

Bridging Two Continents: Using Collaborative Online International Learning (COIL) to Explore Healthcare Services

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Abstract

Intercultural competence is becoming necessary in all structures of life as our diversity grows and globalization continues to grow. Even in the field of business intercultural learning is equally vital domestically and internationally (Bennett, J. M. 2008). Collaborative Online International Learning (COIL) is a methodology in teaching and learning that continues to grow in use and can aid in filling this intercultural gap. The methodological COIL approach aids to building cultural competency and partnerships in the higher education community. Throughout this collaborative manuscript between three instructors at two universities, Nottingham Trent University (NTU) in the United Kingdom and University of Minnesota Duluth (UMD) in the United States, discussions will be around the pedagogy of carrying out a COIL module and how COIL was completed in the Fall semester of 2021. Over the course of four weeks, NTU and UMD students worked together to complete key learning objectives of healthcare systems, alternative care, and COVID-19 response in the United Kingdom and the United States. NTU and UMD used technology such as Google My Maps, video recording presentations, and interview questions to further the learning around the key objectives. NTU and UMD each had separate final projects and grading rubrics for final grading and evaluation. Pre-and post-assessment data was collected to better understand student learning outcomes including, cultural learning and cross-cultural ambivalence within the COIL unit. The assessments also provided an overview of future considerations for the collaboration between future instructors in the COIL unit based on student feedback.

Keywords: collaborative online international learning¹, higher education², distance learning³, computer-mediated communication⁴, pedagogy⁵

1. Introduction

As students begin to look for institutions that provide more flexibility in their learning the question of what this institute offers in forms of learning experiences compared to other institutes (Marcillo-Gómez, M. and Desilus, B., 2016). As cost continues to rise for higher education learning it is important to consider innovative ways of engaging students who are looking to gain global experiences without the cost (Marcillo-Gómez, M. and Desilus, B., 2016). Students are very engaged and aware of how technology is used and can connect them globally. In a study done by Papadakis, S. et al., 2018 the perceptions and use of the Learning Management System (LMS) Moodle was evaluated to understand students' use of e-learning. Based on 122 self-reported participants in the study at Crete University in Greece, it showed that students prefer functional e-learning and access compared that being limited. Collaborative Online International Learning (COIL) is an innovative way to create these innovative experiences for students without creating more cost. COIL is meant to create environments that all learners have access and can gain intercultural learning no matter what the course objectives may be.

State University of New York (SUNY) began running Collaborative Online International Learning (COIL) and virtual exchanges and opened the SUNY COIL Center in 2004 (State University of New York, n.d.). SUNY's mission is to create environments that are for all populations and create learning spaces that empower the professional community of practice, inspiring and supporting educators and making meaningful connections (State University of New York, n.d.). The Internet has led to the development of a particular form of constructivist teaching, originally called computer-mediated communication (CMC), or networked learning, which has been developed into what has come to be known as online

collaborative learning theory (Harasim 2012). Collaborative learning has enabled the interaction of learners from different parts of the world in real-time or at different but immediate times. When undertaking online collaborative learning there is a lot of planning and communication is necessary to ensure the resources and content are agreed upon by the facilitators well in advance of the commencement of the learning program (Hilliard, Kear, Donelan & Heaney, 2020). This helps to mitigate anxiety among the learners and pressure among the facilitators. One of the goals of COIL is to create more Pedagogical Content Knowledge (PCK). This is helpful in the continued education for instructors but also to the students they disseminate the content too.

Stasinakis, K. P., & Kalogiannakis, M. (2017) mention that PCK is strengthened through pedagogy, knowledge, and managing content. COIL's foundation is built through collaborations and the curriculum that will be presented in the paired courses. The theoretical framework from Stasinakis, K. P., & Kalogiannakis, M. (2017), is that instructors improve through training on a personal and professional level. This is done through local and global community networks and information and community technology tools (ICT) (Stasinakis, K. P., & Kalogiannakis, M., 2017). In the study mentioned, of the 16 educators in the study who participated in the full seminar noted that the seminar aided in improving their PCJ and objectives were fully met (Stasinakis, K. P., & Kalogiannakis, M., 2017). This concept is used through COILed units. Instructors are working to increase their own knowledge based and building curriculum to develop learning objectives on a global level. Furthermore, it helps facilitators to share the key components of the learning materials with the learners in preparation for the program. In many circumstances, online learning has been discussed as an activity that happens at an institution normally alternating with a face-to-face learning approach (Rapanta et al, 2020). However, its prominence has been associated with the collaboration of learners from different institutions and at times with different environments and levels of resources. Such a learning process has widened the knowledge horizons of learners with different learning experiences (Heeg, Hundertmark & Schanze, 2020).

Collaborative Online International Learning (COIL) is a methodology that allows students and professors to connect with other universities from across the world while studying at home (Asojo, Kartoshkina, Jaiyeoba & Amole, 2019). As the organization that "pioneered the COIL approach more than 15 years ago," the State University of New York's (SUNY) SUNY COIL Center, identifies COIL as a collaboration that benefits students' intercultural exchanges and gives universities valuable chances for worldwide experiences at a reasonable cost (Anon, n.d.). Pedagogy (design education), technology, and cross-cultural learning are the three fundamental pillars of COIL. In the team-taught learning environment created by COIL, professors from various cultural backgrounds collaborate to build a common syllabus. COIL is a cutting-edge instructional approach that has been shown to be advantageous to both students and academic staff at institutions all over the world. The structure of the curriculum may encourage students to become interested in certain cultural facets that may be didactically beneficial in certain subject areas. Students get the opportunity to collaborate with peers from around the globe during this experience, which is relevant and gratifying.

There are numerous reasons why more universities ought to take COIL into consideration. In addition to helping students and teachers understand and develop intercultural awareness, learning more about other cultures can assist students and faculty improve their intercultural competency skills (Folkers, 2005). It will improve ties between nations, and students can gain new insight into the subject matter they are learning (Folkers, 2005). Additionally, learners desire the freedom to use their laptops and smart phones to learn almost anywhere, which COIL allows for (Folkers, 2005). It is crucial for pupils to have some level of cross-cultural awareness and comprehension in an increasingly globalized environment. Globalization is an important idea for students in higher education to comprehend, as Fox and Hundley note, because business and industry need workers who can collaborate with people from many backgrounds and cultures (Fox and Hundley, 2011). Students and instructors can use COIL as a bridge in intercultural communication between domestic and international perspectives; These interactions aid in the development of understanding different learned and shared values, beliefs, and behaviors (Bennett, J. M. 2008). COIL supports this, positive processes, and active learning. Additionally, the program teaches students how to become critical thinkers during the learning process as well as how to study knowledge passively or actively. The ability to "reflect on their own perceptions, preconceptions, and new understandings, as well as those of their classmates" will be provided to the students (Appiah-Kubi and Annan, 2020). Students will have the opportunity to collaborate with students from all over the world during this experience, which will be important and gratifying. Additionally, it will help kids become better at forming meaningful connections across cultures.

This manuscript details the goals, learning outcomes, methods, and implementation of a COIL module between Nottingham Trent University in the United Kingdom and the University of Minnesota Duluth in the United States. In doing so the paper discusses critical requirements for the success of online collaborative learning through the lenses of the involved learners. The online collaborative learning involved upper division undergraduate students undertaking a health course. The medium of communication during the learning process included emails, asynchronous videos, WhatsApp, and Google My Maps. During this module, the COIL experience was used to develop an understanding and knowledge of healthcare systems and the use of healthcare systems in the United Kingdom and the United States.

2. COIL Overview

The Collaborative Online International Learning (COIL) approach is a methodology that aids in facilitation virtual global exchanges. COIL can be applied in many areas of curriculum to help students in a particular course gain cultural skills and knowledge. For educators COIL provides a method to build partnerships between two or more instructors from universities in different countries. As COIL continues to grow in use, universities have begun to add workshops and form groups to help others learn how to implement into their courses. University of South Florida (USF) has resources and workshops offered to build capacity for instructors to use COIL (www.usf.edu, n.d.). For students in a course for credit, COIL can be added to building cultural competency, communication skills, technology use, and global experiences. The use of COIL in courses presents many benefits when being implemented as part of the course curriculum. In this case, COIL was used as a platform to develop international communication skills, cultural awareness, critical thinking, and knowledge of healthcare systems in another country. 101 The use of COIL provides students the opportunity to discuss with and learn from peers about a culture they may not be familiar with. Study abroad programs can achieve this when immersing students in a new environment by traveling to different countries. COIL provides the immersion by giving students a way to work with, discuss, and hear directly from those who may be of a different culture, ethnicity, or are indigenous to the population they are around. In this COIL section students from UMD and NTU focused on three concepts: healthcare, social care, and public health. Each of these categories gave a look to students from the other country to see how cultures, systems, and cultural geography may be different from what they know and live daily. Students listened to their peers to become culturally aware and develop critical thinking skills when asking questions to further understand.

Using technology is a major part of communication and being able to use technology and communicate through these platforms is a keyway of learning, especially during the time of dealing with the coronavirus pandemic. The pandemic has put a great deal of travel on hold and pushed back many studies abroad programs. While students cannot travel, COIL provides opportunities for intercultural learning. Applying the Intercultural Knowledge and Learning Rubric gives specific areas of competency for students who may otherwise miss out due to travel restrictions, including cultural self-awareness, knowledge of cultural worldview frameworks, empathy, verbal and non-verbal communication, curiosity, and openness (Intercultural Knowledge and Competence Value Rubric, n.d.). Completing a COIL section allows focus on these important competencies while continuing to provide global experiences for future community leaders, scholars, and educators in the field of health sciences.

3. Background

3.1 Student Communication

During the COIL section students from NTU and UMD used email, Google Docs, and asynchronous videos to communicate. This section was prepared in the manner of weekly assignments that then lead to an exchange of information from the other students. UMD students created Google documents to share in groups so all group members could work on the content when needed. This was then turned into a video that was shared with NTU students on three topics: healthcare, social care, and public health. Due to the issue with using a synchronous format, videos from each group were used and then shared with NTU to capture the oral communication and visual aspects.

3.2 Time and Class Format

One of the practical challenges involved in COIL programs is the time differences that may exist between partners. To carve a space for real-time collaboration, educators in the participating locations must coordinate in advance so that administrative steps can be taken. For example, organizing a change of time and location for a centrally timetabled class will involve a greater or lesser amount of administrative work, likely involving administrative staff. In this case, due to the NTU course module lead's late appointment and the administrative steps involved in NTU's timetabling system, it was not possible to conduct a real-time class collaboratively. The solution to this problem was to conduct similar activities in parallel and share the results between the two cohorts of students. After some discussion, considering the aims of the two modules involved and the larger goals for the COIL project, the assessment format decided was to be a presentation. Groups of students from each university would create a presentation and the students would explain an aspect of the health and social care system in the UK or US to their peers in the respective country. At NTU, the students split into three groups to explain the health care system; the social care system; and the public health system. UMD students had a 6-hour difference in time from NTU students. To communicate in a timely manner, UMD worked to present the questions and emails in advance to allow for better timing for NTU students to prepare planned work and provide answers to questions. When completing a COIL, it is important to have discussions on timing and make sure to account for any time changes (e.g., daylight saving time), which can cause further confusion if not discussed in advance.

3.3 Technology

The COIL section was completed as an asynchronous section over the course of three weeks. In the process of setting up the module, the lecturer from UMD and NTU met in person during a visiting scholar role in the United Kingdom. This allowed for in person conversations and greater understanding of expectations from both sides. The decision was made to use Google My Maps, Padlet, and video recordings to add an extra layer of conversation between UMD and NTU. Students communicated directly when needed through email and WhatsApp. Poster presentations for UMD were completed using a PowerPoint slide and were presented in the classroom and through Zoom videos.

3.4 Assignments

NTU and UMD had separate learning goals, but they were based on similar shared topics. Both groups focused their learning on health care systems, alternative care, and current outcomes related to COVID-19 treatments (e.g., vaccine use). NTU and UMD completed video recordings and interview questions as part of the assignments. UMD had a poster presentation that was completed in class as part of the final project, and NTU had a separate assignment for grading.

Partnership Communication

During the startup of this COIL module lecturers had the opportunity to meet in person to discuss the process and procedures. Lecturers Gray and Pike met at NTU and discussed the plans, timing, and assignments. Following this meeting, further communications were done through email and Google Docs to share the pedagogy for COIL.

Adaptability

COIL is an easily adaptable format. The important part of COIL is the discussion of objectives and how to best reach those for all participants. COIL can be applied as a short-term project or an extended project over several weeks between collaborating courses in many pedagogical settings. It provides an opportunity for students to immerse themselves in different cultural geography settings without the need to travel to that specific country.

4. Implementation

4.1 NTU Goals and Learning Outcomes

The NTU module that participated in the COIL project is titled Global Health and Development. The module's stated aims are:

- To introduce some of the major theories within the sociology of development in relation to global health
- To consider contemporary debates concerning global inequalities and their effects on health
- To explore a variety of contemporary global health governance initiatives and the link to current development debates
- To enable students to reflect on the impact of development policies on global health
- To enable students to critically reflect on the intersection of global economic processes and health

One of the obvious areas of debate, intimately connected to decades of the debate on economic and human development, is the appropriate roles for the state and the market (see e.g., Webster; 1990; Sen, 1999; Navarro, 2000; 2007). As such, the module seemed an appropriate place to consider two different health systems, even though those two are both in countries generally considered “developed.” Students were encouraged to consider whether either of the two systems could serve as “models” for other nations to emulate. Differences between them (primarily private insurance-based versus public and free at the point of use) would allow for suitable comparison, while the similarities (that they both belong to “developed” countries) would help to pose questions about either’s suitability in an “underdeveloped” context. One of the major themes of the module is the coloniality of global public health (Greene et al, 2013; Farmer, 2020; Richardson, 2019; 2020). Students are encouraged to consider the matrices of power (economic, political, material, cultural, linguistic, etc.) in which global public health efforts are enmeshed.

Students are encouraged to consider the privileges of their own perspective and to treat with respect the health and behaviors of those in other countries. The opportunity presented by the COIL project to learn from those in a different cultural context and to interrogate one’s country related to healthcare and then to provide an explanation to peers in a different context was an important aspect of this COIL module.

The learning outcomes for the project were:

- To be able to explain one’s own health care system intelligibly to those in a different social context.
- To be able to consider the health system of a different country in a cultural context.
- To be able to communicate effectively and respectfully across a cultural divide.
- To be able to critically consider the UK and US healthcare systems as potential models for health development.

4.2 NTU Methods

The course leader at NTU had recently taken on the Global Health and Development module, preparations for the COIL happened later than would have been ideal and, thus, it was not possible to align the teaching schedules so that students could join synchronous calls. Both NTU and UMD decided to construct an asynchronous method and settled on video presentations from students. Due to the late preparations of the COIL project, NTU students already had assessments set and so the COIL work did not form part of their assessment. For a critique of this element of the process, see appendix 3. Due to expectations within NTUs module, it had implications for the running of the project: particularly, it was not reasonable to expect the students to do extensive work in groups outside of class time on their presentations. Thus, class time was set aside for students to split into three groups to prepare three presentations: one explaining the UK health care system, one explaining the social care system, and one explaining the public health system. A small number of volunteers from each group then presented the material by video in a separate session attended and supported by the module lead. The videos were then sent to UMD. In the following week, students were asked to watch the UMD recordings that were sent in return and to think about questions they would like to ask the UMD students. In the next class, it was collectively agreed to ask the following questions based on the content of the UMD presentation and the learning outcomes for the process:

Would you like to see a fully public NHS-style system in the US?

Do you think the US model is one that developing countries could/should follow?

Why are there 9 million uninsured Americans?

What do you think are the keyways to address vaccine hesitancy in the US context?

Do you feel anxious about the 26-year age cut-off for being able to be on your parents' insurance?

In the fourth week's class, UMD questions were received, and the students proceeded to respond. This was done by once again splitting into the groups which had prepared one presentation each (three presentations total), with the appropriate group fielding the appropriate questions: e.g., questions on the social care system directed towards the group which had prepared the presentation on social care. To maintain the peer-to-peer nature of the COIL process, the involvement of the module leader was light and supervisory: responses were sent as articulated by students (with a little tidying up of the language for ease of comprehension).

4.3 NTU Interview Setup Questions and Completion

NTU students were not assessed on their COIL contributions (see below), the decision was made to ask students to answer the opening and closing survey questions at the beginning of the first and the end of the last COIL session in order to ensure the highest uptake.

4.4 NTU Assessment and Evaluation

As already mentioned, for reasons outside of control, the COIL project did not form part of the module assessment for the NTU students. This had two unfortunate consequences. Firstly, while the presentations and questions produced were of appropriate quality for work conducted in limited time within the class, the presentations were of an understandably, noticeably, lower quality than those of the UMD students who were being assessed on theirs. The quality of the background research and visual presentation was markedly different. This is no reflection on the students involved, but on a limitation to the COIL project in this case. Secondly, engagement from NTU students was likely lower than that from UMD. Attendance dipped in the weeks of the COIL project, likely due again to the lower stakes. It is possible students did not see how the project contributed to their success in assessed work, its benefits being less tangible (though no less real) for NTU students than their counterparts at UMD. The conclusion from this experience is that it is important to ensure that the stakes are similar for the two sets of students and that assessments should be coordinated where possible between COIL partners to ensure uniformity of experience between the two sets of students. Student feedback also highlighted a lack of coordination between the assessments as a criticism. Anonymous feedback raised an important critique: when asked,

“What could instructors do to improve this unit?” Several students responded along the lines of “More collaboration with other countries, learning directly from them and not necessarily their PowerPoint or questions.”

4.5 UMD Goals and Learning Outcomes

As discussed in the NTU evaluation section, a disconnect existed between the assessment requirements for the two cohorts of students. NTU students were not assessed on their presentations for the COIL project, while UMD students were assessed on their poster presentations on the topics of alternative care, Covid-19, and healthcare systems in the US. The information learned from NTU students and questions were also included in the virtual video presentation. UMD students' presentations were scored based on Intercultural Knowledge and Value Rubric from Association of American Colleges

and Universities (AACU) (Appendix 1). Student presentations were in a PowerPoint format with a summary of the complete project to start. Each assignment included a screen capture of the Google My Map and Padlet, questions asked to NTU students regarding the three key topics in the United Kingdom (social care, public health, and the healthcare system), and a set of questions sent to each other to learn more specific details about the systems. Each group at UMD was instructed to develop five questions to present to NTU students to further learn about health systems or COVID-19 in the United Kingdom. UMD students were provided a list of potential questions (Appendix 2). These questions were ranked into two categories: required and recommended. Students had to ask at least three questions from the required list and were given autonomy in deciding the final three questions.

4.6 UMD Methods

COIL is a methodology for teaching and learning. COIL as a method of international learning provides the opportunity to apply an evaluative tool that can give feedback to learn what is working and what can be changed for the next session. In this COIL section, two tools were used to evaluate the COIL section and the students. Working together, UMD and NTU created a survey that could be completed Pre-assessment and Post-assessment. The assessment was created in Qualtrics and based on the Intercultural Knowledge and Competency Rubric (INTERCULTURAL KNOWLEDGE AND COMPETENCE VALUE RUBRIC, n.d.). The goal of this rubric is to identify students' cultural advances with several survey questions. The question section was based on six sub sections:

Knowledge: Cultural awareness

Knowledge2: Knowledge of the cultural Worldwide framework

Skills: Verbal and nonverbal communication

Attitudes: Curiosity

Attitudes2: Openness

The survey used a Likert scale approach along with some questions where feedback on the method and learning used in COIL could be provided. Each student was provided a link through email to complete on own. The pre- assessment and post-assessment consisted of four dependent variable questions and the post-assessment included several questions to provide feedback on COIL. Two of these dependent variables were based on understanding how students felt pre-assessment versus in post-assessment. Two of the questions that changes were seen from pre- assessment to post-assessment were (Figure 1 and Figure 2) How would you describe your level of knowledge about what is important to people from other cultures (e.g., their history, values, politics, communication styles, economy, or beliefs). The second question was (Figure 3 and Figure 4) Which statement best describes how you communicate (verbally and nonverbally) with people from other cultures? Verbal includes word meanings in different cultures nonverbal includes physical contact while communicating in different cultures. The feedback questions in the post- assessment were built in for partnering instructors to learn and adopt changes for future COIL sections. Students were put into groups and were tasked with beginning to develop knowledge related to the US healthcare system, alternative care options, and COVID-19 response. An estimated 20-minute video presentation was developed and shared with NTU students. NTU students had a smaller class size, so they created three different videos on three separate topics related to social care, UK health systems, and public health systems. All videos and documents were shared through Google Docs since both sites had easy access. The two lecturers shared documents and then gave access to students in each group.

Evaluation results

Between NTU and UMD undergraduate students in there were a total 33 students. Of those 33 students 27 completed the pre-assessment. Nine of those students stated in the survey that they were from NTU. The post- assessment had 23 responses. Of those 23 student responses 7 of them were from NTU. In figure 1 students were asked how you would describe your level of knowledge about what is important to people from other cultures e.g., history, politics, and communication. Of the 27 respondents 11 stated they somewhat understand the elements of cultures different from their own, 14 have adequate understanding of the important elements and 2 said they have a sophisticated understanding of the important elements. In figure 2, the post-assessment shows that only 2 students chose they somewhat understand the important elements of cultures compared to the 11 students in the pre- assessment. In the post-assessment 4 students now showed they felt they had sophisticated understanding compared to 2 in the pre-assessment. While the overall change was minimal, there were students who felt COIL played a role in raising their level of knowledge about what is important to people from other cultures.

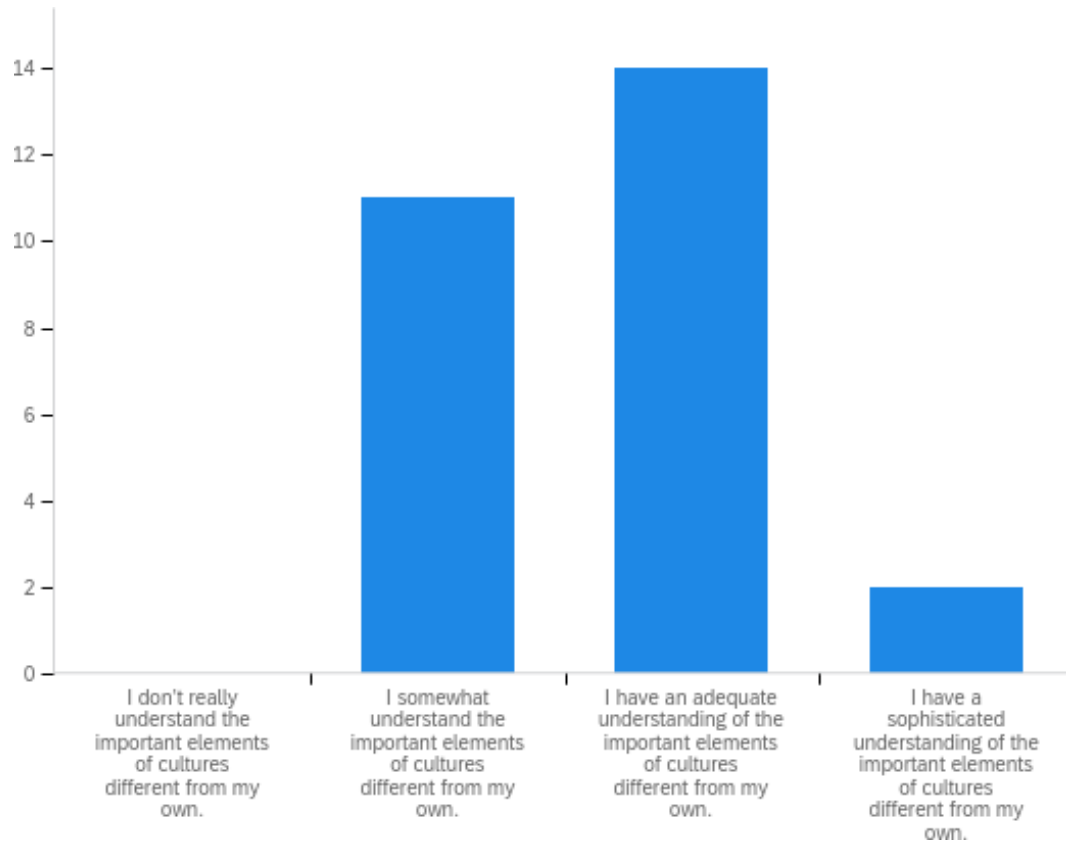


Figure 1. Pre-assessment question, how would you describe your level of knowledge about what is important to people from other cultures

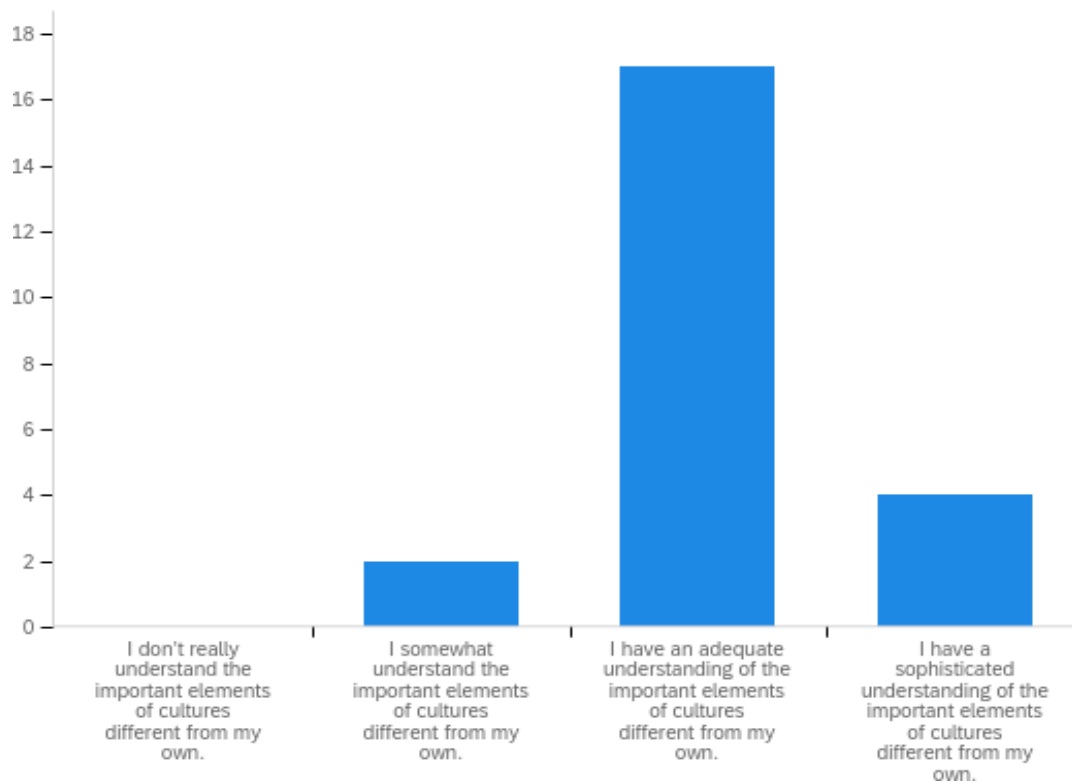


Figure 2. Post-assessment question responses, how would you describe your level of knowledge about what is important to people from other cultures

In Figure 3 the question asked was, which statement best describes how you communicate (verbally and nonverbal) with people from other countries. In the pre-assessment 33.33% were somewhat aware of cultural communication differences, 55.56% were aware of cultural awareness and 11.11% were very aware and informed about cultural communication differences. In the post-assessment Figure 4, 4.35% of the students stated they were not aware of how to address cultural differences, 13.04% are somewhat aware of cultural differences, 69.57% were aware of cultural differences, and 13.04% were very aware of cultural differences.

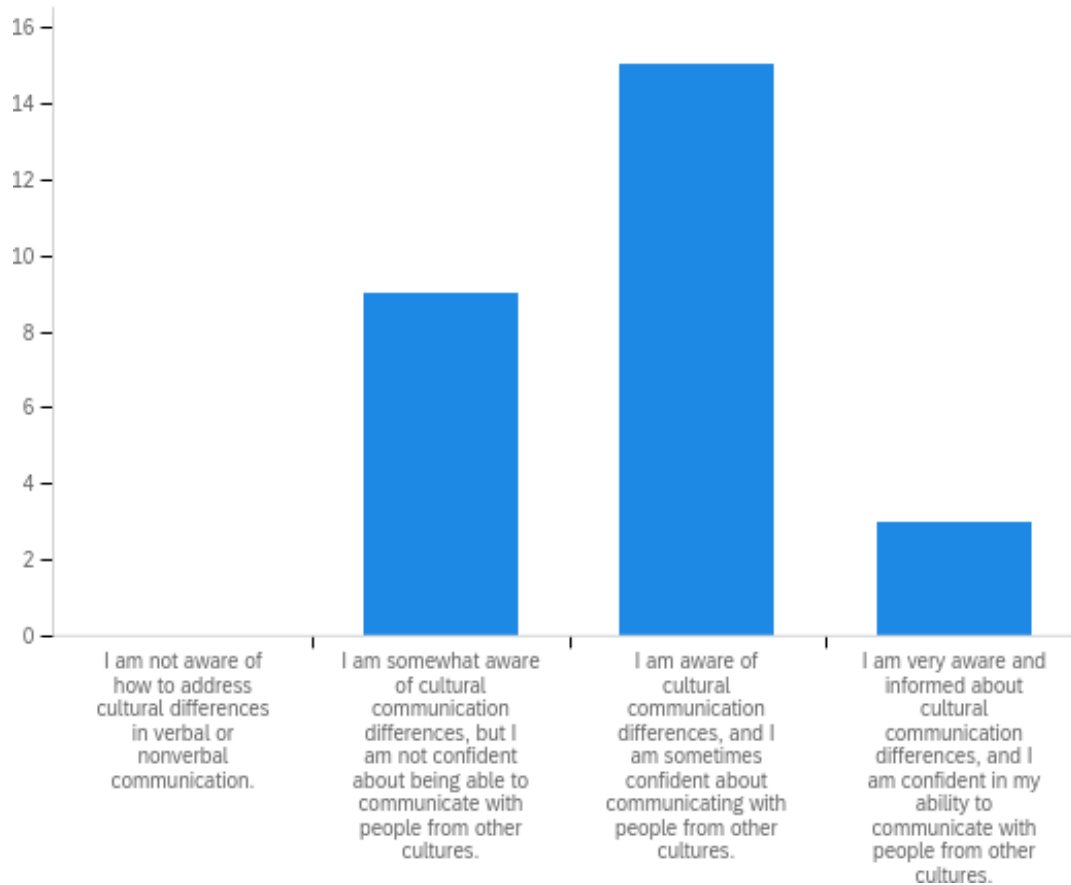


Figure 3. Pre-assessment question responses, which statement best describes how you communicate (verbally and nonverbal) with people from other countries

The question is meant to identify how students feel about verbal and nonverbal communication including their confidence level in communicating with someone from another country.

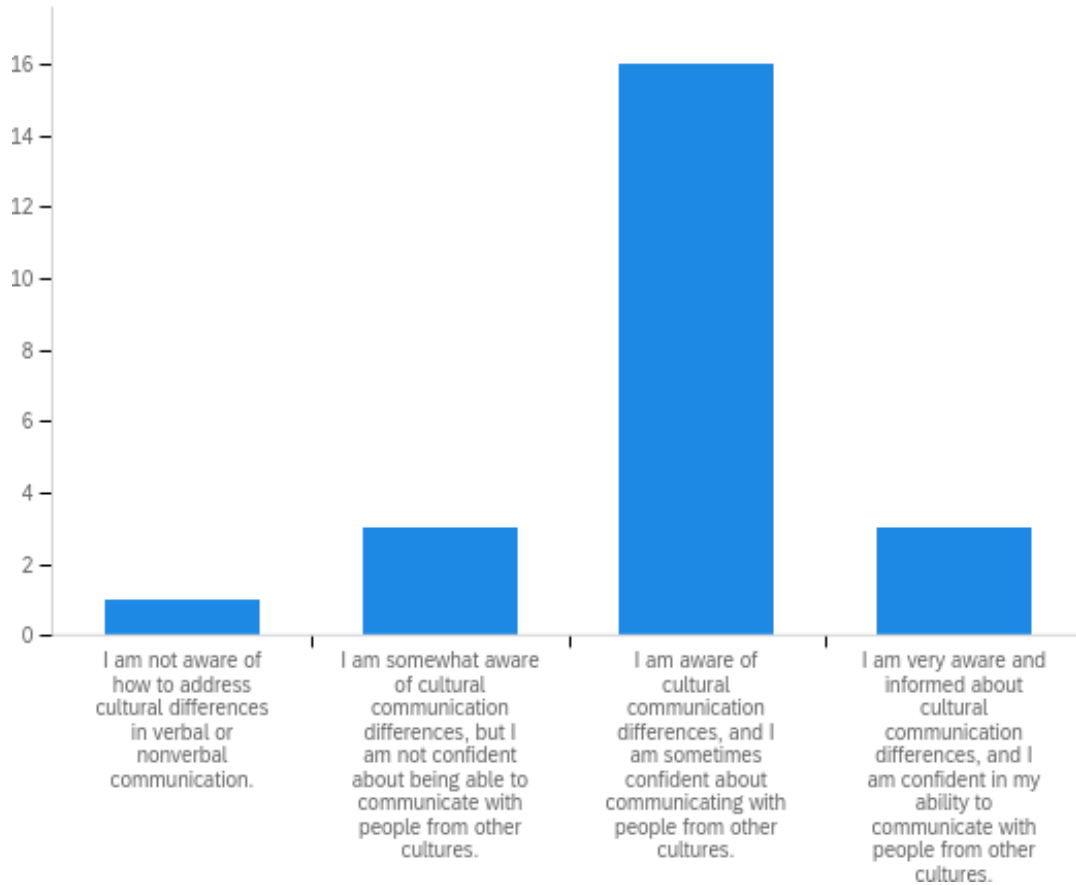


Figure 4. Post-assessment question responses, which statement best describes how you communicate (verbally and nonverbal) with people from other countries

The question is meant to identify how students feel about verbal and nonverbal communication including their confidence level in communicating with someone from other cultures.

The major differences between pre-assessment and post-assessment are seen in the changes in responses for the following assessed question:

“I am aware of cultural communication differences and sometimes confident.”

The results changed from 55.56% pre- assessment to 69.57% in the post-assessment. One student also mentioned in the post-assessment they “are not aware of how to address cultural differences. Since all results are anonymous it could be hypothesized that this student did not respond to pre-assessment or became more aware of the short falls that they thought went into verbal and nonverbal communication with individuals from other cultures.

One of the feedback questions asked, the COIL assignments encouraged me to consider global/international/intercultural perspectives (Figure 5). This question used a four-point Likert Scale. The results showed that 56.52% strongly agreed with this statement, 43.48% agreed.

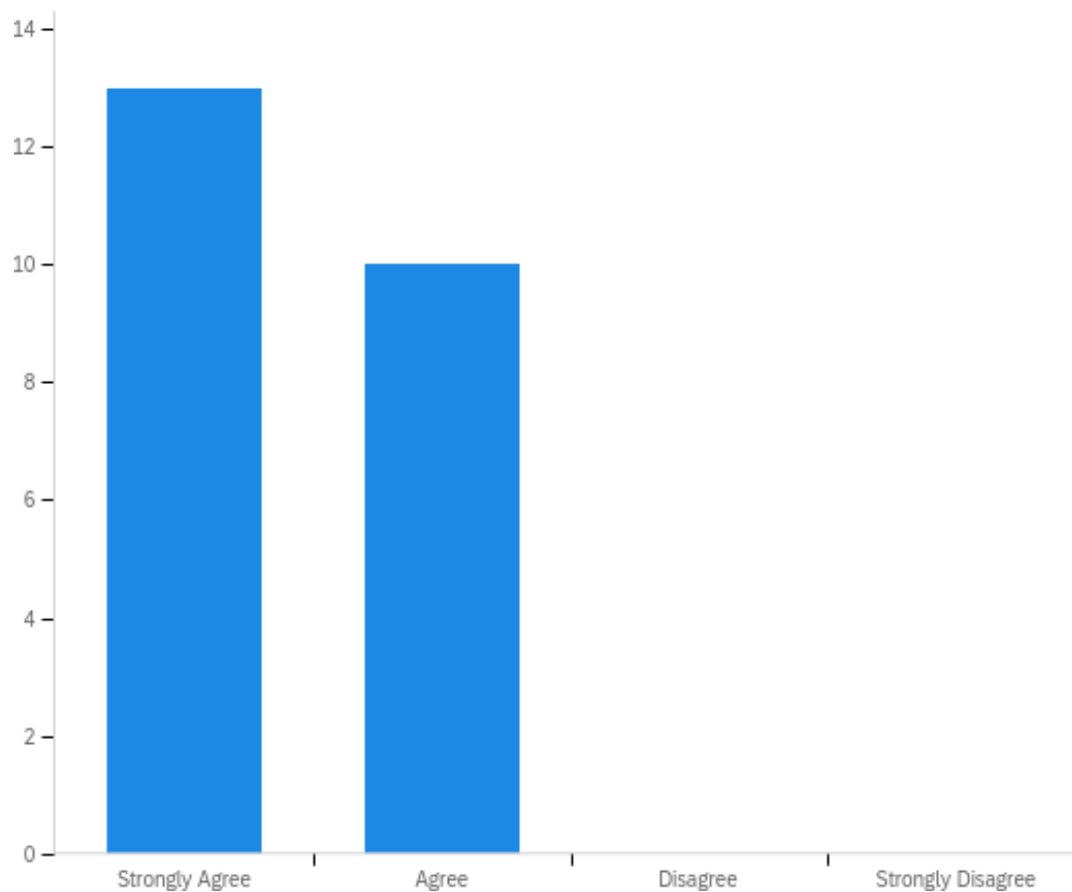


Figure 5. Post-assessment bar chart question response, “the COIL assignments encouraged me to consider global/international/intercultural perspectives”

Using a four-point Likert scale and showing student thoughts on COIL aiding in global considerations.

Figure 5 provides instructors with information on how students feel about learning more on an international level and hopefully encouraging students to continue to consider intercultural perspectives beyond the COIL section.

4.7 UMD Interview Setup Questions and Completion

The documents shared were part of the interview questions to be answered by both groups. Once the videos were watched by each class, UMD students were tasked with creating questions to be sent over to NTU students. Due to the difference in class size, UMD students created three lists of questions based on the topics of social care, public health systems, and UK healthcare systems. Each group created a set of 9 questions using appendix 2. Below is a list of questions provided:

Do you have private insurance or is it all public insurance? What are the different levels of insurance? Who has private insurance?

How long are wait times when it comes to general healthcare? How long are the wait times for seeking specialist doctors?

How do payment rates adjust depending on age, student status, and other social determinants? What are these parameters?

How do the focuses between UKHSA and PHS differ? Will the focus for UKHSA change once COVID is controlled? Will PHS continue to protect and promote healthier choices through the emergence of UKHSA and PHS?

What effects have you seen in the public after introducing the Sugar Levy in 2018? Such as a decrease in obesity or weight loss?

4.8 UMD Assessment and Evaluation

Final student presentations were assessed based on Intercultural Knowledge and Value Rubric from Association of American Colleges and Universities (AACU) (*Appendix 1*). Students presented their final presentation for COIL in the classroom. Grading was completed based on completeness and comprehension of areas including cultural geography, interview questions and responses, Google My Maps, and video recording information. The video recording for each group included infographics that provided detailed information related to healthcare systems in the US, a selected alternative care of focus (e.g., chiropractic care), and COVID-19 response information. Each student was graded based

on individual work and group participation. Each group submitted a separate document that outlined the work put into the project per individual and overall group. UMD student participation was mandatory as the COIL project completion made up a percentage of the final grade. Due to expectations being set at the beginning of the semester, UMD students were aware of the importance.

5. Discussion

The current study understands the importance of ethical practices in course work and research. This study was conducted in a way of recognizing all participants and the cross-cultural backgrounds they represent. According to Petousi, V., & Sifaki, E. (2020), harm is translated in the structural characteristics in scientific practices that are not communicated and transparent in nature and create mistrust in science and the relation between science and society and within the scientific enterprise itself. To combat this, the study at hand was conducted through curriculum and complete transparency of the outlined goals, objectives, and the participants contributions to the research.

Some of the key takeaways from this COIL module include assessments, communication, and setting up the COIL in advance. One future concept for consideration is to assess students' perceptions and learning outcomes based on the Constructivist Online Learning Environment Survey (COLLES) used by Psycharis, S., et al. (2013). Psycharis, S., et al. (2013) used the COLLES to evaluate the quality of an online learning environment and the attitudes of students' using the Learning Management Systems (LMS). In this study Psycharis, S., et al. (2013) found no major differences in students' attitudes toward using LMS versus more of a hybrid in-person and online model. However, students did seem to appreciate the use of online tools when they didn't have technical issues with using these type of online tools Psycharis, S., et al. (2013). In future studies of COIL, using the COLLES program could provide more feedback on how students enjoy the technology tools being used to create a cross-cultural learning environment.

For student engagement, it is advantageous to ensure the form of evaluation and assessment to hold instructors and students accountable as part of the course. Providing an evaluation/feedback tool helps to better understand how you are using the COIL method and applying it as part of your course pedagogy on both sides. This creates an equal amount of importance for all students involved and fosters a commitment to complete the required tasks. Setting a standard for COIL participation is part of preparing your session in advance. Building relationships and communicating prior to the course beginning would be the best-case scenario. This communication can be through phone calls, virtual conferencing, or face-to-face when funds are available. Communicating to make sure objectives and goals are achieved on both sides is important to full completion and should be planned out ahead of time. Based on the student responses from the evaluation post-assessment, COIL can play a role in providing students' knowledge and intercultural perspectives and encouraging them to consider international perspectives.

COIL can play a major role for universities to give more students global communication opportunities and to learn from instructors from other cultural backgrounds as mentioned by Anon, n.d. The COIL method of learning provides students to share experiences and learn about systems first-hand in other countries.

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