not risking technical difficulties was a safe choice for the first experiment with this class, but given the initial success

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of the course, both the US and Hungarian researchers agree that including interactive projects will take the class to a higher level and such projects will be used in future editions of the class.

Having experienced success with international guest speakers joining his class via telecommunications technology in the past, one aspect that the US researcher believed to be vital to the class was including corporate managers as guest lecturers from both the US and Hungary. The Hungarian researcher agreed that this would add an interesting element. Guests from the US represented three companies: LP Building Products, UPS, and Bridgestone/Firestone Americas. Hungarian guests represented Lafarge, Procter & Gamble, and included the former Foreign Trade Representative from Hungary to Japan. Each added an interesting element to the class and was able to illuminate the similarities and differences between business practices in the US and Hungary... and additional parts of the world as our guests' international experiences have spanned the globe.

There were other concerns. Both professors had to overcome the often passive nature of their students for the class to be a success. At Middle Tennessee State, the US researcher addressed this by making class participation 20 percent of the course grade. The Pécs researcher was concerned that this would be a bigger challenge in Hungary. The Hungarian word for student is "hallgató", which translates literally as "One who listens". This has always been a part of the Hungarian educational culture and expecting strong class participation goes outside of the norm in a Hungarian classroom. Policy would not allow the Hungarian researcher to use heavily weighted class participation as an incentive, so the persuasive nature of their US counterparts would have to convince the students to actively participate.

LAUNCHING THE CLASS

Given that the decision was made to not have planned group projects, both researchers needed to devise something that would

stimulate discussion. It was decided that the first lecture would focus on getting to know one another. Prior to the start of the semester, each university had a small team of students develop a presentation to teach their counterparts about their part of the world. As such, presentations were developed focusing on the Murfreesboro/Nashville region and Pécs, Hungary. This activity was successful. As students saw and learned about the others' homeland, questions began to flow and the students shared their experiences. In the first virtual meeting, the students learned about one another's career ambitions, geographic preferences, and the path that they would have to take if they expected to launch a successful business career.

Pécs is a beautiful city that survived World War II unscathed, so the 18th and 19th century architecture remains intact, along with several older buildings dating back to the Turkish occupation of the city. It also proudly displays some beautifully preserved Roman ruins. The city had also just undergone a major facelift as it served as the 2010 European Capital of Culture. By contrast, the Murfreesboro/Nashville region is relatively young, and was largely unsettled until the 1800s. The region remained mostly rural until the 1970s saw large scale migration to the Sunbelt. Visually, the US students felt inadequate. Students were commenting how lucky the Hungarian students were to live in such a beautiful and historic setting. However, as the conversation shifted toward economic opportunities, the US students sensed the challenges faced by the Hungarian students.

Many early questions focused on economic issues. One early question that was posed was, "How many students are working while they are in school?" The majority of US students, roughly 80%, indicated that they work either part time or even full time while pursuing their studies. Conversely, none of the Hungarian students indicated that they held even a part time job. One US student responded "Wow! Must be nice!"

Upon hearing the reaction, the Hungarian researcher suggested that perhaps the right question was not asked. He then posed the question, "How many Hungarian students would LIKE to work while attending school?" In response, about 80% of the Hungarian hands were raised. The US students quickly learned about high youth unemployment and how part time jobs typically held by US students in retail or waiting tables were coveted jobs in Hungary and were often a top career choice for people who were not college bound. Employers in Hungary did not have to deal with part time student labor as their jobs were in such high demand.

When students were asked who planned to remain close to their current city after graduation, about 80% of the US students indicated that they intended to remain in the Nashville/Murfreesboro region. Amazingly again, none of the Hungarian students indicated an intention to remain in Pécs. This stimulated the question of why? Simply put, for the Hungarian students, the best opportunities for them were outside of not only Pécs, but outside of Hungary. As the students were enrolled in the English language program, all had the skills, and as citizens of the EU, had the ability to seek opportunities in other countries. As the conversation progressed, the students learned that a solid student from Middle Tennessee State could expect to earn approximately \$40,000 per year post graduation with their BA. For the Pécs students, an undergraduate degree would not suffice. Employers would expect a Masters degree before hiring a student. With a Masters degree, the students would expect to earn approximately \$11,000 per year if he or she remained in the Pécs region, and the cost of living was only nominally more favorable in Hungary. For the Hungarian students, opportunities in Northern Europe or the UK would be more lucrative. For the US students, this was a revelation. They were sharing a class with students who dressed like them, talked like them, and had a comparable education... and yet, the Hungarian companies expected to be able to hire these students at

a 70 percent discount. Here was the global competition staring them in the face.

This initial experience was very positive and set a great tone for the class. The students from both schools were buzzing with questions about their counterparts, including questions about their abilities, what they thought, and how they lived. The US researcher joked with his students, "You have no idea how lucky you are to have this experience in class. I had to waste countless personal hours in cafes and bars with Hungarian students to learn all of this when I was your age!" Given the initial interest of the students in getting to learn more about their classmates' personal lives, both researchers arranged for students to engage in pen pal relationships for students who were so motivated. Anecdotally, this was a wonderful experience and students regularly met on Skype and were seen showing photos of their Hungarian counterparts on their smartphones and sharing messages about their counterparts before class.

The remainder of the semester was more academically focused and interspersed with the previously mentioned guest speakers. Breaking the ice and getting the students talking to each other stimulated the students' curiosity. This in turn led to greater conversation in subsequent classes; both on purely academic topics and when guest speakers visited.

When the schedule called for a traditional lecture both US and Hungarian researchers alternated duties. The student responses were similar to traditional lectures. The Hungarian students' negative comments reflected that the US researcher had a tendency to move around the classroom during his lectures and when he was further from the microphone, it was often difficult to understand him. On the US side, a small number of students complained about the Pécs' researchers' accent, but this was on par with the small number of students who regularly complain about live international professors who possess excellent spoken English skills.

CLASSROOM STRUCTURE

In an attempt to make the class feel more inclusive, the US researcher arranged his classroom so that the class would feel as if everyone was sitting in a large circle. The classroom had 2 camera options: one that shot the front of the classroom where a traditional lecturer would stand and one that focused on the student seating area. For his setup, the US researcher chose to use the camera focusing on the student seating area. His class sat in a semicircle with the Hungarian class on the video screen completing the circle. When he lectured, he stood in the back of the room and faced the Hungarians with the US students sitting on the sides. The Hungarian researcher did not have as flexible an option for seating. The Hungarian students sat in an L shape configuration and the Pécs professor worked to arrange the classroom so that he could replicate the circular experience, often placing his camera on the side of the classroom. Figure 1 is a photograph of Al Huber (standing),

Director of International Sales for LP Building Products delivering a lecture in the US classroom to illustrate the setup.

TESTING AND EVALUATION

Both the US and Hungarian researchers handled testing and grading independently. Both reported that results were similar to a traditionally taught international business course. There was one exception. The US researcher reported that essay questions were answered in greater depth and, thanks to the guest speakers the students were able to accurately cite a number of real-world examples to strengthen their responses. With robust participation, most of the US students earned their full 20% for class participation which drove positive class participation from both groups.

DEMOGRAPHICS

The class was not exclusively US and Hungarian born students. On the Middle Tennessee State side, there were 29 students.

Figure 1.



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Included were students who were from India, China and Vietnam. The University of Pécs class had 65 students. Thanks to ERASMUS, the class included participants from France, Norway, Lithuania, the UK, etc., and five students from Canada joined the class via Hungary. These international students were able to bring an even more diverse perspective to the class. The one challenge, an aspect that will be addressed before the class is offered again, was the number of students. The enrollment on the US side was slightly high. Twenty-five students felt like an ideal cap on the class, so 29 did not feel unruly. The Hungarian researcher commented that the size of the Hungarian class was an impediment to the desired level of class participation. The large class size made it easier for those who did not want to actively engage to hide in the crowd. Thus, the Hungarian researcher will work to limit the class size to no more than 30 the next time the class is offered.

CLASSROOM CHALLENGES

With two large classrooms attempting to engage in open conversation, certain challenges exist. The video connection was strong and neither class experienced a single visual problem the entire semester. With modern systems, the communication

delay is only about 1 second, so the challenge of having people talk over one another which existed with earlier teleconference systems has been eliminated (this was previously a big challenge as anyone who ever participated in a teleconference on an older system with a 10 second delay will attest). Cost has also been largely eliminated with web based systems. Previously, one had to be conscious of international phone charges when the system operated over traditional phone lines, but with the web, the only cost is the equipment. The biggest challenges were audio based. Given the polite nature of both professors, both were hesitant to point out small problems, but multiple small problems led to the only technical challenges for the class.

With open microphones, small noises can be very distracting to the other side. The students at Middle Tennessee State are in the habit of eating during lectures. Consequently, the US researcher had to ban noisy items, especially food that came in crinkly packaging. Another challenge with open microphones that was not as easily solved was when a student had a cold. If a student had a constant cough, it became a distraction. The third challenge was microphone placement in the classroom. Both professors had to learn where the audio dead spots were in their classroom and avoid speaking from them as well as encouraging their students to ask their questions in a loud and clear voice so that they could be clearly heard by the other side. The Pécs classroom had one tool that, while a little challenging for conversation logistically, produced superior audio results. Their system had the option to use a portable wireless microphone. This tool produced the best audio results, but limited spontaneous class questions and comments as students had to pass the microphone around the classroom. The US researcher, who did not have such a microphone available, recognized the advantages of the portable microphone and would recommend it as an option for anyone considering a new system. He noted the superior audio quality

when the Hungarians used their portable microphone versus using their open microphone in the large classroom.

Once the novelty of the situation wore off, teaching via videoconference felt natural and not very different from traditional lectures. In fact, the feeling became so natural that the US researcher often forgot to press the button that would project his PowerPoint slides to Hungary because he would forget that half of his audience was virtual. Due to the excellent English language program at Pécs, language was not an issue. Most of the students had mastered the English language so well that a Hungarian accent was almost nonexistent.

STUDENT FEEDBACK

In addition to the standard University surveys for both classes, the US and Hungarian researchers collected feedback from the students. Four open answer questions were asked of each student:

- 1) What were the key things that you learned in the joint Pécs/MTSU class?
- 2) What do you wish that your professors did more of in the joint class?
- 3) What do you wish that your professors did less of in the joint class?
- 4) What changes would you suggest for future sessions of this class?

Additionally, the Hungarian researcher collected feedback from his students each time a guest lecturer appeared to assess his or her effectiveness and understand how outside experts could be better incorporated into future editions of the class. From the Hungarian students, he learned that it was a challenge when outside speakers concentrated on subjects that the students had not yet covered in the textbook. This was largely due to scheduling challenges. Most of the guest speakers had to revise the dates from when they were originally scheduled to present due to conflicts at work. This often led to speakers presenting earlier in the semester than had been anticipated. However, both the US and Hungarian

researchers agree that the value of their participation far outweighed the timing and logistical challenges and the need to alter the order of the lecture schedule to accommodate the guests.

The number one suggestion that students from both schools made was that they would like even more student interaction during class. Forty-nine of the 62 returned Pécs surveys made reference to this and 19 of the 22 returned Middle Tennessee State surveys reflected this view. There were also numerous requests for interactive projects outside of class. The third suggestion made was for even more guest lecturers, but the US and Hungarian researchers both agree that it would be difficult to add more outside speakers and maintain the needed pace to cover all of the core material in the course. Most of the negative comments reflected the noted suboptimal audio experiences which can easily be improved, a desire for longer class periods as many discussions were cut short by the clock, and a desire for guest speakers in different subject areas such as banking and government policy.

EVOLUTION OF THE CLASS

The US researcher traveled to Pécs at the end of the semester. Unfortunately, he could not time his visit to correspond with the class, but meeting face-to-face and discussing how to evolve the class with the Hungarian researcher was valuable. As mentioned, both professors agreed that limiting the class sizes would encourage more class discussion and make group projects more feasible. Given the students' desire for more interaction, it was decided to include case studies next semester in which the students will work in split teams and both discuss the cases and present their analysis to the entire group. The belief is that, in addition to the academic work of preparing case analyses, such scenarios will promote discussions and stimulate even more interest to learn more about their counterparts. Case studies were chosen over experiential learning projects because it will be easier to

control the quality of learning. This experiment has many moving parts and adding an additional variable of reliance on multiple outside companies to facilitate experiential learning projects would add a risky element to the course.

The University of Pécs has graciously agreed to fund a faculty exchange the next time the class is offered. The US researcher will travel to Hungary during the semester and deliver lectures live from the University of Pécs while a counterpart from Pécs will travel to Murfreesboro and do the same at Middle Tennessee State. While it would be ideal to take the students to each school to experience the culture first hand, that is not feasible. Exchanging professors will at least transfer a taste of the culture into the classroom and allow for personal interaction.

Given that students are increasingly technically savvy and increasingly engaged with their peers via their smartphones, both the US and Hungarian researchers agree that once contact between the students is initiated, curious and motivated students will use the opportunity to develop relationships which will spur them to learn more about their counterparts. As technology advances, this will only become easier and more common.

There were two goals for this experiment. The first was to be able to demonstrate increased cultural awareness. The second was that this virtual study abroad experience would excite students to a degree that it would encourage students to seek out an actual study abroad experience. While the experiment was successful in generating student discussing and stimulating curiosity, both researchers agree that the total immersion experience of traveling abroad confers benefits that cannot be fully replicated inside the classroom. During the US researcher's recent visit to Pécs, he commented that even the best portable web cameras cannot send back the smell of Hungarian restaurants preparing their paprika-spiced dishes or transport the energy of a Saturday afternoon tailgate

party in Murfreesboro before a football game back to the students in Pécs. However, even with these limitations, virtual study abroad classes can stimulate learning, cross cultural awareness, and heighten the desire for students to expand their knowledge base.

As mentioned, the student feedback on the anonymous open-ended questions presented to the students was overwhelmingly positive and many expressed a desire for more student contact and longer class periods. The positive feelings for this course were echoed in the US researcher's standard anonymous university student surveys. On a 5 point scale, the US researchers class did not score below a 4.8 on any measure and was his highest rated course of the academic year.

The initial appearance of success has inspired both professors to put measures in place next semester to quantitatively assess how well this concept enhances student learning versus a traditional study abroad

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program. The professors are planning to use the Cross Cultural Adaptability Inventory test (CCAI) to test how their students compare with students who engage in actual study abroad programs. Both the virtual study abroad and actual study abroad students will be given the CCAI test as a pre- and post-test and the results will be compared.

CONCLUSION

Given that only 1% of US university students participate in study abroad programs, even though universities have increased their efforts to encourage and facilitate participation, other means must be engaged to extend the benefits of this type of education. While no web camera can transmit the smell of Hungarian restaurants preparing their paprika spiced dishes, transmit the energy of a US tailgate party prior to an afternoon football game, or simulate the experience of a student getting lost on the back streets of a city only to stumble upon a cultural gem, technology can transfer many critical aspects of the study abroad experience. Bringing videoconference technology into the classroom, linking with an international partner, and guiding student conversation will force students to look outside of their own culture, understand many of the values and beliefs of their counterparts, and encourage the students to work collaboratively. As companies continue to develop more virtual global teams, this will also provide an experience that will provide transferrable skills for the workplace. It is also expected that the virtual study abroad experience will engage students and encourage them to seek out the opportunity to engage in a live study abroad experience.

NOTE

1 A version of this paper will appear in Atlantic Marketing Journal.

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