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Crossing Borders in Business and Economics classrooms: Implementing telecollaboration to advance diversity and 21st century skills

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Abstract: The emerging changes in global societies challenge businesses as teams work across borders. Consequently, higher education promotes student interaction from diverse cultural backgrounds using technological tools without restricting time, cost, motivation or mobility. In this regard, telecollaboration engages students in a learning process that develops 21st century skills with peers from diverse language, socio-cultural, and educational backgrounds. This article presents a telecollaboration project designed and implemented by Queens College, City University of New York, and Universitat Oberta de Catalunya, an online university in Barcelona, in which 196 Economics and Business undergraduate students from the United States and Mexico enhanced intercultural communication. The aim of this study was to identify the effectiveness of telecollaboration as a tool for advancing diversity and transversal skills. The results showed a positive effect but detected the need to raise awareness on the importance of intercultural skills as part of 21st century skills sought by employers.

Keywords: telecollaboration; pedagogy; diversity; 21st century skills; transversal skills

INTRODUCTION

With the world's interconnectivity, business and academia have an urgent task to address the complexities of diversity and labor market requirements. The shift in the make-up of college campuses, in terms of race, gender, religion, etc., creates a non-homogenous population that lays a foundation for a global career. According to the European Commission (2018, pp. 3) "People need the right set of skills and competences to sustain current standards of living, support high rates of employment and foster social cohesion in the light of tomorrow's society and world of work." This statement is also found in the UNESCO's Declaration of Incheon (2015) and aligns with the 21st century skills principles (Trilling & Fadel, 2009).

In this regard, the National Association of Colleges and Employers (NACE), the leading source of information on the employment of U.S. college graduates, stated in its *2018 Job Outlook employers survey* (NACE, 2018), that the percentage of employers that planned to screen candidates by GPA decreased. Instead, employers looked for attributes on resumes that indicated career readiness. These attributes are transversal skills that reflect the extent to which a person possessed the knowledge, skills, and attributes desired by employers.

Although, the higher education (HE) aims and the NACE career readiness competencies align with 21st century skills, there are educational challenges when diversity and global interconnectedness interplay. A recent concept in HE is intercultural communication competence (ICC). As explained by Coperías-Aguilar (2010), the concept of intercultural

communication (IC) appeared in the 1930s in connection with cross-cultural psychology (Guilherme, 2002) and flourished in the postwar years when researchers realized that some knowledge on organizational behavior, educational systems, civic studies, anthropology or psychology influenced the success of business, military and diplomatic personnel on placements in foreign countries (Mughan, 1999). Taking advantage of current Information and Communication Tools (ICT), ICC practices have been simplified, allowing students from different cultures to collaborate with peers across borders, problem-solve global issues, and develop critical 21st century skills from their own homes.

LITERATURE REVIEW

Human capital theory refers to the collection of competencies, knowledge, social, and personal characteristics of the employee that contributes to his or her measurable economic output (Vaizey, 1962). With human capital theory, we can understand how pre-labor market influences affect the employment success of new graduates. However, there is a need to re-examine the human capital theory with specific pedagogy so that HE and business can focus on addressing the pre-labor market influences.

The influence of diversity embracement and intercultural competency in work environments have been analyzed by various researchers. The most successful companies have figured out that a diverse workforce is key to success. A diverse workforce can lead to an increased market share, creativity, innovation, and group problem solving (Konrad, 2003). According to a publication by McKinsey & Co., companies in the top quartile for racial and ethnic diversity were 35 percent more likely to have financial returns higher than their respective national industry medians (Hunt, 2015). Graduates, in turn, are expected to perform with intercultural competence in the professional environment (Edwards, Crosling, Petrovic-Lazarovic, & O'Neil, 2003). As Jones stated, "(T)he increasing globalization and the interconnectedness of multinational work environment have intensified the demand for graduates capable of operating in culturally diverse context (2013, pp. 95)". This presents faculty with the challenge of teaching diverse students for global careers. One pragmatic approach is to focus on global employability and the ability to work in diverse groups (Gardner, 2004) However, developing intercultural competence could be difficult as the presence of students from different cultural experiences in one classroom may not exist.

In addition, there is a lack of global homogeneity regarding competencies, skills and qualifications that prepare professionals across borders. For instance, the ESCO, a work-in-progress initiative launched by the European Union in 2017, reflects the need to align education and training in the labor market among European countries. In the same line, NACE developed the top career readiness competencies as: (1) Critical thinking/problem solving, (2) Oral/written communications, (3) Teamwork/collaboration, (4) Digital technology, (5) Leadership, (6) Professionalism/work ethics, (7) Career management, (8) Global/intercultural fluency. However, thorough planning is required to implement specific pedagogy to develop 21st century skills. A 2013 study from the Association of American Colleges and Universities (AAC&U, 2013) discovered that that one-third of employers felt recent college graduates were not career ready.

In order to support students' skills development, some studies show that online experiential projects can be an effective approach in teaching along with the development of certain skills (Gonzalez-Perez, Velez-Calle, Cathro, Caprar, & Taras, 2014) such as a telecollaborative project. Glimps and Ford (2008) discuss the value of ICTs as students respect one another as individuals of culturally distinct groups. Telecollaboration is the online virtual exchange between students

from different geographies and cultures. Information exchanges and communication among learners in these transnational projects can be carried out in synchronous, asynchronous, oral and written modalities. Interdisciplinary telecollaboration is increasingly used to support the learning of content and transversal skills. It may enhance content learning by providing a global perspective, prepare students to function in a global society, and increase their intercultural tolerance and understanding (Jager, Kuker & O'Rourke, 2016).

This study addresses a gap in the literature that was absent for interdisciplinary majors, in particular Business and Economics. The effectiveness of implementing telecollaboration, in Business and Economics classrooms across borders was analyzed in this research project in order to give solutions to the problems faced by students and employers presented in this literature review section.

PROJECT BACKGROUND

Faculty face many challenges instructing diverse students for global careers in addition to teaching the fundamentals of a subject. Fortunately, these challenges can be reduced with the use of ICTs. UNICollaboration is a cross-disciplinary platform that connects educators across the globe using ICTs for virtual mobility. Through UNICollaboration's website, an educator from Queens College (QC), the City University of New York, and a researcher from Universitat Oberta de Catalunya (UOC) established a partnership to build virtual teams. The students coordinated by UOC were Business students at Benemérita Universidad Autónoma de Puebla (BUAP) in Mexico and Economics students were from QC. New York students completed collaborative projects based on different global issues while Mexican students had the opportunity to develop foreign language (FL) and culture skills while working on the Business subject content. In addition to learning about cultural differences in society, students had to handle project management such as deadline agreements, discussion times, teamwork, time differences, etc. The learning outcomes and explicit transversal skills gained were evaluated as it is presented in the next section.

METHODOLOGY

The sample was 171 Economics students from New York (NY) and 25 Business students from Puebla in Mexico. The study was developed as a case study approach but within an action-research perspective as future iterations of the project were planned. The project was a two-months one-to-many monolingual intercultural exchange divided into five video conferencing sessions. In each session learners had the support of communicative tasks in which they had the instructions, content and aim for both parts, QC and BUAP, for each intercultural practice. Each team comprised of students from both universities and were required to discuss various global issues referencing their own languages, socio-cultural, and educational backgrounds. Since the Economics students were in a statistics course, they were required to collect quantitative data on a global issue, compare it to qualitative data that was obtained through discussion of the issue with peers across the border using statistical methods.

Procedure

The students received a participant code to use during all the project in order to anonymize their participation in questionnaires. Since the research occurred in the background, participants had to fill in questionnaires at the beginning of the project, at each speaking practice session, and at

the end of the project. The sessions were also video recorded for post-hoc observation for future research purposes.

RESULTS

Participants' Intercultural Profile

The Profile Questionnaire, an online questionnaire delivered at the very beginning of the project, was completed by 147 students from NY and 21 from Puebla. The questionnaire aimed to gather demographic data as well as to measure participants' Intercultural Sensitivity through the Intercultural Sensitivity Scale (ISS) by Chen & Starosta (2000). The intercultural sensitivity statistical means of the students in NY and Puebla were calculated using the five predefined dimensions of the ISS questionnaire (*Interaction engagement, Respect for cultural differences, Interaction confidence, Interaction enjoyment and Interaction attentiveness*). The important differences between the students' means of NY and Puebla (see Table 1) regarding factor 2 (*Respect for cultural differences*) and 4 (*Interaction enjoyment*) seems to reflect that the cultural environment in which students' grow must play an important role. The multicultural and open social reality of Queens in NY versus the almost monocultural and traditional society of Puebla. Therefore, Mexicans showed less tolerance with other cultures and enjoyment interacting with them at the beginning of the project. However, this low tolerance and enjoyment towards multiculturalism shown by the Mexican students before participating in the intercultural exchange project is not reflected in the Project Evaluation Questionnaire delivered at the end of the project.

Table 1. Intercultural Sensitivity Scales (ISS) students' means by factors.

ISS Factors	Mean NY (N=137)	Mean Puebla (N=21)
Interaction engagement	3.8	3.9
Respect for cultural differences	4.3	2.7
Interaction confidence	3.7	3.4
Interaction enjoyment	4.1	1.9
Interaction attentiveness	3.6	3.7

Participants' Evaluation of Transversal Skills Development During the Project

The questionnaire aimed to explore the students' perception of the project. There were two different Project Evaluation Questionnaires (one in English and one in Spanish) which were identical with the only difference that the one delivered to the Mexican students also addressed questions about FL practice as they did not communicate in their mother tongue. As Table 2 indicates, both factors, the monocultural and traditional background of the Mexicans and the fact that they interacted in English (their target language) with their counterparts, could be the explanation why the students from Puebla had perceived the project very much useful for their careers (54,4%) and academic life (57,1%) than the Americans (21-23%). In addition, 90% of them also indicated a very high level of enjoyment getting to know someone from another culture and learning from them. They expressed that they were willing to participate in a project like this one again (see Table 3).

Table 2. Perception of utility of the intercultural exchange, Likert scale 1-5, not at all - very much.

Item	Value	NY	Mexico
To develop skills for communicating with other people	Very Very much	38.03% 28.17%	23.8% 47.6%
To develop skills for interacting with people from other cultures	Very Very much	36.62% 33.80%	33.3% 38.1%
To develop skills for understanding other cultures	Very Very much	42.25% 32.39%	38.1% 42.9%
For your career	Very Very much	29.58% 21.13%	23.8% 52.4%
For your academic life	Very Very much	21.13% 26.76%	23.8% 57.1%

In contrast, the 18.3% of the students in NY, surprisingly, indicated that the project was not useful at all for their career and did not find the project useful for their career and academic life in general (Table 2). This shows that participants did not realize that engaging in communication and team work with culturally diverse individuals from another country enhanced important 21st century skills. This fact can be understood as a sign of a lack of awareness. Nevertheless, NY students acknowledged that they enjoyed very much knowing someone from a different culture (49.7%), and liked very much (49.4%) learning with someone from a different culture (see Table 3).

Table 3. Students' evaluation of their participation in the project. Likert scale 1-5, not at all - very much.

Item	Value	NY	Mexico
Did you enjoy getting to know someone from a different culture?	Very Very much	28.17% 47.89%	4.8% 90.5%
Did you like to learn with someone from a different culture?	Very Very much	23.94% 49.30%	9.5% 90.5%
Would you like to participate in future exchanges?	Very Very much	23.94% 30.99%	10% 90%

Participants' Reflections About the Project: The Proof of Transversal Skills Development

The qualitative data gathered for this study are the open text answers collected under an open question in the *Project Evaluation Questionnaire*. The students' answers provided information about learners' perspective of the project and what they considered key elements in a successful intercultural project. The responses were also clear proof of the acquisition of communicative, intercultural and collaborative learning skills during the project. This can be seen in the annex section in which student comments noticeably show this transversal skills development.

CONCLUSION

As stated along this article, theory, pedagogy and practice need to be aligned with labor market requirements as students are prepared towards a more holistic and motivating educational reality. The Gallup-Purdue Index Report 2016 (Gallup Inc., 2016) found that only one in ten businesses believe that HE adequately prepared graduates with the necessary skills. However, the student's ability to gain employment after graduation has become an important measurement of HE success (Fox 2018). Since graduates will be collaborating with multicultural and international counterparts, focus on developing a global mindset may be of more value for career readiness initiatives. The results presented in this article and many more global experiences in telecollaboration projects (see for instance Jager, Kuker & O'Rourke, 2016) show the effectiveness of implementing telecollaboration practices for transversal skills development with a low material cost and high benefits for the students. However, just having contact with diversity does not assure intercultural skills development as shown in the results from NY students. Therefore, something more controlled or formal needs to take place within a classroom for students to be aware of the career readiness skills gained, even with existing diverse student demographics. This outlet that faculty can provide to chart a pathway from traditional pedagogy to a curriculum that integrates knowledge into real-world situations through telecollaboration reasserts the human capital theory and advances diversity and 21st century skills.

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Annex

Sample of Students' Open Question Project Evaluation Questionnaire responses showing transversal skills acquisition

"Please take a moment to reflect on your experience in the intercultural exchange project and answer this last question. In your opinion, what are the most important elements to have a successful online intercultural exchange experience? Please, enumerate them and explain why they are important."

Skills developed	Responses showing skills development and awareness
Communication skills	<p><i>Student 1:</i> A successful intercultural exchange consists of good communication skills and being open to the unfamiliar person. If you are able to treat this individual as your own and not as an outsider they will feel more comfortable opening up to you and any other members. This is very important because communication is key when you are trying to get a job done.</p> <p><i>Student 2:</i> 1. Being able to understand accents 2. Listen carefully</p> <p><i>Student 3:</i> The most important elements to have a successful intercultural experience is to have a good understanding between the partners from different culture because that's how we show respect to the partners who have different value and idea based on their culture.</p>
Intercultural skills	<p><i>Student 4:</i> Listening and respecting each other's opinions by taking the cultural differences into account</p> <p><i>Student 5:</i> Communication - We have to stay in touch with each other internationally in order to make sure everything goes smoothly.</p> <p><i>Student 6:</i> Being open minded - Views may be different to those in another culture, and we have to understand that.</p> <p><i>Student 7:</i> To me it was getting to know someone from another contrary and see that no matter where we live employment is hard no matter where you are</p>
Collaborative learning	<p><i>Student 8:</i> The importance of intercultural exchange is important because we can learn a lot from each other.</p>