Transformational Learning Through Shifting Global Perspectives: The Impact of COVID-19 on a Global Classroom in the U.S. and Liberia

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ABSTRACT

The Global Classroom Model (GCM) is a project-based, cross-cultural, and virtual course conducted in partnership between institutions of higher education. Instructors at the University of Maryland (UMD) and the Liberia International Christian College (LICC) co-developed and co-instructed a novel and innovative *Global Agriculture* iteration of the Global Classroom (GC) course and collected data from students (n= 46) and stakeholders (n=18) through 2019, 2020, and 2021. This research used mixed-method pre/post interviews to address changes in attitudes, aspirations, and perceptions, and to better understand student experiences in global education. Students reported an increase in technical skills, "global perspective," and feelings of "empowerment" through being able to work internationally on community-driven activities. This longitudinal study illuminates the impact of COVID-19 on a unique global learning experience, and highlights the broader opportunities and challenges found in designing truly collaborative global learning while also providing insights for practical implementation.

Keywords: global classroom, experiential learning, agriculture, higher education, COVID-19

INTRODUCTION

Global education is transcending borders and languages through increasingly diverse and innovative virtual modalities that go beyond traditional study abroad, making these experiences more accessible to a broader range of students and providing meaningful forms of engagement and exchange at a time when mobility and in-person learning is limited. In recent decades, online learning has outpaced traditional higher education as institutions either reluctantly or eagerly embrace different forms of online course delivery (e.g., web facilitated, blended/hybrid, fully online), with well-documented challenges and advantages associated with student experiences both in the U.S. and abroad (Allen & Seaman, 2014; Arkorful & Abaidoo, 2015; Sawang et al., 2013). While participation in online learning has increased among international students in countries with the prerequisite language skills, infrastructure and user base, the shift to fully online learning can further marginalize some students and exacerbate existing inequalities in regions such as rural Africa, where outside of school campuses, students often cannot access online learning (Karkar-Esperat, 2018; Bekele, 2021; Marinoni et al., 2020).

A popular addition to college curriculums in the United States and beyond, Global Service Learning (GSL) is an in-demand, hands-on learning experience designed to "develop global awareness, intercultural competence, and critical thinking among students and communities" through "academically rigorous, collaborative, challenging, valuable, and transformative" opportunities (Gonzalez, 2009; Mather et al., 2012; Oberhauser & Daniels, 2017, p.139). Within this framework is the Global Classroom Model (GCM), which offers experiential learning opportunities at higher education institutions to students through project-based, cross-cultural, and virtual courses conducted in partnership with institutions abroad. The GCM enables students to engage "across national, geographical, and cultural boundaries, recognizing the cultural, historical, epistemological and ethical context of perceiving sustainability problems and developing solution options" (Wiek et al., 2013, p.19). By internationalizing project-based learning experiences, higher education institutions expose students to new perspectives and ways of understanding and solving problems and enable them to develop the skills and cross-cultural competencies needed to contend with major global challenges, including food security and climate change.

This case study examines the partnership between the University of Maryland (UMD) in Maryland, U.S., and the Liberia International Christian College (LICC), in Ganta, Liberia, which offered a joint Global Classroom (GC) course between 2019-2021. In this context, 'international students' refers to students participating in the GC course, living outside of the United States. The purpose of this study was to evaluate the benefits and challenges of the GCM in the relatively novel context of agriculture and higher education. This project also sought to capture diverse perspectives (U.S.-based and 'international') to improve courses in real time and subsequent semesters, and to document lessons learned to ensure long-term sustainability for this course model at both institutions.

After a successful pilot semester in 2019, during spring 2020 the advent of COVID-19 effectively closed LICC for the semester given a lack of resources for

online learning, and the UMD 2020 cohort moved fully online, continuing largely without their partners. The following spring 2021 semester, UMD remained online while LICC returned to in-person learning, and the two groups resumed their engagement through the GC. Accordingly, the research expanded to consider how worldwide phenomena of this magnitude affects global learning experiences, to report on solutions and opportunities that arose through this type of collaborative partnership, and to examine how shifts in the GCM pedagogy during the crisis affected UMD and LICC students' ability to reflect on and respond to global events. This research seeks to evaluate an innovative and highly relevant iteration of global learning and to contribute toward a growing body of scholarship that represents student experiences outside of the United States, with the aim of building capacity at higher education institutions worldwide to deliver these hybrid educational models. This longitudinal study also provides highly relevant insight into the effects of the COVID-19 crisis on collaborative global learning experiences and reveals how diverse student identities and respective sense of global perspective can shift as a result of worldwide phenomena.

THEORETICAL FRAMEWORK

The *Global Agriculture* Global Classroom course sought to support student-directed learning in which students are empowered by and through the course through cross-cultural, project-based interactions to address real world issues. The course design incorporated critical educational pedagogies that intended to actively address and transform any inherent and/or perceived power imbalances between the groups of students and to ensure that the curriculum and materials therein reflected a decolonized and inclusive collaborative experience equally responsive to all participants (Freire, 2000; Clayton et al., 2010). The research project surrounding this course integrated these same critical frameworks into the instrument design and data analysis to cultivate an inclusive and participatory process to empower students and create a responsive and relevant learning environment.

Project-Based Learning (Online)

We define project-based learning (PBL) in post-secondary education as the process of students applying theoretical concepts and material knowledge in real-world, problem-solving settings, under the advisory rather than authoritarian involvement of instructors, and which results in an end product and sense of student ownership over the learning process (Helle et al., 2006). Manifestations of PBL are endless, and introducing virtual collaboration as a means for global exchange enables these experiences to become more accessible to a broader population of students, particularly those of *Generation Z* (born 1995-2010) who attended school during the COVID-19 pandemic and favor blended online and face-to-face instruction (Selingo, 2021).

In the United States, GSL is a course-based form of experiential education that involves collaboration of diverse stakeholders and integration of personal,

civic, and social development with technical skills to address real-world problems (Gonzalez, 2009). In line with PBL frameworks at institutions of higher education, is Dewey's philosophy of 'learning by doing,' a model of empowerment, which calls for 'education of, by, and for experience' (Dewey, 1944). In contrast, the Liberian education systems are typically top-down and rooted in idealism and realism, focusing more on passing down absolute universal truths from elders, rather than equipping students to adapt to evolving realities (Tan, 2006; Gbollie & Keamu, 2017). Institutions like LICC however, are seeking to shift this paradigm in response to student interests and post-graduation priorities. Both LICC and UMD embraced the Global Classroom as an innovative and adaptable educational model within the PBL framework that would enable students to learn and work together towards meaningful, community-driven projects that were responsive to major global challenges, including the COVID-19 pandemic.

Decolonizing Global Competencies

Much of the global competency literature stems from Western scholarship that centers the experiences of students in the 'developed' world relative to counterparts elsewhere, with competencies based on Neoliberal labor frameworks for individuals preparing to enter the 'global workforce.' Traditionally 'global competence' among students is understood through four domains: 1) investigating the world beyond their immediate environment; 2) recognizing perspectives (their own and others); 3) communicating ideas effectively with diverse audiences; and 4) translating ideas into effective action (Asia Society, 2022). Yet, courses that offer these competencies as learning outcomes can sometimes reinforce unequal power dynamics and foster student interactions in which one group is learning and the other is being learned about, blanching the notion of cultural competence from any "uncomfortable socio-historical implications of inequality, social stratification, oppression, and privilege" (Chun & Evans, 2016, p. 9).

In West Africa, 'global learning' often materializes as Western instructors providing online modular lectures through a largely unidirectional process, with minimal cross-cultural exchange or cultural-responsive adaptations made to the content. This format often further upholds and reinforces colonial legacies of Western education minimizing or erasing indigenous knowledge and culture, as well as historical racialized power dynamics that play into 'white saviorism' complexes (Akena, 2019; Cammarota, 2011; Pinto, 2019). Regardless, most U.S. institutions often partner with other 'developed' countries with infrastructure to support these kinds of exchanges. The goal for the *Global Agriculture* course was to create an inclusive cross-cultural experience grounded in social and emotional learning that was equally responsive to the respective needs, priorities, and challenges of both groups of students as they learned alongside one another, and to reflexively address and seek to transform existing power imbalances within their broader socio-historical contexts (Núñez et al., 2015). As part of the institutional capacity-building approach, the instructors strove to cultivate an ethical global partnership wherein the relationships between students and their

institutions were reciprocal and based on Fair Trade Learning principles (Hartman, 2016).

Empowerment Frameworks

In a higher education context, we define empowerment as student-centered learning that fosters ownership over the learning experience and drives students towards collaborative engagement with each other and the real world (Dewey, 1944; Soeiro et al., 2011). When designing this research project, the course instructors framed the interviews foremost as an opportunity for the students to provide critical feedback that could enable the course to become more responsive to their respective interests and more sustainable in the long-term. This form of 'empowerment evaluation' was one of several assessment tools that informed the questionnaire instrument so that the 'stakeholders' (in this case, primarily undergraduate students) themselves could determine the extent to which the course successfully provided a project-based, cross-cultural educational experience (Fetterman et al., 2015).

Additional tools such as the Transformational Relationship Evaluation Scale were integrated into the research instrument as a means to identify and repair in real-time any detrimental power imbalances between the student groups, and this framework was also presented within the curriculum to encourage student reflection around and self-determination towards more transformative relationships in order to create new systems for collaborative work and to foster new group identities (Clayton et al., 2010).

We also used a phenomenological inquiry approach to help set aside any prejudgments as researchers as we focused on capturing student experiences and perceptions around the GGM, using a semi-structured interview instrument that enabled open dialogue (Creswell, 1998). This approach uses the methodology of reduction which enabled us to examine how two diverse groups of students experienced the GCM by analyzing statements and themes which emerged and then focusing on what they had in common (Creswell, 1998). Finally, additional materials and learning lessons came from case studies of other PBL and GSL oriented courses, including surveys on best GSL practices that provided critical recommendations (e.g., the importance of managing the expectations of all partners) (Gonzalez, 2009; Mihic & Zavrski, 2017).

Course Design

This *Global Agriculture* GC course was created through the UMD Global Classroom Initiative (GCI), which was developed by the Office of International Affairs (OIA) as a means for preparing students to give back to their communities and beyond by providing an innovative and meaningful alternative to study abroad (UMD, 2020). GSL opportunities and scholarship typically focus on study abroad experiences or capstone courses that position student teams as practitioners working with global clients (Gonzalez, 2009; Mather et al., 2012; Oberhauser &

Daniels, 2017). Between 2019 and 2021, GC courses more than doubled at UMD as the COVID-19 pandemic encouraged new virtual modalities and partnerships.

As instructors, we envisioned the *Global Agriculture* course as a fully immersive transformational space that would provide relevant, hands-on learning to students as well as professional development opportunities for participating stakeholders (e.g., guest speakers), as they collaboratively address real-world, critical challenges, locally and globally. At both institutions, the course was developed as a semester-long, three-credit seminar-style course with a small group of students. Throughout the semester, UMD and LICC students built upon the foundations of Global Agriculture, connecting macro-level concepts to the agriculture sector in Liberia and other countries with similar climatic and socio-economic backgrounds. The course was structured around 15 weekly units that each sought to highlight a key dimension within "Global Agriculture" (e.g., gender, climate change, innovation, spirituality). Through case studies, guided discussions, guest speaker presentations, interviews, and projects, students learned how to analyze sources, compare and contrast various theories, and design and implement effective agricultural outreach programming in different cross-cultural contexts.

Students from both schools were encouraged to consider the differences between exploitative, transactional, and transformational relationships in the context of their engagement with one another (Clayton et al., 2010) and to reflect on their motivations for enrolling in the course, as well as to question their assumptions about each other. The course also emphasized sensitivity to cultural differences and their historical origins, context-specific problem solving, and communication skills that encouraged students to listen to understand each other (Wiek et al., 2013). The UMD instructor emphasized collaborative engagement over 'helping' and framed the partnership as demand-driven with 'LICC in the driver's seat.' Students at LICC were encouraged to reflect on the impact of foreign investors and development efforts in Liberia, and to speak up confidently as experts as they evaluated the viability of different project ideas proposed in the discussions. The integrated model of the course was intended to not only produce diverse learning outcomes for UMD and LICC students, but also to focus on agricultural outreach in Ganta vis-à-vis strengthening the institutional capacity of LICC to support local farmers who are vastly underserved by the post-conflict government agricultural advisory services in Liberia (Feed the Future, 2017).

METHODS

As an exploratory case study, this project sought to understand in-depth the relationship between two institutions participating in a GC course as a means for furthering research in the field of global learning. We use a constructivist grounded theory approach, which positions researchers as collaborators with the participants as they construct meaning out of phenomena, because "[our] interpretation of the studied phenomenon is itself a construction" (Charmaz, 2014, p.187). Within this approach, "we follow leads that we *define* in the data," and

each subsequent iteration of data collection and analysis is informed by what has previously emerged (Charmaz, 2014, p.17).

Though these data were not presented directly in the results, we also employed other qualitative approaches including participatory ethnography, or making structured observations in and outside of the classroom (e.g., monitoring the group chats between the LICC and UMD students online), and drawing from student grades and course feedback forms to contextualize the survey data and create a holistic picture of the course experience. Stakeholder data provided additional insight into the course model and sustainability and helped us troubleshoot any challenges throughout the three years of the study.

Participants and Recruitment

We interviewed four groups of participants: UMD students (n=25); LICC Students (n=21); LICC Stakeholders (n=4); and UMD Stakeholders (n=14), using two mix-method questionnaires (Table 1). All participants were informed that this was a voluntary study with no associated risks or benefits, and that personal information would be kept confidential. Students were recruited at the start of each semester and consented to interviews at the beginning and end of the course. Stakeholders were interviewed (once) throughout the three years, and they included faculty, administrators, agriculture specialists, and others involved with the course. All recruitment and interview procedures followed Institutional Review Board protocol.

Table 1: *Global Agriculture* Students (Total Enrolled / Research Participants)

Cohort	2019	2020	*2021*	*TOTAL*
UMD Students	(9) / 9	(7) / 6	(12) / 10	(28) / 25
LICC Students	(11) / 9	0*	(14) / 12	(25) / 21

* In March 2020, LICC closed for the spring semester due to COVID-19

UMD students fell into the traditional age range of 18-22. The majority had little to no background in agriculture and enrolled in the course as an elective. These cohorts were diverse, with about half from international backgrounds or identifying as first-generation Americans. *Global Agriculture* was a required upper-level course in the LICC Department of Agriculture. All LICC students were Liberians from farming backgrounds, though they represented different tribal groups from across the country. Their ages ranged from 18 to 65, representing a mix of students who were raised before, during, and after the Liberian Civil Wars (1980s-2003), contributing to a wide range of perspectives shared throughout the class.

Instrument Design & Data Collection

The student interview instrument framed the GCM as an innovation in education, and used the KASA analysis framework, a foundational lens for evaluating agricultural education, to address changes in **K**nowledge (what they know), **A**ttitude (how they feel), **S**kills (what they can do), and **A**spiration (what they want), four areas in which change must occur to achieve transformative learning (Bennet, 1975). This student questionnaire was a semi-structured interview that consisted of 6 ranking questions intended to evaluate perceptions related to the overall structure and sustainability of the GCM, along with 8-14 other open-ended questions intended to capture data specifically about the students' personal aspirations and attitudes. Some questions included "Did this course help you to meet your career objectives?" and "Does this course change how you perceive cross-cultural relationships and international collaboration?" Five questions were added in 2020 to better understand the impact of COVID-19 on the course and the students' sense of global agriculture.

All data collected were recorded and transcribed using grounded theory methods, and then analyzed using NVivo Qualitative Software to conduct several rounds of qualitative coding. To maintain consistency of our transcript coding, we began by coding individually for our respective study cohorts and then alternated for the next two rounds, reviewing the data after each round to compare codes and resolve any discrepancies. Each subsequent round of analysis was informed by the patterns that previously emerged, allowing student voices to essentially guide the research process and also ensuring that any new codes created were applied consistently across all transcripts (Charmaz 2014; Creswell, 1998). The first round of coding produced 106 codes and the second and third rounds refined and aggregated those codes into larger patterns, resulting in 17 major themes that served as the basis of our analysis.

RESULTS

The findings highlighted the relative strengths of the GCM for both in-person and online learning environments and underscored some of the challenges therein. These findings also revealed a shift in student experiences as the course adapted both logistically and in terms of content through the COVID-19 pandemic based on student feedback. Following thematic analysis using an adaptation of the KASA framework, three central themes emerged from the coding procedure in terms of transformative engagement by the students: 1) Technical Skills and Knowledge Gained (**K**nowledge and **S**kills), 2) Cross-Cultural Competences / Global Perspectives (**A**ttitudes and **S**kills), and 3) Sense of Empowerment (**A**ttitudes and **A**spirations). Additionally, the structure of the GCM course was analyzed to identify key advantages and challenges in terms of long-term sustainability.

Theme 1: Technical Knowledge & Skills

When asked about their biggest takeaways from the course, students often referred to specific concepts, information, and skills that were novel relative to

their other course experiences. These special topics (Figure 1) corresponded with the units on the syllabi but also were reflective of the different UMD and LICC experiences. Climate change and the environment, for example, was referenced almost four times as frequently by LICC students compared to UMD students, likely because this topic is often discussed by NGOs working in Liberia, and because the course illustrated the global nature of this challenge. UMD students were particularly interested in Africa and Liberia, and many reported even during the pre-interviews that they enrolled in the course specifically to learn more about the region, with 15 out of 25 students noting this as an advantage of the course during the post-interview.
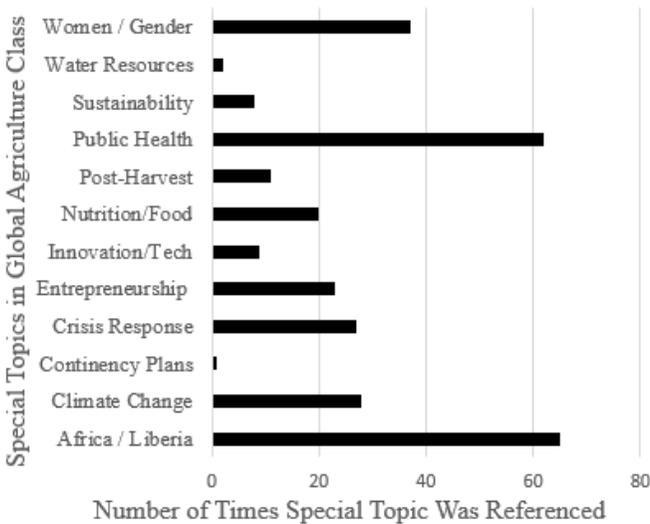

Figure 1: Frequency of Special Topics Referenced by UMD & LICC Students (2019-2021)

For the most part, UMD students reported a newfound appreciation for agriculture and the critical role of doing outreach (i.e., extension) with farmers, with multiple students realizing *"how important agriculture is… for the development of any country."* For LICC on the other hand, the majority of students (<80%) in their pre-interviews each year had indicated that they were already considering farmer outreach and extension as a career pathway, which was no surprise given their backgrounds in farming. While many LICC students focused on the knowledge and skills gained as a means to better support agricultural production in their communities, UMD student experiences tended to be more individual in nature and reflected the students' respective academic and professional aspirations.

Furthermore, critical thinking and problem-solving were more pronounced in the LICC experience, further increasing in relevance in 2021. One LICC '21 student acknowledged that because of the school system's heavy focus on memorization and lectures-style teaching in Liberia, *"we are good at identifying problems, but not good at finding solutions. This course can help us to find solutions…to problems we face in the agriculture sector."* Another commented that the partnership from this course *"gives us ideas and motivation to help us to solve these problems."*

Through collaborative group projects, students were introduced to every stage of program development from start (e.g., needs assessment) to finish (e.g., evaluation). Over the three years, example projects included the creation and maintenance of the "LICC Ag Radio Hour," a weekly program for farmers, and outreach to local high schools to engage young people with agriculture. Through the projects, UMD and LICC students reported on the benefits of learning more about professional writing, public-speaking, research, and crisis response. One UMD '21 student shared how *"people love[d] it when I told them [about the class projects] during interviews… I think it [gave] me an advantage as a potential candidate for a position over others."*

Theme 2: Cross-Cultural Competencies & Global Perspectives

Different iterations of 'new perspectives' were the most widely reported outcome of the course by all students, with around 300 total references in the interviews. Most notable was the increase of this finding across the three years, particularly in terms of 'global perspective,' which by 2021 was mentioned by 75% of UMD students and 83% of the LICC students (compared to 56% and 67% respectively, in 2019). These reported benefits were in large part related to the COVID-19 pandemic, which revealed a new dimension of global connectivity and a sense of shared challenges, while also exacerbating certain systematic inequalities and revealing surprising new ones.

> If I didn't do this class, I wouldn't be aware of other problems that are affecting society in the U.S. or Kenya or other African nations, which have [also] been affected by other disasters, whether it be COVID, Ebola, or climate change. It's made me aware and think about how to solve those problems. LICC '21

Almost all participants reported that the ability to work with students from another country was their favorite component of the course. This cross-cultural collaboration was often the most exciting part of the class with students enjoying getting to know one another and working together. One LICC '21 student reported, *"we are learning from them and at the same time they are learning from us."* This was particularly encouraging as it underscored a shift in the Liberian student mentality from being hesitant to share ideas in the presence of foreigners to feeling confident in collaboration. One LICC '21 student said, "*At first I used*

to look at international relationships as something like I don't have the knowledge equal to others;" while another added, *"I had been thinking that it will be somehow difficult to work with people that I've not seen or are not the same color as me. But [now] I feel flexible learning with other partners in and across Liberia."*

UMD students indicated that their collaborative skills were challenged and refined professionally. One UMD '21 student reported "*it was somewhat groundbreaking when I finally figured out what questions to ask;"* and another noted, *"I definitely learned a lot about how to listen for particular things to understand."* This type of cross-cultural communication where students listen to understand and learn alongside one another is a critical competency within PBL (Mihic & Zavrski, 2017; Asia Society, 2022). One LICC '21 student stated, *"[this course] has given me the ability ... to go further and ... work in any country outside of Liberia and succeed."* For UMD students, these cross-cultural competencies translated into skills that could be used while working in diverse and underserved communities across the U.S., while LICC students mentioned how these new skills could be applied in relationships across tribal lines.

Most striking from the analysis of student experiences across the three years was the way in which 'global perspectives' became a fundamental learning outcome. Topics related to climate change, crisis management, population growth, and economics illustrated the interconnected nature of the world. If this course had not been offered, one LICC '21 student acknowledged that "*I wouldn't actually [know] the interconnection of each country, [that] when one has been affected, that [means all have] been affected, I wouldn't be able to discover that."* This sense of global interconnectedness also fostered a deeper sense of responsibility among students towards others as they realized both the positive and negative effects of global connectedness, particularly in light of a colonial past. One UMD '21 student referenced how this class helped her focus on "*being aware of your impact and making it an equitable partnership… especially if there's a power dynamic."* The Liberian students, coming from a more relational culture, especially appreciated the feeling of unity created by the class, with the entire 2021 cohort finding inspiration to be part of the global world. One student noted that he "*felt excited when we had a discussion with our team members from the U.S…. In order to build a global world, you have to establish that friendship and unity."*

Additionally, many LICC students reported an increased sense of unity in terms of shared experiences of suffering. One LICC '21 student commented, "*All along I felt it was only Liberia that was going through these things. but I learned that other countries have problems and some even more than us."* When there is a collective sense of victimization among a population, such as in Liberia, it often brings a sense of powerlessness and feeling alone in one's suffering (Bar-Tal et al., 2009). However, feelings of hope and connection can emerge as one observes similar emotions in other people, broadening one's sense of selfhood and encouraging psychospiritual development (Lomas, 2015). It is notable that although this idea of unity was mentioned by students in each year, it was most present in the 2021 exit interviews.

COVID-19 also highlighted global inequalities in ways both expected and surprising. While in 2019, UMD students noted challenges related to video calls and online collaboration, over the next two years they increasingly registered the vast inequalities related to online learning technologies as COVID-19 exacerbated these barriers. Yet upon learning about global supply chain issues, pervasive isolation and associated depression and suicide, and high hospitalization and death rates in the U.S., many LICC '21 students expressed shock and considered themselves lucky that they were not facing similar challenges. The U.S. students expressed sadness and weariness over ongoing virtual learning and social isolation, particularly in 2021 as they watched their Liberian counterparts gather in-person for class with no restrictions.

Both groups noted how this experience changed their perspectives, particularly as it relates to their view of 'Africa' or 'the other,' as well as their understanding of injustice, inequality, poverty, and their own role in addressing these issues. At UMD in particular, addressing stereotypes and assumptions about Africa as well as Western intentions for intervention in the region was a constant theme, and throughout each semester students increasingly reflected on the idea of the 'white savior' and how colonial power dynamics could manifest within their own interactions (Cammarota, 2011). UMD students from all three semester cohorts reported this shift in perspective as a significant takeaway:

> It helped frame the work I want to do more as a collaboration than as the white-savior attitude of going in and being this all-knowing force that can save them and help them. [This class] helped push that framework further into my mind, that it's a collaboration, it's a partnership and we're there to provide resources. They know what they need better than we do. UMD'20

Theme 3: Empowerment

UMD students across all three semesters reported their interest in "making a difference" as one of the primary motivators for enrolling in the course. LICC students had similar but more specific motivations for participating in the course, as most referenced being able to bring knowledge and skills back home to their rural farming communities. Across the three semesters, a striking shift took place in terms of student empowerment, largely related to the COVID-19 pandemic. In 2019, approximately a third of UMD students and almost 80% of LICC students reported feelings related to "empowerment" and "having an impact;" by 2021, this jumped to 80% of UMD students and a full 100% of the LICC students, who highlighted feeling more equipped and confident to identify and solve agriculture related challenges in their community. In 2021, following the COVID-19 crisis, one LICC student reported that *"one big thing I'm carrying with me [from this course] is the idea of changing the world."* Another LICC '21 stated, "*I am seeing there are causes [to our poverty] and there is something we can do about it.*"

On the UMD side, while about one-third of students in 2019 reported feeling better able to solve problems with global partners, by 2021 this sentiment doubled within the exit surveys as students maintained global partnerships through unprecedented and unpredictable times. UMD added a "resilience" unit to the 2020 and 2021 curriculums, which opened up more personal conversations among students about being able to make a difference, even a small one, at a time when much felt outside of their control. Many students indicated that the self-directed nature of the team projects demonstrated how they could make a difference and solve problems despite challenging circumstances. One UMD '21 student reported, "*What we learned was more interactive, it wasn't just taking information and processing it, we were applying it and putting on our own spin…My biggest takeaway would be that even as a student, you can make a difference.*"

In Liberia, this same sense of empowerment extended into their communities as they implemented the in-person outreach activities developed jointly by the UMD and LICC student group projects. Unlike the Ebola crisis, which mobilized the international aid community to assist the region, COVID-19 had a worldwide impact, effectively reducing the flow of aid workers, food, and funding, and pushing Liberians to become more self-reliant. One LICC '21 student noted that *"Liberians…need to be able to produce what we eat. The virus put a stop for people to travel…and if you don't have your own backyard garden, how will you eat? More people will die from hunger than the virus. We have to go back to the soil and start producing our own food."* This visible threat combined with their experience developing plans for community outreach in the course, reignited a spark in many of the LICC students to help their communities through activities like backyard gardening.

GCM: Benefits and Challenges

Although Global Classrooms and different iterations thereof have existed for many years, the *Global Agriculture* GC course was relatively novel given its focus on agriculture and food security, the partnership with a less well-known African country, and the overall innovative structure, which enabled students and instructors to achieve desired learning outcomes together. In addition to the positive student reports, this section outlines the relative advantages and challenges of this GCM course (found in Table 2). Overall, it was highly positively received by all students enrolled across the three years. According to the UMD's student course evaluation reports, *Global Agriculture* consistently scored high in comparison to other courses in the department. Almost every student interviewed, both LICC and UMD, noted that this had been their favorite course that semester. All LICC '21 students also expressed their belief that this type of course be implemented in all LICC departments and institutions throughout Liberia.

For the most part, the challenges related to the successful implementation of the course were anticipated and identified by the instructors and fell into two categories: those within and those outside of our sphere of control. Among the most anticipated and reported were related to technology and communication,

particularly for the LICC students who had limited access to the internet. Other noted challenges were related to scheduling, level of workload, and especially cross-cultural communication, given differences in English dialects, accents and cultural context.

Regarding the relative advantages of the course structure, students reported highly appreciating the smaller class size, particularly on the UMD side where for most students, large discussion halls made up the majority of their classes, both in-person and online. Both groups also highlighted the participation of guest speakers, as well as the interactive discussions and in-class activities that served to reinforce learning through multiple methods of exposure. The course supported a more student-centered and practice-based learning environment that enabled students to develop and demonstrate their skills through iterative class projects, rather than exams and other traditional assessment tools.

Table 2: Reported Advantages and Challenges of the GCM

Advantages	Challenges
Unique Class Model • Socratic Seminars • Annotated Reading • Cross-cultural exposure • Unlike other course offerings	**Technology** • Internet availability & cost in Liberia • Interruptions to electrical power at LICC • Limited LICC student access to devices • UMD's transition to online learning in 2020
Small Size • More opportunities to develop relationships • More in-class participation and individualized support from instructors	**Communication** • Difficulty understanding accents on video calls • Vernacular doesn't translate • Cultural perspectives and communication styles can conflict
Synchronous Learning (Online) • Allowed for students to learn together and engage. • Connected students and groups that would not have otherwise met • More engaging than asynchronous classes, post-COVID	**Schedule** • Different time-zones (4-5 hour difference) • Long class time (3 hours) • UMD/LICC semesters only overlapped for 6-7 weeks
Student-Centered • Not lecture-based but project-based	**Workload** • Assignments / readings heavier than other courses

• Engaging and topical class discussions • Student input and feedback on units incorporated throughout	• Project-based meant students needed to be more self-directed
Guest Lecturers • Provided new perspectives • Introduced case studies • Example of practitioners in these fields	**Cost*** • Technology to video call • Printings of resources • Implementing projects
Practical (project-based) • Opportunity to contribute to real-world problems • Monitoring and Evaluation, and Technical Writing skills • Research and farmer outreach • Hands-on learning	**Teacher Dependence** • Both instructors needed significant exposure to both cultures (U.S. & Liberia) to help bridge communication gaps • Experience needed managing global partnerships and international development projects
COVID-19 • Transitioned to fully online at UMD more successfully than other courses	**COVID-19** • LICC school closure resulted in no LICC students for 2020 cohort

*UMD received a GCI grant for $10,000 (over 3 years), in addition to other fundraising, which covered over 90% of the costs for this partnership. Given the inherent power imbalances of the two universities, we spoke openly about the funds held in a UMD account and tried to utilize them equally, often bringing these conversations into the classroom to model ethical, reciprocal, and transparent partnerships (Hartman, 2016).

SUMMARY OF FINDINGS AND DISCUSSION

The *Global Agriculture* course was designed to create a transformational learning space with relevant, hands-on, cross-cultural learning experiences to support more globally minded graduates. This study sought to evaluate the effectiveness of the course in meeting these objectives and the impacts of this type of educational innovation (which incorporated distance learning, project-based learning strategies, and decolonization theories) on student knowledge, skills, attitudes, and aspirations (KASA).

The technical knowledge and skills acquired, along with newly developed cross-cultural competencies and broader perspectives, contributed to the overall sense of empowerment and global competence reported (Dewey, 1944; Asia Society, 2022). The course created an environment for students to not only think critically but also to take action to solve real-world problems in their communities through class projects, enabling them to apply new knowledge through

collaborative engagement. Many students noted that the project-based nature of the course allowed them to practice and refine skills such as professional writing, critical thinking, reading, and teamwork. These findings, which demonstrate how PBL can influence students' depth of knowledge and encourage higher level thinking, are supported by other PBL research studies (Mihic & Zavrski, 2017).

In particular, the team projects, which shifted authority and decision-making to student voices (Dewey, 1944; Mihic & Zavrski, 2017), contributed to an increased sense of empowerment as students expressed their confidence in feeling equipped to make an impact on the world. Students from both institutions continually referenced the projects and how they enabled the application of new information towards real-world problem-solving, particularly the outreach and training programs with local farmers and youth in Liberia. Many students indicated that these weekly interactive discussions and activities broadened their perspectives by deepening their awareness of underlying power dynamics and how they manifested within collaborative work. Students shared problems local to their own communities and discussed those more global in nature, becoming more aware of each other's problems and having an increased sense of interconnection and global identity. Not only did both groups of students report a shift in terms of their own roles and responsibilities towards addressing critical challenges, but they felt most positive about the unity and friendships that developed.

The virtual connection enabled students from the U.S. and Liberia, two countries with vast cultural differences that are intimately linked through a shared colonial history, to participate in a paradigm shift as they engaged with the ethics, values and perspectives of different communities and deconstructed notions about the other while working towards a shared goal (Núñez et al., 2015). The COVID-19 pandemic, while highlighting and exacerbating inequalities in education and access to resources, contributed to a growing sense of global perspective as students experienced first-hand how to collaborate and problem-solve during a crisis (Mpungose, 2020; van Deursen & van Dijk, 2019). This realization of global connectedness, along with the sense of "shared suffering through the world" most noted by the LICC students, contributed towards the course's goals of decolonizing global competencies as students indicated that they better understood the need to listen to and understand outside voices (Wiek et al., 2013).

IMPLICATIONS FOR PRACTICE

Looking forward, we must consider the long-term institutional sustainability of this type of global partnership. The *Global Agriculture* course structure and curriculum were designed to be adaptive to other contexts, to encourage future courses at both institutions and potentially to build a global network of universities. While issues of technology, scheduling, workload, and even costs can be addressed through further curriculum development and funding opportunities, the issue of instructor dependence mentioned in Table 2 must be considered. Beyond content expertise, this relatively novel course was logistically and practically extremely challenging for instructors to navigate, even with their

combined two decades worth of experience working and teaching cross-culturally in higher education.

When asked about the replicability and long-term sustainability of this type of course, UMD and LICC students and professional stakeholders alike expressed concern about whether this would be possible were it not for these two similarly educated, Western-born instructors leading the initiative. This question is highly significant particularly in light of Hartman's (2016) framework for Fair Trade Learning Principles, which emphasizes the importance of deliberate diversity among participants and partners and was a frequent point of discussion and reflection as the instructors considered the impact of their identities on the course and the students. The nature of the course as more of a seminar-style class, which shifted power away from the teachers and into the more diverse group of the students, may have minimized the impact of teacher identities as it allowed students to further understand that truth and reality do not flow from one perspective alone (i.e., the teacher), but rather from a collective group of voices (Tan, 2006).

Future iterations of this course should continue to focus on small class-size, discussions, guest lectures, and practical project-based learning. While results indicated that certain skill sets and experiences may contribute to instructor success (e.g., international experience and/or in project-based learning environments), the researchers recommend that partnering institutions should prioritize identifying the most effective and sustainable approaches for empowering local professors to participate and lead these types of courses. Critical to these partnerships is equitable cost-sharing, with more resource-rich institutions subsidizing technology and other costs, as well as context-responsive delineation of responsibilities.

CONCLUSION

Addressing and mitigating the effects of climate change and achieving worldwide food security are global challenges that require collaborative, global solutions, particularly as food systems continue to shift and further integrate as well as contend with borderless crises like a disease pandemic. Higher education institutions increasingly are embracing their roles as changemakers with the resources to create and leverage innovative solutions. By internationalizing project-based learning experiences, we enable students to develop needed skills and cross-cultural competencies and expose them to new perspectives and ways of understanding and solving problems.

GCM partnerships can not only address inherent power imbalances between institutions in the West and Global South, but actively seek to transform those relationships through intentional collaborative frameworks that decolonize curriculum, establish equitable practices for students to work together in project-based learning environments, and by creating a space where the meanings of 'global learning' and 'global identities' are constantly being evaluated. This research can contribute to a growing body of scholarship on diverse modalities of global learning, particularly in times of crisis, and the course sets a precedent for

other departments, opening up networks and resources, and meeting demand for globally minded graduates with hands-on collaborative experience. It is our hope that this paper will serve as an inspiration and guide to enable new and diverse iterations of this course model and partnership.

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