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FACTORS INFLUENCING THE EFFECTIVENESS OF INTERNATIONAL VIRTUAL TEAMS

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Abstract

This article analyses factors influencing the effectiveness of international virtual teamwork by focusing on an example of a team of faculty representing state universities in Russia and the United States. For this international project, faculty worked together to create curriculum and coursework for their students, who would then engage in simulated virtual teams. The team included professors who have extensive expertise in the area of international work, leadership, business communications, sustainability and technology. Professors from each university were paired to undertake the development and teaching of each course according to expertise. Specifically, the process developed for this level of collaboration will be shared in detail. By design, this curriculum provides the necessary skills for international students to be able to work in businesses, schools, or government in areas that will require in-depth knowledge of culture, business etiquette, and communication. The curriculum development resulted in four distinct courses, but this article will focus on the design and implementation of only one – *Cross Cultural Business Communication* – as it is the foundation course and the first one piloted by the universities. It discusses opportunities for working virtually, defines possible barriers to international teaming, and offers recommendations. The findings from this case study may be useful for a wide audience - instructors, faculty members, administrators, businesspersons - interested in learning the best international practices in the field of international virtual teamwork.

1. Introduction

It is generally accepted by most universities worldwide that there is value in engaging students and faculty in international study and work (Verzello, 2018). Work in international virtual teams is now an increasingly common occurrence in organizations such as universities and corporations (Vetkina, Kudryashova, Fikhtner, Trifonov, & Zhukova, 2018). Hill and Bartol (2016) found in their research that, "To support major strategic initiatives in areas such as globalization, outsourcing, and strategic partnering, organizations are increasingly turning to the use of geographically dispersed teams, in which members rely on technology to collaborate virtually in the team" (p. 159). International companies and organizations actively seek the expertise of international employees, while maximizing the cost benefits of their virtual working. According to forecasts, globally networked virtual teams are expected to become the dominant enterprise form of the 21st century (Cissé & Wyrick, 2010). Faculty members of universities often find themselves exchanging emails with contacts around the world, joining conference calls or working on joint documents in Google docs, etc., with overseas colleagues or partners. As the global economy becomes more and more inter-dependent, future leaders and workers must learn how to engage with diverse cultures (Espinosa, Nan, & Carmel, 2015).

The opportunity to engage in international teamwork is becoming more and more effective as technology advances to support enhanced "real time" communication and technical workspaces allow joint work to advance across multiple time zones, which, according to (Espinosa, Nan, & Carmel, 2015) may have its challenges, if not properly managed.

2. Problem Statement

Despite the sound advantages of working virtually, which offers freedom and flexibility of working without boundaries, this mode of collaboration could face different factors, which if not determined and overcome on time, could bring even this great opportunity to a complete disaster. It is becoming increasingly unrealistic to rely on study abroad programs and student exchanges that are expensive and restricted to those students with resources, to bring a desirable level of engagement to our university campuses (Olson & Kalinski, 2017). Therefore, one of the explicit purposes behind the development of online collaborative courses was to be able to expand the international experience directly to students who otherwise would not be able to travel abroad but may need the skills to work internationally in a virtual team.

3. Research Questions

What factors influence the effectiveness of international virtual teams? What barriers to effective communication at work do the teams face? How might these barriers be overcome? How can an international team achieve and sustain a cross-cultural synergy?

4. Purpose of the Study

The purpose of this study is to define factors that influence the effectiveness of international virtual teams and prove the advantages of working virtually.

5.   Research Methods

This case study will investigate the experiences of an international team of faculty who co-designed and co-taught an online course in Cross-Cultural Communication in Business to American and Russian students. The perspectives of the faculty as well as those of the students will be shared as data that shaped the recommendations.

6.   Findings

Cooperation between Appalachian State University (located in Boone, NC) and Novgorod State University (located in Veliky Novgorod, Russia) has been successfully implemented since 2011. During this time, two Russian students and four American students have been trained during the semester at partner universities. Two internships for American students have been organized at the Russian institution. Faculty from both universities engaged in working visits and internships. Undoubtedly, international travel is an effective way to absorb many nuances of other cultures, traditions, languages, and lifestyles. However, this approach to international cooperation has some obvious drawbacks such as the following: the geographical distance and current economic situation make this type of academic mobility difficult; large numbers of faculty members and students, who could be involved, do not have the means and support to travel long distances; and experiences even in another country may be superficial during short-term visits. It is becoming increasingly unrealistic to rely on study abroad programs and student exchanges that are expensive and restricted to those students with resources, to bring a desirable level of engagement to our university campuses (Olson & Kalinski, 2017).

In this regard, both universities agreed to open a fundamentally new opportunity for cooperation – "virtual academic mobility". It was decided to develop and teach a joint Graduate Certificate program for students using online technologies. Throughout the project period, the international team of faculty members experienced advantages of working virtually, as well were forced to overcome corresponding risks and barriers, and were able to identify factors influencing on the effectiveness of international virtual teamwork.

6.1. Communication

The first factor is communication. Communication is key in any workplace, especially in the virtual one, where most interaction happens via email, chat, or Skype calls (Cardon & Marshall, 2015). The communication quality is lower because of the lack of non-verbal cues. Even if virtual team members attempt to express themselves via using substitutes of emotions (emoticons), problems with shared understanding and context awareness appear. Even using video channels, there is no ability to see the partner's face during the communication, so there are still fewer cues for regulating social interaction because of the poor non-verbal communication. Eye-to-eye contact in most online communication platforms such as social media is difficult. Students reported difficulty in understanding each other, even when using a translator, when they were unable to actually see the speaker or respond in "real time". Many students resulted to using Face Book, Twitter, and WhatsApp as a solution to communication during the development of their projects, as it allowed use of such Apps as Google Translate and the

delayed time necessary to understand. However, as Cardon and Marshall (2015), social media can present its own set of issues in terms of use as a primary communication tool.

Faculty, when working together to design the coursework, also found it frustrating if emails were delayed in being answered or times were not arranged satisfactorily with long delays between meetings. The work flow became disjointed and interrupted by the inevitable challenges of time zones (Espinosa, Nan, & Carmel, 2015). For both faculty and students, language was another barrier in that none of the Americans, unfortunately, were fluent in Russian, and several Russians were not fluent in English. The use of translators in each collaborative session offered a solution but presented its own issues of comprehension as well.

A remedy for this is to mix virtual and face-to-face online synchronous meetings, which should be regular and serve to discuss the processes in our group, while preventing and managing the conflicts (Kozusznik, 2008). This allows building interpersonal relations among team members. Another promising solution for overcoming this barrier is the enhancement of international virtual team communication skills and choice of the best communication tools. This is especially important when you have a culturally diverse staff or members who are located in different time zones.

6.2. Technology

The second factor is technology. Even when in the same building on campus, faculty members can have a difficult time planning to co-teach a course with a colleague from another department. Such challenges include adjusting schedules, arranging funding, coordinating lecture content, developing lesson activities, etc. It may seem strange to view this as a barrier as technology is a vital enabler for virtual work. It would be difficult to imagine a virtual team working without using communication technologies. However, communicating through technology can become a barrier due to a poor Internet connection, insufficient technical opportunities of applications, or impossibility of their purchase or performance, etc.

In the pilot course, the faculty members attempted to use a virtual 3D world that seemed promising. However, serious bandwidth issues presented themselves. The graphics required far too much time and bandwidth to load, resulting in students losing connections. This frustrated many students and faculty members. While the 3D virtual platform was designed to allow synchronous meetings and sharing of documents, it also presented a barrier to experiencing real-time communication by forcing students to interact through avatars, which may or may not have been set up as accurate personal portrayals.

To address these issues, the project team explored and evaluated various communication technologies for use in appropriate situations, such technological platforms that allow synchronous communication included the following: Google collaboration tool suite, Video conferencing, telepresence robots, 3D virtual world collaborative spaces, and shared document space such as Google Docs, MS Office 365, etc. Other platforms supported asynchronous work that did not require participants to be online at the same time and included the following: CMS/LMS systems to build collaborative spaces, Wikis, Web spaces (Collaborative Tools, Questioning / Surveys / Polls / Questionnaires), etc. By expanding the choice of technology, the project team was able to engage students in virtual teaming at a more effective rate.

6.3. Time Zones

The third factor is the time zones. Time zones are a permanent feature of international working and often present challenges in that one partner may be starting work while another is just finishing the work day (Espinosa, Nan, & Carmel, 2015). It is an obvious challenge for those working in a virtual team, as its members reside in different locations, often several hours and several thousand miles apart. Since this factor is not going to go away, virtual team members need to organize their work to reduce its impact. Failure to master working across time zones can lead to delay and frustration. Students expressed the desire to meet with their counterparts, but acknowledged that the time zones presented an especially difficult challenge.

By building the necessary skills, international virtual team members were able to overcome this barrier and turn it into an advantage. For faculty, the American professors agreed to meet online at 0600 (which was 1300 for their Russian colleagues). For students, this time was more challenging as many had demanding jobs or other courses that prohibited weekday meetings. So, student teams found it easier to meet on Saturdays during mid-morning for the Americans and mid-afternoon for the Russians.

6.4. Culture

Another factor no doubt is culture. Culture is very explicit and easy to spot. International virtual team members might have conflicting customs, work habits, and values. As a result, cultural differences can cause frustration and misunderstandings. Overcoming cultural diversity becomes a challenge: everyone follows his or her way of working instead of finding common grounds to manage team members. An ability to work across cultures is essential for the international virtual team members - not just the ability to deal with other cultures, but to understand the impact of their own culture on the way they work and communicate.

To address this challenge, the coursework included both individual and joint activities that required students to examine their own biases and stereotypes. Through cultural mapping (Meyers, 2014), students were able to explore various aspects and foundational concepts that determine culture – their own as well as others. In an open synchronous meeting at the conclusion of the course, students shared how much their personal stereotypes shifted simply by working closely with someone of a different culture.

6.5. Trust

A key factor to consider in any collaborative team effort is trust. It is simultaneously considered an antecedent as well as a consequence of successful teaming (Baturay & Toker, 2019). Trust among students from as diverse, and historically adversarial cultures as Americans and Russians, was a particular challenge. Students expressed trepidation on both sides that their counterparts might not follow through with work to develop the projects. Faculty members, while less concerned, nevertheless had to establish a climate of trust that the work would be completed and that tasks would be performed to ensure that each university supported the project.

Setting up the course with clear assignments and expectations helped build this level of trust necessary to sustain the course. Creating regular meeting times during each week for consultation among faculty members also established a high level of trust. As a result, the projects submitted by students exceeded expectations and exhibited evidence of high levels of collaboration.

7. Conclusion

This international experiment between American and Russian universities proved that international virtual teams with cultural diversity can be innovative when given enough time to work through cultural, technology and time zone barriers. A successful blend of team members creates a thriving and successful atmosphere; develop some sort of cross-cultural tolerance and understanding of the differences that may exist between them; result in cross-cultural synergy.

Ability to work virtually using technologies would allow underserved people and people with disabilities have equal employment opportunities.

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