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# CORONAcredits: Program Innovations to Aid Student Completion of Disrupted Fieldwork Abroad Due to the COVID-19 Pandemic

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## Introduction

The Spring 2020 semester presented challenges for global learning experiences of all types to meet their student learning objectives due to the COVID-19 pandemic. The pandemic resulted in 82% of responding institutions cancelling international travel for students (Martel, 2020, p. 3). COVID-19 evacuations represented an important moment in time for collaborative partnerships among international educators and academic departments to keep returned students strong mentally and on track academically during a global crisis. These partnerships were especially critical for experiential language and cultural immersion programs abroad, which depend on student interpersonal interactions with people from other cultures and the direct exploration of different lived experiences. Engineering students in this situation were in the midst of applied experiences and their learning was threatened by the COVID-19 disruption. Many educators were thus faced with the unique challenge of recreating the opportunities to build language and cultural understanding for such students upon return to the U.S.

This article presents the CORONAcredits intervention of the Interdisciplinary Global Programs (IGP) at Northern Arizona University (NAU) in supporting engineering students' completion of their engineering fieldwork experiences. IGP is a 5-year dual degree program in which students pair a BS in STEM or Business with a BA in Modern Languages or Comparative Cultural Studies (CCS) and spend an immersion year abroad of coursework and fieldwork (see Figure 1). For the purposes of this research, the authors have focused on IGP engineering students abroad during COVID-19 evacuations.

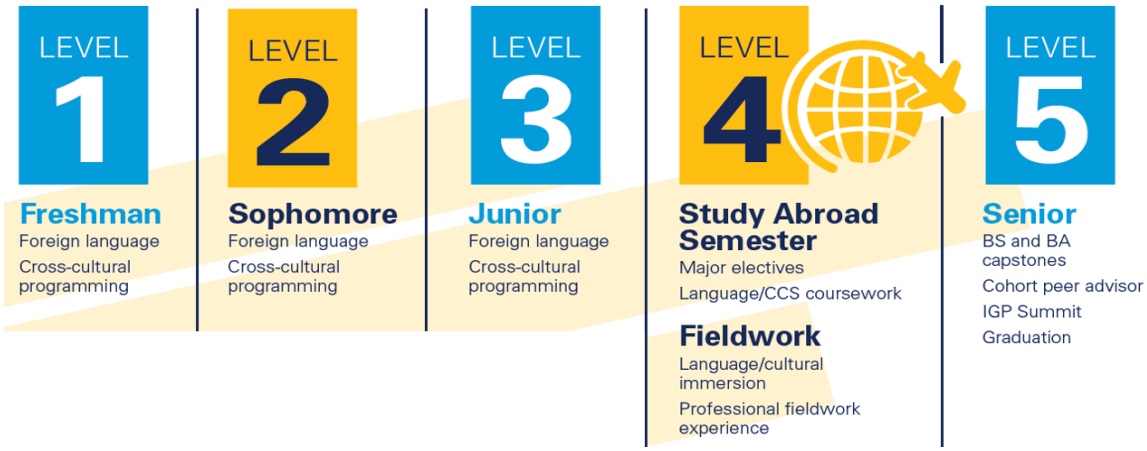


*Figure 1. IGP 5-year progression model with 4th year abroad*

IGP's intervention occurred in students' fieldwork semester, which usually takes place in the second semester abroad (see level 4 in Figure 1 above). IGP fieldwork typically requires students to complete 540 hours of fieldwork practice in an international immersion context for which students earn 12 credits toward their language major. Examples of former students' engineering fieldwork include work in university laboratories, NGOs, or private companies in areas such as solar thermal power, transportation planning, human assistive technology, and game testing and development. The intervention focused on meeting the learning objectives of the original fieldwork abroad, which was designed to take place in a language and culturally immersed context but had to be completed back in the U.S. during the Spring 2020 semester. The intervention practice can be summarized as activating a network of interdisciplinary (engineering, languages, and international education) and cross-institutional (faculty and staff) support. These support groups fulfilled two purposes: first, to send consistent and clear messaging to students to support them while in crisis, and second, to keep students focused on attaining the intended engineering and intercultural learning objectives.

IGP's intervention supported the adaptation of a 12-credit immersive, intercultural, and interdisciplinary fieldwork experience by engaging in collaboration with close partners in the language and engineering departments. The intervention demonstrated agility to enable alternative experiences that varied from the original design, but still ensured that students were on track to achieve their curricular objectives. The curricular objectives of the IGP fieldwork experience for engineering students are:

1. Intercultural and host language-immersed interactions in a professional engineering context.

2. Practice of engineering technical skills with consideration of global and cultural factors.
3. Exploration of the diversity of lived experiences across cultures through building community networks with host nationals.

Thirty-one IGP students (including engineering students) returned to the US from eight countries in February and March 2020 during what should have been their second semester fieldwork abroad. The IGP intervention established an online modification course, called CORONAcredits, which presented cross-cultural modules and engaged students in reflection on their experiences abroad. CORONAcredits were designed to replace the immersion time abroad that was cut short, while also providing students the flexibility to meet the requirements of their academic degree plans.

Once students had completed their alternative fieldwork experience from the U.S., we sought to examine the effectiveness of the CORONAcredits in helping students achieve the intended learning objectives. Our analysis highlighted the importance of three main elements in guiding engineering students' attainment of engineering fieldwork and intercultural competence during a disrupted immersion fieldwork experience: 1. flexibility and interdisciplinarity in alternative paths, 2. individual and cohort reflections, and 3. module design to support student processing of the intercultural aspects of global crisis response.

## Theoretical and Conceptual Background

### *Interdisciplinary Fieldwork*

Fieldwork abroad has been lauded for its promise to internationalize curricula, "perhaps because it involves the first-hand study of a subject in its naturally occurring environment" (Bell, 2008, p. 133). IGP works to help students meet the Accreditation Board of Engineering and Technology (ABET) Criterion 3 Student Outcome #2 related to applying "engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors" and #4, "the ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts" (ABET, 2021). This culturally and linguistically immersive engineering fieldwork experience has been at the heart of IGP since the program's inception in 2012, seeking to satisfy the unique needs of students as part of a program that provides a myriad of dual major combinations for engineering students, all of which include a language and/or culture major, as well as linguistic and cultural immersion abroad.

IGP has always emphasized an interdisciplinary mix for fieldwork abroad to consider that, although "research might point to intercultural effectiveness training for faculty who teach study abroad courses, an alternative implication might be to add intercultural educators to study abroad contexts" (Pedersen, 2010, p. 78). IGP has therefore sought to involve faculty and educators with expertise in intercultural education in students' fieldwork experiences, focusing on fostering interdisciplinary collaboration in designing, delivering, and assessing international fieldwork experiences. Through this strategy, IGP has deepened the involvement of intercultural educators through including them in various aspects of fieldwork completion. This interdisciplinary approach also involves language mentors who can make suggestions to continue students' linguistic practice, with the goal of "increased confidence in asking technical questions in a setting where English is the second or third language, how to handle oneself in a professional setting, and gaining exposure and applied knowledge that might increase the students' marketability" (Ingraham & Peterson, 2004, p. 97). Through this interdisciplinary approach to fieldwork abroad, IGP works to help engineering faculty ensure, through collaboration with language and cultural faculty, that students meet ABET Criterion 3 learning outcomes related to "consideration of global, cultural, and social factors and contexts."

### *Intercultural Competence*

Intercultural competence is one of the five global competencies IGP students develop during their time in the program, along with positive leadership, multilingual capability, interdisciplinary thinking, and community networking. IGP defines intercultural competence as: "The practice of effectively interacting with peoples from diverse cultures." Intercultural competence is valued as a part of holistic human development focused on cultural development and intercultural communication (Research Institute for Studies in Education, 2017) and thus serves to aid students in the development of all five core competencies.

Engaging students in reflection is a key component of any learning process in study abroad; without explicit intervention in engaging students in a reflective process study abroad rarely lives up to its promise (Vande Berg et al., 2009). Reflection on the study abroad experience is often grounded in two learning theories, experiential learning theory (Kolb, 1984) and transformational learning theory (Mezirow, 1991), with meaning making being the principal component of both of these theories (Mnouer, 2018). Developing intercultural skills should therefore be thought of as more of an "intercultural journey" in which sojourners' experiences span the pre-, during, and post-study abroad contexts (Mnouer, 2018). While global and intercultural competency through an intercultural journey is a desirable outcome for all students, it has special significance for engineering students because of the core focus on technical problem solving in both

*solving* and *defining* problems in engineering (Downey et al., 2006, emphasis in original).

Study abroad professionals and faculty who engage students in the study abroad process can seek to provide opportunities for sojourners' reflection on the study abroad experience throughout their intercultural journey. Faculty and study abroad professionals should thus design specific interventions for study abroad that engage students in reflections on their own process of developing intercultural competence which can aid them in deepening their own understanding of their intercultural sensitivity (Vande Berg et al., 2009). These interventions can be delivered pre-, during, and post-study abroad. The present study focused on the post-study abroad period.

### *Post-study Abroad Framework*

The process of post-study abroad must consider a myriad of factors involved in the reentry and repatriation phenomena (Szkudlarek, 2010). Efforts to engage students in deepening their reflections on their time abroad should employ a process of reification to aid students in describing, interpreting, and recasting their time, experiences, and interactions abroad (Wenger, 1998). Through the social practice of sharing stories, observations, and experiences, students have potential opportunities to renegotiate and reflect on the meaning of their time and experiences abroad, as well as on their own changing abilities (Kortegast & Boisfontaine, 2015). The post-study abroad time should account for the importance of building time for critical reflection into international study so that students have opportunities to debrief and reflect on both academic and nonacademic experiences while abroad (Dean & Jendzurski, 2013).

Study abroad faculty and professionals can develop academic and nonacademic opportunities to provide students with "structured, programmatic opportunities and assistance in processing, articulating, and negotiating the meaning of their study abroad experiences" (Kortegast & Boisfontaine, 2015, p. 812). However, the post-study abroad process of reentry and repatriation is complicated and must consider students' diverse embodied experiences of gender, race, ethnicity, sexual identities, as well as age, religion, and socioeconomic status, among others (Mnouer, 2018; Szkudlarek, 2010). Efforts to engage students in the reentry process should seek to engage students in personal reflections of not only their own unique lived experiences abroad, but also foster contact with and among returning individuals. These efforts should provide opportunities for sharing and reflection but are not easy to effect; even the "perfectly phrased reflection prompts will not guarantee the kinds of learning outcomes that we might hope for" (Savicki & Price, 2017, p. 61). Nevertheless, the benefits of engaging sojourners in post-study abroad reflections are widely documented in the literature.

## Description of CORONAcredits Intervention

### *Meeting Engineering, Language, and Cultural Fieldwork Needs*

As previously stated, students were all immersed in their second-semester engineering fieldwork projects abroad when COVID-19 struck and were at various points of engagement in their immersive engineering fieldwork, having completed anywhere from 0 – 500 hours of the required 540 fieldwork hours. This disparity was due to the fact that IGP students begin their fieldwork at different times during their year abroad in various regions of the world and the academic calendars of their respective host universities often do not align. There were also additional individual factors influencing the number of hours completed, such as difficulty in securing a fieldwork experience and a later start date negotiated with the host country mentor. IGP therefore created a fieldwork completion formula which split the fieldwork hours by each major (270 hours for language and culture, 270 hours for engineering). Students were responsible for self-reporting their completed hours in a spreadsheet that was monitored by IGP staff and faculty. However, this split in necessary hours could have resulted in a bifurcated learning experience for students, where language and culture are seen as disentangled from engineering fieldwork. IGP therefore sought to identify an interdisciplinary mix of NAU faculty mentors to oversee IGP student subgroups by language and engineering, and help students account for hours already accomplished abroad, as well as helping them understand how many hours they had left to complete in each of the two blocks (i.e., in language and culture, and in engineering work). In this way, materials were delivered and assessed by an interdisciplinary and cross-institutional group represented by study abroad, language, and engineering disciplinary faculty, as well as by professional staff in the Center for International Education.

The language faculty prepared assignments and met virtually with students to provide feedback on their linguistic and cultural development. Students had the option to complete the engineering portion of fieldwork in one of three ways: (1) continue working remotely on their fieldwork projects with their host country mentor, (2) find an engineering fieldwork experience in the U.S., or (3) design an independent study research project overseen by an NAU engineering faculty mentor. In this way, IGP created an innovative solution for the completion of fieldwork hours by ensuring they incorporated both engineering and global and cultural contexts in whichever way they were able to stitch together their required 540 hours of fieldwork. Thus, even if students' fieldwork experience was not completed abroad, by engaging them in linguistic and cultural reflections while completing their fieldwork, they were still able to go beyond mere disciplinary understanding to encompass broader skills (Bell, 2008).

The unprecedented COVID-19 situation opened new opportunities to explore fieldwork from a home context. IGP, in conjunction with engineering, language, and culture disciplinary faculty, developed innovative ways to substitute for experiential learning abroad via linking the experiential learning during fieldwork and internships to other curricular efforts to deepen students' reflection on their experiential learning. In addition to aiding students in completing culturally relevant engineering fieldwork projects, IGP engaged students in deepening their understanding of, and reflections on, intercultural competence after being called home from abroad through their participation in "CORONAcredits."

### *Intervention through CORONAcredits*

The CORONAcredits were the one thing all IGP students had in common to complete their fieldwork experience. These CORONAcredits were part of the overall umbrella to satisfy 45 hours of fieldwork (1 credit unit load) out of the 540 required fieldwork hours, specifically to cover intercultural understanding via four modules focused on cultural development and intercultural communication.

The CORONAcredits were uniquely situated as a part of the overall fieldwork learning experience that both delivered new materials and provided post-study abroad opportunities to reflect on students' abbreviated time abroad. As such, the CORONAcredits were embedded in the student experience timeline and delivered as both "during" (while the fieldwork experience was ongoing) and "post" study abroad (after the students had returned to the home culture prematurely). Students were thus still in the reentry process culturally but with one foot still in the host culture academically, as many completed their immersive fieldwork experience through virtual collaboration with their host culture mentor.

The CORONAcredits were a combination of discussions and assignments designed in part to build community back home in order to connect the students who had returned from various locations worldwide with each other and maintain previously established connections abroad. These CORONAcredits required students to reflect, capture, and compare the moment as it related to their cultural development and intercultural communication, especially from the perspective of their host country language and culture, as delivered through online modules.

### *Online Module Discussions and Assignments*

The online CORONAcredits modules provided structured opportunities for students to connect with others who had similar experiences. In this way, students could be prompted across modules to incorporate elements from their own experiences abroad, while analyzing them with relevant information presented during the modules (Jackson, 2015).

Students would therefore benefit from structured opportunities to negotiate the meaning of their study abroad experiences and gain assistance to articulate the learning, development, and personal and academic growth they experienced (Kortegast & Boisfontaine, 2015). The modules employed a "co-curricular" design to reflect the intentional partnership between learning and activities both in and out of the classroom (Dean & Jendzurski, 2013) because some of the learning objectives critical for students in higher education go beyond the academic content (Pedersen, 2010).

The CORONAcredits were delivered in four modules:

1. Student reflections on their evacuation process,
2. Interdisciplinary approaches to problem solving,
3. Cultural impacts in decision making, and
4. Comparison of historical pandemics.

Each module invited students to share their personal experiences abroad and comment on that of their peers. Students were exposed to a diversity of approaches to deepen their understanding of the many intercultural dimensions present in the way each student navigated the pandemic both domestically and abroad. The CORONAcredits module prompts (Appendix A) engaged students in exploration of their personal and cohort experiences within the greater context of how different cultures handled the worldwide pandemic.

### *Interdisciplinary Collaboration in Module Design, Delivery, and Assessment*

Given that these CORONAcredits modules were uniquely situated as both "during" and "post-study abroad," and considering the students' unique developmental situations, the modules needed to present new material to the students, as well as engage them in reflection on their time abroad. Thus, the modules on problem solving and cultural impacts in decision making introduced students to new material to outline the framework to guide their reflections about different cultural dimensions, including Hall (1963) and Hofstede (2001). Additionally, the modules presented theories that have been created to identify the interactions between people with different cultural identities to describe the conflicts between different identities, as well as how to best communicate with people of different identities, including social identity theory (Tajfel and Turner, 1979), intergroup threat theory (Stephan et al., 2009), and cultural contracts theory (Jackson, 2002).

In addition to the presentation of new materials, the pedagogical design of the modules also sought to engage students in reflection on their own personal experiences in handling intercultural ambiguity and obstacles presented to them in the context of a global

pandemic beyond their control. The modules had the explicit goal of deepening students' understanding of global, economic, environmental, and societal contexts that impacted how they navigated the pandemic. Finally, the modules were designed to help students demonstrate their understanding of the cultural factors undergirding their personal experiences of navigating the global pandemic in various cultural contexts, both home and abroad.

Module assignments were delivered in English through the university's learning management system. All discussions took place in English, as it is the lingua franca across all student experiences. The discussions were moderated and reviewed by the IGP team, which included study abroad personnel and faculty. In addition to the discussion portions, students submitted a final reflection based on the module materials and discussions. Two of the assignments (module 2 on interdisciplinary approaches to problem solving and module 4 on the comparison of historical pandemics) were submitted in the target language studied by the student and reviewed by language faculty for content and language use.

## Methods for Examining the Effectiveness of CORONAcredits

All students evacuated during the COVID-19 pandemic and returned home from their abbreviated study abroad experiences successfully completed the CORONAcredits modules. In addition, all students successfully completed the required 540 hours of engineering and language and cultural immersion. The following sections report on the researchers' evaluation of the effectiveness of the CORONAcredits in both delivering new materials, as well as providing post-study abroad opportunities to students to reflect on their abbreviated time abroad.

### *Data Collection*

Of the thirty-one IGP students abroad, six were engineering undergraduate students, all of whom were selected to participate in this study because they were the only engineering majors abroad with IGP during the COVID evacuations. These students were all in their fourth year of their undergraduate studies and were abroad at different locations. The students were recalled to the U.S. in February and March 2020 and at various points of completion of the fieldwork experience abroad when evacuated, requiring alternative ways for them to complete their fieldwork back home (see Table 1).

For this participant group, two data sources were collected. First, as part of the CORONAcredits course, students were asked to submit written discussion board posts and written or oral reflection assignments under the four modules listed above. For this research, we used modules 1-3, given that the 4th module (comparison of historical

pandemics) did not offer enough data regarding the participants' development of their intercultural competence skills. In total, our analysis included 29 total submissions, consisting of 5 written submissions per student, as module 1 only required a reflection submission, while modules 2 and 3 required both discussion and reflection submissions. One student did not complete the reflection submission for module 2. Each submission varied in length, generally averaging to 700 words per submission (see Appendix A).

*Table 1. Students' Major, Location Abroad, and Fieldwork Hours Completed Abroad*

| **Student** | **Major** | **Location Abroad** | **Fieldwork Hours Completed when Evacuated** |
|---|---|---|---|
| Student 22 | Mechanical Engineering | Japan | 390 |
| Student 31 | Civil Engineering | Spain | 155 |
| Student 38 | Civil Engineering | Spain | 0 |
| Student 41 | Mechanical Engineering | Spain | 65 |
| Student 49 | Mechanical Engineering | Japan | 88 |
| Student 50 | Computer Science | Germany | 140 |

The second data source came from a focus group that was conducted with the six participants in March 2021, one year after their evacuation date and 11 months after the completion of the CORONAcredits modules. The one-hour focus group had the overarching goal of engaging students in examining the ways that the CORONAcredits modules guided them in reflection on, and communication of, the intercultural competence they developed during their shortened time abroad, as well as examining the opportunities afforded to the students to be introduced to new materials and reflect on their time abroad in ways that they may have overlooked had they remained abroad and completed their fieldwork experiences there.

Three questions were asked of each participant:

1. How did the CORONAcredits help you develop your intercultural competence in a way that would have been similar to your direct fieldwork experience?

2. In what ways do you feel your intercultural development was hampered by not having the complete fieldwork experience abroad?
3. What specific ideas, skills, or reflections did you take from the CORONAcredits modules that you might have missed had you only had the fieldwork experience abroad?

Each question was asked individually to the six participants, followed by the opportunity to provide additional information based on other participants' responses after all original thoughts were shared.

The selection of these two data sources was based on several factors. The written submissions were required student assignments. This method ensured consistency in the students' reflections based on standard prompts, a standard delivery method, and set expectations including length and formatting per submission. Using already required materials minimized the burden on students to complete additional work to participate in this present study. The focus group was then selected to provide variety juxtaposed against the individual asynchronous submissions, as well as gauge the participants' perceptions of the effectiveness of the CORONAcredits intervention. The focus group was conducted live and synchronously, in a group setting, and used spoken rather than written contributions. The timing for the focus group was scheduled one year after students were recalled to allow time for non-guided personal reflection and growth in between part one and part two of the study, and to encourage student participation by spacing it from the required CORONAcredits assignments. The focus group session was recorded.

The design of the module discussion and assignments lent itself well to a deductive coding framework because the modules were specifically and explicitly intended to engage students in reflection on their intercultural development. The modules thus provided a robust data source to examine participants' intercultural development through the lens of the themes of the Global Perspectives Inventory (GPI), as outlined in the following section on data analysis. Alternatively, the focus group was strategically left inductive to see if different themes presented themselves when the group was in live discussion with one another and after time had passed since being actively engaged abroad, as well as to discern any themes that arose concerning participants' perceptions as to the effectiveness of the CORONAcredits intervention.

### *Data Analysis*

Data from the CORONAcredits discussions and modules were analyzed using directed content analysis, as described by Hsieh & Shannon (2005). Content analysis has been used to examine students' cognitive reflections on their study abroad learning experiences

during the pre-, during, and post-study abroad times (see for example Roberts et al., 2013; Savicki & Price, 2017). The benefits of this approach include the ability to base the analysis on existing theory, which grounds the research in prior knowledge. Our approach was to first define the coding categories, code a test sample using these categories, review results and establish intercoder reliability, and complete coding of the remainder of the submissions. The intercoder agreement process is outlined in more detail in the following section.

The qualitative module discussions and assignments data were subjected to "prefigured" coding (Creswell, 2013) in that the data were analyzed using the two dimensions and the six existing scales (see Figure 2) from the Global Perspectives Inventory (GPI), outlined in detail in the next paragraph, that relate to the theoretical foundations of *Cultural Development* and *Intercultural Communication* (Research Institute for Studies in Education, 2017). Although primarily used in the health sciences, the use of "prefigured" categories is often linked to a theoretical model or the literature (Cresswell, 2013). In this case, given that the modules were developed with the aim of engaging students in personal reflections on their own intercultural development, the decision was made to use the dimensions and scales already established and used in the GPI instrument. Additionally, the GPI scales were used because the GPI survey is administered to all IGP students and thus provided a ready-made framework for analysis of the module discussions. It is important to note here that, although all students completed the GPI, survey results are not presented in this study because IRB approval was not granted for all IGP students. We decided that to pursue IRB approval to analyze data and include all IGP students in the focus group would have proved too time consuming. Therefore, given that the survey results of only the participants in the present study would have presented too small a sample size to utilize any quantitative data, we made the decision to present the qualitative data of the module discussions and focus group without presenting quantitative results of the GPI survey.

The GPI scales (Figure 2) are used to express how people think, feel, and relate during their cultural development. There are two principal dimensions described by the GPI: cultural development and intercultural communication, each with a cognitive (thinking), intrapersonal (feeling) and interpersonal (relating) developmental domain. Under cultural development, the three scales of the three interrelated domains of thinking, feeling, and relating are: complexity of thinking, self-acceptance and purpose, and interdependence and social concern. Under intercultural communication, the three scales of thinking, feeling, and relating are: knowledge of multicultural issues, respect and acceptance of cultural difference, and engaging with difference and cultural sensitivity. The module discussions and assignment data sources were coded using these six scales (see Appendix B).

The focus group, on the other hand, was subjected to open thematic coding to triangulate and "document a code or theme in different sources of data" (Creswell, 2013, p. 251). The thematically coded data from the focus groups was then used as validity evidence for the coded data from the module discussions and assignments.

| Theory | Cognitive Scales | Intrapersonal Scales | Interpersonal Scales |
|---|---|---|---|
| Cultural development | *Knowing:* complexity of thinking | *Identity:* self-acceptance and purpose | *Social Responsibility:* interdependence and social concern |
| Intercultural communication | *Knowledge:* knowledge of multicultural issues | *Affect:* respect and acceptance of cultural difference | *Social Interactions:* engaging with difference and cultural sensitivity |

*Figure 2. The two dimensions and six scales of the GPI (Research Institute for Studies in Education, 2017)*

### *Intercoder Agreement*

Data analysis began with content analysis coding of the first data set of student discussion and module submissions. All three authors were involved in all aspects of this research, including the coding of the module discussions and reflections. To determine intercoder reliability, the researchers did not develop a code book due to the use of “prefigured” codes from GPI. Therefore, intercoder reliability focused on intercoder agreement. The researchers each independently coded several discussion and module assignments. We then met to discuss the codes assigned to different passages from a discussion or module assignment from each of the three coded modules, arriving at consensus as to what the proper code for a passage was. We then calculated the percentage of agreement among the researchers on the sample passages coded, establishing an 80% agreement of coding of the passages, meeting the minimum agreement threshold as set out by Miles and Huberman (1994). In this way, we agreed that each researcher assigned the same code to a given passage. We did not, however, code the same passages, nor did we all highlight the same exact lines in our coded passages, both being ideals difficult to achieve (Creswell, 2013).

### *Focus Group Calibration*

Immediately upon completion of the focus group, we met for a debrief session to document findings. We each presented the themes we identified from the focus group conversation that we had documented in our notes. At that point, we calibrated the main

themes that arose from the focus group and highlighted supporting quotes for each theme. The final step was to retrieve the focus group recording transcript and confirm the quotes, which was completed the subsequent day. No additional analysis was done on the transcript.

## Results

The purpose of coding the online discussions and assignments and focus group was to explore students' intercultural development and examine the effectiveness of the CORONAcredits modules design. We were curious to see if any of the modules was more effective than the others in guiding student reflection. In addition, we wanted to explore the ways in which the CORONAcredits modules may have presented new information to the students that they might have otherwise missed had they completed their whole fieldwork abroad. In this section we present first some coded excerpts from student discussions and module assignments. We then highlight findings from the focus group to triangulate the discussion and module assignment results for assessment of the students' intercultural competence.

### *Module Discussion and Assignment Coded Comments*

Our findings demonstrate that all six scales were present in the student discussion and module assignments submitted during the CORONAcredits. There were no significant patterns in how the dimensions were displayed either by submission type or by student, but both were present in student reflections. Additionally, all modules and all discussion assignments displayed a range of all themes. Below we provide quotes that are representative of the students' intercultural competence development as categorized by the two GPI theoretical perspectives of cultural development and intercultural communication.

***The Cultural Development Dimension.*** On the cognitive scale, the code *complexity of thinking* identifies the importance of cultural understanding in critical thinking. The following quotes illustrate how students displayed a deep sense of complexity of thinking:

> "Because the coronavirus is a global crisis, we have to learn to navigate the different expectations of multiple cultures." - Student 50

> "The best thing everyone can do is analyze the most effective methods and adapt them for all other countries." - Student 50

However, not all excerpted quotes from students showed depth in their sense of complexity. This appeared when students were not able to view the situation holistically,

i.e., considering the public health impact of the virus and the challenge of creating and deploying policy at all levels, including university, government, and private sector groups. Some quotes, like the following, demonstrated how students at times demonstrated a lack of sense of complexity on the cognitive scale and reacted affectively in ways that cannot be captured within the GPI codes:

> "I was just forced to come home out of nowhere, so I didn't really have any decision-making to do." - Student 38

> "I do not think there was a method that I used to decide to come home to me and felt more like blackmail." - Student 41

*Self-acceptance and purpose* refer to how students see their identity in regards to cultural development. Many examples emerged from this code, as students reflected on their personal experiences, as highlighted by the following relevant quotes:

> “And it's my personal opinion that in these difficult times you have to have your moment of anger and disbelief, but you can't stay there.” - Student 49

> “So I suppose the crisis put me in a fight or flight mode, and as a result I became more capable of communicating in the language simply through abandoning a timid mindset.” - Student 22

On the interpersonal scale, the code *interdependence and social concern* displays feelings around social responsibility that students expressed in their concern for citizens around the world as a result of the pandemic, which is shown in the following quotes:

> “It is important to have a universal mindset of ‘we all need to shut down, we all need to do our part to contain this thing.’” - Student 38

> “Being away all this time and experiencing the world and being more aware of the world makes school seem unimportant. I find myself feeling the problems around the world more deeply than my family does and to be honest it is hard to stay positive.” - Student 31

The response of Student 31 is complex and may demonstrate the student’s lamenting of their circumstances during the pandemic in comparison to that of their family, perhaps overestimating their personal impact versus that of others. Regardless of the possibly judgmental tone from the student, we interpreted the student’s response in that it demonstrates the social awareness that is a precondition of social concern vis-à-vis

expressing concern for others by noting that they are more aware of others' contexts and working to stay positive in the face of concern.

On the other hand, some students struggled with demonstrating *interdependence and social concern*, displaying instead selfishness and dismissiveness of the impact of the virus on others:

> "Why bring students home that are in a far healthier environment, just to have them sit at home and take online courses?" - Student 22

> "The [host] government also didn't say much about it all, except wash your hands more. Which I thought was very interesting, but I quickly fell into the category of not being very worried." - Student 49

***The Intercultural Communication Dimension.*** On the cognitive scale, the code *knowledge of multicultural issues* emerged in student responses as disapproval of the U.S. government's response to the pandemic. Supporting quotes are:

> "I think the US was a bit selfish with their decisions as it was more so about continuing to make money from all the businesses and not necessarily the public health concern in comparison to other countries." - Student 38

> "I don't think that America really handled this well and is still not handling things well, despite their minimal efforts." - Student 49

Although these quotes would seem, at first sight, to demonstrate an ethnocentric view of the U.S., upon further reflection these quotes show a depth of understanding of multicultural issues given that they juxtapose US and host culture responses to the pandemic. In this sense, these quotes demonstrate a deepened understanding of multicultural issues as students began to reflect on the intersection of culture and pandemic response, drawing upon their firsthand experiences abroad during the early days of the pandemic to later analyze the US response to the pandemic.

On the intrapersonal scale, the code *respect and acceptance of cultural difference* revealed two main results. The first is awareness of social and cultural differences and the impact to problem solving and social engagement, highlighted in the following quotes:

> "As humans our diversity makes us stronger so I recognize that there won't always be a best way or single way to solve a problem and being [an] interdisciplinary student I find it hard to draw lines for different fields and having only experience

> within engineering I would not feel comfortable dividing and categorizing methods in any way." - Student 31

> "Speaking another language really broadens your mindset and makes you realize how important any other culture is." - Student 38

The second response is an acceptance of humanity and how societies share much in common:

> "After being around the world, categorizing is something I hate to do because as people we have relationships and common ground with nearly everything and everyone around us." - Student 31

On the interpersonal scale, the code *engaging with difference and cultural sensitivity* presented results which show that students were beginning to acclimate with their host community before being removed from the country. One student mentions this as:

> "I was used to life over there and felt like I had finally been seeing the rewards of all my hard work in the previous months." - Student 38

Other students highlighted the importance of active observation combined with establishing new local relationships:

> "Also, being around the different social groups and being able to shop and contrast the differences in social behavior was helpful as well. Seeing how people act when talking to teachers versus store and restaurant managers gave more information and ability to ask questions about other peoples' normal reaction as it differs." - Student 31

Finally, students talked about positive intercultural interactions and lessons learned from those for future interactions with diverse groups:

> "Before leaving I was able to say goodbye to one of my mentors, notify my landlord about leaving, have dinner with the friends that lived within walking distance of me and spend some quality time with my roommates." - Student 31

> "I try to be a positive leader by helping others and being understanding. There [were] different situations along with adjusting how I approach people because conversations can be very intimidating to the different cultures." - Student 41

### *Focus Group Results*

The focus group took place 11 months after the students were called back from abroad due to travel restrictions. They were thus able to look back on not only their time abroad and their at-times harrowing journeys of return, but also "reflect on their reflections" about their COVID experiences. Thus, the focus group allowed students the opportunity to examine their ongoing intercultural journey and continue to make long-term meaning of their lived experiences (Mnouer, 2018), as well as provide insights into the ways in which the CORONAcredits aided them in reflections on their abbreviated fieldwork and intercultural development.

The six principal themes that arose from the focus group highlighted: 1. *students' resentment at having their fieldwork experiences cut short,* 2. *their recognition of and appreciation for the flexibility of approaches to completing their required fieldwork hours*, 3. the *acknowledgement of the opportunity for deeper reflection on their experiences abroad and during reentry*, 4. the *value they found in the new materials presented during CORONAcredits*, 5. the *ability to analyze engineering problems from diverse cultural lenses*, and 6. *students' focus on how they can use their experiences abroad during COVID times to their future career benefits*.

Students' reactions to the *abbreviated fieldwork experience* contained both reflections on what they missed by coming back early from abroad, as well as thankfulness for the flexibility in completing their required fieldwork hours. To begin, the following quotes show how, even 11 months later, students felt *resentment at having their fieldwork experiences abroad cut short*. The quotes below demonstrate how, despite the personal growth experienced during the modified experience, several students remained negative about some aspects of their unexpected return.

> "Doing the CORONAcredits was like pouring salt on an open wound." - Student 41
>
> "[I was] doing research from the computer in my bed versus being in a lab." - Student 38
>
> "I noticed those [linguistic] registers and sticking them in the proper situations, but it goes away when those situations disappeared, just when I got it." - Student 22
>
> "I wanted to be an engineer and be around other engineers." - Student 31

> "My language would be so much better from the random learning that you can't schedule and you can't really look up; it just kind of comes to you as you're in that environment." - Student 31

On the other hand, the following quotes demonstrate how students *recognized and appreciated the importance of the flexible and interdisciplinary approach to completing their engineering fieldwork*, even if they still communicated regret for the shortened experience:

> "The network connections that we were able to make because I was having kind of a difficult time with my research, I had to rely on the connections that I had made in my host country more than my own country." - Student 49

> "And what I can say is that the flexibility of how we allow some of those credits to come over, a lot of my work that I was doing in my country was through simulation for computer, so I used a lot of it when I came home." - Student 22

While Student 49 appreciated the international network connections and their impact on continued at-home research, Student 22 appreciated the flexibility of continuing the modeling project at home that was started abroad. Student 22's appreciation stems from seeing the overall value in a fieldwork that is designed to be location flexible and easily adaptable to remote work. Nevertheless, given that neither quote explicitly mentions the interdisciplinary nature of connections, both students may have only been referencing their engineering connections. We therefore acknowledge that these quotes may merely reflect the students' awareness of the flexible international, and not necessarily interdisciplinary, framework built on different network connections provided for completing engineering fieldwork.

Some students presented conflicting responses demonstrating the underlying emotional complexity in this situation. The example below shows one student who was expressing both *regret about lost opportunities* and *appreciation* of being able to complete their fieldwork project back home in the same chain of thought:

> "While abroad I would have had other opportunities like going to lunch with other people, but at least for the engineering side of things, it [CORONAcredit fieldwork completion] was much more accurate to what I had been experiencing, I think." - Student 22

In addition, the following quotes demonstrate how students *acknowledged the opportunity for deeper reflection on their experiences abroad, during reentry, and after return* from participating in the CORONAcredits discussions and assignments:

> "Reading everyone else's experience from all over the world to it [COVID-19] was a very different intercultural competence development than I think would have had if I'd been there [abroad], and had the fieldwork experience the whole time." - Student 38

> "As everyone else has been saying before, it's more like a reflection, but it's also really nice to hear what everyone else is experiencing, in comparison to what I may have experienced while abroad" - Student 41

> "I truly feel that the reflection that came from it [CORONAcredits] was incredibly valuable." - Student 49

> "For example, it has been said before, in America it's kind of like it's everyone for themselves, but with different cultures it's everyone takes care of each other. It's more of just you've got to force yourself to get out there and ask the foreigner questions because that's only something you can learn within that specific context." - Student 41

While the first three quotes show an appreciation of sharing their experiences with a group of peers and mentors, the last quote demonstrates a deeper level of knowledge and openness to other cultures' perspectives.

In addition, the students expressed the *value they found in the new materials presented during CORONAcredits* in the following quotes:

> "You have relatives talking about it [COVID-19], your friends talking about it, you understand kind of what's going on, but I don't think I would have taken the time to really research it, as opposed to, like, what has happened before, what continues to happen, what has changed." - Student 50

> "I think it's definitely our own personal research, along with the discussions, because I only had the views obviously of my own host country, but then we saw how all the different governments, and the presidents, acted around the world. It was incredibly educational to be like, oh, these are some things that are working, maybe there are some things that are not working." - Student 49

> "I think if I hadn't been asked to sit down and analyze the state of that country and its people that I would not have really had that epiphany." - Student 50

Further, the following quotes highlight how students deepened their reflections on the cultural parameters in which engineering practice takes place, and communicated their ability to *analyze engineering problems and experiences through diverse global and cultural lenses*:

> "They [CORONAcredits] allowed me to create those comparisons in my head with different engineering things that I had experienced. I was in traffic [completing fieldwork on analysis of vehicular movement patterns in the roundabout at the main university entrance] specifically and that's something you can look at directly anywhere in the world, so I think it [cross-cultural reflection] really developed." - Student 31

> "And even though America makes all the traffic rules [based on student's domestic studies of vehicular movement patterns in roundabout], how they implement them is very different so being able to see that and build my own competence within my subject major within the language that we're speaking I think was really valuable." - Student 31

Finally, these quotes show how students have focused on *how they can use their experiences abroad during COVID times to benefit their future career:*

> "We had a module or some type of prompt that included how we would use what happened during COVID in a professional setting or how it boosts us in this way, or what skills and things that we acquired because of what we had to go through. I'm really career focused and that was something that really got the wheels turning in my head." - Student 31

> "I play the 'I was in a foreign country during COVID' card when I've been personally applying for grad school, and I do believe that being able to mention on applications that 'hey I was in that country during COVID' helps." - Student 22

## Discussion and Implications for Program Design

In this section we present the three main findings regarding the effectiveness of the intervention: 1. the flexibility and interdisciplinary design of the CORONAcredits were instrumental in aiding students in completing their fieldwork experiences, 2. the modules aided in guiding students in deepening their reflections on their intercultural

competence, and 3. the modules on interdisciplinary approaches to problem solving and cultural impacts in decision making were more effective at presenting new materials and engaging students in intercultural reflections, while the first module on retelling the reentry process may have had a cathartic effect in helping the returnees cope with the sudden disruption of their immersion abroad.

### *Flexibility and Interdisciplinarity in the CORONAcredits Design*

All students completed their required 540 hours of fieldwork, although for some this meant putting together a patchwork of various hours working with faculty focused on both language and culture, as well as engineering. Rather than representing a watered-down experience, however, the success rate underscores that interdisciplinary and cross-institutional collaboration was a strength of the CORONAcredits. Several students, especially those in the focus group, highlighted how the flexibility not only aided them in completing their fieldwork, but also guided them to some insights that they might not have gained otherwise. Students were appreciative of the flexibility of the CORONAcredits in that they emphasized the importance of study abroad as an individual intercultural journey (Mnouer, 2018), recognizing that all students need to walk their own path of intercultural development and professional development. Several students were even able to spin this path into a strength to highlight during job interviews and future career paths by playing the "I was in a foreign country during COVID card."

In addition to the added flexibility, students highlighted how the interdisciplinary design helped them recognize certain cultural considerations in leadership and decision making that they might have missed through completion of only the engineering portion of their fieldwork. This finding was more prominent in the focus group, while only minimal evidence of such reflection emerged in the CORONAcredits module discussions and assignments. This result is likely due to the fact that the modules were designed with more concentration on engaging students in reflection on their intercultural development during their time abroad, which is highlighted in the next section. Completion of the engineering fieldwork components was more successful than linguistic and cultural development because of the truncated immersion. One recommendation arising from this finding is that module design could more explicitly seek to engage students in reflections on engineering considerations, rather than more generally dealing with intercultural competence in order to more closely meet learning objective 1. of *intercultural and host language-immersed interactions in a professional engineering context*, and 2. *practice of engineering technical skills with consideration of global and cultural factors*. In addition, the CORONAcredits could have been more explicit in their efforts to "boost professional experience" and engage students in how to handle oneself in a professional setting, and gain exposure and applied knowledge that might increase the students' marketability (Ingraham & Peterson, 2004). Findings thus highlight how

CORONAcredits aided in building community and reflection, and were a successful mechanism to aid students in completion of their disrupted direct fieldwork abroad and required academic credits. It is worth noting, however, that the students also expressed at times considerable regret over the loss of their immersive experiences abroad, both in terms of social and linguistic interactions and professional development. We therefore recognize that CORONAcredits should be considered first and foremost an emergency remedy, rather than a direct replacement of, immersive linguistic, cultural, and professional fieldwork abroad.

Nevertheless, the CORONAcredits fieldwork modification design could provide a model if another international emergency arises that necessitates immediate and unplanned evacuation and pedagogical intervention to replace or supplement fieldwork opportunities that can no longer be provided abroad. The flexible interdisciplinary and cross-institutional design proved key in not only aiding students in completion of their fieldwork, but in mitigating the workload for the study abroad faculty and staff engaged in guiding students in their fieldwork.

### *Guiding Students' Intercultural Reflections*

The CORONAcredits offered opportunities for student reflection on not only their own experiences abroad and during reentry, but also provided a medium for engaging students in analysis of different materials from multiple cultural viewpoints, meeting learning objective 3 of exploring the diversity of lived experiences across cultures. The focus group clearly highlighted how the students viewed the CORONAcredits as a means to reflect on their intercultural development that they may have otherwise missed. The modules engaged students in reflections of cross-cultural differences that they might have missed by only reliving or retelling their own experiences abroad.

The focus group results also highlighted how participating in the CORONAcredits modules led students to some conclusions that they may not have reached had they been left to complete their fieldwork in their host countries. This was most prominent in Module 2, *Interdisciplinary approaches to problem solving*, and Module 3, *The role culture plays in decision making*, in which students were explicitly prompted to compare and contrast the role of leadership and culture in decision making, specific to the early response to COVID across the globe. The students in the focus group were clear in their discussion of how the intercultural interactions during the CORONAcredits discussions led them to at times expand their reflections beyond the U.S. and host international cultures. Hence, students' intercultural competence may have developed in unique and unforeseen multicultural ways through the CORONAcredits module interactions.

In addition, our findings show that students were engaged in both GPI dimensions of the theoretical foundations of cultural development and intercultural communication across all six scales for both module discussions and assignments, and focus groups. Students' reflections highlighted an intentional shift from distraught to acceptance and the development of skills through the process. This was mirrored in the focus group discussion where initial reactions to the CORONAcredits were like "pouring salt on an open wound." Students' reaction to this "forced return" reflected the often-mixed emotions of the period of return home and reentry that included excitement to be home mixed with sadness about leaving behind their host culture (Roberts et al., 2013). The students spoke of their sadness for leaving the host culture and communicated little excitement about the "forced return" home, referring more often to the laborious and extended process of returning home and quarantining. Nevertheless, over time, during the CORONAcredits discussions and assignments they displayed a shift towards acceptance. This finding of the importance for students to air grievances about their experiences abroad together with their peers, as well as being able to revisit those grievances and reflect on them anew after an extended period of time highlights how students continue on their intercultural journey even after an extended period of time back in the home culture (Mnouer, 2018). However, it is unclear whether this finding was a result of the CORONAcredits intervention or the simple passing of time between the evacuation from abroad and the focus group almost a year later. We acknowledge that this softening of grievances may have been more the result of distance and time than the specific CORONAcredits intervention.

### *Incorporating New Materials into Module Design*

Overall, the CORONAcredits successfully scaffolded deeper intellectual exploration of students' intercultural experiences through sharing of lived experiences during the reentry phase (Jackson, 2015). However, not all modules resulted in the same levels of student reflection. The first module that engaged students in retelling their experiences of return from abroad was more of an opportunity for students to vent and air their complaints at dealing with obstacles beyond their control. Many entries from Module 1 exhibited an underdeveloped sense of self-acceptance and purpose. Interestingly, this may have proved more cathartic as the evidence of intercultural reflections deepened in later module discussions and assignments. We consider that this may have been important as opportunities for reflections may be hampered when students are still in a phase of resentment or forced reentry. We are curious if the same might be true for students who are not forced to cut short their experiences abroad; we wonder if students might have to pass through the "honeymoon" phase of just reporting how great their experiences were abroad before they can truly reflect on those experiences (Kortegast & Boisfontaine, 2015), much the same way that students had to pass through their "resentment" phase before they could move on to their reflections.

In reflecting on the CORONAcredits module design for future programmatic design, we highlight the importance of providing students the frameworks with which to analyze a single event from multiple cultural perspectives, as students analyzed COVID-19 responses from interdisciplinary decision making and different cultural lenses. In this particular case it was the impact of COVID-19, but it could be other phenomena. Although it may prove difficult to find another event with the global impact of COVID-19 that would allow reflection from virtually every cultural consideration, the key consideration could seem to be reflecting on cultural and leadership decisions in dealing with any major phenomena affecting the year-abroad experience. Thus, though they may be different, we will likely see future global disruptions that require using the CORONAcredits modules to reflect on cultural and leadership decisions as events of those disruptions play out. Also of interest was the number of mentions by students on their comparative reflections to insights or conclusions from others who had not had experiences abroad (e.g., friends and family members). Overall, both the coded data from discussions and assignments and the focus group revealed that modules 2 and 3 on interdisciplinary approaches to problem solving, and cultural impacts in decision making resulted in more effective ways of engaging students in intercultural reflections. We conclude that the modules' effectiveness is most productive when students are provided with new frameworks from which to reflect on cultural differences. Future modules should therefore be rooted in the presentation of new frameworks of analysis, as well as engaging students in discussions of cultural differences in responses to global disruptions.

## Limitations

We highlight here some limitations to the CORONAcredits design. The first is that the CORONAcredits modules were developed retroactively as a response to students' abbreviated opportunity to complete immersive fieldwork experiences abroad. The urgent need to develop and deliver the models meant limited time devoted to research strategy. Further, this expedited need minimized the ability to effectively use other tools that are often used in assessing students' intercultural competence. Future efforts to deliver emergency CORONAcredits type modules could use data (e.g., GPI pre- and post-departure or immediate reentry surveys) to complete a needs analysis to better gauge and understand students' needs when designing modules. Additionally, given the finding that having students revisit the forced evacuation led to feelings of "pouring salt in the wound," we find that we could have done a better job of first highlighting successes (e.g., have students share photos to remember "good times") and hopefully minimize the time spent lamenting their truncated time abroad, even if this may have proved cathartic in the long run. Further, although we could have more deeply explored the specificity of engineering cultural learning abroad, as compared to other non-engineering students, to

do so would have turned this paper into a new one and must therefore remain outside the scope of this paper. We hope to focus on comparing engineering student learning abroad with that of non-engineering students abroad in future IGP cohorts, but that will have to wait for another day.

Finally, it should be noted that the CORONAcredits were not able to replicate the host language-immersed interactions in a professional engineering context. In addition, the practice of engineering technical skills with consideration of global and cultural factors may have been underdeveloped. Although the CORONAcredits intervention helped all students complete the required 540 fieldwork hours, as described in the above section on the flexible and interdisciplinary design, the 270-hour engineering and 270-hour language and culture split may have led to a bifurcated approach often found in engineering education where the engineers provide the engineering education and the language faculty provide the intercultural and linguistic explorations. Thus, the CORONAcredits model satisfied the parameters of the truncated and not fully immersive fieldwork that arose out of the pandemic. However, a more collaborative effort incorporating all faculty in the design of intercultural modules to include more prompts specific to engineering problem solving remains a long-term goal.

## Conclusion

The CORONAcredits created the net into which students fell when their time abroad was cut short. This safety net provided a flexibility of interdisciplinary fieldwork modifications that ensured that all students completed their required fieldwork hours. The CORONAcredits underscore the importance of having a "break in case of emergency" plan that can be employed in unforeseen circumstances that may arise in the post-pandemic world. The key components of this navigation plan should account for flexibility for students to complete their curricular progression plans, be interdisciplinary and cross-institutional by design, and allow for students to reflect on their intercultural development as it occurred while abroad, as well as how it shifted upon the emergency recall. In addition, those in charge of pre-, during, and post-study abroad curricula may wish to reserve some modules that provide new contexts in which students can reflect on their intercultural competence and that can be presented quickly in unforeseen circumstances when study abroad is interrupted, and thus engage students in new materials that they might not otherwise receive during their intercultural journey.

COVID-19 has demonstrated to the world that major global disruptions can happen and will continue to happen into the future. Educators have the responsibility to keep students safe and on track. Strength is found in the interdisciplinary and cross-institutional

intersections, building a network of support for student learning that can be activated at a time when studying abroad is no longer a viable option.

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## Appendix A:
## Discussion and Assignment Prompts from CORONAcredits Modules

### Module 1 - Reflections on where you are now

Write a ~ 500-word reflection in the target language (Mod. Lang majors) or in English (Comparative Culture Studies majors studying Japanese or Chinese) of where you are now (physically and metaphorically) based on how you have negotiated and handled your own coronavirus path.

### Module 2 - Interdisciplinary approaches to problem solving

*Discussion Topic*: How do you feel about the problem-solving approaches that were used by governments or universities in dealing with COVID-19, both in your host country and in the US? Has there been effective problem solving or not in the different countries? What leadership approaches did your host country take in responding to COVID-19? What fields had the main leadership roles in disseminating information (e.g., public health, government/politics, economics, law enforcement) and how was/was not interdisciplinary thinking expressed in responses? Incorporate the theories from the module.

*Presentations Prompt*: What problem-solving methods have you had the most experience within your fields of study? Have you found some methods to be more effective for you than others? Have you integrated the approaches of other fields in your problem-solving methods? What was the most significant problem you had to solve or decision you had to make regarding COVID-19 and what methods did you use to find a solution? How did the leadership approaches and decision-making strategies in both your home and host country impact your own decision making? Did you incorporate the IGP competencies of interdisciplinary thinking and positive leadership? If so, how?

### Module 3: The Role Culture Plays in Decision Making

*Discussion Topic*: You are in a job interview, and you are asked the question, “Describe a time when you needed to work across cultures to problem solve during a crisis situation.” Please prepare your reply to this question using your evacuation experience abroad due to the coronavirus pandemic. How did you navigate closing out your time abroad with your host institution, your mentor, and any government authorities? Did you employ the communication and cultural dimensions of the host culture (consciously or unconsciously) to be successful in your closeout process? In what language were you operating and how did this impact your problem-solving style? Finally, how will the

lessons you have learned be of value to your future workplace? Consider the competencies of intercultural competence and multilingual capability in your response.

*Written Reflection Prompt*: How did your sojourn experience help you identify the cultural identity theories and cultural frames of reference of your host country? Looking back, were you successful in navigating the close out of your sojourn experience during a crisis situation? Finally, in what ways are the competencies of intercultural competence and multilingual capability important when navigating a global crisis?

**Module 4: Communities and Global Pandemics: Historically and Today**

*Discussion*: We are living through a significant moment in history, a global pandemic. We are isolating ourselves socially to prevent the spread of COVID-19, yet we rely on our community now more than ever to both offer and receive social support. Compare the coronavirus to a historic epidemic or pandemic. How is/was the disease spread among community members? How are/were community networks a part of the solution? Finally, has your own international network shaped the way you view this pandemic and our social responses to it? If so, how?

*Prompt*: Consider your interview of a local community member from LAN 499 and the map you made of your network abroad. Who was your most important local contact abroad (can be a person or group and can be different from the person you interviewed in LAN 499)? Prepare a 'thank you' presentation for this person/group. Why are you grateful to them? How has your international community network shifted because of the pandemic? What has the coronavirus pandemic taught you about your relationships with your network abroad?

# Appendix B:
# Themes and Codes from the Global Perspectives Inventory (Research Institute for Studies in Education, 2017).

| | | **Theoretical Perspective** | Cultural Development | | | Intercultural Communication | | |
|---|---|---|---|---|---|---|---|---|
| | | **GPI Domain** | thinking | feeling | relating | thinking | feeling | relating |
| | | **GPI Scale** | knowing | self | responsibility | knowledge | others | interactions |
| **Student** | **Module** | **Code**<br>**Quote** | complexity of thinking | self-acceptance and purpose | inter-dependence and social concern | knowledge of multi-cultural issues | respect and acceptance of cultural difference | engaging with difference and cultural sensitivity |
| 22 | 1 | I still to this day believe the actions taken are in opposition to what would be considered 'my best interest' and protocol was blindly follow | Coder 1<br>Coder 2<br>Coder 3<br>Final Code | | | | | |
| 22 | 1 | Why bring students home that are in a far healthier environment, just to have them sit at home with online courses | Coder 1 | | Coder 2<br>Coder 3<br>Final Code | | | |
| 41 | 1 | With my current experience and knowledge, I know that I would not be able to create a poster for the final project of IGP but I hope to somehow gather enough information to create one. | Coder 1<br>Coder 3 | Coder 2<br>Final Code | | | | |
| 22 | 2<br>Discussion | I have had problems with our president in the past, and the decisions his administration made in regard to these events added to those problems. | Coder 2 | | | Coder 1<br>Coder 3<br>Final code | | |
| 38 | 3<br>Reflection | Speaking another language really broadens your mindset and makes you realize how important any other culture is. | Coder 2 | | | | Coder 1<br>Coder 3<br>Final Code | |
| 49 | 3<br>Reflection | You can read about them but getting the full impact of these dimensions is another thing altogether. | | | | | | Coder 1<br>Coder 2<br>Coder 3<br>Final Code |