METROPOLITAN Universities

OPEN ACCESS

Praxis

Modeling and Cultivating Critical Global Citizenship Skills in the Online Space: Lessons from Responsive Remote Project-Based Global Learning

Sarah E. Stanlick[1] and Joseph Doiron[2]

[1] Worcester Polytechnic Institute, [2] Northeastern University

Cite as: Stanlick, S.E., & Doiron, J. (2024). Modeling and Cultivating Critical Global Citizenship Skills in the Online Space: Lessons from Responsive Remote Project-Based Global Learning. *Metropolitan Universities*, 35(3), 70-90. DOI: 10.18060/27549

Editor: Patrick M. Green, Ed.D.

Abstract

Global crises continue to shape the higher education landscape by posing challenges at every step of the educational process. From pedagogical delivery to experience design to undergraduate student research, pandemics, unrest, war, and environmental disasters have given us many imperatives to pivot and adapt. While the COVID-19 pandemic brought unprecedented challenges to the function of higher education, there were many lessons that inform and instruct how we continue to operate in a volatile and ever-changing world. The following paper will explore two case studies of pivoting in-person, place-based, global learning experiences into a remote context. We will highlight the cognitive, content- and skills-based, social-emotional learning aims and how thoughtful design and intentionality helped us to create a replicable remote learning experience that can be used in the future in the face of similar unexpected challenges and pivots.

Keywords: project-based learning, global citizenship, remote learning, social-emotional learning, mental health

Introduction

Higher education has weathered multiple intersecting crises in recent years: a global pandemic, conflict and war, challenges to student mental health, and ongoing racial injustices. Spring 2020 brought extraordinary challenges to the function of higher education with the COVID-19 pandemic. From instruction to student support services, entire educational systems were taxed with shifting, reimagining, and building the educational experience for remote delivery. This impact was especially acute in the space of community-based global learning and project-based learning. While this posed new challenges and opportunities, the function of creating a strong learning experience online was rooted in the same student-centered, pedagogically-driven educational philosophy that guides our face-to-face instruction.

For immersive experiences such as study abroad or project-based learning, the challenge became not how to replicate an experience that could not be duplicated but how faculty and staff who build those experiences re-envision work and study worth doing without a wholly immersive, place-based cultural context. For the purpose of this paper, we are focusing on the context of global project-based learning and the pivot from in-person to remote global learning. We ask: How might we elicit deep engagement, accountability, community, and agency in the online space? How can we understand a philosophical orientation and be explicit about the choice points in designing for community and a democratic online space?

The following explores the literature on community building, democratic in-person classrooms, and the constructs that build accountability, empathy, and humility - critical global citizenship skills - in learners. We share our experiences and lessons learned from shifting a traditionally face-to-face (F2F), immersive international experience to fully online. We will describe the steps taken to create an engaged, democratic, and immersive experience under duress and the resulting learnings that can be valuable to educators, learners, and administrators alike. Finally, we posit some promising practices and recommendations that could help shape the dialogue around online global citizenship education and the opportunities it affords, especially as natural disasters, pandemics, sustainability concerns, and resource allocation complicate the future of these project-based global learning endeavors. While we were operating in a state of emergency at first, we recognize that this has also provided an opportunity for long-term rethinking of global learning. With that generative framework, we both reflect on what was and make recommendations for what might be in the future. Beyond the triage of educational and study abroad experiences in 2020, what can we take forward for long-term improvements to access high-quality global learning?

Background and Literature Review

Global Learning, Global Citizenship, and Project-Based Learning Online

Global learning is an endeavor that spans boundaries, contexts, and modalities. According to the American Association of Colleges and Universities (2023), global learning is ". . . a critical analysis of and an engagement with complex, interdependent global systems and legacies (such as natural, physical, social, cultural, economic, and political) and their implications for people's lives and the earth's sustainability (AAC&U, p.1). This definition emphasizes the self's role in global systems, encourages students to understand power and positionality, and ultimately promotes an understanding of the world as interdependent (Juarez, 2013).

Global citizenship is a transdisciplinary exploration of our work, consisting of theories, practices, and values embedded in the curricula. Global citizenship education addresses topics from geography to philosophy while also affirming knowledge, skills, and attitudes that transform the whole person, rather than a straightforward competency-based approach (Goren & Yemini, 2017; Shultz et al., 2011; Abowitz & Harnish, 2006). It is individual and collective, practiced globally and locally, and consists of thoughts and actions. Education in global citizenship encompasses foundational concepts such as the respect and value for diversity and inclusion, an understanding of one's self in relation to the larger world, a commitment to justice, and active civic engagement (Oxfam, 1997, 2006).

More sophisticated and ethical models for global learning exist and are gaining attention and actualization. One way in which ethical global citizenship education is realized in a community-based setting is through the model of fair trade learning (FTL). Fairtrade learning is a holistic model for understanding community-university partnerships through a lens of equity, reciprocity, and decoloniality (Hartman, 2015). FTL emphasizes relationships that are rooted in interdependence and collaboration and has practical design elements that must follow, including, but not limited to, democratic decision-making, co-generation of writing and research, the autonomy of community partners, and deep critical reflection (Reynolds et al., 2022).

While these framings do exist, remote or virtual global learning, until very recently, has not made the space for fair trade learning. Global learning in the online space has mostly been realized as a cultural exchange for cross-cultural communication and skill development (Shonfeld et al., 2020; Titarenko & Little, 2017; Merryfield, 2003). While global citizenship education fosters cross-cultural connections, this is not the only goal of GCE. In addition to the content areas of global citizenship education, there is an emphasis on engaged citizenship through advocacy and action (Leduc, 2013; Mayo et al., 2009; Davies, 2006). Global citizenship education is both a framework for understanding the world and the ways to engage in it. Project-based learning, study abroad, and community engagement often drive this global citizenship action (Augustine et al., 2015).

If models of high-quality, ethical engagement could connect with innovative modes of communication and pedagogical innovation, new and exciting opportunities for engaged global learning can emerge. Some examples have emerged in the last few years that show promise from the diversity, equity, and inclusion focus of SUNY COIL's online exchanges (Jie & Pearlman, 2018) to new pathways for epistemic justice in collaborations with universities from the global south (Guimarães et al., 2019). Adedoyin and Soykan (2020) emphasize the role of the pandemic in this shift, but that is not the only reason for more evolution in the depth of our online global experiences. With the very real challenges we face from political, economic, environmental, and health variables, continuing to adapt and envision ways to create flexible global learning experiences is not bound solely to a pandemic. There are inherent benefits that we can better plan to reap, as well as securing more effective contingencies when emergencies do arise.

In terms of inherent benefits, the online space provides the opportunity to engage with colleagues across tangible and intangible boundaries. Asynchronous communication and exchange allow colleagues to cross time zones, while translation tools such as DeepL and Google Translate help overcome language barriers (Merryfield, 2003; Varela-Salinas & Burbat, 2018). In the online space, there is ample potential and past evidence of successful communities of inquiry that bring together learners worldwide around topics of shared importance and value (Garrison, 2009). Finally, in terms of the active component of global citizenship education, there are many ways that students can critically challenge our traditional ideas of outreach and engagement and exercise intentionality through engaging remotely.

With the need for planning and intentionality to make the most of the online experience, so follows the need to put that same care into our engagement work. This then leads to important critical lenses to evaluate strategies of engagement, activism, and advocacy online. Teaching about the dangers of slacktivism, for instance, can create space for students to evaluate past behavior (e.g., turning their profile picture to a flag to symbolize solidarity with countries in crisis, etc.). When planned and discussed in the global online classroom, this critical lens can then be used to evolve past slacktivist tendencies. Students might be asked to plan and create social media campaigns that are clear and sustained. This is one example of thinking through the use of digital capacity not only to raise awareness but also to change behavior (e.g., increasing voting registration, etc.) The potential for civic and civil action online has not nearly been realized, with many online partnerships and venues (e.g., the UN Online Volunteering program) that could be leveraged for more meaningful global citizenship action (UN Online Volunteers, 2021).

Online learning also provides unique pathways and multimedia capabilities that cannot be as easily facilitated in synchronous, face-to-face instruction (Fadde & Vu, 2014). However, what should not be lost is the learning objectives and the need to make intentional design choices to bring about those objectives (Wiggins & McTighe, 2005). It is important, then, to have a

theoretical framework that helps guide our design choices and understanding of the ultimate goal of global learning: personal transformation as it relates to one's role and impact in the world. And, if successful, this could lead to more community and systemic transformation beyond the individual.

Transformative Learning and the Importance of Design

Global citizenship education is, at its core, a process of transformation as much as it is about content mastery or skill development (Hanson, 2010; Lapayese, 2003). In GCE, the students are becoming different people, not just more competent or skilled global citizens. Transformative learning is a framework that helps us to understand that change. While we plan for activities that develop those other aspects, critical reflection, metacognition, and immersive experiential education allow for the larger metamorphosis. While this may seem at the outset a very individualistic aim when considered as part of a larger effort to prepare the next generation of active, engaged global citizens, the effort to educate one means the impact on the many (Brown, 2018; Andreotti, 2010).

Metacognition and sense-making must be central to the educational experience for learners to deepen the transformative experience and provide an important space to reflect on and examine their positionality and perspectives. Mezirow (1998) emphasizes the role of critical reflection in connecting the affective with the cognitive, a necessary component of transformative learning. Metacognition - a higher-order cognitive process of awareness of one's own thinking and perception of the world - allows students to connect their experiences to a larger view of the world and the meaning of their role within it (Georghiades, 2014). Transformative learning theory is particularly helpful as a lens to evaluate global citizenship education through this meaning-making process. Through reflecting upon new cognitive and affective data, learners can analyze and make meaning of experiences and their relationship to the world, understanding their own capacity to make change as active citizens. It is imperative to have this reflective space to think intentionally about the learnings from the projects they are undertaking, their potential impact (positive and negative) upon the communities they are working with, and appreciate their own growth. The following sections will outline our own process of critical reflection, outlining the experience in the immediate stage following the pivot to online, community-based global learning while also applying a backward-facing reflective view with the knowledge we hold today.

Case Studies from Project-Based Global Learning

The following section will outline two case studies from the shift to online project-based global learning as a result of the pandemic in Spring 2020. The opportunity provided by the pandemic and the quick shift within an already well-established program gave us the chance to innovate

and reflect upon our experience. Reflections, as well as student artifacts such as assignments, student feedback, communications, and instruction observations, gave us ample data to analyze and synthesize to understand our own responses to the challenge, its influence on our teaching and course/experience design, impact on the students, and insight from our community partners. There are limitations to this study, as it is a natural experiment that emerged from a situation that did not give us time to hold control conditions, yet allowed us to compare and contrast with over 30 years of well-documented project outcomes from decades of examination of the Interactive Qualifying Project (IQP) experience (Schachterle & Watkins, 1992; Elmes & Loiacono, 2009). From this comparison and analysis, there are important lessons and insights to be learned from this experience, even with the limitations of responding to external forces and challenges (e.g., the pandemic) outside our control. The following will highlight two separate cases, one in the global south and one in the global north, with different instructors but through a well-established, tested, and structured project-based learning experience.

Project-Based Learning and the IQP: Common Overview of the Program

Project-based learning at Worcester Polytechnic Institute is a core feature of the curriculum and the student developmental experience. One specific experience, the Interactive Qualifying Project (IQP), is a graduation requirement for all students and is undertaken in their junior year. This experience consists of three main credit-bearing pieces: an intensive social science methods course, a cultural and project planning course, and the implementation of the planned project with their teams in a place-based experience – either in the Worcester community or at one of 50 project centers around the world. WPI is an urban university and almost all of the project centers are located in sizable cities. The project is at the crossroads of science and society, blending their STEM training with a larger question of societal import. It is an essential experience that widens their understanding of the world and the capacity for science, technology, engineering, and mathematics to transform society. The goal is to develop the whole student, instilling in them a capacity for critical reflection, meaning-making, personal agency, and an ability to make connections across contexts.

The learning objectives for IQP can be categorized into the following thematic areas and were the orienting framework to deliver this project-based experience:

- Develop personally and professionally with regard to project and team-based learning
- Understand and appreciate co-creative partnerships with community members
- Develop and grow technical and research skillsets and mindsets that are translatable to post-WPI life and career
- Understand and appreciate cultural differences in life and work
- Develop social-emotional skills and mindsets such as accountability, communication, self-management, resilience, and humility.

Case Studies in Remote, Global PBL

Throughout the pandemic, the authors planned and delivered remote community-based global learning, both in a triage situation in March 2020 and then in the years that followed as the pandemic continued. Throughout the experience, we reflected frequently, shared notes and learnings on the process, and worked in community to refine our practice and pedagogy. We recognized as we compared activities and experiences that we had valuable learning and insights to share on what it takes to pivot and sustain remote online global learning. In addition, the In addition to our reflections and notes, we also had student artifacts and reflections to also review and consider. Along with a phenomenological "found problem", we realized that we also had robust qualitative data e from the mix of summative and formative assessment, educator notes, communication (e.g. emails and Slack messages), and student artifacts. This approach was an appropriate and necessarily flexible way of understanding our historical moment and an emergency that made for much uncertainty.

What follows is a comprehensive accounting of the two case studies from cohorts who participated in the global projects program at WPI. For each cohort, we had n=24 students who were grouped into 4-person teams. Across both the Berlin and Namibia cohorts, students were mainly juniors, with a small number of sophomore students. There was a mix of international and domestic students in each cohort, and during the experience, students were in many geographic regions, meaning that time zones and remote work could be challenged by both physical distance and time constraints. Nevertheless, a combination of synchronous and asynchronous activities, frequent communication, and creative tech tool usage helped us to create a vibrant learning community.

Remote Berlin: A Case Study

In March 2020, the Governor of the Commonwealth of Massachusetts held a press conference that clarified the impending pandemic's impact on study abroad programs. The guidance was to keep students from traveling outside of the US, and with that guidance, universities and other global learning organizations were faced with the choice to cancel or re-imagine these experiences. For WPI's Berlin IQP Center, the co-advisors opted to reimagine the project-based learning experience in the online, remote space. The Berlin Interactive Qualifying Project (IQP) consisted of 24 students grouped into 6 discrete projects of different focus areas and different host sponsors. There were two faculty advisors - one geographer and one sociologist - who each brought complementary but distinct experience and training to the team. These host sponsors included community agencies, non-profit scientific research organizations, and international NGOs.

The Design Challenge

Challenges faced in this experience were many – from mental health support to community partner capacity. We were working with students to process the intense emotions around the cancellation of the travel portion of the experience, a significant factor in their choice of WPI (the ability to engage in project-based learning abroad). Operationally, our unique challenges included students across multiple time zones, a sponsor that could not continue in the remote setting, the feeling of loss of a scholarship-funded opportunity that may have been the first or only time the students envisioned traveling abroad, and access to technology concerns (e.g., students in rural areas with inconsistent internet access). We also had students who had contracted COVID or were under concerns or quarantine for exposure. Knowing that we were facing challenges both within and outside of our control, we worked together to plan for flexibility, co-creation, accountability, and fun. Our design challenge was identified: How might we elicit deep engagement, accountability, community, and agency in the online space?

First, we wanted to ensure that community voice was valued from both our students and our sponsor-partners. We needed to work to provide a holistic, engaged experience for the students in a remote setting while also meeting the expectations of strong partners who were relatively new to partnership with the institution. While some centers at WPI have existed for decades and have long-established partnerships, Berlin was a relatively new center, and, in this instance, how we handled the challenge and honored the voice of the partners would have deep implications for how those partnerships would carry forward. Thus, we worked closely with project sponsors to gauge their interest, availability, and capacity to continue the project, as well as reimagining what the virtual space and interaction would entail. Upon learning that our work would be moved online, we checked in with the sponsors about their comfort and ability to move the projects to remote work. Five of the six sponsors indicated that they would continue with the projects remotely, with one sponsor bowing out due to the complexity and in-person nature of the project as had been defined. For that team, we wanted to ensure that their preparation and weeks of research, specifically on refugees belonging to resettlement communities, did not go to waste. We made efforts (successfully) to find a new project/sponsor that would not be a complete shift from the project preparation and background research they had done. Communication has continued with the partner that was not able to work in that short turnaround time in order to vision what future post-pandemic work could continue.

Designing for Active Citizenship, Responsibility, and Co-Creation

With the aforementioned learning objectives at the forefront, choices were made to honor the community partner's needs and voice and meet those student growth goals. We also designed our online, remote experience to encourage a cohort and community of practice within the IQP experience, with knowledge flow and accountability between cohort-mates, sponsors, and

faculty. The following list highlights the many ways in which we worked with students to help them gain a feeling of agency and engagement with their project and within their team:

- Maintained a structured weekly schedule
- Encouraged use of Agile standups (team huddles and intentional reflection time)
- Modeled a culture of sharing (to the level students were comfortable)
- Freedom use of project management tools of their choosing, with one uniform platform to use across teams and within the cohort (e.g. Slack)
- Followed Student-Designed Meeting Agendas
- Created fun and play spaces such as weekly Mandatory Fun, student-designed gaming hours, and associated Slack channel for sharing random and fun resources
- Structured Professional Development Sessions (e.g., Op-Ed workshop with media and communications)
- Created multiple channels for communication in order to call in and attune to personal challenges

To support student engagement and model good practice of community engagement, we emphasized the value of co-creation and decision-making led or influenced by the students. We set up the experience to model both democratic principles and community building. Whether they were working with the partners in Berlin or within the cohort, students were tasked as colleagues and community members with an equal stake in the outcome of the projects. They were not doing a project for a sponsor but instead partnering with a sponsor organization to invoke the framework of Saltmarsh, Hartley, and Clayton (2009). Each task was designed to make that connection between self and the larger society, hopefully encouraging both accountability and community building but also humility and resiliency to understand what they do not know in the world and what they need to be open to in order to become comfortable working in ambiguity.

While as educators, our primary role is facilitating the education and transformation of students. However, as human-scholars-citizens, we know and affirm that the community experts and partners we worked with had to be prioritized in the work. We feel we were able to do that due to the creation of a structured but flexible and supportive online environment that provided conditions for experimentation, student agency, and partnership cultivation. Frequent check-ins and regular stakeholder meetings ensured that each week, there was ample opportunity for reflection and that all project partners were on the same page. Ultimately, the Berlin projects successfully delivered projects and thoughtful research for their sponsors that helped to support LGBTQ+ refugees getting access to support in their new homes, explored diversification in citizen science, and created public outreach and educational materials to encourage census participation.

Namibia Online: A Case Study

Project-based learning in Namibia is the second case study from the March 2020 online term. Under the same program structure as the interactive qualifying project (IQP) program at WPI, much of the structure, learning goals, and expectations are the same as the Berlin experience. The project's program in Namibia historically featured a strong academic component, interesting student project opportunities in partnership with strong local project sponsors, the daily experience of traveling to work at offices or schools around the greater Windhoek area, and the experience of organizing excursions to the many parks and other destinations across Namibia [rework].

Students began preparing to depart to Namibia to work on their interdisciplinary projects in January 2020. As part of a preparatory period, they acquired basic social science research training and skills to work successfully in teams. They also developed and completed project proposals to be executed on the ground in Windhoek, Namibia, in March 2020. Akin to the Berlin project experience, the group was set to travel for the Spring 2020 term, and the cohort consisted of twenty-four students, two WPI faculty advisors, and six project sponsors.

The Design Challenge

The Namibia project experience is so much more than simply the investigation of problems and execution of a project plan. It is a rich, complex opportunity to explore problems and opportunities in partnership with a local organization while being embedded in a context different from one's own. Thus, the advisors took the challenge to move this experience to a remote one seriously, with ample intentionality and contemplation. Once the decision was made to cancel international travel due to COVID-19 concerns and conduct all project advising remotely, the project advisors first sought to identify the guiding design challenge.

The following question emerged: How might we design an immersive online experience that achieves the following goals?

- Support and enable individual students to perform to the best of their abilities;
- Support and enable each team so that they function optimally;
- Create opportunities for the cohort to support, engage with, and learn from each other;
- Create opportunities for the cohort to interact socially (if they care to).

The answers to these design challenges that were developed were the following:

- Synchronize the workweek to create a common experience;
- Create clarity and consistency with expectations regarding communication;

- Empower students to shape the experience through autonomy, input, and self-designed elements

It was essential to build into the structure the things that we do together (synchronous) and the things that we do alone (asynchronous). Giving students a fairly fixed meeting schedule from the start of the week until the end helped to create the structure that a lot of students—who were unaccustomed to working remotely—said that they needed. By building in a start and a stop to the week, we made it clear what and when we expected efforts, even if students deviated from those schedules. Incorporating Pau Hana into the schedule allowed us to signal that we recognized that there is a time for work and a time for play and self-care. Building flexibility allowed us to reserve periods of time for impromptu meetings. This also supportedour ability to meet the student needs and resolve team and project issues.

The advisors then worked together to ensure that activities aligned with the aforementioned challenges and identified solutions. The following table (Table 1) details the synchronized elements of the experience, communications tools and expectations, and the emergent design.

TABLE 1. Design decisions for Namibia remote project work schedule

Design Choices for	Description
Synchronized Work Week	● Monday morning: Weekly Kick-Off ● Tuesday & Thursday: Advisor & Team Meetings ● Wednesday: All Cohort Meeting ● Friday: Pau Hana
Communication Tools and Expectations	● Short message: Text or Slack ● Longer message: Email ● Immediate response required: Text ● Conversations: Zoom ● All cohort messaging: Slack
Emergent Design	● Solicit constant feedback and input from students to shape the experience ● Create new slack channels based on cohort needs and desires ● Give students control of team meetings, Wednesday meetings, and Pau Hana activities

The intention was to create a framework within which all activities would take place and then allow for flexibility and iteration within that framework. The objective was to create the virtual space, clearly communicate the rules by which we would all play, empower the students, and then be flexible enough to allow for the experience to be co-created. Using a platform such as Slack allowed for ease of communications. Creating a governance scheme – light but structured rules around how the teams and cohort would interact – provided the operational support to

inform, empower, and hold the group accountable. For instance, we created communication norms together, such as communicating both when you would be available and when others could expect you to be away from the keyboard or contact. In addition, Table 2. below outlines the ways in which we set up functional channels for communication through Slack and their intended use.

TABLE 2. Channels created for Namibia slack, description, and rationale

Channel Name	Audience	Function / Description
Announcements	All-cohort	All business-related, cohort-wide announcements and notifications would go here.
Learning	All-cohort	As learning needs emerged throughout the term, based on student project requirements, resources would be placed here.
Questions	All-cohort	This channel was an opportunity to ask questions to the entire cohort.
Social - Random	All-cohort	This was a channel devoted to pets, memes, Tiger King discussions, and more.
Social - Wellness	All-cohort	Resources related to mental and physical wellness went here.
Suggestions	All-cohort	The suggestions channel allowed students to provide input on anything related to the course.
Individual Team	Team	Each Team had their own individual communications channel.
Slack Private Messaging	Individual communications	Advisor-student interactions that were informal but required a specified, non-public communication pathway.

Ultimately, the Namibia experience was successful due to a number of factors that included intentional design, open communication, co-creation of the experience, and continuous reflection. In the next section, we will further explore those lessons learned, the similarities and differences between the Berlin and Windhoek experiences, and reflections on the expected and unexpected insights from remote, online project-based learning.

Findings and Recommendations

Reading through our notes, reflections, and revisiting student work, it became clear that some areas of resonance were across our experiences. We identified four main thematic consistencies that emerged in our experiences: the importance of co-creation in student engagement,

structuring and scaffolding communication, the opportunity and limits of online community building, and the role of critical reflection as a processor and product.

In the design of the project-based learning experience, we observed a number of important elements that influenced student learning, community engagement, and successful completion of project deliverables. Table 3 below outlines the element, gives a short overview, and provides an example of how that element was operationalized in the projects.

TABLE 3. Design elements for online global PBL

Element	Description	Example(s)
Co-Creation	Students, faculty, and community partners working together to create the experience together.	Conducting an asset mapping exercise with all stakeholders at the start of the experience to identify areas of opportunity and partnership.
Communication	Communication expectations between/within teams, sponsors, and faculty is clearly defined and there are multiple channels.	Model and co-create communication norms to help students articulate their own boundaries and availability. Provide multiple ways of communicating with each other that range from formal to informal.
Considered Tech	Selecting and utilizing technology that stems from a particular need or identified learning objective. Not allowing the tool to drive the objectives.	Creating a Slack instance to ease communication and provide pathways for community building through shared channels and prompts for engagement.
Community-Building	Provide spaces to get to know each other as people, take genuine interest, and create pathways for friendships and shared interest generation.	Whether it was the Namibia team's Pau Hana or Berlin's Mandatory Fun, making the space for converging, celebrating the end of the week, and experiencing play together was essential to building a thriving community.
Credible caring	Model as an instructor what it looks like to care, take a genuine interest, and feel responsibility to the teammates and cohort-mates.	Reaching out to students prior to the experience to ask about challenges and opportunities to influence the preparation of the class. Asking about students' wellbeing at the beginning of each meeting (e.g. check in on a meme mood scale) to get a sense of mental and

		physical health. Institute a "no ghosting" policy.
Critical Reflection	Critical reflection space allows for the processing of the experience, as well as providing a record of learnings, challenges, and opportunities in formative and summative ways.	Reflective questions added to the e-portfolio or final presentation process can prompt students to connect their learning to long-term goals, identity development, and/or learner growth.

In addition to the design of the experience, there were theoretical and values-based elements of the experience that provided a strong grounding. That is, there were underlying assumptions or agreements that were held by the stakeholders - students, faculty, and sponsors/community partners - that shaped the experience. These philosophical assertions included:

- **Students as colleagues**: Per Zlotkowski, Longo, and Williams (2006), By co-creating experiences and student leadership through these active learning experiences, students develop civic agency, perspective on their own role in the world, and responsibility to their community and the world. During this experience, we provided many opportunities for students to step into leadership roles, guide their own learning, and be co-educators for their cohort mates.
- **Play and relax space a necessity, not a luxury**: Building in fun does not need to compromise the learning mission and is essential for cohort building and engagement. In order to accomplish this, both sets of advisers worked together to plan meaningful events and intentional spaces that not only allowed students to share their progress and milestones in the IQP experience but also space to be human together. Whether it was Pau Hana or Pecha Kucha week, building in expectations of fun, play, and stress relief helped to create a necessary space to create community and release some of the stress of a highly demanding, all-encompassing graduation requirement.
- **Learning first, design second**: In both cohort experiences, the faculty followed a backward-design process to center the learning and then create the technology supports to facilitate that learning (Wiggins & McTighe, 2005). We started with objectives, sponsor expectations, and shared goals and then designed to meet those goals. Technology tools were chosen based on their ability to facilitate certain activities or support the learning community. While this may seem like a logical approach, we find that tools often drive the conversation and can overwhelm less technologically inclined people. Instead, we urge colleagues to design for the intent of the learning experience and choose the appropriate technology for the job rather than the newest or most feature-filled. If it does not serve the larger purpose, it does more to hinder than help the learning experience.
- **Challenging "impact"**: We often hear neoliberal or quantitatively-based understanding of the concept of impact: revenue, return on investment, quantitative metrics of

participation, and satisfaction scores. We intentionally push back upon that context and ask for a critical evaluation of the impact of learning and project-based experiences. There are myriad ways of understanding *impact;* examples include community transformation, student learning outcomes, and institutional change. Sometimes, the most ethical impact is to have as little impact as possible on nature, the community, or the system in which you are working. Impact can be negative and positive, and when partnerships push ahead in service of only one stakeholder, that is detrimental on many levels. The example to connect here is the Berlin sponsor who felt they could honestly share that they were not in the space to host a virtual team. That lack of impact is an indicator of the strength of that partnership and respect between stakeholders.

What we learned in the pandemic has stayed with us – from the design of communication to the programmatic activities to pedagogical innovations. Our "Mandatory Fun" has continued to build relationships between our students and help them to experience fully the cities they inhabit for their IQPs. From flea market finds in Reykjavik to a Nowruz celebration in Berlin, our students are finding ways to, in the framing of Taiye Selasi (2014), become local to their place of study abroad. Our experiences have been enhanced in the face-to-face and location-based from what we learned in those days remotely.

Recommendations

Revisiting our challenge outlined at the beginning of this paper, we want to focus not on the response to the pandemic, but envisioning the future of more sustainable, responsive global learning. Reimagining global experiences in a remote space is also not limited to pandemic response, nor only responses to negative impact factors such as natural disasters or conflict. Students can benefit from online virtual exchange by engaging across differences and widening their experience (Kučerová, 2023). Remote global learning can help connect students who might not have the means or situation to travel across borders (Jie & Pearlman, 2018).

This paper gave us an opportunity to look back on what that disaster response taught us about our capacity as higher education to respond and innovate for meaningful experiences regardless of the boundaries or constraints that external disasters could create. While much attention is given to the deficits and remaking of experiences in the online space, there were important opportunities for connection, communication, and community-building that also took place. From our experience, we have insights that we find may be instructive for both administrators and faculty development leaders, as well as individual faculty who are endeavoring to transfer their global citizenship curricula and development online.

For Educators

For those designing educational experiences, building for both structure and flexibility is critically important, as is listening to your students and community partners. We encountered colleagues sharing "best practices" from journal articles or conferences that had validity and research backing. However, taking the time to learn your students and partners might give you insights on whether those practices might work in your context. For instance, some commonly-held beliefs about students preferring self-paced, asynchronous work did not hold in our cohorts.

Another key learning was to take the opportunity of online to design different, not simply replicate the experience online. Rather than trying to remake experiences frame-by-frame, we instead ask what learning objectives and desired outcomes faculty seek to meet and how they could leverage technology to deepen that experience. As for the social and cohort-building aspects of global learning – the types of connections and relationships built in the high-impact space of study abroad, for instance - if you do not design for it, it most likely will not happen. For instance, students wanted time to socialize together online. They would not have the opportunity to have in-person gathering time. Hence, providing expectations and options for interaction beyond work helps to build that community beyond the bounds of the project.

Modeling the community norms that you expect from the students through your own interactions with the community partner, communication, and engagement is another essential part of the remote global learning experience. If you model the types of democratic decision-making, transparency, and accountability to your students that you expect from them, it helps reinforce those values as norms. Some of the most engaging moments in our project time came from students designing and leading learning experiences – for instance, a student-led, informally organized tutorial for the project management software Trello. Encouraging all stakeholders when they had new ideas, allowing iterative cycles of project development, and showing up for events outside of mandatory or project-specific expectations were other important strategies for community-building. For instance, if a partner were hosting a webinar or meeting that did not directly focus on the project topic but was a valuable opportunity to make connections and gain new knowledge about the community, we would invite the students to attend with us. The hope was to reinforce an active citizen identity where the work they were doing became a priority outside the expectations of the graded experience.

Finally, this pandemic has helped many reflect upon what is truly impossible versus what is inconvenient. While the shift to remote was difficult, the emergency nature of the moment urged us to prioritize what was meaningful and bring more of that into our work. This is an opportunity for educators to consider how we can use this moment to refine our outreach and practices for student care and accessibility. Having informal communication modes, for instance, helped

students feel that when the instructor reached out, it was not as pressure-filled. Moreover, while Zoom fatigue is real, we also learned that there were increased benefits to the students, especially regarding accessibility. For students with hearing impairment, captioning provided important assistance. We hope that the lessons learned in the remote space can influence how we imagine both our virtual and in-person global learning for more accessible and transformative experiences.

For Administrators

Administrators and professional staff also play a critical role in supporting an environment for global project-based learning to flourish in the online space. The pandemic, for all its tragedy, gave us an opportunity to think deeply about how we live our lives, what we prioritize, and how we might work to address inequities that plague our world. Those inequities can be felt in our higher education systems and our community-university partnerships. By affirming a more holistic appreciation for global learning that can take place locally and globally, there are increased opportunities for educational continuity, deeper partnership and experience with distributed teams, and increased student access. Especially as the pandemic continues, and visa denials and travel restrictions continue, this continued uncertainty for student travel could mean that creative approaches to distributed community-based global learning are key. There are also important lessons to be learned as we consider the long-term sustainability of growing and maintaining strong global learning programs. As we think about the environmental costs of travel, cyclical pandemics or epidemics, or political upheaval that has impacted learning abroad in the past.

Finally, administrators and staff play a crucial role in nurturing a culture of innovation and flexibility (in practice and policy). We recognize that the unique flexibility and autonomy given to advisors at WPI while also providing an aspirational goal and consistent structure for the expectations of the experience (e.g., shared learning objective, goals) is, in itself, a variable to be addressed. For community-based global learning, it is also essential for administrators and staff to share common values of ethical, reciprocal global learning; the work of individual faculty and student teams can be expected, not only encouraged, to live those principles through all phases of the experience from design to implementation to reflection. It is important for the students and faculty to feel they are reflecting values of ethical, reciprocal engagement that match the institution, and that their work was not merely a pride point for a marketing piece, but an essential part of the character of the institution.

For Researchers

Throughout the pandemic, there was a catalyzed spark and rush to collect data amid this phenomenological moment. Yet, there was also the triage and shifting sands that characterized a

developing and highly variable situation. As such, while we kept lots of notes and have artifacts of student learning and our reflections from the time, it is important to note that this is a phenomenological study that relies on data that was not pre-planned. For researchers, we would recommend appreciating the bricolage of documentation (e.g., notes, emails, etc.), student artifacts, social media, and other real-time data that help us to understand an unfolding situation and our/our students' response to it. At the same time, we imagine a future step of interviews to understand the long-term impact of the experience on the students, as well as longitudinal comparisons between the IQP students who experienced community-based global learning face-to-face versus remote.

And while these are two case studies to reflect upon, there have now been dozens of IQPs that have taken place remotely. Our case studies hold some interesting and important insights. In our next iteration, we hope to analyze more case studies to understand design elements, challenges, and opportunities and see more diversity in how faculty shifted their experiences. We are particularly interested in continuing to develop the body of knowledge around design decisions and online culture development in the global learning context. We would be interested in conducting future work to understand the design of democratic spaces in virtual/ remote community-based global learning and explore temporality, tangibility, and what it means to be "in community."

Conclusion

Pandemics, political violence, constraints on migration, and concerns about the environmental footprint of study abroad have brought us to a critical moment of re-evaluation for the field. While the pandemic posed challenges and opportunities, creating a strong learning experience online was rooted in the same student-centered, pedagogically-driven educational philosophy that guides our face-to-face instruction. For immersive experiences such as study abroad or project-based learning, the challenge became not how to replicate an experience that could not be duplicated but how faculty and staff who build those experiences re-envision work and study worth doing in the absence of a wholly immersive, place-based cultural context.

Online learning and collaboration offer the opportunity to take advantage of more flexible, personalized, and deep learning that attends to grand challenges and promotes ongoing partnership and participation. If we are to incorporate and create more online opportunities for global learning, we must also address and plan for the equitable, high-quality delivery of such experiences. That begins with an intentional eye toward the design and learning outcomes for our learners and ourselves. The pandemic helped us to see inequities that were hidden, provided opportunities to innovate and demanded our attention to holistic student support and development. Our hope is that these lessons are not lost to history but are prompted for our continued work towards more accessible, equitable, and transformative education.

References

Adedoyin, O. B., & Soykan, E. (2023). Covid-19 pandemic and online learning: the challenges and opportunities. *Interactive learning environments, 31*(2), 863-875.

American Association of Colleges and Universities. (2023). "Definitions of Global Learning". Available: https://www.aacu.org/office-of-global-citizenship-for-campus-community-and-careers/definitions-of-global-learning

Andreotti, V. (2010). Postcolonial and post-critical 'global citizenship education'. *Education and social change: Connecting local and global perspectives*, 238-250.

Augustine, T., Harshman, J., & Merryfield, M. (2015). A "real world" approach to project-based learning in global citizenship education. *Research in global citizenship education*, 59-82.

Brown, E. J. (2018). Practitioner perspectives on learning for social change through non-formal global citizenship education. *Education, Citizenship and Social Justice, 13*(1), 81-97. https://doi.org/10.1177/1746197917723629

Congress, U. S. (Ed.). (2000). *The Internet, Distance Learning, and the Future of the Research University: Hearing Before the Subcommittee on Basic Research of the Committee on Science, House of Representatives, One Hundred Sixth Congress, Second Session, May 9, 2000* (Vol. 4). US Government Printing Office.

Davies, L. (2006). Global citizenship: abstraction or framework for action?. *Educational review, 58*(1), 5-25. https://doi.org/10.1080/00131910500352523

Elmes, M. and Loiacono, E.T. (2009), "Project-based service-learning for an unscripted world: the WPI IQP experience", *International Journal of Organizational Analysis, 17* (1), pp. 23-39. https://doi.org/10.1108/19348830910948887

Fadde, P. J., & Vu, P. (2014). Blended online learning: Benefits, challenges, and misconceptions. *Online learning: Common misconceptions, benefits and challenges*, 33-48.

Georghiades, P. (2004). From the general to the situated: Three decades of metacognition. *International journal of science education*, *26*(3), 365-383. https://doi.org/10.1080/0950069032000119401

Goren, H., & Yemini, M. (2017). Global citizenship education redefined–A systematic review of empirical studies on global citizenship education. *International Journal of Educational Research, 82*, 170-183. https://doi.org/10.1016/j.ijer.2017.02.004

Guimarães, F. F., Mendes, A. R. M., Rodrigues, L. M., dos Santos Paiva, R. S., & Finardi, K. R. (2019). Internationalization at home, COIL and intercomprehension: for more inclusive activities in the global south. SFU Educational Review, 12(3), 90-109.

https://doi.org/10.21810/sfuer.v12i3.1019

Hanson, L. (2010). Global citizenship, global health, and the internationalization of curriculum: A study of transformative potential. *Journal of Studies in International Education, 14*(1), 70-88.

Hartman, E. (2015). Fair trade learning: A framework for ethical global partnerships. In *International Service Learning* (pp. 229-248). Routledge.

Jie, Z., & Pearlman, A. M. G. (2018). Expanding access to international education through technology enhanced collaborative online international learning (COIL) courses. *International Journal of Technology in Teaching and Learning, 14*(1), 1-11.

Kučerová, K. (2023). Benefits and Challenges of Conducting a Collaborative Online International Learning Class (COIL). International Journal on Studies in Education (IJonSE), 5(2). http://doi.org/10.46328/ijonse.110

Lapayese, Y. V. (2003). Toward a critical global citizenship education. *Comparative Education Review, 47*(4), 493-501.

Leduc, R. (2013, October). Global citizenship instruction through active participation: What is being learned about global citizenship?. *The Educational Forum* 4(77), 394-406. https://doi.org/10.1080/00131725.2013.822038

Mayo, M., Gaventa, J., & Rooke, A. (2009). Learning global citizenship? Exploring connections between the local and the global. *Education, Citizenship and Social Justice, 4*(2), 161-175. http:doi.org/10.1177/1746197909103935

Meador, E. A. (2020). Alternative Schools of the 1970s: Did They Survive?. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 93*(5), 220-224. https://doi.org/10.1080/00098655.2020.1794673

Merryfield, M. (2003). Like a veil: Cross-cultural experiential learning online. *Contemporary issues in technology and teacher education*, *3*(2), 146-171.

Mezirow, J. (1998). On critical reflection. *Adult education quarterly, 48*(3), 185-198. https://doi.org/10.1177/074171369804800305

Pea, R. D., & Gomez, L. M. (1992). Distributed multimedia learning environments: Why and how? *Interactive learning environments, 2*(2), 73-109.

Saltmarsh, J., Hartley, M., & Clayton, P. (2009). *Democratic Engagement White Paper*. New England Resource Center for Higher Education, Retrieved from http://repository.upenn.edu/gse_pubs/274

Schachterle, L., & Watkins, M. (1992). The WPI interactive qualifying project—a model for

British engineering education?. *Engineering Science & Education Journal, 1*(1), 49-56. https://doi.org/10.1049/esej:19920010

Selasi, T. (2014). “Don't ask where I'm from, ask where I'm a local”. TEDGlobal. Available: https://www.ted.com/talks/taiye_selasi_don_t_ask_where_i_m_from_ask_where_i_m_a_local

Shonfeld, M., Yildiz, M., & Judge, M. (2020, June). Learning in the Covid-19 crisis: A Cross-cultural Alignment Model. In *EdMedia+ Innovate Learning* (pp. 1152-1155). Association for the Advancement of Computing in Education (AACE).

Titarenko, L., & Little, C. B. (2017). International cross-cultural online learning and teaching: Effective tools and approaches. *American Journal of Distance Education*, *31*(2), 112-127. https://doi.org/10.1080/08923647.2017.1306767

Varela-Salinas, M. J., & Burbat, R. (2018). *Google translate and deepL: breaking taboos in translator training*. First International Conference on Research in Multilingualism: Innovation and New Challenge: Oviedo, Spain.

Vergne, M. J., Smith, J. D., & Bowen, R. S. (2020). Escape the (Remote) Classroom: An Online Escape Room for Remote Learning. *Journal of Chemical Education, 97*(9), 2845-2848. https://doi.org/10.1021/acs.jchemed.0c00449

Wahyuningsih, S., Satyananda, D., Qohar, A. & Atan, N. (2020). *An Integration of "Online Interactive Apps" for Learning Application of Graph Theory to Enhance Creative Problem Solving of Mathematics Students. International Association of Online Engineering*. Retrieved from https://www.learntechlib.org/p/217779/

Wiggins, G. P., Wiggins, G., & McTighe, J. (2005). *Understanding by design*. Washington, DC: ASCD.

Zlotkowski, E. A., Longo, N. V., & Williams, J. R. (Eds.). (2006). *Students as colleagues: Expanding the circle of service-learning leadership*. Boston: Campus Compact.

