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Examining the Potential of Online Community-Based Learning to Foster Global Citizenship Capacities in College Students: A Mixed-Methods Multi-Institutional Study

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EXAMINING THE POTENTIAL OF ONLINE COMMUNITY-BASED LEARNING TO FOSTER GLOBAL CITIZENSHIP CAPACITIES IN COLLEGE STUDENTS: A MIXED-METHODS MULTI-INSTITUTIONAL STUDY

A Dissertation Presented

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ABSTRACT

EXAMINING THE POTENTIAL OF ONLINE COMMUNITY-BASED LEARNING TO FOSTER GLOBAL CITIZENSHIP CAPACITIES IN COLLEGE STUDENTS: A MIXED-METHODS MULTI-INSTITUTIONAL STUDY

May 2024

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Global citizenship education is *one* way to better prepare individuals to learn about global systems, understand their own place in those systems, and act with others to create a more just world. While global citizenship education has big aspirational goals, for this to be *effective*, educators must better understand what pedagogical strategies impact the development of global citizenship capacities in students. This study aims to understand the potential of one emerging pedagogical strategy in the context of higher education –online community-based learning– for fostering global citizenship capacities in an increasingly interconnected and digitized world. This research is guided by a purpose-driven transdisciplinary approach as well as experiential learning theory and critical pedagogy. With

this grounding, global citizenship is conceptualized in this study as having three key elements: critical reflection, collective action, and justice.

This mixed-methods analysis examines data from three institutions who moved their in-person community-based learning programs to the fully online modality during COVID school closures and includes pre/post survey data (n=187) and interviews (n=23). Mixed-methods analysis of pre/post survey data found that directly after program completion students overwhelming self-reported that participation in a online community-based learning program facilitated the development of new knowledge, mindsets, and motivation to participate in future civic actions. Analysis of interviews conducted with alumni one to three years after program completion found that the majority were participating in civic action, mostly in the form of volunteerism, and alumni felt that participation in the online community-based learning program was a way to sustain their commitment to social action during the COVID-19 pandemic and into the future. Alumni also reported various ways that skills (i.e. language) and mindsets (i.e. valuing non-Western perspectives) gained in the online community-based learning program were applied to their education or professional lives. Evidence emerged that forming trusting interpersonal relationships with individuals in the partner-community (mentors, peers, community members) in the online modality was the key program condition which influenced a change in student learning that then impacted a change in future actions.

Further, mixed-methods analysis found that first-generation-to-college students reported greater learning gains than their non-first-generation peers. First-generation students displayed several attitudes and experiences—openness to an unfamiliar learning

environment, intrinsic motivation for experiential learning, intercultural collaboration, and experience with resisting systems of oppression—which facilitated their learning.

Finally, this analysis suggests that most students displayed conceptual knowledge of critical reflection and justice as central pieces of global citizenship; they also experienced Freire's (1970) *conscientization*, or motivation to transform unjust systems; however, only a few were able to actualize this learning into future *collective* civic action, and this became even more challenging after leaving the campus community. In the online context most students were working independently on product-oriented tasks, which may have resulted in learning skills that increased confidence and motivation to participate in future social action while at the same time instilling an individualistic attitude towards global social change. While less common, students who displayed an understanding of collective action as an important part of civic participation were more likely to have worked on collaborative tasks with partner-community members where they had the opportunity to recognize the benefits of learning and acting with others. And those who did report participating in collective action with the goal of addressing root problems of inequities, did so mostly through involvement in on-campus advocacy for issues like environmental, racial, or gender justice. This research suggests that even in the middle of the COVID-19 pandemic and a rapid change to online learning, college students were eager to develop new knowledge, mindsets, and skills and that they are applying these capacities to their future actions. Thus, educators have the opportunity to develop curriculum which begins to foster global citizenship capacities that students may carry forward into future actions that are critical, collective, and just.

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TERMINOLOGY

Global citizenship	A global citizen strives to understand global interconnected systems of equity and inequity and their own place in those systems. They take an active role in their community and work with others to make the world more just. Based on: Andreotti (2006) and Oxfam (2023)
Global citizenship capacities	The knowledge, values/mindsets, and skills that individuals need to be a global citizen. Based on: Oxfam (2023)
Community-based learning	Community-based learning is an educational strategy of experiential learning with community partner organizations. This work is based on reciprocal and mutually beneficial partnerships between educators, students, and community groups. Guided critical reflection is an essential component. One goal is to address community-identified needs and ultimately create positive social change. A benefit for educators is enhancing educational content. And the goal for students is preparation for citizenship, work, and life. Based on: Kuh (2008) and University of Colorado Boulder (2023) Note: Universities sometimes use the term community-based learning directly. Other common terms include service-learning, global service-learning, community-based global learning, volunteering, internships with social impact, and community-based research[1].
Community-partner organization	The organization which represents community interests and facilitates the experiential learning portion of the community-based learning program or course. Based on: Shah (2020). Examples include non-profit organizations, schools, community cooperatives, and advocacy groups.
Online Learning	“Learner's interaction with content and/or people via the Internet for the purpose of learning” (Means et al., 2014).

[1] This study utilizes the term community-based learning to refer to programs, courses, or literature which match the definition here, even if the program, course, or literature itself utilizes an alternative term.

CHAPTER I.

INTRODUCTION

According to UNICEF (2020), in June of 2020, pandemic school closures had forced more than one billion students worldwide out of school, due to not having access to a computer or the internet, among many other reasons. The COVID-19 pandemic put a magnifying glass on the importance of individuals understanding how global systems—health, economic, political—are increasingly interconnected, inequitable, and mediated by technology. Global citizenship education is *one* way to increase this understanding as well as encourage individuals to develop the capacities they need to be change agents in an increasingly interdependent and unequal world. And global citizenship education is increasingly recognized as important by international organizations, governments, and institutions of higher education worldwide (United Nations, 2015; Oxfam, 2015; DeWit, 2016). In fact, the United Nations (2015) Sustainable Development Goal 4: *ensure inclusive and equitable quality education* names one of the ways to meet this goal as: *education for sustainable development and global citizenship*. In the wake of the COVID-19 pandemic, it

is especially important to think about how to encourage global citizenship education as part of the solution to a more equitable and prosperous future for our increasingly interconnected world.

While global citizenship education has big aspirational goals, for global citizenship education to be effective, educators must better understand what pedagogical strategies impact the development of global citizenship capacities in students. Thus, this study examines one emerging strategy in global citizenship education in the context of higher education: online community-based learning. Pedagogies applied to global citizenship education are often experiential and collaborative in nature such as community-based learning, study abroad, and project-based learning (Landorf et al., 2018; S. Stanlick, 2015). As discussion and teamwork are central to these collaborative experiential pedagogies, they faced a unique situation during pandemic school closures – How to re-create a collaborative environment in the online modality? Despite the fact that many experiential education programs pivoted to the online modality during COVID school closures, little is known about how engagement in these types of programs impacted student learning or their future actions. It is currently an opportune time to consider how educators utilize technology as a tool for learning and collaboration with other people, what parts of online interaction are valuable, and what parts should be discarded or resisted.

For global citizenship education to be effective, we must also better understand what pedagogical strategies impact the development of global citizenship capacities for what types of students. Scholars have noted that there is relatively little research regarding outcomes for students of different demographic identities in online learning, community-based learning,

and global citizenship education alike (Brownell & Swaner, 2010; Chittum et al., 2022; Hartman et al., 2020; Post et al., 2019; Waldner et al., 2010). Not disaggregating data by student demographics for analysis is a problem because it results in research and recommendations which benefit the majority student demographic the most. There is a need for studies which disaggregate data for purposes of analysis and recommendations in order to develop inclusive teaching and learning practices which benefit all students in online and community-based learning programs.

Studying the potential of online community-based learning as a strategy in global citizenship education is particularly important in a society where technology is increasingly utilized in education and all social interactions. The latest data available from the National Center for Education Statistics (NCES) shows that in the fall of 2022, 53% of all higher education students in the United States were enrolled in at least one online course, which is up from 36% from the pre-pandemic fall of 2019 (NCES, 2023; NCES, 2024). In our current world where education, work, political, social, and civic life are all taking place in some form of online or hybrid modalities, it is imperative that global citizens understand how technology influences them, how it influences others, and how it impacts relationships.

The problem this study addresses is the advancement of teaching and learning strategies needed in higher education to develop the capacities diverse students need to understand and change increasingly digitized and inequitable global systems.

A. Purpose of the study and research questions

This study seeks to understand the potential of one pedagogical strategy –online community-based learning– for fostering global citizenship capacities in an increasingly interconnected, unequal, and digitized world. It does so in order to advance inclusive and critical pedagogies in global citizenship education, civic education, online learning, and higher education more broadly. This study seeks to better understand which teaching and learning strategies are effective, and for whom. In order to better understand the potential of online community-based learning to foster global citizenship capacities in college students, this study addresses the following research question and sub questions:

1. How does participation in online community-based learning programs impact the development of global citizenship capacities (collaborative and civic) in college students?

a. Do students self-report a change in civic and collaborative capacities directly after program completion?

b. Do alumni self-report a change in civic and collaborative actions one to three years after program completion?

c. What program factors impact student learning and actions?

d. What demographic factors impact student learning and actions?

B. Theoretical framework

This study is rooted in constructivist epistemology, two overarching teaching and learning theories (*experiential learning* and *critical pedagogy*), and the overarching theme of

trust. A constructivist epistemology and *experiential learning* theory hold central the belief that engaging in interactions with those who are different from ourselves is a way to learn about ourselves, others, the world, and the actions we want to take in the future. *Critical pedagogy* adds the key component of examining structures of equity and inequity as part of the learning process. Underlying all components of this theoretical framework is the notion that *trust* must exist between individuals for both learning and social change to occur. These ideas inform the literature review, research questions, mixed-methods design, and data analysis strategy of this study.

According to Guba (1990), a constructivist epistemology holds that objective truth does not exist. Rather, reality is an infinite number of interpretations (constructions) in the mind of each person, and the only way to create knowledge is through interaction with others. As an educator who prioritizes guided reflection and collaboration with diverse people, I most align with a constructivist epistemology. A constructivist epistemology is traditionally associated with qualitative methodology, and this is a mixed-methods study. However, mixed-methods research is commonly informed by an overlap of several paradigms, and this study is no exception (Creswell et al., 2003). This mixed-methods study drew on several paradigms as outlined by Creswell et al. (2003) including: pragmatist (concerned with what works and solutions to problems), transformative (concerned with social change), and constructivist (concerned with dialogue and interaction). This mixed-methods design prioritizes qualitative methods which allow for dialogue, and thus aligns well with a heavily constructivist epistemology.

Philosophy of experience

Additionally, this study was shaped by the classic American philosopher and educational reformer, John Dewey's (1938) philosophy of experience which is based on the principles of *interaction* and *continuity* which shape one's *purpose*. Dewey's theory of experience (1938) holds that: a) knowledge needs to be applied to a situation for it to be useful (principle of *interaction*) b) then careful guidance from an educator helps to c) Shape one's *purpose* or specific plan of action d) this will result in experiences which build on one another and promote growth in learners (principle of *continuity*), e) continued careful guidance from educators can eventually (slowly!) move one's purpose into a change in actions. Notably, Dewey held the conviction that interaction with diverse people is the most desirable form of community life as everyone has "gifts and interests" to offer in democratic society (Dewey, 1930). This study seeks to understand if experiential learning, in the form of fully online *interaction* with diverse community partners, coupled with careful guidance from educators has potential to shape students' *purpose* or future plans for collaborative and civic behaviors.

Critical pedagogy

The Brazilian educator Paulo Freire's work Pedagogy of the Oppressed (Freire, 1970) is often credited as the foundation of critical pedagogy, and was influenced by Dewey's philosophy of experience as the basis of knowledge creation, but holds that the purpose of learning should be to critique and resist oppression and structural inequality in order to create social change. Freire posits that when those who trust one another engage in dialogue with

those who experience different social realities and then critically reflect on that experience, this can lead to *conscientization*, or motivation to transform unjust systems. Freire calls this combination of reflection and action *praxis*. Trust between learners, and critique of structural inequality are key elements Freire brings to experiential learning theory. Thus, influenced by Freire, several critical pedagogies which influence this study include critical global citizenship education (Andreotti, 2006), critical service-learning (Mitchell, 2007) and critical digital pedagogy (Morris & Stommel, 2018) which share the aim to empower students to examine structures of equity and inequity as well as to foster an equitable distribution of power in the classroom and in the wider world (hooks, 1994). Critical theories influenced the understanding of global citizenship in this study as well as data analysis strategies (disaggregating data by student demographics.

Trust

Underlying this study is the idea that trust must exist between individuals for either learning or social change to occur. Freire (1970) believes that *conscientization*, or motivation to transform unjust systems, can only occur through *dialogue* with people who trust one another, and said, “Whoever lacks this trust will fail to initiate (or will abandon) dialogue, reflection, and communication” (Freire, 1970). While literature in the area of social movements has found that a trusting community is a central element of all successful social movements, which requires recognition of others as whole people (Dimock, 1992; Homan, 2015; Kallman & Ferorelli, 2024; Pyles, 2020). This study holds that trust requires recognizing one another as whole human beings as opposed to means to an end, which is

based on the German-American political philosopher, Hannah Arendt's (1958) concept of *action*.

In her seminal book, *the Human Condition*, Arendt (1958) describes three core aspects of a complete human life: *labor, work, and action.* While each of these three pieces is important to Arendt, she considers *action* to be the component that makes one human (as opposed to an animal or a god). According to Arendt, what distinguishes *action* from *work* and *labor* is the ability to reveal "who" the performer of the action is as a unique human being, including qualities, talents, and shortcomings. While in both *labor* and *work*, the end product is more valuable than the maker of the product. In the classroom community, this means that fostering trust requires recognizing the human qualities, talents, and shortcomings of all members beyond productive roles like student and instructor.

C. Positionality statement

As someone who believes critical self-reflection is a key element of the education process, I also believe it is a key piece of the research process, and I aim to embody this practice during this research study. I bring different pieces of my identity, life experiences, and biases (my intersectional positionalities or subjectivities) to the research process. Some of my main positionalities include being a cis-gender female, Irish-Italian American, White, straight, feminist, justice-oriented, mother, yogi, and global educator. Many of these positionalities are dominant in today's society (i.e., White, straight) and therefore hold power and privilege. Whenever someone is in the position where they hold a dominant identity, there is the possibility of misinterpreting or altogether missing the experiences of those holding non-dominant identities, and this holds true in the research process. My

positionalities are also assets: for example, I bring the non-dominant perspective of a female researcher and the practical experience of a global educator to the research process. I have built a career and part of my identity around global education, student development, and community engagement. As an educator, I hope that carefully designed learning experiences impact students in meaningful ways, and I tried to be aware of this bias when analyzing data and making recommendations. I also truly want to know what practices are not fostering inclusive and critical learning; therefore, in this study I paid particular attention to evidence that signaled no impact or a negative impact on student learning that aims to promote a more just world. While I cannot control my positionalities, as these are always changing depending on who I am interacting with, I can make choices as a researcher about my own mindset and actions when collecting and analyzing data (Glesne, 2011). The mindsets and actions I aimed to embody during the research process included cultural humility and reflexivity.

Taking a culturally humble (Tervalon & Murray-Garcia, 1998) stance in my research means that I aim to embody a mindset of curiosity and a desire to learn as well as engaging in reflexivity regarding my own positionalities/subjectivities throughout the research process. I applied reflexivity throughout the research process through an active practice of memoing during the data analysis and writing phases. Part of memoing included noting and reflecting on positive or negative feelings such as satisfaction or discomfort (Peshkin, 1988). I believe that ongoing memoing helped me to recognize important themes and become aware of what I might have been misinterpreting or missing altogether.

CHAPTER II.

LITERATURE REVIEW

The literature review bridges literature in the fields of global citizenship education, community-based learning, and online learning. Although all are within the field of education, these sub-disciplines do not often interact with one another in academia or practice. Many would even say that global citizenship education and community-based learning require in-person face-to-face interaction, and thus do not align with online learning. However, this study sought to understand the potential of combining online learning, which is growing rapidly, with community-based learning in service of global citizenship education. This literature review highlights how, especially in the critical scholarship of each area, these educational sub-disciplines can learn from each other.

A. Global citizenship education

There are many different views as to the meaning of global citizenship and what capacities are important for global citizenship educators to foster in students. In the broadest sense, global citizenship is the idea that one is part of a global community and that all members of this community share common dignity, rights, and responsibilities (Hartman et

al., 2018; Nussbaum, 1994). While global citizenship capacities are the knowledge, values/mindsets, and skills that individuals need to be a global citizen (Oxfam, 2023). Common global citizenship capacities named by Oxfam, the UN, UNESCO, and the Brookings Institution include: respect for identity and diversity, understanding globalization and interdependence, critical thinking, communication and collaboration with diverse people, empathy, shared values of human rights and justice, commitment to social justice and equity, and belief in one's own ability to make a difference (Oxfam, 2015; Brookings Institution, 2017; Reimers, 2020). With this general understanding of global citizenship and global citizenship capacities, I will outline how these terms are conceptualized for this particular study.

Global citizenship: This study

The framing of global citizenship that I use for this study is drawn from Oxfam's definition and influenced by a critical understanding of global citizenship from Brazilian scholar Vanessa Andreotti (2006). Oxfam's (2023) definition of global citizenship is "someone who is aware of and understands the wider world – and their place in it. They are a citizen of the world. They take an active role in their community and work with others to make our planet more peaceful, sustainable, and fairer." Andreotti (2006) makes an important distinction between soft and critical global citizenship education, in that soft global citizenship education is one which celebrates common humanity, universal human rights, and responsibility for others. She believes that this can be a good starting point, but that these approaches lack acknowledgement that globalization has caused vast structural inequality. If only this soft level of global citizenship is achieved, there is a danger that students will come

away with a feeling of self-importance and then reinforce paternalistic and colonial notions of "saving the world." In contrast, critical global citizenship education focuses on justice, one's own role in inequitable global systems, and responsibility to learn together with others. The goal of critical global citizenship education is that learners first reflect on the root of inequalities in power, wealth, and labor distribution in global systems and then take more informed and ethical action to change these systems. Thus, for this study, I offer a definition of global citizenship which centers: critical reflection, collective action, and justice:

> A global citizen strives to understand global interconnected systems of equity and inequity and their own place in those systems. They take an active role in their community and work with others to make the world more just.

While rooted in Oxfam (2003) and Andreotti's (2006) conceptions of global citizenship, the three central components—critical reflection, collective action, and justice—are influenced by several streams of literature and empirical research, which I elaborate on below.

a. Critical reflection

Critical reflection or reflecting on "global interconnected systems of equity and inequity and their own place in those systems" is key to the conception of global citizenship I put forward for this study. Empirical research shows that without intentionally designed and facilitated opportunities for critical reflection, stereotypes which uphold historical power inequities can be reinforced for students who participate in a variety of global learning programs such as: study abroad (Vande Berg et al., 2009) international volunteer programs (Kallman, 2020) and international gap-year education programs (K. Simpson, 2004).

However, compelling research, which looked at 1,000 students on a semester abroad, found that when intentionally facilitated reflection is part of an experiential-learning program, students can learn to challenge preconceived stereotypes and biases (Vande Berg et al., 2009). Critical reflection is an important piece of global citizenship education which aims to develop capacities in students which encourage them to challenge unjust social structures in their future actions.

b. Collective action

In the definition of global citizenship for this study, I pose that global citizens "take an active role in their community and work with others." Scholars of social movements have found that acting together in community is a central element to all successful social change movements (Dimock, 1992; Homan, 2015; Kallman & Ferorelli, 2024; Pyles, 2020). Some of the reasons that collective action is central to social change is that working together with other people fosters a motivation to act, accountability to follow-through, a variety of skills and experiences, and numbers to make change effective. The importance of fostering an understanding in students that collective action is key for social change has been explored in civic education literature, such as Morton's (1995) social change framework and Westheimer and Kahne's (2004) conception of the justice-oriented citizen, and is also held central in this study.

c. Justice

Critical reflection and collective action are both needed for the third piece of this definition of global citizenship—justice—to be realized. Terms like justice are often utilized

yet undefined in educational settings; however, in this study I draw on the concept of *full participation* (social, economic, cultural, and political) in all aspects of society as the basis for a more just world. The idea of *full participation* is informed by the concept of *social inclusion*, which was popularized by international organizations like the World Bank and the United Nations (World Bank, 2013) and has been applied to different contexts including the university setting (Sturm, 2007). The concept of *social inclusion* is heavily influenced by the work of the Indian economist Amartya Sen and the American political philosopher Martha Nusbaum's capabilities approach to international development. They both argue that the freedom to make choices and participate in community life is vital to development in addition to economic prosperity (Nussbaum, 1988; Sen, 1999). *Social inclusion*, like Andreotti's critical global citizenship, aims to identify root causes of exclusion and then change systems of inequality (Hayes et al., 2008). Therefore, working towards a more just world requires changing policies to foster *full participation* of marginalized groups.

This research focuses on the development of collaborative and civic capacities through global citizenship education. Collaborative and civic capacities were chosen because they are common key learning outcomes in both global citizenship education and community-based learning. Further, this study examines data from a survey tool which specifically examines collaborative and civic capacities. Digital capacities are not commonly discussed in the global citizenship or community-based learning literature, and thus this is a contribution this study brings to these fields.

Increasing importance

Global citizenship education is increasingly recognized as important by international organizations, governments, and schools. The international NGO Oxfam has produced a widely recognized curriculum for global citizenship education, utilized mainly but not exclusively, in the K-12 setting (Oxfam, 2015). Further, the United Nations 2030 Agenda for Sustainable Development names global citizenship education as a way to meet goal 4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030), with target 4.7 stating:

> Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development (United Nations, 2015).

Within the context of higher education in the United States, global citizenship education is increasingly viewed as an important student learning outcome related to global learning courses and programs as well as university missions as a whole (DeWit, 2016; Landorf et al., 2018; Means et al., 2014; O'Dowd, 2023; S. Stanlick & Szmodis, 2022). Further, the United Nations Academic Impact initiative is a collective of 1400 institutions of higher education in more than 147 countries which have committed to contributing to ten UN goals through education, including a commitment to global citizenship education (United Nations, 2023).

Thus, global citizenship education is of growing interest for many entities, including higher education, which is the focus of this study.

While global citizenship education is increasingly viewed as a key learning outcome in higher education, there is a need to better understand what pedagogical strategies impact the development of global citizenship capacities for what types of students. Global citizenship education commonly utilizes experiential learning strategies such as study abroad or community-based learning as a way to foster transformational learning that can be carried over into students' personal, professional, and civic lives (Stanlick & Szmodis, 2022). This research project investigates the potential of an emerging pedagogy, online community-based learning, as an experiential learning strategy in global citizenship education.

B. Community-based learning

Community-based learning in higher education

Here I outline the conceptions of community-based learning and community-partner as understood in this study. The term community-based learning is recognizable to many in the field of higher education, as the researcher George Kuh and the American Association of Colleges and Universities (2008) popularized the term by identifying it as one of ten high-impact practices correlated with increased rates of retention, higher GPAs, and increased self-reported achievement of a variety of learning outcomes amongst undergraduate students. For the purposes of this study, I define community-based learning based on the University of Colorado Boulder's Center for Community-Based Learning and Research (2023) and Kuh's (2008) research regarding high-impact practices as:

> Community-based learning is an educational strategy of experiential learning with community partner organizations. This work is based on reciprocal and mutually beneficial partnerships between educators, students, and community groups. Guided critical reflection is an essential component. One goal is to address community-identified needs and ultimately create positive social change. A benefit for educators is enhancing educational content. And the goal for students is preparation for citizenship, work, and life.

For the purpose of this study, the term *community partner* is understood as: an organization which represents community interests and facilitates the experiential learning portion of the community-based learning program or course (Shah, 2020). Examples of community partners may include non-profit organizations, schools, community cooperatives, and advocacy groups. It is important to recognize that terms like "community" and "university" often overlap, for example students may live in the community where they are participating in community-based learning and benefit from the services of a non-profit that is a partner with their university (Shah, 2020). I utilize the terms *community-based learning* and *partner community* in this study for consistency and clarity, even if the program, course, or study referred to uses an alternative term.

Community-based learning and global citizenship education are both realized in many ways across disciplines as well as organizational structures at universities. Community-based learning could occur through a professor incorporating this pedagogy into their one-time course, a department creating ongoing community-based learning partnerships for internship credit, or a campus center for community-engaged learning facilitating spring or summer

break community-based learning programs. Thus, community-based learning is inherently multidisciplinary, and this is especially true in the context of global citizenship education where the goal is global thinking rather than disciplinary expertise (Stanlick & Szmodis, 2022). Global citizenship education often aims to educate students about interdependent and complex global social issues (i.e. climate change, immigration, food security, etc.), which do not exist within disciplinary boundaries and require many different knowledge and skills to address their root causes (Reimers et al., 2016; Sant et al., 2018). Thus, to clarify what I mean by community-based learning, I provide a few illustrative examples, all from universities in the United States (as this is where the vast majority of academic literature around community-based learning is produced). Reynolds' (2014) research describes a community-based learning partnership in which engineering students work with community members in Nicaragua to access clean drinking water. Shah's (2020) book provides an example of a composition course where students use writing skills to assist non-profits with their communication efforts. And Garver et al.'s (2018) research details education students teaching English as a Second Language classes in a community adult-learning program. These examples highlight how community-based learning and global citizenship education can intersect across disciplines.

As community-based learning is facilitated in many different contexts, it is not easy to get a clear picture of who is participating in this practice. It is especially difficult to fully understand community-based learning participant demographics, as much of the research in the field has traditionally not reported this information; however there has been a call from researchers and practitioners to change this dynamic in order to promote access and inclusion

(Chittum et al., 2022; Valentine et al., 2021; Valentine & Price, 2021). A recent large-scale longitudinal multi-university research points to evidence that the majority of students participating in community-based learning are female, White, of traditional college age (24 or younger), and not first-generation to college students (Valentine et al., 2021; Valentine & Price, 2021). Understanding the demographics of students who participate in community-based learning, and disaggregating data for purposes of analysis and recommendations, is important for scholarship which aims to develop critical student learning and foster positive social change.

While community-based learning has been deemed a high-impact practice by the AAC&U and many colleges and universities embrace the practice, others do not believe the pedagogy holds potential to foster justice-centered student learning or community development, due to a lack of attention to power imbalances between universities and community partners. Critics of community-based learning say that because this learning theory and practice has been developed for and by upper-class White people, it can reinforce inequitable structures of power and privilege by taking an individualistic charity-based approach that leaves students feeling good about themselves without changing their long-term behaviors or leaving a positive impact on the partner community (Mitchell et al., 2012; Morton, 1995; J. S. Simpson, 2014). Indeed, most of the research regarding student outcomes in community-based learning does not disaggregate data by student demographics, which means that results and recommendations for designing future learning experiences benefit the dominant group (in community-based learning this is traditional college-age, upper-class, White, females) and excludes non-dominant groups. Further, scholars have argued that while

service-learning and volunteerism in higher education expanded in the 1990s through leadership of mostly White upper-class professionals, the unrecognized true roots of experiential learning where students and community partners realize mutual goals of social-justice education and community change lies in university ethnic studies programs established in the 1970's and African American social thought and action (i.e. non-traditional education and community problem-solving of Black women's social clubs and Black educators) at the turn of the 20th century, and that a community-engaged learning movement which values justice and inclusion would benefit from greater inclusion of these perspectives (Mitchell & Coll, 2017; Stevens, 2003). Several critics who draw attention to the power imbalances and unrecognized roots of community-based learning also see the field bending towards true social-justice aims.

Grain and Lund (2016) observe a "social-justice turn" in the field of community-based learning in three trends that are gaining favor: 1. critique of the field's roots in charity and saviorism, 2. problematization of White normativity and amplifying diverse perspectives of students, educators, and community members, 3. Embracing emotional elements such as ambiguity and discomfort. Many scholars and educators who are a part of the "social justice turn" hold that community engagement coupled with critical analysis of social structures can encourage informed and ethical social action (Hartman et al., 2018; Kiely, 2004; Mitchell, 2007; Mitchell & Coll, 2017; S. Stanlick, 2015; Westheimer & Kahne, 2004). This research aims to be a part of the "social-justice turn" in the field of community-based learning by examining critical aspects of global citizenship capacities, collecting data regarding alumni

longitudinal behaviors and actions, and disaggregating data according to key student demographics for purposes of analysis and recommendations.

A key element of community-based learning which centers justice is forging mutually-beneficial partnerships between universities and community-partners. Scholarship in community-based learning, including this study, typically focuses on student learning, which reflects a power dynamic in which universities are seen as the "experts" who control resources (i.e. money and student volunteers) and the narrative around community-based learning relationships. However, a growing number of community-based learning educators and researchers recognize that as power imbalances are inherently present between students or others at universities and community partner organizations, critical student learning and social change for communities can only occur if partnerships are formed in which the goals, leadership, and expertise of partner community organizations are held with equal importance to university goals (Hartman, 2016; Mitchell, 2008; Santiago-Ortiz, 2019; Shah, 2020; Tuck, 2009). As related to the goal of student learning, community-based learning programs must model to their students how to form mutually-beneficial relationships across power and cultural differences; otherwise, these programs will reinforce unequal and paternalistic power relations that can be carried on into the students' personal, civic, and professional lives.

A small but growing research base has found that as program goals and elements differ greatly, partner communities also perceive both positive and negative impacts of community-based learning programs. Research in the areas of service-learning and international volunteerism have found negative impacts of these programs include: a student-centered program; drain on community of time and resources; imperialistic notions; creation

of resource dependency; implementation of culturally inappropriate or unviable solutions; undervaluation of local capability; disadvantaging local job seekers (Devereux, 2008; Lough & Matthew, 2013). And some positive impacts reported by partner communities involve: capacity building and skill transfer; innovation and ingenuity; access to resources; prestige and respect; providing one-on-one attention to clients; promoting intercultural understanding; appreciation for diversity; pride as co-educators (d'Arlach et al., 2009; Lough & Matthew, 2013; N. P. Reynolds, 2014; Toms Smedley, 2015). There is a dearth of literature regarding community partner organization impact or perspectives of *online* community-based learning, and this is an area ripe for future research (Faulconer, 2021; Steckley & Steckley, 2022). While this study aims to better understand student learning as one important piece of the growing phenomena of online community-based learning, partner community perspectives is a crucial area for future research in community-based learning which is part of the "social-justice turn."

Student learning outcomes

Research links participation in community-based learning which addresses a global-aspect of citizenship education to various student learning outcomes, and here I review some of this literature which was foundational in developing the survey tool utilized in this study, the Global Engagement Survey (Hartman et al., 2015). Sherraden, Lough, and McBride (2008) developed a conceptual model for the impact of international volunteer and service programs on participants, partner organizations, and sending organizations (i.e. universities or non-profits). The potential volunteer outcomes cited in their model, based on existing literature and empirical research include professional experience and skills, personal

development, intercultural communication skills, intercultural conflict resolution skills, language skills, increased global knowledge and understanding, increased value and commitment to global civic engagement (Sherraden et al., 2008). The authors note that most empirical research is based on single case studies. An often-cited case study of an international service-learning program is Kiely's (2004) seven-year longitudinal study of a service-learning program in Nicaragua, which found that after the experience students expressed a notion of social responsibility and citizenship that was both local and global. Specifically, students expressed motivation to advocate on behalf of the global poor, raise consciousness on poverty, and change unjust institutions and policies that oppress-ss the global poor. Findings indicate that critical reflection about unjust global social structures and students' own place in these systems is a key factor in student perspective transformation, and notes that it is a challenge for educators to guide students from a change in perspective to a change in actions (Kiely, 2004). And in a recent case study, Gendle and Tapler (2022) utilized the Global Engagement Survey and found through pre-/post- survey research that students participating in a multi-year community-based global learning program improved their self-perceived notions of civic efficacy and cultural adaptability. These students chose a country or region of focus for academic coursework and co-designed a project with a community partner to promote social change and sustainable development. A body of research in community-based learning which aims to develop a global aspect of citizenship education has found that student learning outcomes include intercultural communication as well as increased value and commitment to both local and global civic engagement. This

study aims to investigate if student perceptions of gains in learning related to global-citizenship capacities hold true in fully online community-based learning programs.

While scholarship shows clear evidence of students professing an increased value and commitment to future civic engagement at the conclusion of their community-based learning program (Gendle & Tapler, 2022; Kiely, 2004; Mitchell, 2007, 2008; Sherraden et al., 2008; Westheimer & Kahne, 2004), few studies follow students long enough to observe an actual change in future actions. The limited research body which has examined the long-term impact of community-based learning, largely reports on future values/mindsets, and confirms that students continue to display an understanding of power dynamics surrounding social issues and place value on the importance of civic engagement years after participation in community-based learning (Cattaneo, 2021; Lake, 2021; Mitchell et al., 2019). However, empirical evidence of actual behaviors and actions of alumni of community-based learning programs is lacking.

Some longitudinal research regarding student future actions *does* exist, conducted with alumni one to fifteen years after completion of a community-based learning, program finds a sustained or increased involvement in civic engagement including volunteer work, supporting local businesses, active participation in neighborhood groups, voting, participation in political campaigns, and political advocacy (Cattaneo, 2021; Lake, 2021; Mitchell et al., 2015, 2019; Myers et al., 2019; Raykov & Taylor, 2018). Notably, civic engagement is often expressed by alumni through students' professional lives, such as jobs in the public and non-profit sector (Kallman, 2020; Lake, 2021; Mitchell et al., 2015, 2019). Two longitudinal studies have found, particularly through interviews, that alumni of

community-based learning programs are not currently acting on their deeper commitment to social and civic issues as much as they had hoped, with personal and professional commitments named as barriers (Lake et al., 2021; Mitchell et al., 2019). Most of these studies do not identify if future actions are aimed at changing unjust social structures, and some scholars have called to make a distinction between actions which are explicitly political, justice-oriented, or critical and those which are apolitical or charity-based (Andreotti, 2006; Mitchell et al., 2019; Morton, 1995; Westheimer & Khane, 2004). Several scholars suggest a need for community-based learning educators to embrace Dewey's (1938) philosophy of education, and guide students to bridge the gap between a changed perspective and a change in justice-centered *actions* (Cattaneo, 2021; Colby et al., 2007; Kiely, 2004). Community-based learning researchers are calling for more longitudinal studies which look at actual behavior changes as well as what program and demographic factors may influence these changes (Lake et al., 2021; Chittum et al., 2022). This study will contribute to the much-needed longitudinal research base, as it examines students' self-reported actions related to global citizenship capacities one to three years post-participation in an online community-based learning program as well as demographic and program factors which may influence these behaviors; further, critical actions will be identified in an effort to observe if behaviors are aimed at changing unjust social structures.

First-generation students

This study finds learning differences between first-generation-to-college (first-generation) students and their non first-generation peers, and thus I provide a brief review of literature regarding first-generation students in community-based learning programs. The

definition of first-generation can vary; however, the Center for First-Generation Student Success, refers to first-generation students as those whose parents do not hold a bachelor's degree (Hinz et al., 2016), and this is the definition I utilize in this study.

The literature regarding first-generation students and community-based learning is limited and often combines first-generation, students of color, or non-traditionally aged students as "underrepresented" groups. A few large-scale studies looking at student-learning outcomes for those who participated in high-impact practices, such as community-based learning and study abroad, have found that first-generation students who participated in at least one high-impact practice self-reported greater gains related to academic achievement and personal growth than non-first-generation peers who also participated in a high-impact practice (Finley & McNair, 2009; Kuh, 2008; Valentine et al., 2021). Research has also found that the difference in self-reported learning gains is marginal when both first-generation and non-first-generation students participate in two or more high-impact practices (Finley & McNair, 2009). Thus, it seems that the initial involvement in high-impact practices, such as community-based learning, provides a learning boost for first-generation students, perhaps providing an increased sense of belonging and motivation. There is a dearth of research regarding program aspects that impact first-generation student learning in community-based learning programs. Thus, this study contributes a mixed-methods analysis of first-generation student learning outcomes and program elements which may facilitate student learning in community-based learning programs.

C. Online learning

Research and practice in online learning in higher education frequently occurs in silos separate from traditional departments and their disciplines. Therefore, those designing curriculum and programming in fields like education, civic learning, and global citizenship education are often unaware of online learning pedagogies and evidence-based better practices. This literature review aims to highlight online-learning pedagogies and evidence-based better practices as they relate to the pedagogical strategy of community-based learning and global citizenship education more broadly.

For the purpose of this study, I use the following definition of online learning: "learner's interaction with content and/or people via the Internet for the purpose of learning" (Means et al., 2014). Further, I make a distinction between fully-online as opposed to blended or hybrid learning, which refers to some combination of in-person and technology-mediated learning. This research examines community-based learning in which the community-based interaction occurred fully online. In this study, fully-online learning may have occurred synchronously (i.e. a Zoom meeting) or asynchronously (i.e. email communication or comments in a google doc). While I use the term *online learning* for this study, terminology in the field of learning-mediated by technology is inconsistent (Means et al., 2014), and other common terms used in both research and practice include: e-learning, cyber learning, distance learning, remote learning, virtual learning, and hybrid learning.

Beyond terminology, online learning is often a divisive issue– there is both strong support and intense resistance and fear related to online learning. Frequently cited benefits of online learning include preparing students for an increasingly digitized world, flexibility,

convenience, accessibility, personalization (i.e. self-paced learning), cost, and the ability to bring together more diverse learners (Allen et al., 2016; Ghazi-Saidi et al., 2020; Means et al., 2014; Meehan, 2019). However, others in higher education warn that online learning can be a neoliberal practice motivated by student tuition dollars and cost-cutting, instead of providing quality student learning experiences (DeWit, 2016). Views regarding online learning became even more divisive and politicized during pandemic school closures which forced unprepared students, teachers, and school systems around the globe into online learning. Thus, when universities "reopened", there was a rush to "get back to normal" or resume all classes and activities in-person without a careful examination of what was beneficial and what was harmful in the forced-experiment of online learning at a global scale. In contrast, this study aims to step back and carefully examine student learning from one piece of the forced-experiment in online learning at scale– online community-based learning as a strategy in global citizenship education.

Online learning in higher education

Regardless of one's view about online learning, enrollments in online-learning courses at the university level were undeniably growing pre-pandemic and have continued on this track through emergency remote instruction (Hodges et al., 2020), during pandemic school closures, and beyond. According to the US Department of Education's National Center for Education Statistics (NCES), a few months before the pandemic hit, in the fall of 2019, 36 percent of undergraduate students were enrolled in at least one online course; this number doubled to 75 percent in the fall of 2020 (due to pandemic school closures), this remained very high at 61% in the fall of 2021, and in the latest provisional data available in

the fall of 2021, 53% percent of all undergraduate students were enrolled in at least one online course (NCES, 2023; NCES, 2024). Thus, it seems that the pandemic hastened the already increasing trend of online learning in higher education, which remains much higher than pre-pandemic levels. Although highly debated and with various motivations, online learning in higher education is only predicted to grow; thus, research regarding student learning in a variety of online learning programs, such as this study, is essential.

Table 1

US undergraduates enrolled in at least one online course Fall '19-Fall '22

Fall 2019	Fall 2020	Fall 2021	Fall 2022
36%	75%	61%	53%

Source: NCES

While online learning sometimes has negative connotations in higher education due to the perceived lack of social interaction and meaning-making with others (Herman, 2020), in the field of the pedagogy of online teaching and learning there is a body of theory and research which argues that effective social interaction and collaboration can occur in the digital format. The two main theories which promote collaborative online learning are known as the *principle of interaction* (Robinson et al., 2017) and *social presence* (Garrison et al., 1999). Heather Robinson et al.'s (2017) research pertaining to a teacher-training online course found that of the three forms of interaction (learner-content, learner-instructor, and learner-learner) social interactions between humans (learner-learner and learner-instructor)

had the most consistently positive impact on student perceptions of learning. A popular online learning theory known as the *Community of Inquiry* (CoI) framework, moves beyond mere interaction and places importance on building trusting interpersonal relationships in the online learning environment through a) *social presence* and b) *teaching presence* which both support the main goal of c) *cognitive presence*. According to the CoI framework, *social presence* occurs when students feel connected to and supported by other students and the professor; which leads to a sense of trust, belonging, empathy, and reduction of feelings of social isolation in the online learning environment (Garrison et al., 1999). The CoI framework holds that *social presence* is key because students must trust each other and the professor in order to engage in critical discourse. Research supports these assertions: for example, Liu et al. (2009) found that the greater sense of *social presence* students feel in online learning, the greater the likelihood they will complete the course and the higher their final grade. And Means et al. (2014) meta-analysis of forty-five controlled studies comparing learning outcomes for online and in-person instruction found that the two online learning features which positively impacted student learning the most were blended learning and a collaborative pedagogy. Online learning research in the areas of *interactivity* and *social presence* provide the potential that if trusting interpersonal relationships can be fostered in online community-based learning programs, then collaborative and civic learning outcomes could be realized.

The social connections formed in community-based learning are unconventional from the traditional classroom as all community-based learning experiences include the knowledge and guidance of a community member who is not a professor at their university. Oftentimes

this person is a staff member at a non-profit or other community organization and serves as a mentor for a student during the experiential component of the community-based experience. Research in community-based learning shows that community members view themselves as educators and mentors, and that they value this role (Basinger & Bartholomew, 2006; N. P. Reynolds, 2014; Shah, 2020). Drawing on online learning research regarding *interactivity* and *social presence*, I posit that fostering learner-community member interaction (in contrast to learner-instructor interaction) which leads to trusting interpersonal relationships between students and community members (*social presence*) could have a positive impact on student learning outcomes.

Much like the theory of *social presence*, the emerging field of *critical digital pedagogy* holds central building trusting humanized relationships in online learning; however, *critical digital pedagogy* brings an additional element in that it urges students and educators to think critically about the nature and effects of technology on themselves and others (Morris & Stommel, 2018). Critical pedagogues have been considering the impact of technology on education well before online learning was born. In 1915, John and Evelyn Dewey wrote “Unless the mass of workers are to be blind cogs and pinions in the apparatus they employ, they must have some understanding of the physical and social facts behind and ahead of the material and appliances with which they are dealing" (in Morris & Stommel, 2018, p. 8). Critical pedagogues, like Dewey’s, warn that without these critical reflections, technology will have the power over us instead of the opposite. In our current world where education and many forms of social life are all taking place in online or hybrid modalities, it is imperative that global citizens learn digital capacities that are both functional (i.e. the

ability to utilize technology to communicate and collaborate) and critical (i.e. thinking about how utilizing technology impacts relationship building) (Hauck, 2019). Influences by *critical digital pedagogy*, this study will explore critical online collaborative capacities.

Student learning outcomes

Student learning outcomes in online learning have been explored largely in a body of research comparing online learning with in-person learning (Means et al., 2014; Schwehm et al., 2017; Sitzmann et al., 2006; Zhao et al., 2005). Several meta-analysis research studies of online learning effectiveness in college-age or adult learners have found that there is no statistically significant difference in learning outcomes for online and face-to-face learners and that blended-learning leads to modestly better learning outcomes (Means et al., 2014; Sitzmann et al., 2006; Zhao et al., 2005). Although online vs face-to face learning comparison studies are popular, there are often many different and confounding variables in each modality, making comparison and meaningful results difficult (Means et al., 2014; Surry & Ensminger, 2001). Surry and Ensminger (2001) surmise that the medium in which the learning occurs does not influence learning as much as the instructional methods, which is why so many comparison studies have found no statistical difference in learning outcomes between online and in-person learning. Finally, most studies regarding student learning outcomes in online learning come from fields which lend themselves to learning and practicing technical skills, such as computer science, natural sciences, math, and healthcare (Bond et al., 2021; Means et al., 2014). This study will add to research regarding student learning outcomes in online learning moving beyond comparison studies and assessment of

technical skills, and looking at how program elements and student demographics may influence the development of global citizenship capacities.

Researchers in online learning do a particularly good job of identifying specific program and curriculum elements which impact student learning, which is not typical in the research regarding community-based learning or global citizenship education. Some components of online learning which have been shown to have a positive impact on student learning through empirical research include: blended learning, self-paced learning for adult learners, collaborative pedagogy, an active instructor role, synchronous sessions, and frequent instructor feedback (Bernard et al., 2009; R. Garrison et al., 1999; Means et al., 2014; Sitzmann et al., 2006; Zhao et al., 2005). Further, researchers have suggested several concrete strategies for fostering *interaction* and *social presence* in online learning environments. Heather Robinson et al.'s (2017) research analyzed weekly written feedback from a 16-week online instruction teacher-training course with twenty participants from around the world and found that regular instructor feedback and weekly synchronous sessions were two elements which positively impacted student perceptions of the learning experience. And Garrison et al.'s (1999) seminal research in *social presence* analyzed written online course discussions in graduate-level programs and identified three ways to foster social presence as: emotional expression, open communication, and group cohesion. More contemporary examples of research with specific recommendations for fostering *social and teaching presence* in online learning include posting personal introductions, polling, live synchronous classes, live synchronous peer discussion groups, clear timelines, clear learning activities, frequent feedback, and preexisting face-to-face relationships between instructors

and students (Aragon, 2003; Ice et al., 2008; Martin et al., 2022; Natarajan & Joseph, 2022). This study utilizes several of the program features recommended from research in online learning to inform interview questions with students, and thus learn more about program elements.

eService Learning, eVolunteering, and virtual exchange

The academic literature in which community-based learning takes place in the online modality is limited; however, since 2018 there has been an increase in research regarding eService Learning and eVolunteering, where the community interaction and/or classroom components of the learning experience take place online (Faulconer, 2021). Two examples of community engagement in an eVolunteerism course include: students working on marketing strategies for an urban agriculture organization in Peru and students researching gender-inclusive microenterprise opportunities for low-income women in Southeast Asia (Steckley & Steckley, 2022). While the literature regarding eService Learning and eVolunteerism largely comes from incorporating service-learning or volunteerism into existing online learning courses as a strategy to address noted challenges in online learning such as student engagement, motivation, and retention (Waldner et al., 2010), this study will add to the academic literature as it looks at the opposite transition – existing in-person community-based learning programs which were moved into the online modality during pandemic school closures.

Research regarding eService-learning and eVolunteerism focuses on practical benefits and challenges for students with some promising literature regarding learning outcomes. A

few main arguments supporting eService Learning and eVolunteering include that the online modality aids in making community-based learning experiences accessible to a wider range of students; forging a greater diversity of community-partner sites; increasing student motivation and persistence in online learning (Steckley & Steckley, 2022; Waldner et al., 2010). Some main challenges highlighted in the eService Learning and eVolunteering literature include logistical, technical, communication, collaboration, and feeling of disconnect with the community partner organization (Faulconer, 2021; Schwehm et al., 2017; Sun & Yang, 2015; Waldner et al., 2010). Much of the emerging literature in eService Learning focuses on collaborative capacities such as technology-mediated communication, teamwork, leadership, flexibility, ability to compromise, and collaborative writing (Culcasi et al., 2022; Steckley & Steckley, 2022). Another study comparing learning outcomes for students who completed online compared to in-person service-learning found similar learning gains related to global understanding, understanding of the role the individual plays in the wider community, and a desire to continue service or volunteerism in their community (Schwehm et al., 2017). And in the SUNY COIL Global Commons program students who completed online projects with NGOs in Africa and the Middle East, perceived increased: intercultural communication skills, understanding of global social issues related to the UN's Sustainable Development goals, and increased motivation to take action on global social issues (Forward, 2021). While existing research regarding eService-learning and eVolunteerism has explored best practices and learning outcomes, this study will add a much-needed critical lens as well as longitudinal data which examines alumni's actions.

Virtual exchange is another pedagogy in which online interaction and collaboration between diverse people occurs—in these courses students from two or more different countries interact online, usually in the form of a collaborative project. Virtual exchange is sometimes described as an online alternative to study abroad. Commonly promoted benefits of virtual exchange include: the ability to practice collaboration and communication with people from other countries and cultures, preparation for future in-person cross-cultural collaboration, greater access to cross-border exchange programs, and environmental sustainability of a program which requires no transatlantic flights (de Wit & Altbach, 2021; European Commission, 2018; Poe, 2022; Rubin, 2017; Ruiz-Corbella & Álvarez-González, 2014). Most literature pertains to language learning, peacebuilding, and intercultural competencies from two sources: several large-scale virtual exchange projects funded by the European Commission (Hauck, 2019; Helm, 2018; Van der Velden et al., 2016) and research coming from the State University of New York COIL (Collaborative Online International Learning) center (Naicker et al., 2022; Rubin & Guth, 2015). While most virtual exchange programs do not focus on civic learning, the literature is relevant to this study as many students engage with community partner organizations located abroad, and virtual exchange literature focuses on online intercultural collaboration.

Scholarship in the area of virtual exchange tends to highlight the potential of online collaboration with people from different countries and cultures to increase student intercultural communication capacities. Similar to research regarding student outcomes in both in-person and online community-based learning programs, literature regarding virtual exchanges has found improvements in intercultural communication skills, technological

skills, bias-reduction, increased empathy, and teamwork (Guth & Helm, 2011; Hauck, 2019; Poe, 2022; Porto, 2014). There is a large focus in the virtual exchange literature on success in language learning, which is generally not a focus of community-based learning programs but is a potential outcome for this study which includes many international partner organizations (Guth & Helm, 2011; O'Dowd, 2018; Porto, 2014; Rienties et al., 2022). A strength of the virtual exchange scholarship is that it appreciates the joy and connection students often find in intercultural collaboration between people from different countries, which is an important part of building trusting interpersonal relationships across cultural and power differences.

While much of the virtual exchange literature celebrates intercultural communication and cultural understanding in an apolitical way, there is a growing focus on a more critical approach to this pedagogy. Only focusing on the positive and apolitical aspects of virtual exchange programs can lead to the same kind of deficit-based or neocolonial patterns that uncritical community-based learning is susceptible to, for example the dominance of English as the language of instruction in these programs (Zak, 2021). Several leading scholars have made a call for virtual exchange to incorporate more critical and action-oriented goals (Helm, 2018; O'Dowd, 2020) which align with critical scholars in global citizenship education and community-based learning (Andreotti, 2006; Mitchell, 2008). One such virtual exchange scholar, Mirjam Hauk (2019), poses that virtual exchange students should learn both functional and critical dimensions of digital skills. Functional dimensions of digital skills include practical skills like being able to use technology like Zoom or Slack. Critical dimensions include examining with attention to power and privilege how technology influences the way we collaborate in the online environment including how we think, what

we say and do, and how we perceive others (Hauck, 2019). One notable program which seems to bridge the joy of intercultural collaboration, civic goals, and critical reflection is a virtual exchange between students in Argentina and the UK which combined language learning and community-based projects with local NGOS and found civic learning outcomes such as understanding of global social issues and critical media literacy (Porto, 2014). Emerging calls for critical and action-oriented virtual exchange supports the potential of online community-based learning to foster collaborative and civic capacities in students.

First-generation students

Much like the literature regarding first-generation students in higher education more broadly, the literature regarding first-generation students in online learning programs largely focuses on challenges first-generation students face (Gardner & Leary, 2023; Ilett, 2019; Ives & Castillo-Montoya, 2020). Some challenges commonly named for first-generation students particular to online learning programs include economic, family obligations, mental health, digital inequities, and lack of instructor and peer interaction (Barber et al., 2021; De La Cruz et al., 2021; Gardner & Leary, 2023; Killham et al., 2022). There is a small but growing body of literature which identifies strengths that first-generation students bring to the college learning environment including persistence, resilience, optimism, problem-solving skills, and language skills (N. J. Garrison & Gardner, 2012; Hands, 2020; Wick et al., 2019). However, research valuing the strengths of first-generation students in online learning is scarce. An exception is Hands (2020), who poses that first-generation students possess assets such as goal-orientation and resilience that could make them successful in the online learning environment; however, this literature is purely theoretical without data analysis to support the

theory. This study contributes a much-needed empirical approach that aims to understand not only the challenges, but also the strengths first-generation students bring to the online learning experience.

Also aligned with research of first-generation students in higher education more generally, literature which addresses first-generation students in the online environment commonly focuses on retention, grades, and graduation rates as measures of success as opposed to examining student learning outcomes more holistically (Fischer et al., 2020; Gardner & Leary, 2023; Ilett, 2019; Ives & Castillo-Montoya, 2020). Of note to this research, a large-scale quantitative study examining first-generation students and academic performance, found no difference in performance between first generation and non-first-generation students (Fischer et al., 2020). Fischer et. al.'s work poses that first-generation students were able to succeed in the classroom on par with their non-first-generation peers, with "success" being measured via grades. Thus, this study contributes research regarding first-generation student learning outcomes, including soft skills like collaboration, in the online environment.

Mentorship, especially by those with similar identities, has been commonly suggested in the literature as a way to support first-generation students in both the in-person and online-learning environments (Brinkman et al., 2013; Chavez, 2015; Killham et al., 2022). In the online learning context, Killham et. al (2022) found that students reported clear communication and supportive relationships with peers, faculty, and the university to be a main concern for Latina first-generation students during the shift to remote learning. Mentorship has been suggested as a way to foster a sense of belonging and confidence in all

college students, but as especially key for first-generation students who often struggle with imposter syndrome, academic self-efficacy, and understanding the academic systems when adjusting to college (Ilett, 2019; Ives & Castillo-Montoya, 2020). Literature which celebrates mentorship as the main way to support first-generation students has also been challenged by critical scholars who say that the assumption of this recommendation is that socializing first-generation students into the normative culture of higher education and their academic discipline, as opposed to valuing the unique perspectives and experiences that these students might bring, is the best way to prepare first-generation students for traditional measures of success (i.e. grades and graduation) (Ives & Castillo-Montoya, 2020). Thus, this study will pay attention to mentorship, which in the online context is primarily fulfilled by partner-community members.

D. Gaps in the literature

The fields of global citizenship education, community-based learning, and online learning call for some similar needs in future research. All of these fields call for studies which can increase generalizability including a) larger sample sizes, b) multi-institutional, multi-program/course, and c) longitudinal research (Chittum et al., 2022; Faulconer, 2021; Means et al., 2014). There has also been a call for more research regarding student learning outcomes as opposed to student experiences or satisfaction in online learning (Post et al., 2019; Waldner et al., 2010). Additionally, community-based learning scholars are calling for more research which moves beyond changed mindsets or motivation to take future action and observe actual changes in behaviors (Cattaneo, 2021; Lake, 2021; Mitchell et al., 2019). Further, while online learning is often promoted as a strategy for inclusion of students who

are traditionally marginalized in higher education (i.e. Students of Color, first-generation students, and low-income students) scholars have noted that there is relatively little research regarding outcomes for students of different demographic identities in online learning, community-based learning, and global citizenship education (Brownell & Swaner, 2010; Chittum et al., 2022; Deardorff, 2015; Hartman et al., 2020; Post et al., 2019; Waldner et al., 2010). Thus, this study will contribute to the research literature as it is a multi-institutional study with a large n, spanning the course of three years, considers how both program elements and different student demographics may impact student learning in the online environment, and investigates alumni behaviors.

CHAPTER III.

METHODOLOGY AND RESEARCH DESIGN

A. Context of the sample

In early March of 2020, Jon, a junior at a highly selective university in the Northeast of the United States, had just found out he had received a global citizenship fellowship from his university to travel to Mexico City that summer. He was excited to deepen learning from his Latin American studies major and Spanish language skills by working with a non-profit supporting migrant populations. By the end of March 2020, the COVID-19 pandemic had halted most international travel, and the university quickly worked with their community partners to adjust the program to an online modality. Jon was disappointed to learn the program would be online—travelling to Latin America was something he thought would be a pivotal part of his undergraduate experience as a Latin American studies major.

At the same time as Jon was participating in the online community-based learning program with a community-partner organization in Mexico, Sade was working as a volunteer public health researcher in the US, raising four children, hoping to one day apply to PhD programs. During the summer of 2020, Sade was also looking to "keep her brain active"

during social isolation measures due to COVID, when she came across an email about a virtual global health internship in Ghana. As a first-generation American, with Nigerian heritage, she had always been interested in travelling to West Africa and furthering her research interests in women and girls' health, but family responsibilities caused her to put aside many things she was passionate about. Sade recalled, "when I saw the email, I just paused. And I thought, is this true? This is better from the comfort of my home. It is not the same as if I [were to] personally travel, because I love travel. But let me just imagine myself traveling to Ghana." These two students, with very different backgrounds and motivations, are part of the *found problem* sample of students in this study who engaged in online community-based learning programs from summer of 2020 through fall of 2022.

The global engagement survey

To identify the sample, I utilized a network of educational institutions and community organizations of which I am a part, called the Community-based Global Learning (CBGL) Collaborative, which "advances ethical, critical, and aspirationally de-colonial community-based learning and research for more just, inclusive, and sustainable communities" (CBGL Collaborative, 2023.). Since 2015, one of the CBGL Collaborative's initiatives has been a community of practice in which member organizations utilize the tool, the Global Engagement Survey (GES), to assess student gains in global learning. Since March of 2022, I have served as a part-time employee of the CBGL Collaborative as the Director of Assessment for the Global Engagement Survey. My position entails collection, management,

and analysis of data generated from the GES. Therefore, I have knowledge of the survey and access to this data set as a member of the Collaborative's research team.

The GES is a pre-/post- mixed-methods survey which aims to better understand student global and civic learning. Pre-/post- surveys are a useful tool to assess the impact of an instructional intervention, such as an academic course or an experiential learning program, on student learning. The GES assesses changes in students' perceptions of their knowledge, values/mindsets, skills, and intended future actions related to three components of global learning (cultural humility, global citizenship, and critical reflection). There are fifty-eight closed-ended questions which respondents answer according to a five-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree) and 17 responsive open-ended questions. As the open-ended questions are responsive, not all respondents view all questions.

The GES is a conceptually-grounded and empirically-verified tool that has been utilized by forty-three different educational institutions (mostly universities and some non-profits) and taken by more than 5,000 students since 2015 (*GES Annual Reports*, 2024). The tool has been used in quantitative, qualitative, and mixed-methods research published in several per-reviewed journals (Ferrarini, 2023; Gendle & Tapler, 2022; Hartman et al., 2020; Vandermaas-Peeler et al., 2018). The survey is conceptually grounded using the American Association of Colleges and Universities (AAC&U) definition of global learning, which states: "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" (*Global Learning VALUE Rubric*, 2023.) The survey also draws on existing research in global citizenship, service-learning, international volunteering, study abroad, and related fields (Hartman et al., 2015). Scale validation for the survey was a three-year process from 2015 to 2017 and is documented for public review in a self-published article (Reynolds et al., 2021). More than 1,300 students from twenty-eight different educational institutions and 240 different global learning programs took part in the validation process which utilized confirmatory factor analysis to confirm the eight scales (openness to diversity, cultural adaptability, civic efficacy, political voice, conscious consumption, global civic responsibility, human rights beliefs, and critical reflection). Further, as a reliability measure, the internal consistency of each scale was tested using Cronbach's alpha statistics at a minimum threshold of α= .71-.90. All scales except the cultural adaptability scale met this reliability threshold. The conceptual grounding, validation process, and wide use of the GES make it an excellent tool for this study.

Table 2

GES scale overview

8 Scales	Closed Q	Open Q	Cronbach's α
Openness to diversity	8	4	.78
Cultural adaptability	7	6	.68
Civic efficacy	9	1	.79
Political voice	8	2	.90
Conscious consumption	10	1	.86
Global civic responsibility	4	0	.71
Human rights beliefs	4	0	.75
Critical reflection	8	3	.80

Three programs

During pandemic school closures and halts in travel, three member organizations of the CBGL Collaborative utilized the GES to assess student learning in programs where the community-based interaction was fully online. This survey provides excellent real-life data to examine the potential of the unique pedagogy of online community-based learning for promoting student global citizenship competencies. I describe the three programs in more detail below. A summary of the context of the three programs is provided as a table at the end of this section.

Program one: University summer community-engaged learning experience

Program one is facilitated by a community engagement center at a large and highly selective (Ivy League) private research university located in the Northeast of the United States. According to the NCES (2022) fall 2021 undergraduate student enrollment included: 99% traditional college age (24 or younger), 54% female, 46% male, 18% Pell-grant recipients, 49% non-White, 34% White, and 10% non-US resident (which could include both international students and undocumented students). The pool of potential student participants at program one is similar to those who typically participate in community-based learning in that they are majority traditional college-age, middle or upper class, and female. Notably, the student body is almost 50% non-White, which could potentially lead to a more racially diverse participants in the online community-based learning program.

Before the pandemic, students could apply for grants up to $1000 to participate in community-engaged learning experiences outside of the United States during such as

internships, research, or consulting that addresses a public problem or concern. Due to travel restrictions and health concerns, the programs were moved to an online modality in summer of 2020 and students could apply to work with community-partners either outside of the United States or domestically. Students could apply to work with community-partners that the university has ongoing relationships with or they could propose to work with a new project and organization. Most of the students participating in these programs are undergraduates, but graduate and professional students may also apply.

Program two: University summer global citizenship fellowship

Program two is facilitated by a global citizenship center at a small and highly selective private liberal arts college located in the Mid-Atlantic region of the United States. According to the NCES (2022) fall 2021 undergraduate student enrollment included: 100% traditional college age (24 or younger), 54% female, 46% male, 16% Pell-grant recipients, 36% non-White, 52% White, and 11% non-US resident (which could include both international students and undocumented students). The pool of potential student participants at program two is similar to those who typically participate in community-based learning in that they are majority traditional college-age, middle or upper class, White, and female.

Program two is a fully-funded summer fellowship (the university uses the word *internships* interchangeably with *fellowships*) in which students work with community-based organizations (both domestically and outside of the United States) in order to advance social justice learning and action. During the summer of 2020, due to health and safety concerns related to the pandemic, all fellowships occurred in an online format. During the summer of

2021 and 2022 most internships occurred in an in-person format but a few continued in the online/virtual space. Students applied for internships with the center for global citizenship, and proposed a project with a community-based organization that advances social justice issues. Much like program one, students could propose to work with community-partners that the university has ongoing relationships with, or they could propose to work with a new project and organization. All of the students participating in these programs are undergraduate students.

Program three: Non-profit virtual global-health internship

Program three is facilitated by a non-profit organization which focuses on community-based global-health education. This organization is located on the West Coast of the United States and does not publicly publish demographic data related to their program participants. The non-profit offers community-based global-health programs, such as internships or practicum experiences, to both individual students who apply to the programs as well as university professors or centers who partner with the organization to provide programming for their students. The program's website says that their programs are known by different names depending on the student's university such as: global health internships, clinical electives, away rotations, or service-learning. Their programs are based in ten countries across South America, Africa, and Asia. From May 2020 through September 2021 all of the programs offered were in the virtual format, and starting in September 2021 all programs were offered in both the virtual and in-person modalities. The programs focus on learning about local public health, clinical practices, social services, social determinants of health, geopolitical realities, historical contexts, and culture. They may also include project-

based work which supports operations and objectives of the community organization. Participants applied and paid a fee of about $2000 for a four-week virtual program. Scholarships were available through the non-profit. Participants are mostly undergraduate students, though the programs are open to graduate and professional students.

Survey sample

For the mixed-methods analyses of survey data, I utilized a sample of students who completed all quantitative responses on both the pre- and post- portion of the GES (matched cases) from May 2020-September 2022 and indicated on the post-survey that their community-based learning experience was fully online. The sample of completed matched cases (n=187) was utilized to examine a potential change in civic and collaborative capacities directly after participation in an online community-based learning program.

Table 3

Number of survey participants by program

Total data set: Survey **n=187**		
Program 1 University: Summer community-engaged learning experience	**Program 2** University: Summer global citizenship fellowship	**Program 3** Non-profit: Virtual global health internship
n=94	n=24	n=69

Interview sample

To examine a potential change in actions after program completion, I conducted semi-structured interviews via Zoom during August and September of 2023. This was one to three years after students participated in the online community-based learning program. I contacted all participants in the total data set who indicated on the post-survey that they were willing to be contacted by a researcher (n=65) with an email invitation to participate in a 30–40-minute interview. Of the sixty-five potential students, 23 participated in an interview across the three programs.

Table 4

Number of interview participants by program

Interview subset **n=23**		
Program 1 University: Summer community-engaged learning experience	**Program 2** University: Summer global citizenship fellowship	**Program 3** Non-profit: Virtual global health internship
n=11	n=2	n=10

Table 5

Summary: Context of the three programs

	Total	Program 1 Summer community-engaged learning experience	Program 2 Summer global citizenship fellowship	Program 3 Virtual global health internship
Institutional profile		University Community engagement center Large Private Highly selective/Ivy League Research Northeast	University Global citizenship center Small Private Highly selective Liberal Arts Mid Atlantic	Non-profit focusing on community-based global health education West Coast
Community-based learning program		Fully online Funded ~8 weeks Partners: Dom & Int	Fully online Funded ~8 weeks Partners: Dom & Int	Fully online Participant fees Scholarships awarded 4 weeks Partners: Int
Survey	n=187	n=94	n=24	n=69
Interviews	n=23	n=11	n=2	n=10

Community-partner organizations and projects

Through interviews students explained in more detail about the types of community-partner organizations they were collaborating with and the types of projects they worked on. Examples of community partner organizations include:

- Non-profit working with migrants in Mexico
- Healthcare clinic in Ghana
- OECD in Brazil
- UNICEF
- Community theatre company in the US

The projects students worked on generally fell into two categories: product-oriented or community-oriented:

A) Product-oriented:

Digital product: website, digital archives

Example: A student worked with a non-profit advocating for justice for those facing the death penalty worldwide. One of her main projects was to create a public-online database of death penalty practices around the world, searchable by region or issue.

Consultant-like: research report, grant application, educational materials

Examples: A student worked with a community health clinic in Uganda to write a grant for a program combating gender-based violence and produced a research report comparing health systems in the United States and Uganda. Another student worked with a non-profit to update written parenting resources available to anyone in the state to be culturally sensitive with a focus on anti-racism.

B) Community-oriented:

Education/teaching: organizing seminars, teaching assistant

Example: In lieu of an annual in-person conference hosted by a global anti-capital punishment non-profit, a student organized a virtual institute for lawyers and advocates which included training, resource sharing, and networking.

Class-like

Example: There were several students who participated in the virtual global health internship program who described their learning experience as primarily focused on learning from local healthcare practitioners abroad in a small class-like setting with 5-8 other students from around the world. This typically included lectures from local healthcare experts, real-time language and cultural classes, and case studies comparing healthcare systems in the United

States and other countries. The secondary focus was sometimes applying for a grant or creating a research report that could be useful for a local clinic or hospital.

Community-building: organizing book club

Example: Community-building was not a common focus of the online community-based learning programs. An exception is one student who worked with a non-profit based in Mexico supporting migrants and internally displaced people. One of the main projects he engaged with was participating in a virtual book club as an open space where the migrant community as well as staff and volunteers from the non-profit came together to share and discuss excerpts of poetry, prose, fiction, and nonfiction.

B. Participant profile

Students in this sample chose to apply to participate in a community-based learning program, and when that program was transitioned into the online modality decided to continue to participate. Thus, the students in this data set are from a privileged group that had the time, space, interest, and resources to complete an online community-based learning program during the COVID-19 pandemic, which many students themselves reflected on in interviews. Additionally, students in this sample may also represent particularly self-motivated and persistent individuals, as they completed the program despite many changes and uncertainties. Demographically, the majority of students in this sample identify as: traditional college age (81%), female (80%), Non-White (63%), US born (80%), not first-generation to college (75%), and a little less than half (44%) of respondents stated that their combined parent income was more than

$100,000 per year. The total data set, based on survey data, as well as the interview subset generally align in terms of student demographics. I describe each of these demographic factors in more detail below.

Table 6

Participant age

Age				
	Total data set		**Interview subset**	
	n	**%**	**n**	**%**
Trad. college age	151	81%	15	65%
Not trad. college age	35	19%	7	30%
Missing	1	<1%	1	4%

Most students (81%) in the total data set are of traditional college age, which for this study is considered twenty-three or younger. This is not surprising as the program participants are mostly from universities that primarily serve traditional college-aged students. Most of the non-traditionally aged students were medical professionals participating in the virtual global health internship program. However, non-traditional college-age students were slightly over-represented in the interview subset compared to the total data set, suggesting that these students felt particularly strongly about sharing their experience with a researcher.

Table 7

Participant gender identity

Gender identity				
	Total data set		Interview subset	
	n	%	n	%
Female	150	80%	16	70%
Male	34	18%	7	30%
Other gender identity	1	<1%	0	0%
Missing	2	<1%	0	0%

The vast majority (80%) of students in this sample identify as female. It possible that this study, which examines learning outcomes regarding global citizenship, reflects a trend in the related field of education abroad in which 69 percent of students identified as female according to the latest national data (IIE, 2023). The data set for this study includes one student who identified as “other gender identity”, as well as two missing responses. It is possible that students who chose not to identify their gender did not feel that the survey response options represented their gender identity. Participants who identified as male were slightly over-represented in the interview subset compared to the total data set, suggesting that these male alumni felt particularly strongly about sharing their experience with a researcher.

Table 8

Participant racial/ethnic identity

Race/ethnic identity				
	Total data set		Interview subset	
	n	%	n	%
African American/Black	18	10%	4	17%
American Indian/Alaskan Native	1	< 1%	0	0%
Asian/Pacific Islander	51	27%	3	13%
Hispanic/Latino	15	8%	0	0%
White	68	36%	9	39%
Other racial/ethnic identity (includes bi or multi-racial)	32	17%	7	30%
Missing	2	1%	0	0%
Non-White	117	63%	14	61%

Most students in this data set identify as non-White (63%), with a substantial proportion of students who identify as Asian or Pacific Islander (27%) and a low percentage of Black (10%) and Hispanic or Latino (8%) identifying students. It is notable that the interview data set does not include any participants who identified solely as Hispanic or Latino; however, three alumni who identified as bi-racial or multi-racial in the survey said that they identified as part Latino in the interviews. While the percentage of students who identified as White and non-White is roughly the same in the survey and interview sample, students who identified as Asian/Pacific Islander are under-represented in the interview sample compared to the total data set, which may mean that these students do not feel strongly one way or another about the online community-based learning experience or did not feel comfortable speaking with a researcher. Further, participants who identified as

African American/Black and Other racial/ethnic identity (includes bi or multi-racial) participated in the interviews at a slightly higher rate compared to the total data set, suggesting that these groups were particularly impacted by the learning experience.

Table 9

Participant country of birth

Country of birth				
	Total data set		Interview subset	
	n	%	n	%
Born in the US	149	80%	19	83%
Not born in the US	37	20%	4	17%
Missing	1	<1%	0	0%

Most students in this sample (80%) were born in the United States. It is interesting to note country of birth for this study, as those not born in the United States may have some intercultural communication and collaboration experience or a different view from US Americans as to what it means to be a global citizen. The survey and interview data sets are similar in terms of where participants were born.

Table 10

Participant first-generation-to-college status

First-generation-to-college status				
	Total data set		Interview subset	
	n	%	n	%
First-gen	40	21%	4	17%
Non First-gen	140	75%	19	83%
Missing	7	4%	0	0%

Table 11

Participant combined parent income

Combined parent income				
	Total data set		Interview subset	
	n	%	n	%
<$25,000-$49,999	41	22%	4	17%
$50,000-$99,000	34	18%	2	9%
$100,000-$199,000	55	29%	7	30%
≥$200,000	28	15%	4	17%
Missing	29	16%	6	26%

Class is a difficult demographic to study in part because it has many pieces, and this data set looks at two parts: parental income and parental education level. Students in this data set are mostly non first-generation (75%). Students were considered first-generation to college if they indicated on the GES that neither of their parents had graduated with a college degree. Students in this data set are mostly of a privileged socioeconomic status with a little less than half (44%) stating that their combined parental income was more than $100,000 per

year. It is notable that a sizable portion (22%) reported a combined parent income of less than $50,000 per year, which would most-likely make them eligible for a federal Pell grant, which is awarded to students with exceptional financial need. It is possible that these students were able to participate in the online community-based learning program because the two university programs were funded, and the non-profit program offered some scholarships. The survey and interview data sets are similar in terms of first-generation to college status and combined parent income.

Online modality and access

One of the commonly cited benefits of online learning including experiential programs like virtual service-learning and virtual exchange is opening access to those who are traditionally marginalized in higher education and participate in high-impact practices, like community-based learning, at lower rates (i.e. Students of Color, first-generation students, non-traditional aged students) (Means et al., 2014; Rubin, 2017; Steckley & Steckley, 2022). And initial evidence from this study suggests that the online modality may have been a more accessible entry point for non-White, non-traditionally aged, and first-generation students.

Three students in the interview sample said that they *only* participated in the program because it was online. All three were Black or Latino and non-traditionally aged working professionals and one identified as a first-generation student, which are all populations under-represented in this sample as well as in community-based learning more generally (Valentine et al., 2021; Valentine & Price, 2021). Two of these students also named their

family responsibilities, and specifically their role as mothers, as a reason that the online modality versus in-person was attractive to them, as one student said, “I don't think I would have been able to keep up if everything would be to go out of my home… I'm a strong advocate for online learning. It's an opportunity that one can seize.” Therefore, the online modality may have been a more accessible entry-point for non-White, non-traditionally-aged, and first-generation students to become familiar with a potentially unknown pedagogy of community-based learning while balancing work and family responsibilities.

Who is missing from the sample?

As the sample is based on survey completion, it is missing students who decided not to participate and students who may have started the program and not completed it. The COVID-19 pandemic had a disproportionately negative impact on low-income individuals and People of Color. In the case of this research, it is possible that non-traditionally aged, low-income, first-generation, and Black and Latino students may have faced barriers to starting or completing the program such as needing to take on a job to support themselves or their family, lack of stable internet, lack of a quiet place to work, increased anxiety over health of themselves and family working in high exposure jobs, or mental health impact of national events regarding violent racism. As will be illustrated in the analysis to follow, both the privilege and persistent attitude of students in this data set manifested in survey-responses which were mostly positive or neutral about participation in the online community-based learning experience and their own learning as opposed to reporting frustration or despair during the height of the COVID-19 pandemic.

C. Methodology

This research utilized a found-problem, sequential-explanatory mixed-methods design to explore the potential of online community-based learning as a teaching and learning strategy for fostering global citizenship capacities in an increasingly interconnected and digitized world.

Found-problem research approach

Found-problem research is purpose-driven research conducted on a phenomenon that occurs naturally and not through researcher intervention or creation (Stanlick, 2015). This idea is influenced by the organizational-leadership concept of found pilots, in which leaders foster innovation and change by looking for what is already happening inside of their organization (CFAR, 2013). The found problem in this study utilizes existing data generated from a survey students took during pandemic school closures as well as interviews conducted with a subset of the survey respondents. There is a great opportunity for found-problem research regarding education during pandemic school closures including research regarding global citizenship education and student learning outcomes (Szmodis & Stanlick, 2022). This purpose-driven research aims to understand the potential of online community-based learning as a teaching and learning strategy for fostering global citizenship competencies in an increasingly interconnected and digitized world.

Transdisciplinary-research approach

Found problem-research aligns well with a transdisciplinary research approach. Both found-problem and transdisciplinary research advocate for a purpose-driven design focused

on a real-world problem as opposed to discipline specific concerns, theories, or methods with the goal of producing knowledge that is useful for the public good (Leavy, 2011). The public good in this study is global citizenship education. The results and recommendations from this found-problem study can be utilized immediately by those designing curriculum and programming in the fields of global citizenship education, community-based learning, online learning, global learning, civic learning, and higher education more generally.

Sequential explanatory mixed-methods

Mixed methodology is an excellent approach for understanding a full picture of complex social phenomena with many variables, such as global citizenship education strategies. Mixed-methodology is a combination of quantitative and qualitative approaches in which each analysis provides different insights into the other resulting in a more comprehensive understanding of the research question than either approach on its own (Creswell, 2014). A key feature of mixed methodology is that it should be integrative (as opposed to running two analyses separately in isolation) (Teddlie & Tashakkori, 2012). This study aims to integrate quantitative and qualitative methods to gain a more comprehensive picture of the potential of online community-based learning as a strategy in global citizenship education. Integration can occur at different levels of the research process (Fetters et al., 2013). This study integrates both quantitative and qualitative methods into the question design, data collection, and data analysis phases. The research question aims to both assess the relationship between variables (typically associated with quantitative processes) and explore and describe a phenomena (typically associated with qualitative processes) (Creswell

et al., 2003), and thus mixed-methods is an appropriate methodology to address the research questions.

This study also uses Creswell's (2014) conception of the sequential explanatory mixed-methods design, which starts with quantitative data collection and analysis and then explores those results in more depth with qualitative data collection and analysis. Through this approach I will first conduct quantitative analysis of survey data to observe a potential change in learners' self-perceptions of global citizenship capacities before and after participation in an online community-based learning program. I will then use qualitative survey data to explore these results in more detail. I will analyze the qualitative interviews and finally interpret the entire analysis in an integrated fashion. Thus, this integrated mixed-methods approach allows for deep understanding of the complex phenomena of online community-based learning. I expand on each stage of the research design below.

D. Research design

Phase 1: Quantitative analysis of survey data

In phase one (quantitative analysis) I analyzed quantitative GES data from the three programs described above. I utilized IBM SPSS Statistics (Version 24) to run a paired sample t-test to determine if there are statistically significant differences (p=.05) in student pre- and post- survey means on any of the eight survey scales.

Additionally, I utilized IBM SPSS Statistics (Version 24) to run statistical analysis to observe the effect of program and demographic factors recorded in the survey on pre-/post-survey change scores. I computed the pre-/post- change score variable as:

Pre-/post- change score=[post-survey score] – [pre-survey score]

Table 12

Quantitative analysis: Program factors

Independent Variable: Program Factor	**Dependent Variable**	**Groups**	**Statistical Test & Rationale p=.05 for all tests**
Previous in-person experience with the community-partner organization	Pre-/post-change score	Yes No	Independent sample t-test Compare mean pre-/post- change scores on the 8 scales between 2 groups
Location of community-based organization		Domestic International	
Variable 1	**Variable 2**	**Groups**	**Statistical Test & Rationale**
Hours per week of engagement with community-partner organization	Pre-/post-change score	NA	Bivariate correlation (Pearson) 0-0.19=very weak 0.2-0.39=weak 0.40-0.59=moderate 0.6-0.79=strong 0.8-1=very strong Measure the strength of the relationship between two variables: hours per week and pre-/post- change scores

Further, I disaggregated quantitative data by four key student demographic factors (race/ethnicity, gender, first-generation to college status, and parent income) and compared mean differences of change scores, which is important in a study which aims to contribute to

inclusive global citizenship pedagogies. Not disaggregating data by demographic identities results in non-inclusive universalization (Nkomo, 1992), which in the context of education means that analysis and recommendations for designing future learning experiences will benefit dominant groups the most and exclude non-dominant groups.

Table 13

Quantitative analysis: Demographic factors

Independent Variable	**Dependent Variable:**	**Groups**	**Statistical Test p=.05 for all tests**
Gender Identity	Pre-/post- change score	Male Female	Independent sample t-test
Racial/ethnic Identity		White Non-White	
First-generation		Yes No	
Racial/ethnic Identity		African American or Black Asian or Pacific Islander Hispanic or Latino White Other	One-way ANOVA
Parent income	NA	NA	Pearson correlation coefficient

Phase 2: Qualitative analysis of survey data

For phase two, I analyzed the qualitative (open-ended) data from the GES for the three programs described above in order to explore findings from the quantitative analysis in more depth. I utilized the data coding cloud-based platform Dedoose for coding the qualitative survey data. I generated the initial code list using one round of in vivo coding, a strategy in which the researcher uses the participants' literal words to generate a code list of anything that stands out in the manuscript resulting in a code list that reflects the participants

everyday lives instead of academic or professional terms assigned by the researcher (Saldaña, 2009). I used this strategy in order to stay as true as possible to the meaning and intent of the participants' words. I then employed additional rounds of theoretical coding to group codes into themes (Saldaña, 2009). I also used the strategy of analytic memoing after each round of coding to consolidate and organize themes as well as reflect on my own subjectivities and what I might be missing in the data (Glesne, 2011; Peshkin, 1988). Employing in vivo coding as the initial coding strategy combined with subsequent rounds of theoretical coding allowed for a thoughtful and careful analysis of the qualitative survey data.

Phase 3: Interview sampling

The GES includes a question on the post-survey which asks students if they are willing to be contacted by a researcher and if yes, asks for a non-university email address. Of the 187 matched cases included in the survey sample 65 students indicated that they were willing to be contacted by a researcher. I contacted all participants who indicated on the post-survey that they were willing to be contacted by a researcher (n=65) with an email invitation to participate in a 30–40-minute interview. I sent out three rounds of interview invitations in the months of August and September of 2023. Of the 65 potential students, 23 participated in an interview across the three programs.

Phase 4: Qualitative interviews

Semi-structured interviews with students addressed the research sub-question: Do alumni self-report a change in civic and collaborative actions one to three years after program completion? The semi-structured interview format is appropriate for this study because I was

interested in students' own descriptions of their learning experiences and behaviors (Brinkmann, 2014). Further, the interviews are the method which allowed me to better understand the types of community partners, projects, and collaboration methods utilized in the online community-based learning program, as these aspects are not recorded in the GES.

Phase 5: Qualitative analysis of interviews

I utilized a similar qualitative coding strategy as with the short-answer GES data using in vivo coding as an initial coding strategy combined with subsequent rounds of theoretical coding and analytic memoing after each round of coding. For the interview data, I utilized an excel matrix to organize codes, subcodes, and evidence of the codes. The excel matrix allowed for greater flexibility than was afforded in the Dedoose platform that I utilized for coding the qualitative survey data. These strategies allowed for thoughtful analysis of interview data.

CHAPTER IV.

RESULTS AND ANALYSIS

This study examines how participation in online community-based learning programs impacted the development of global citizenship capacities in college students. The study's purpose is to better understand what teaching and learning strategies in online community-based learning are effective and for whom with the goal of advancing inclusive and critical pedagogies in higher education. To address the main research question and purpose of the study, this chapter is divided into five sections, each addressing one of the research sub-questions.

A. Survey: Change in global citizenship capacities directly after program completion

This section addresses the research sub-question: **Do students self-report a change in civic and collaborative capacities directly after program completion?** As described in detail in the Methodology chapter, I used a sequential explanatory mixed-methods analysis to address this research sub-question (Crewswell, 2014). Using this approach, I first analyzed quantitative pre-/post- survey data and found that students reported statistically significant learning gains related to both civic and collaborative capacities directly after program

completion. I then explored these findings in more detail through qualitative analysis of survey short-answer responses and found that students overwhelmingly attributed these gains in learning to participation in the online community-based learning program, as opposed to some other factor. A change in global citizenship capacities directly after program completion was reported by students as increased: civic efficacy, motivation for engagement with political news, and motivation to change voting behavior.

Quantitative analysis

To observe a potential change in learners' self-perceptions of global citizenship capacities before and after participation in an online community-based learning program, I compared pre- and post-survey scores for the eight scales of the Global Engagement Survey using paired sample t-tests computed in IBM SPSS Statistics (Version 24). An alpha level of .05 was used for all comparisons. As outlined in detail in the Methodology section, students responded to closed-ended survey questions according to a five-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). The paired sample t-tests revealed a statistically significant difference in mean pre- and post-survey scores where $p \leq .001$ on 7 of the 8 survey scales (highlighted in blue in the chart below): openness to diversity, cultural adaptability, civic efficacy, conscious consumption, political voice, global civic responsibility, and critical reflection. The paired sample t-test did not reveal statistically significant results for one scale: the human rights belief scale, where $p=.402$. As shown in the chart below, the highest pre-mean score (4.65) of all the scales was on the human rights belief scale. As the maximum score on the survey is a 5 (strongly agree), there is not much

room for students to increase on the post-survey. This is likely the reason that there is not a statistically significant change on this scale.

Because this data set is skewed (with many respondents rating themselves a 3 or higher), I also computed comparisons of the mean pre- and post- scores using the Wilcoxon rank-sum test, which is a nonparametric alternative to the paired sample t-test. This analysis revealed the same results as the paired sample t-test. Using a 95% confidence interval, the Wilcoxon test revealed a statistically significant difference in mean pre- and post-survey scores where p≤. 001 on 7 of the 8 survey scales (openness to diversity, cultural adaptability, civic efficacy, conscious consumption, political voice, global civic responsibility, and critical reflection) and did not reveal a statistically significant result for one scale, human rights belief, where p=.314.

Table 14

Paired sample t-test results: Total dataset

Total dataset (n=187): Paired sample t-test results on the 8 scales

	Openness to Diversity	Cultural Adaptability	Civic Efficacy	Political Voice	Conscious Consumption	Global Civic Responsibility	Human Rights Beliefs	Critical Reflection
Pre Mean	4.21	3.96	3.76	2.99	3.75	4.04	4.65	4.29
Pre SD	.411	.375	.512	.790	.543	.546	.373	.421
Post Mean	4.39	4.09	4.09	3.27	3.98	4.27	4.67	4.44
Post SD	.376	.401	.480	.849	.587	.525	.420	.410
p	≤.001	≤.001	≤.001	≤.001	≤.001	≤.001	0.402	≤.001

Created with Datawrapper

Therefore, the paired sample t-tests revealed that students overwhelmingly self-reported a statistically significant increase in global citizenship capacities related to 7 of the 8 survey scales. The confidence interval was set at 95% for the paired sample t-tests, which means that the results would be considered statistically significant if $p \leq .05$. Therefore, it is notable that the p value for the t-test on these 7 scales at $p \leq .001$ was well below the confidence interval, which gives very high confidence that the statistically significant change in pre-/post- scores did not result by chance.

The strong statistically significant results led me to ask: What caused this change? It could be impacted by participation in the online community-based learning program; however, it could also be due to other variables, such as participation in other academic coursework, lived experiences, the experience of being a college student more generally, or other factors. As a found problem-research study, this study looks at a phenomenon that occurred naturally and not through researcher intervention, and there was no control group of college students who took the survey but did not participate in an online community-based learning experience. Thus, I explore the quantitative findings further through the qualitative data. The qualitative analysis that follows are trends that hold true for the total data set across the three programs.

Qualitative analysis

To better understand if the pre- to post-survey change observed in the quantitative analysis is related to participation in the online community-based learning program, I examined qualitative survey data. I analyzed the following short-answer questions on the

post-survey which ask students if they perceived a change in their own civic capacities is specifically due to participation in the online community-based learning program:

- How have your program experiences influenced your personal sense of your ability to make a difference, locally or globally?
- How, if at all, do you think your program experiences have affected your interests in keeping up with political news?
- How, if at all, do you think your program experiences have affected your future voting behavior?

When applicable, I coded each qualitative response as: a. increased, b. stayed the same/confirmed, c. decreased. The charts in the following sections represent the number and percentage of students who reported through short-answer responses, that the online community-based learning program impacted their civic capacities in terms of a perceived change in: a) sense of civic efficacy and b) increased motivation for engagement with political news c) change in voting behavior.

<u>New skills= Greater sense of civic efficacy</u>

Table 15

Survey-short-answer responses: Civic efficacy

Civic efficacy		
Short-answer question	How have your program experiences influenced your personal sense of your ability to make a difference, locally or globally?	
	n	**%**
Total answered	116	
Increased sense of civic efficacy	105	91%
Stayed the same/confirmed	8	7%
Decreased	3	< 3%

The vast majority of students, 91% of those who responded to the question, "How have your program experiences influenced your personal sense of your ability to make a difference, locally or globally?" stated that the program experience increased their "ability to make a difference locally or globally." Frequent student responses reflected increased civic efficacy, or confidence in one's ability to take part in civic actions, due to participation in the online community-based learning program. One student reported, "It has given me a stronger sense of confidence in my own qualifications to address subjects that we learned about" and another stated, "I am more confident in my voice." These responses suggest that students perceive participation in the online community-based learning program, as opposed to another variable, boosted confidence in their ability to participate future civic actions.

Further, students expressed that the increase in their sense of civic efficacy was due to gaining new skills, most commonly language and technical, through participation in the

online community-based learning program. One student, who is studying to be a medical doctor, was able to practice Spanish with a native speaker in a low-stakes way in the online community-based learning program saying, "I think that simply learning to be comfortable speaking Spanish has empowered me to feel that I can make a difference for our often-marginalized Spanish speaking patients." Thus, this student is now motivated to use foreign language skills as a strategy to more fully include Spanish-speaking patients when providing medical care. Another student utilized Spanish skills to participate in political activism saying, "It's given me a lot more confidence to do phone banking, and especially reach out to people over the phone in Spanish." This student applied Spanish language skills to reach a group of people who might be left out of the political process due to a language barrier and describes becoming more confident in continuing to do so in the future. Students also reported gaining technical skills like website design, online archival skills, and creating graphics during their online community-based learning experience as something that increased their sense of their ability to make a difference globally or locally. One student described how learning the skill of graphic creation helped them to mobilize community opinion and potentially community actions around voting:

> I feel that I have a louder voice than I expected. By creating graphics that spread the message about when and how to vote this year, I reached a large audience (over 300 people) and informed a vast group of people about civic engagement. This was extremely empowering.

Thus, students reported that acquiring and practicing skills, like Spanish language and technical skills, in the online environment was a strategy for more effective communication

as well as a way to include diverse people in medical, educational systems, and political systems. Importantly, students said that learning skills, even in the online environment, "empowered me" and "has given me confidence" to use these new skills in future civic engagement.

As is seen here, students expressed an increase in civic efficacy, or confidence in their ability to participate in future civic actions; however, very few students named a concrete plan for what their future civic participation would look like. When asked "How do your plans to engage in advocacy in the future compare to your advocacy activities prior to your program experience?" most of the responses were very general, such as, "I had no advocacy activities before, but now I feel closer to these issues, and I can tell they need to be resolved urgently." A lack of a specific plan indicates that students may be unclear as to how to connect with opportunities to utilize their new skills and motivation to participate in civic life after program completion.

Further, individual skill development and applying those skills to civic action is important for educating students who will become a part of future social change efforts. Many different skills are needed for effective social change to occur. However, as articulated in the definition of global citizenship put forth in this study in the literature review, an important element of social change is that these individual skills are realized within a larger understanding that social change requires collective action (Dimock, 1992; Homan, 2015; Kallman & Ferorelli, 2024; Pyles, 2020). The majority of survey responses directly after program completion did not indicate a clear plan as to how students could utilize their new skills for collective action.

Increased motivation for deepening knowledge about social issues or parts of the world engaged with during the program

Table 16

Survey-short-answer responses: Keeping up with political news

Political news		
Short-answer question	How, if at all, do you think your program experiences have affected your interests in keeping up with political news?	
	n	**%**
Total answered	119	
Increased motivation	86	72%
Stayed the same/confirmed	32	27%
Decreased motivation	1	< 1%

When asked on the post-survey if they thought the program experience affected their interests in keeping up with political news, 72% of those who answered the questions perceived that participation in the online community-based program increased their motivation to engage with political news. In particular, students said that their interest increased regarding global news beyond the United States and the social issue they were involved with for the online community-based learning project. As this student said, "One of my projects dealt with the effect of the COVID-19 pandemic on malnutrition on a population and policy level. This has made me more interested in keeping up with international political news on topics such as nutrition, which affect every person on earth." This student reflects a new understanding of how social issues, here a global health pandemic and malnutrition, are

interconnected on a global level. Being more knowledgeable about interconnected global current events is a major step for those who wish to take informed social action.

Some students described taking this motivation to learn about global social issues further and named concrete actions that they are taking to stay informed about the country of their online community-based learning experience or social issues occurring globally. As one student said, “I ended up subscribing to a few daily emails from newspapers/outlets in India. As a result, I regularly see what is happening in the country.” And another student reflected on using Spanish language skills to better understand news perspectives outside of the United States saying, “The program made me read more Spanish language news from news sources that are not from the United States themselves.” Thus, even though they did not physically travel to another country, the experience of learning more intensively about a specific country and global social issue led some students to take actions to learn about news beyond the United States. Reading news sources outside of the US is a potential way to become a critical media consumer. Students may start to compare news sources in the United States with those abroad in terms of what is the focus of the news, how events are covered, and what biases in different news sources. Critical media literacy and an understanding of current interconnected global social issues are important skills for global citizens which can inform social action, such as voting, as we will see below.

Increased motivation to vote with new learning in mind

Table 17

Survey-short-answer responses: Future voting behavior

Voting		
Short-answer question	How, if at all, do you think your program experiences have affected your future voting behavior?	
	n	**%**
Total answered	97	
Increased motivation	32	33%
Stayed the same/confirmed	65	67%
Decreased motivation	0	0%

Students were asked on the post-survey, if they thought their program experiences would impact their future voting behavior; most, 67% of those who responded to the question said they were already engaged voters and would continue on this path, while 33% of respondents expressed an increased motivation to vote. However, many of the students who said that their motivation to vote had not changed, indicated that the program re-confirmed commitment to both educate themselves and vote for policies around a specific issue they engaged with in their online community-based learning program, such as this student who stated, “I think this program has reinforced my voting beliefs for policies in favor of universal healthcare” or another student who said, “Will definitely look more into education policies before voting.” In other words, participation in the program did not cause most students to change political parties or beliefs but rather engage more deeply with their current political beliefs and social issues they care about.

While students did not drastically change their political beliefs, many displayed a new awareness of how global social issues and political systems are interconnected. As this student stated, “I definitely will be looking closer at the candidates' policies in agriculture and environmental justice because I understand the national and global impacts those policies can have.” Not only does this student reflect on how agricultural and environmental issues are intertwined; moreover, they reported motivation to vote with these issues in mind. Similarly, this student reported that after the online community-based learning program they had “More awareness towards how individual countries can influence the outcomes of others and we need politicians who are aware of this.” This is evidence that students are understanding some important pieces of what it means to be a global citizen. They are understanding how global systems are interconnected, here political systems, and their own place in those systems, here their role in voting for politicians and policies that impact global social issues. Thus, while participation in the online community-based learning program did not change most of the students’ motivation to vote, students reported an increased understanding of how systems and policies they vote for impact interconnected global social issues like healthcare, education, and environmental justice.

Critical reflection skills

Students also reported gaining critical reflection skills after participation in the online community-based learning program, in which they reflected on systems of power and privilege and their own place in those systems. Many White students reflected on their White privilege in the survey responses. Further, the majority of the students in the data set attended highly selective universities, and thus reflected on the privilege of their education. As one

student said, “I have tried to recognize my White privilege, particularly with attending an Ivy League university.” Many of the online community-based learning programs took place in the summer of 2020, coinciding with COVID-19 lockdown measures which exposed systemic economic and racial disparities, the murder of George Floyd, and a renewed racial and social-justice movement in the United States and across the world. One student reflected on how this historical moment was a catalyst for critical self-reflection saying, “In the midst of the Black Lives Matter movement, I have often found myself analyzing the way in which I and my parents were raised and its impact on reinforcing systemic racism.” Many students in the sample were living at home with their parents during the summer of 2020, which may have forced them to examine the values and beliefs around race and privilege that they were raised to believe. Students also commonly acknowledged the privilege of having access to the technology, namely a stable internet connection, which made their participation in the online community-based learning program possible. As one student said “I was able to do the program because I had a computer that worked. I had an environment in which I could sit in an office by myself and engage with these people and speak Spanish out loud, and I had stable wi-fi.” Inequities highlighted by the pandemic and social-distancing measures may have caused students to recognize issues of equity and access to technology. Thus, the historical moment of the pandemic and the racial and social justice movement of the summer of 2020 were a cause for student reflexivity around privilege—particularly related to race, education, and access to technology.

Intercultural and online communication skills

A consistent theme that emerged in terms of online collaboration across the data set was a strong desire to form trusting relationships with the community partner organization representatives. One strategy that emerged as a way to successfully collaborate in the online environment was applying foreign language skills, which was explored in the previous "civic efficacy" section. Another strategy, which seems to be particular to collaboration in the online modality, was to show respect through more formal dress and language. Even though the students were not meeting with the community partner in-person, they adjusted their dress and salutations to be more conservative and respectful of the norms of the culture of the partner community, as these students said, "I had to dress more conservatively for meetings" and another noted, "I used Sir and Mam more often than I would in the US and made sure that my shoulders were covered in conference calls." Several students also said they adjusted both spoken and written communication to be more formal as a way to convey respect, as this student stated:

> Within the first couple of meetings with the staff of the NGO, I realized that I had been far too informal in my behaviors. While I dressed formally and spoke respectfully when unmuted, I realized that my tone was far too casual. I became far more aware of my on-camera behavior and the previous lack of formality in my speech. Ultimately, it taught me to always err on the side of respect in dealing with speakers and others on Zoom calls.

Another student acknowledged that communication challenges may have been cultural or due to language barriers, and their solution was more formality in written communication:

> My team received several email responses from one of our NGO partners that were very harsh and accusatory. Some of the difference in tone may have been cultural or to do with English as a second language. After receiving these, my responses were very formal and correct, instead of being more informal and open because I realized our contact did not use the same written conventions as we did.

These quotations suggest that understanding and adapting to cultural communication styles was particularly difficult in the online environment. In the in-person context, the students would have been interacting all day with people in the other culture – at the market, in a taxi, with their host family — as well as with people at the community-partner organization. In the in-person environment, students would have more opportunities to learn about and adapt to appropriate cultural communication styles that were not possible in the online context. Thus, an efficient strategy to forge better communication in the online context was to use more formal language.

It seems that the importance of personal presentation and formal language were of heightened importance in the online environment. This could be because other ways to convey respect in the in-person environment, such as appropriate eye contact and body language, were difficult to interpret in video calls and irrelevant if email communication was the main mode of communication. The initial survey findings about online collaboration capacities were limited and will be explored in depth in the *Interviews with alumni* section of this chapter; however, students clearly reported gaining both intercultural communication and online communication skills.

What is missing?

It is notable that very few survey respondents specifically stated that the skills and motivation for future social actions they developed were in the online context, nor described if they saw themselves applying these skills and future actions in the online or in-person modality in the future. This may be because the survey answers were generally short, a few lines or so. The student quotes in this section are most often the entire short-answer that the student gave for a particular question. Another reason could be a fishbowl effect, where due to the COVID-19 pandemic, communicating and collaborating online was their reality at the time, so they were not intentionally reflecting on what it meant to gain skills in the online modality and how those skills would be applied to future online or in-person collaboration.

Summary and significance of the findings

This mixed-methods analysis of survey data finds that directly after participating in an online community-based learning program students overwhelmingly reported development of global citizenship capacities (both civic and collaborative). Quantitative analysis of pre/post survey data revealed statistically significant learning gains on seven of the eight survey scales directly after program completion. And qualitative analysis suggests that students largely perceived this learning to have resulted from participation in the online community-based learning program, as opposed to some other factor. Students reported gains in global citizenship capacities related to knowledge, skills, and motivation to participate in future social action, including:

Knowledge gained:

- Knowledge about a specific social issue or part of the world they engaged with during the online community-based learning program
- Understanding of how global social issues are interconnected

Skills gained:

- Intercultural communication
- Online communication
- Media literacy (seeking news sources outside of the U.S.)
- Technical (i.e. website design, graphic creation)
- Foreign language
- Critical reflection

Increased motivation to participate in future social action:

- Civic efficacy
- Motivation for deepening knowledge about social issues or parts of the world they engaged with during the online community-based learning program
- Motivation to vote with new learning in mind

Particularly important to increasing students' sense of civic efficacy was learning new skills such as language and technical skills. The gain in global citizenship capacities reported by students directly after program completion largely confirms other studies in the community-based learning literature (Gendle and Tapler, 2022; Lake et al., 202; Mitchell et al., 2015; Sherraden et al., 2008). However, while much of the literature in community-based learning

is qualitative research based on a single case-study, in contrast, these findings are mixed-methods, multi-institutional, multi-program, with a large n (187). Further, this study finds that students reported these gains in knowledge, skills, and motivation to participate in future social action after participating in a *fully online* community-based learning program.

B. Interviews with alumni: Change in future actions

In the previous section, it was established that students in the sample overwhelmingly reported a change in a variety of civic and collaborative capacities directly after participation in an online community-based learning program. This next section investigates if students actually changed anything about their future actions based on this increase in knowledge, skills, and motivation to participate in future social action that they reported in post-surveys. Thus, this section addresses the research sub-question**: Do alumni self-report a change in civic and collaborative actions one to three years after program completion?** I explored this question through Zoom interviews with twenty-three alumni across the three programs.

The interviews were semi-structured, which means that I used a flexible interview guide, and allowed students to lead with the information that they felt was important. The two questions in the interview guide which inform most of the data reported in this section were:

- Is there anything that you learned during the online community-based learning program that influences the way you think about things or your day-to-day actions now?

- Have you become involved in any civic engagement or social action since completing the program?

Civic actions

Increased civic efficacy: Kindling effect on future volunteerism

Directly after program completion the vast majority of students reported in the GES post-survey that the program experience increased their civic efficacy, or their confidence in their ability to "make a difference locally or globally", and one to three years after program completion most alumni interviewed (18/23 or 78%) said that they were involved in civic engagement or social action in some capacity. Of those who reported participation in future civic engagement or social action, the majority reported participation in volunteerism (14/18 or 78%). Alumni engaged in volunteerism in a variety of areas such as: youth education, teaching ESL (English as a Second Language), supporting refugees, exonerating wrongfully convicted people, providing Polish interpretation for a health clinic, and archival work at a public museum. After graduation, two students joined the US government sponsored domestic volunteer program, AmeriCorps, working for one year in the United States in the areas of education and food equity. One alum was motivated by participation in an online community-based learning program in Ghana to move to Ghana for a year and volunteer as a mentor in a local school for girls. Alumni reported participating in future volunteerism in both virtual and in-person modalities. For example, the alum who is using her Polish language skills as a volunteer medical interpreter does this virtually for a clinic in another state and believes that the online modality makes translation of lesser-spoken languages more

accessible to patients. Thus, alumni reported engaging in future volunteerism in a variety of social issues in their local community, abroad, and in both the online and virtual modalities.

Most alumni said it was hard to say if their future volunteerism was influenced by participation in online community-based learning program as they were already inclined to do this kind of work, and it is the reason they applied to participate in the community-based learning program in the first place. However, many perceived their participation in the online community-based learning program as a way to continue social engagement during the pandemic and into the future, as one student said, “I think it definitely threw kindling on the fire of stressing the urgency of this type of work and the importance of it.” Engagement in future volunteerism through the “kindling effect” of participating in online community-based learning during the pandemic is significant because volunteerism in the United States has been on the decline for at least the past two decades, and this was magnified by COVID making it more difficult for people to volunteer in-person (Dietz & Grimm, 2023). Further, in 2021, US Americans volunteered at the largest decline since the government started to collect data on volunteerism (Dietz c& Grimm, 2023). Volunteerism is a way for non-profits to meet their missions and contributes to a sense of social connection that fosters well-being and happiness for volunteers (U.S. Surgeon General’s Office, 2023; Thoits & Hewitt, 2001). The effects loneliness and isolation have been of increased interest of researchers following the COVID19 pandemic, and a recent report from the U.S. Surgeon General’s Office (2023) finds that a lack of social connection is associated with greater risk for cardiovascular disease, dementia, stroke, depression, anxiety, and premature death and names volunteerism as a way to feel connected to their communities. Thus, with post-pandemic rates of mental

health problems on the rise, volunteerism post-graduation could be beneficial to students and community organizations alike.

Change in approach to community engagement: Applied to future volunteerism

There were five alumni who reported learning about a new approach to community engagement through the online community-based learning program and then applying this in their future engagement in volunteerism. The new approaches to community engagement included a) an asset-based and anti-saviorism mindset and b) recognizing the importance of directing resources for sustainable social change to occur.

Several alumni said that they adapted an asset-based and anti-saviorism approach to community engagement through participation in a virtual global health internship, which they then applied to future volunteer work in other areas outside of healthcare. These alumni described learning about an asset-based and anti-saviorism approach through case studies, class discussions, and reflection papers focused on ethics of global health development work. One alum reflected on a case study which had a significant impact on her thinking, and said:

> We were talking about this White man who went to a hospital in another country and was like, Hi! Can I do a surgery, and he was not qualified at all. He was a med student, not a doctor. And they were like, yes! Because here's this White man, presenting himself as being more knowledgeable than he is, and he was not realizing his positionality in the situation and just putting people's lives in danger.

The alum went on to describe how this jarring case study caused deep personal reflection about her own positionality, saying that although she is not White, she is a person from the

global north with many resources. She described participating in the online community-based learning program as "a powerful lesson in humility" and that the "opportunity to reflect and to apply the asset based-development approach that the organization takes to its global partnership is what stuck with me the most from the experience." This alum said that she now volunteers at a middle school near her university where she teaches robotics in a historically disadvantaged neighborhood, and that an anti-saviorism and asset-based approach is at the front of her mind when thinking about how to "best connect with the community." Thus, this alum felt that a mindset shift during the online community-based learning program impacts her approach to creating relationships in her current volunteer work.

Another alum said that after participating in an online community-based learning program led by a Ghanian physician, she was motivated to move to Ghana for more than a year and engage in self-directed volunteer work at high school as a mentor and teacher. This alum said that she did learn some basic things about Ghanian culture and social systems (education and healthcare) from the online community-based learning program, which was helpful when she went to Ghana. However, what impacted her behaviors the most was applying an asset-based approach to her volunteer work. This alum was born in the United States to Nigerian parents, and although they are both North-African, she said that Ghanaians view her as American. For this reason, it was important to her to not portray "this attitude of, I'm better than you, because I have more this or that." She went on to describe how she applied an asset-based approach to her future in-person volunteer work in Ghana saying:

> Instead of them [the students] hearing everything from me, I decided to invite their big sisters and big brothers to come to the class… I invited a few speakers who spoke their language, understand their culture, understand the situation going on in Ghana…A businessman came, and he spoke English, and he also spoke two different ethnic languages in the class, which the girls understood. So, I think that was the highlight of the mentorship project, the fact that I invited people from the local community to speak to the girls. It made a difference.

Thus, in future volunteerism, this alum aimed to de-center herself as the American expert and respect the knowledge of the local community, such as language and culture, as strengths.

Several alumni said that they learned about the importance of directing resources for creating social change, and this impacted their future approach to volunteerism. One alum explained that she volunteered in-person with a non-profit grocery store on campus which provides affordable local food to students and educates the local community about food systems and food insecurity. When the grocery store was forced to close during the pandemic, she engaged in the online community-based learning program with the grocery store as the community partner and also took on the role of an online teaching assistant. She said that the experience "did really impact how much I felt like I could use my purchasing power to do good." And she described how although she is currently working as a teacher with a limited budget, she prioritizes being a member and volunteer at her local co-op grocery store. Another alum described how in a future volunteer role with a school she applied for a grant and used the grant money to provide experiential-learning opportunities

for the students, like field trips. Thus, an asset-based and anti-saviorism approach as well as recognizing the importance of directing resources are capacities alumni reported they gained in the online community-based learning program and utilized in their future civic lives.

Other forms of future civic engagement

As future volunteerism is the form of civic engagement most alumni reported participating in after program completion, this is the focus of the analysis in this chapter; however, a few alumni reported other civic actions. Several alumni said that they participated in on-campus advocacy efforts for various issues including environmental justice, equity in STEM education, and a voter registration campaign. The on-campus advocacy efforts will be explored in more depth in the section of this chapter: *What is missing?* Additionally, one alum conceptualized their current job as a teacher as civic engagement. And one alum described voting in local elections as civic engagement. Thus, in addition to volunteerism, a few alumni conceptualized civic engagement as on-campus advocacy efforts, professional work, and voting in local elections.

Increased motivation for engagement with political news and voting: No behavior change reported

Directly after program completion the vast majority of students reported an increased motivation to deepen their knowledge and engagement with social issues or regions of the world they learned about through the online community-based learning program through keeping up with political news and adjusting their voting behavior. However, during interviews very few alumni reported a change in actions related to these areas. No alumni

indicated that the program had influenced their political media consumption habits. Only one student mentioned voting around a social issue as a form of his own civic engagement, and this student was particularly interested in accessible public transportation, which is not an issue related to their online community-based learning program. Thus, it appears alumni did not take it upon themselves to become better informed about news and social policies that impact social issues or regions of the world they connected with during their online community-based learning program.

Barriers to civic engagement

The overwhelming majority of alumni said that they would like to be involved in civic engagement or social action, and a few named barriers they face at the moment. The most common barrier was time, due to their job or graduate school commitments. Several of the alumni interviewed were in graduate school, law school, or medical school during the time of interviews. A few students were in the residency phase of medical school, where they said they were working up to 70 hours per week, and thus had no time to engage in anything else. One alum reported that she was not involved in any civic engagement because of burn-out from working in the social-justice field professionally. Only one alum reported that being involved in future civic engagement or social action was something that was not important to them. This finding is similar to other research in which alumni of community-based learning programs have named personal and professional commitments as barriers to future civic engagement (Lake et al., 2021; Mitchell et al., 2019) and also aligns with current reports of rampant “activism fatigue” or “social justice burn out” in the US and across the world (Emejulu & Bassel, 2020; Tillery, 2021).

Education and professional actions

Alumni reflected on how capacities gained in the online community-based learning program impacted actual future collaboration in their professional and academic lives related to applying Spanish language skills, applying a mindset shift of valuing Non-Western perspectives, and skills needed for remote work. Thus, it appears that students view engaging in community-based learning programs as a form of professional development, which is a theme explored in volunteer abroad research (Kallman, 2020). This is not surprising as the goal of community-based learning is to pre-pare students for citizenship, work, and life (Kuh, 2008).

Applying Spanish language skills

Directly after program completion many students said that gaining and practicing foreign language skills during the online community-based learning program increased their sense of their ability to "make a difference locally or globally" and two alumni described how they are in fact applying Spanish language skills gained through participation in the online community-based learning program in their current academic and professional lives.

An alum who spoke to me from her apartment in Bogotá, Colombia, where she was completing fieldwork for her masters in global health from a university in the Netherlands, reflected, "I don't think I would be here in Bogotá if it wasn't for the online internships…I really do think those programs changed the expectations I have for myself. And what I thought I could do." This alum participated in two online community-based learning programs led by physicians in Latin America, one in Ecuador and another in Mexico, and

described how the capacities gained through participation in these programs gave her the confidence to pursue a master's degree abroad and fieldwork in a foreign language. As she recalled, "Finishing the program, I just thought to myself, I can't *not* study abroad now." Thus, post-graduation she looked only at master's programs abroad to build-on her knowledge of the global health field. For her master's thesis this alum was conducting interviews with internally displaced Colombian and Venezuelan migrants and said that before taking the Spanish classes during the online community-based learning program she did not have the skills to conduct those interviews.

Another alum spoke to me one evening while on break from her current residency rotation in the OBGYN unit of a hospital, where she said she uses Spanish language skills gained in the online community-based learning program daily with patients. She said that before participating in the online community-based learning she had spent time abroad learning Spanish and thus had some basic skills, but not enough to really utilize in a clinical setting. Part of her online community-based learning program, which was led by an Ecuadorian physician, were daily real-time medical Spanish classes led by Ecuadorian teachers. She said of the classes, "I have taken so many Spanish classes in my life, and I have not learned nearly as much Spanish as I did just in the four weeks of this experience." This alum went on to describe why she felt the real-time virtual language-learning environment was so beneficial for her:

> I think with virtual, you save a lot of time, with just like commuting and learning how to live in that culture, and within that area, and even the practicalities of where do I get food? But [online] you still have direct access to native speakers.

This insight is significant because in-person language immersion is often touted as the best way to learn another language. However, for this student online immersion was a more effective way to gain medical Spanish skills that are useful in her current job.

Appling a mindset shift: Valuing non-western perspectives

Several alumni described how coming to value non-Western perspectives through the online collaboration impacted their future actions. For example, the alum conducting her masters' thesis in Colombia recalled that a big mindset shift for her about the value of non-Western viewpoints came through comparing Ecuadorian and U.S. systems during Spanish classes with Ecuadorian professors, as she recalled:

> When I was talking to my Spanish teacher online, I remember talking about the United States and Ecuador, and the differences between [these countries] was part of one of our lessons. Like, what's the political system like in in your country? Or what does your neighborhood look like? And then understanding for the first time, that she had an opinion about the US. And assumptions about the US.

The simple realization that people outside of the US experience different political systems and ways of life is a crucial first-step in being a part of global social change, and although this may seem obvious to educators or other students who have travelled abroad or have family in other countries, this is not something that all students come into the college experience understanding. This alum said that before participating in the online community-based learning program she had no close relationships with people from outside of the United States. Thus, simply having conversations with someone from another country, even in the

online environment, helped her to see the United States from another lens, and thus better understand her own identity as an American. And she went on to say:

> I realized that it means something to be an American for the first time, which was very strange, because, of course, it doesn't feel like anything, because it's just like who we are, I guess. But then, interacting with people in the online program from different places kind of contextualized or put into perspective that part of my identity and what it means in other places.

For this alum, witnessing someone else's (possibly false) assumptions about the US helped her to understand that her own assumptions about other countries may also be biased. Thus, better understanding her own identity as an American in the context of how Ecuadorians view Americans, caused her to confront her own biases, especially a sense of American superiority, for the first time, as she recalled:

> I also really had to confront the sense of superiority that I might have had because, even though I didn't think much about my identity as an American and what that meant, there were definitely parts of me that over time, growing up the way that we do, I think we're told that we are the best.

She recalled a specific instance when she realized her own biases, when a Costa Rican physician gave a guest-lecture in the class regarding planetary health, and she thought:

> This man is so impressive, he's brilliant, he's so smart. And I think I kind of felt a twinge of surprise, which I was very embarrassed about. Because [I was surprised that] he was from somewhere else. And I think that was a big part of the program, to

> understand the biases that we hold, and to confront those things and acknowledge them. And there was a really good opportunity for me to do that, especially because I never considered myself to be a biased person. I've always been super excited to learn about new cultures, study abroad, all those things. And I was like, okay, I really need to consider this.

This student described herself as an open-minded person with a strong desire to learn about other people and cultures; however, through online interactions with people from another country, she was confronted with her own biases in a way that she could not ignore. In contrast to something like the use of Spanish language skills in Colombia, it is harder to see how this critical self-reflection on American identity and mindset shift to value non-Western perspectives directly translates into future actions. However, it seems like it is an attitude shift that is necessary for creating effective cross-cultural relationships, and this alum has gone on to successfully live, study, and work in two different countries after graduation.

The alum currently in her medical-school rotation in the OBGYN department also reflected on applying not only Spanish language skills to interactions with patients, but also described a mindset shift that came from learning about traditional medicine in Ecuador leading her to listen to and respect the cultural background of patients in the clinical setting while also offering the best medical advice possible, a skill she calls “yes and” communication. This alum recalled an impactful aspect of the online community-based learning program was learning from Ecuadorian physicians how they incorporate both Western and traditional medicine when caring for patients. She described how many Ecuadorians use herbal remedies, and instead of looking down on this as she believes would

likely happen in the United States, Ecuadorian physicians have found a way to practice active listening with patients. This alum said she sees “yes, and” communication as a skill she is practicing in the clinical setting, and gave the example:

> In OB we see a lot of patients with chronic pelvic pain, and it's kind of like the like chronic back pain of our specialty, it is just notoriously hard to find a like a cause of and treat it. And a lot of patients will have tried like really strong drugs and not had relief. Then they [patients] will say “my cousin in Mexico gave me this rub” or “I started drinking this tea, and I feel so much better.” And I'll look it up, and it's just like a mixture of different herbs or vitamins. And it's like, well, if that's working for you, and it's not dangerous. Who am I to say that it doesn't work?

This alum went on to describe why she believes listening to and respecting the cultural background of patients is important to forming trusting relationships with patients:

> And I've seen physicians in the past, especially in medical school, I trained in a much more White-predominant area of the country, just kind of like dismiss [traditional medicine]. And you can tell it really pushes patients away. And then we get frustrated when patients don't listen to us. But we're not really listening to them.

This alum acknowledges how the power differentials between physicians, especially White physicians, and non-White patients, can set the stage for mistrust and the heightened importance of truly listening to patients. Thus, learning about traditional medicine and how it could be respected and combined with modern medicine in the Ecuadorian healthcare system, inspired this alum to bring this skill of valuing non-Western perspectives into interactions with patients in her current professional life.

Applying skills to remote work

Directly after program completion, there was a notable lack of reflection from students on how technology impacted the learning experience or if they anticipated utilizing the new skills and motivation for future social action in the online or in-person modality; however, during interviews students reflected on how they are currently utilizing online communication skills in the remote-work environment. It is likely that the lack of awareness of how technology may impact future actions was due to the fact that students had no idea what their future of civic, academic, professional, and social collaboration would be like. Many people thought the world would "go back to normal" with most collaboration in-person. As we now know, we are living in a world of hybrid communication, and several alumni reported that remote work is "all I've ever really known."

Many alumni said that through the online community-based learning program they learned a variety of technical and organizations skills—using videoconferencing platforms like Zoom, using messaging aps like WhatsApp, proactive communication, and personal organizational skills—which they now utilize in the remote work environment. Several alumni reflected on the need for more proactive communication in the online environment because you are not passing by a co-worker at their desk or in the hallway, as one alum recalled:

> It definitely taught me time management skills, better communication skills, especially over the internet. Because, instead of having an office space where if something comes up in your head you can just walk over and tell that person. But

> when you're not, it’s easy to just forget about it, and then never follow up on that idea or that thought. So, when something important happens, actually reaching out to the person really quick and sending an email before you don't remember.

Several alumni also said that they learned about time management in the online environment, and this alum reported:

> It was my first instance of working remote, like a job remote. And I've had a couple since like that. I was struggling to figure out how to schedule my time because it wasn't like school, where you have assignments and you can work whenever you want. So, it was nice that it was kind of a test run to figure out, okay, how do I work remote? And by the time I had the next job that was remote I knew how to do it.

And self-motivation in the online environment was another skill alumni said they learned through the online community-based learning program, as this alum recalled:

> I learned how to find my own intrinsic motivation as opposed to just the peer pressure of like, who's walking by my computer. And what are they seeing? I felt lucky that I had an interesting project that I was working on…And the times where you're unmotivated. How do you do work anyways. I find check-ins and deadlines are very helpful for me.

The remote work environment is new for everyone, and employers and employees alike are trying to navigate how to best collaborate in the virtual modality. Students who had practice with online communication and collaboration through the online community-based learning program learned important technical, organizational, and self-motivation skills that they then

applied in the remote work setting. Students are graduating into a world where remote or hybrid work is the norm. Thus, if the purpose of community-based learning is to prepare students for citizenship, work, and life (Kuh, 2008)—it is essential to give students the opportunity to practice online collaboration skills which can be carried over into the remote work setting—and online community-based learning is pedagogy which holds great potential to fulfill this goal.

Summary and significance of the findings

Directly after program completion, the majority of students reported an increase in motivation to participate in future social action, and 78% of alumni (which is 18 of the 23 interviewees) reported involvement in civic or social action one to three years after completing the online community-based learning program. Civic or social action was most commonly expressed as volunteerism. Many alumni perceived their participation in the online community-based learning program as having a *kindling effect,* or as way to sustain their commitment to civic and social action during the pandemic and into the future. Alumni also reported that participation in the program impacted their approach to future community engagement including gaining an asset-based and anti-saviorism approach as well as recognizing the importance of directing resources for sustainable social change. For those not involved in future civic or social action, most reported a desire to be involved but time and job or graduate school commitments were the barrier. Alumni did not report a change in behaviors regarding the increased motivation for deepening engagement with political news and voting which students reported in post-surveys. These findings support a small body of longitudinal research regarding alumni future actions after participation in a community-

based learning program which has found sustained or increased involvement in civic engagement with similar barriers named by alumni (Cattaneo et al., 2021; Lake et al., 2021; Mitchell et al., 2019; Myers et al., 2019). This research makes the unique contribution that even in the fully online modality, community-based learning holds the potential to encourage future civic action for alumni in the form of volunteerism.

Although students reported post-program that new skills were a key cause for an increase in their civic efficacy, alumni largely reported utilizing new skills, in their educational and professional lives as opposed to their civic lives. Alumni described how the online community-based learning program influenced their educational choices, such as to study abroad or take future classes related to human rights. Alumni also reported applying skills, such as language, online communication, and intercultural communication, to educational and professional contexts. In interviews alumni described not only skills but also applying more nuanced mindset shifts, such as valuing non-Western cultural perspectives, in a way that did not emerge in survey data. Perhaps, directly after program completion students did not even realize they had experienced a mindset shift, or they could not envision how it would impact their future actions. Therefore, the longitudinal approach to research adds important insights about mindset shifts that the survey data was unable to capture.

C. Program aspects that impact student learning and alumni actions

As a classroom community, our capacity to generate excitement is deeply affected by our interest in one another, in hearing one another's voices, in recognizing one another's presence.

– bell hooks, *Teaching to Transgress*

As a found-problem research study influenced by a transdisciplinary research approach, this study is purpose-driven, and the purpose is to inform future curriculum and programming. Thus, in this section I address the research sub-question: **What program aspects impact student learning and actions?** I first explore this question through quantitative analysis of pre-/post- survey data to observe the potential effect of three specific program factors (1. Previous in-person experience with the community partner, 2. Location of the community partner, 3. Hours per week dedicated to the program) on pre-/post-survey change scores. Then I address this question through analysis of qualitative interview data and identify a key program condition which alumni reported influenced a change in their future actions: a sense of social support through forming trusting interpersonal relationships with partner community members.

Quantitative analysis

As described in detail in the *Methodology* section, I utilized IBM SPSS Statistics (Version 24) to conduct statistical analysis to observe the possible effect of three program factors (1. Previous in-person experience with the community partner, 2. Location of the community partner, 3. Hours per week dedicated to the program) on pre-/post- survey change scores. Statistical analysis did <u>not</u> reveal a significant difference in mean pre-/post-change scores using a 95% confidence interval for any of the program factors on any of the survey scales where $p \geq .10$ for all tests named below. Tests performed included:

<u>Independent sample t-tests:</u>

- Previous in-person experience with the community partner: yes (n=41); no (n=146)

- Location of the community partner: Domestic (n=91); International (n=95)

Pearson correlation coefficient

- Hours per week dedicated to the online community-based learning program: n=187

One potential reason no significant effect of program factors on change scores was found is that the programs in this sample were mostly individualized. There are a handful of students in the sample who participated in the same virtual global health internship; however, most students engaged with individualized projects which means they worked with different community partner organizations, different mentors, and engaged with distinct projects or tasks. Thus, it is possible that the unexplained variability associated with the individual-nature of the programs was far greater than any variability that could be statistically attributed to the specific program factors named above. It is also possible that more nuanced program factors, such as different mentorship styles or types of tasks students worked on, may play a bigger role in student learning than the program elements captured in the survey.

Qualitative analysis: Trusting interpersonal relationships

While quantitative analysis did not lend insight into what program aspects impact student learning, through interviews alumni overwhelmingly expressed one key program condition that influenced their future actions: a sense of social support through interpersonal relationships with partner community members.

A lack of social support: Like being thrown into the flames

Most alumni reported positive learning gains after participating in the online community-based learning program, and the few alumni who reported that they did not learn much shared one thing in common—a lack of social support. One alum described feeling overwhelmed during the online community-based learning program, which was their first experience with interviewing and authoring a research report, as "being thrown into the flames a little bit." They went on to describe missing mentorship during their online community-based learning program saying:

> I felt like I really lacked guidance. It was easy for me to go through a work week and not have talked to anybody else. I think that definitely as a result my work suffered. I didn't produce as good of a product as I could have.

This alum felt that the lack of interaction with others not only effected the quality of their work, but also prevented them from learning anything new at all, as they went on to say:

> And I didn't learn a whole lot more than what I already knew coming in, besides getting some more practice with some of the legal research platforms that I was already sort of familiar with from class. I don't really feel like my horizons were broadened at all through that time.

This sense of isolation having a negative impact on the learning experience was echoed by another alum who also worked on a research report and said they had little communication with mentors or others during the process, as they reported, "It's difficult to say being an online internship, because I wasn't having so many like day-to-day interactions that you normally have. So, there wasn't that much to reflect on." Even though these two students

reported practicing new skills like interviewing and authoring research reports, they also perceived that the lack of social support prevented them from learning or "broadening their horizons" in any way. Another alum described that a lack of social support while engaging in a project focused on racial-justice research and education during a time of social isolation and racial-justice protests in the country was emotionally draining. She described how this ultimately led her to turn away from a career path where she thought she would use her linguistics degree in the field of social justice saying, "I can't do a career in that." Thus, it seems that if social support was not present in the online community-based learning program, students were more likely to perceive that no learning occurred and were even deterred from participation in future social action.

Key program condition: A sense of social support through interpersonal relationships with partner community members

The key program aspect which influenced student learning which translated into a change in future actions was not a specific factor that could be identified through quantitative analysis (i.e. location of the community partner or hours worked per week) but was rather a more general program condition—a sense of social support. For students who reported changing their future actions, they found social support specifically through forming interpersonal relationships with partner community members. Alumni who described finding a sense of social support in the online environment were able to achieve this through intentionally building personal relationships with mentors from the community-partner organization, community members, and peers in the partner community. Below, I provide an

illustrative example of how alumni described each of these types of interpersonal relationships impacted their learning and future actions.

a. Personal relationship with mentors from the community-partner organization

An alum who worked with a non-profit focused on justice for those facing the death penalty worldwide reported of the online community-based learning experience, "It completely changed my whole life trajectory" and attributed a lot of her learning and future actions to the interpersonal relationships she formed with mentors. This alum described working with mentors on a host of different projects including article writing, creating a death penalty database of practices around the world, organizing a global virtual conference for lawyer. And said, “I had really, really good mentors throughout the online part. I've never felt super confused or anything. Just because we were in such close contact through texting and Zoom and everything.” She also reflected on the importance of trusting interpersonal relationships in her particular environment, capital defense, which can be very emotional, and said the team planned emotional check-ins before diving into the logistics of meetings. This intentionally planned emotional check-ins, were a space in the online environment where it was made explicit that emotional sharing was not only welcome, but in fact the goal, and is one way this alum felt she was able to create interpersonal relationships in the online context.

While this alum felt she had close relationships with her mentors without ever meeting in person, she also noted that in cases of extreme emotional distress, the in-person social support cannot be replaced with even very intentional virtual social support. As she recalled:

> I was working on a capital case and our client ended up getting executed, which is just super terrible. And I think it was extra hard being remote and not being able to talk to anyone. We had some Zoom healing circles, and we had a lot of meetings, and everyone was always willing to talk online about it. But I do think my parents were tired of me. I don't think it was necessarily the best way, because I wasn't really surrounded by people who are in the same world. I think it would have been much easier if I'd been in-person and could have spent more time in-person with people who have gone through it.

This alum provides insight into the limits of virtual social connections. This is an important because during community-based learning students commonly engage with people who are marginalized due to systems of racial, gender, and class inequities, which is often emotional work.

Despite the limitations, this alum described the online community-based learning experience as "transformative" going on to say how it shaped her future career path, saying:

> I'd never worked on death penalty cases before. I didn't know anything about that world. And it just taught me a lot about death penalty around the world and in the US. And how unjust a lot of those processes are. And I've worked pretty much solely in capital defense since then. So, I think it really pushed me onto that path.

This alum went on after graduation to work as a paralegal doing capital work at a defense office where she continued to work with lawyers around the world in the virtual setting, which she said, "feels really normal for me since that's all I've really ever known." While

noting the limitations of online social connections, she also felt that building interpersonal relationships completely online with her mentors was not only possible but formative for her future career choice and actions in the remote work environment.

b. Personal relationship with community members

Most alumni interviewed reported that their main communication during the online community-based learning program was with a mentor or supervisor at the partner organization; however, a few alumni said that they also had significant communication with members of the community who were benefitting from the organization's services, which was very impactful. An alum described participating in a virtual social gathering with not only staff of the organization they were working with but also with members of the community who were benefiting from the organization's services in the form of a virtual book club. This student worked on a variety of projects with a non-profit providing support for migrants and internally-displaced people in Mexico. He described the virtual book club as an open space where the migrant community as well as staff and volunteers from the non-profit came together to share excerpts of poetry, prose, fiction, nonfiction, or anything that was important to people. It included some discussion of literature and current events. He said the book club was a safe space where people could "feel a lot of solidarity with other people who had some connection to the refugee community in Mexico City." He also described this virtual book club as a space where he felt welcomed by other volunteers who worked with the organization as well as the refugee community the organization was serving. Through the virtual book club, this alum described coming to know a particular family from Guatemala:

> There's one family in particular, who I got to know a couple of them, especially the matriarch of the family. She'd originally a refugee from Guatemala and hearing a little bit about her experience adjusting to life in Mexico, and then hearing about the Guatemalan Civil War, I think it did sort of implant like a bit of a seed.

This alum went on to describe how forming a personal relationship with the migrant family and learning from them about the Guatemalan political situation helped him to think about how various parts of Latin American history are interconnected. And this inspired him to continue learning about global social problems by taking a course on Human Rights with a focus on Guatemala the next year. Thus, this alum gained a better understanding of the interconnectedness of global issues through forming interpersonal relationships online with community members, which influenced his future educational choices.

Through these online community-based and classroom experiences, this student was motivated to participate in a second online community-based learning program the following summer doing archival work with a human rights organization in Guatemala City. This alum said he decided to participate in a second community-based learning experience in the online format because he believed the first online learning experience was "reciprocal." By reciprocal, he said that he had a meaningful learning experience and that projects he engaged with including updating the website with resources for migrants (health, COVID, social services) and recording an oral history project seemed to benefit the organization and the community they were serving. Through the virtual book club, this alum described making personal relationships with people in the migrant community and at the partner organization

which it “felt like I was connecting with them” and in turn influenced his future educational choices and participation in future online community-engagement work.

c. Personal relationship with peers in partner community

An alum who had graduated just three months prior to our interview described practicing the skill of active listening through being paired with a Zambian law student during her community-based learning experience. This alum worked with the Zambian chapter of an international NGO to write a research report regarding women’s role in climate induced disaster management in the country to advocate for disaster management policies. This student was paired with a Zambian law student to author the report. This is the only example from the interview sample of a student interacting with local peers in the country where the partner organization was located.

This alum described how she began the experience thinking her knowledge of global health from a university in the United States could impact policy-making for an NGO in the global south. However, through personal conversations with her Zambian partner, this alum realized that the local cultural knowledge and expertise was essential for the project, as she recalled:

> Initially, I had really kind of been arrogant in the sense that, I [thought I] would go in and I have all this education on global health, and I'm able to use this for policy and for our project. But listening to our partner organization as well as my Zambian partner, they offered a lot of perspectives that I wouldn't have even thought of, even from a Google search or literature reviews.

Through personal conversations with her Zambian partner, this alum shared how she came to have some humility about her own knowledge and gave value the local perspective. She continued with the example:

> She [my partner] mentioned a lot about her personal experiences in Zambia and her personal role as a woman in her in her family. She talked about how women are the ones who stay home. And that's why they have such a big role in disaster management. They are a lot of the time in charge of farming, which is inclined to disasters like floods, and can really impact that aspect of their domestic life. They're in charge of gathering the food on the farms or caring for the little kids at home. Their husbands are off at work. Because of that, women are first and foremost impacted by these natural disasters, because it directly affects their daily activities.

The Zambian peer offered personal experiences as a woman and insight into the typical domestic-life, gender roles, and social systems in Zambia that were important for understanding women's role in disaster management. The alum acknowledged that even with her academic knowledge of global health and research skills, she could not have contributed this crucial local understanding to their research project. This alum went on to say that she was able to learn about Zambian life in this way by practicing the skill of active listening, which is something she had learned about theoretically in her global health classes but never applied before the online community-based learning experience. She described active listening as:

> Not just waiting to respond with your own answer, but really hearing what they have to say, and really understanding why they might hold that perspective. So really

> approaching these conversations in a non-judgmental manner, but rather with like an attitude of accepting new ideas and hearing about what other people may think. I think that was heavily emphasized in my coursework. But, being in the Zambia program, allowed me the first opportunity to actually practice that in a professional setting rather than just in a classroom.

This alum described how a benefit of community-based learning is to put knowledge and skills learned in the classroom into practice, in this case the theoretical concept of active listening. This aligns with Dewey's (1938) principle of *interaction,* which says that for knowledge to be useful it needs to be applied to a situation. This alum is applying for medical school and said that active listening will be something she uses in her future career, saying, "this program has impacted my way of thinking and way of approaching patients for a long time after." Although this plan for future action is career-focused, it can also be viewed as social action. People of color, non-native English speakers, low-income individuals, and women routinely report being misunderstood or dismissed by healthcare providers, which results in inequitable healthcare outcomes such as misdiagnosis or even deaths. Thus, incorporating active listening into their interactions with patients from different cultural backgrounds is potentially contributing towards greater equity in healthcare. Building an interpersonal relationship with a local Zambian peer-researcher allowed this alum to practice the concept of active listening, gained some humility about her own expertise, and changed her perspective to value local cultural knowledge—skills and mindsets that could impact more equitable healthcare outcomes as she plans to apply them to her future career as a physician.

Challenge in forming interpersonal relationships online: Making it feel more human

As the quote leading this chapter from critical pedagogue bell hooks says, "excitement" about learning which led to a change in actions seems to have been facilitated by a mutual interest between students and partner community members learning about one another's lives and experiences and "recognizing one another's presence." Being able to recognize another's human presence in the absence of physical presence is a challenge in online collaboration.

Several alumni acknowledged a major challenge in forming interpersonal relationships in the online environment was that being physically separated took away some of the "humanness" and infused a heightened sense of professionalism to the interaction. One alum described the challenge of getting beyond the "best-behavior" phase saying:

> It was hard to get beyond just the surface. Like when you're new to a job and you're like still trying to be on your best behavior, and you haven't broken past that to the everyday sort of experience, that's kind of what it felt like. Even by the end of the program, like everybody, was still being super polite.

Another alum echoed the sentiment of a heightened sense of professionalism interfering with forming interpersonal relationships saying, "I felt like I needed to keep it professional at work. There was no camaraderie. Our meetings were meetings, and that was that." These excerpts are similar to the survey findings in which students reported more formal personal presentation and language as a communication strategy. Through the alumni interviews,

students further expressed their desire to “get beyond the surface” and create meaningful interpersonal relationships during the online community-based learning program.

Recognizing humanness in online collaboration: Intentionality is key

Alumni who were successful in creating interpersonal relationships in the online context said that intentionally creating space for casual non-work-related conversations was important for humanizing those who are not physically present with you. Alumni named some examples of intentionally planned interactions where individuals could share who they are as whole people, including:

- Small talk before meetings
- Emotional check-ins
- Co-authoring a research report with partner-community peer
- Creating online social spaces: Book club, coffee hour, dance party

Alumni described why intentionally planning these online interactions where the task at hand was not discussed was important for humanizing others. As one alum recalled, “I think definitely engaging in a little bit of small talk helps. That's just kind of natural and makes it feel more human. It just feels a bit more friendly, a bit more human to ask about someone's day for a minute or two rather than just diving in.” This alum reflected on the importance of learning about someone as a whole human person, beyond productive roles for achieving the task at hand, which aligns with both Arendt’s (1958) idea of *action* and social movement literature regarding the importance of forming trusting relationships when working towards a common goal (Flesher Fominaya, 2010; Kallman & Ferorelli, 2024). This alum also reflected

on how not sharing the same physical space takes away natural opportunities for "small talk," or talking about non-work-related topics, which occurs between people collaborating on a project together in person, for example when they are waiting for a meeting to start or sharing lunch together. As one alum put it, learning about other people beyond their work role takes more intentionality in the online environment because "you are not just passing them in the hallways."

Interpersonal relationships address a unique challenge: Understanding the context

A unique challenge of online community-based learning is for students to understand the social, cultural, and organizational context of the partner organization, especially if the organization is based in another country. About half of the students in this sample were working with organizations outside of the US, and most students had never been to the country where the organization was located. An alum who worked with a maternal-health clinic in rural Uganda worked on grant writing and report writing for the clinic and reflected "trying to like grasp really the work that they were trying to do, was honestly quite difficult." She went on to recall a presentation from a partner of the clinic who was starting a rabbit farming initiative:

> They wanted people to farm rabbits to make more money and because rabbits are a healthy meat source. And they did all these calculations, and it was like if we can sell one rabbit for like this much, and rabbits grow at this rate, and like suddenly, everyone would be rich and eating rabbits and healthy….It just felt a bit disconnected

> at points. It was a bit confusing to me, because I guess I don't really understand why then they've never farmed rabbits before.

This alum said that she found the different presentations from the clinic partners to be disconnected at times from their goals in maternal health. However, she thought that perhaps if she were in-person and could observe how people lived their everyday lives, it would have provided the context she needed, as she said:

> For certain examples like that that, maybe we just had to see it. Maybe we had to see the markets and the people's backyards, and it would have helped us understand a bit more from afar.

This alum acknowledged that in the online environment students did not have the advantage of being immersed in another culture, where they may have been buying food at the market, talking to people in the street, perhaps living with a host family, and organically learning about the social, cultural, and organizational context.

It seems that building interpersonal relationships online with mentors, community members, and peers in the partner community was a way to gain insight into the social, cultural, and organizational context. In the case of the alum who worked with a Zambian peer-researcher, the Zambian peer taught the US student about social and cultural norms contributing to gender roles and distribution of labor which allowed the pair to successfully write a report on women's role in disaster management in Zambia. And through building interpersonal relationships with mentors, the alum working with the capital-defense non-profit was better able to understand the organizational context, in that she came to recognize

systemic inequities of capital punishment as well as the emotional-intensity of the field. Thus, in the absence of immersion in the day-to-day life of the partner community, building interpersonal relationships with partner community members was a way that students were able to gain understanding of the social, cultural, and organizational context.

Summary and significance of the findings

Analysis suggests that the one program aspect which influenced student learning which translated into a change in future actions was overwhelmingly: forming trusting interpersonal relationships with partner community members (i.e. mentors, peers, or community members). Forming trusting interpersonal relationships was more impactful than any of the program factors analyzed quantitatively (previous in-person experience with the community partner, location of the community partner organization, and hours per week dedicated to the program) as statistical analysis did not reveal statistically significant results related to any of these three program factors. Relationships with partner-community members seemed to foster a sense of social support, without which alumni reported no new learning or even being deterred from participation in future social action.

The main challenge named by alumni was to make the online collaboration feel "more human." Alumni said that very intentionally making space for ways to share and learn about others outside of the work environment was key for humanizing those who are not physically present with you. Some specific ways alumni reported intentionally forming interpersonal relationships with partner-community members in the online environment include: small talk before meetings, emotional check-ins, and online social spaces like book

club or coffee hour. Recognizing others as whole human people beyond productive roles for achieving the task at hand aligns with both Arendt's (1958) idea of *action* as what makes one human as well as social movement literature regarding the importance of forming trusting relationships when working towards a common goal (Flesher Fominaya, 2010; Kallman & Ferorelli, 2024). Literature in collaborative online learning has found that building trusting relationships with instructors or peers is key to student learning (Garrison et al., 1999; Liu et al., 2009; Means et al., 2014; Robinson et al., 2017); and this study adds the unique finding that building trusting relationships with those outside of traditional higher education roles—partner community members—impacted both student learning as well as their future *actions*.

D. Demographic factors that impact student learning: First-generation

The previous analysis held true for the total data set, though this study also aims to better understand what demographic factors may impact student learning with the goal of informing future curriculum that is inclusive and critical. Thus, this section addresses the research sub-question: **What demographic factors impact student learning and actions?** The GES asks a set of questions about student demographics on the pre-survey. These questions are optional; however, the vast majority of students chose to provide demographic information. The *Methodology* chapter provides a participant profile section, which details the demographic information of students in the total dataset as well as the interview subset. Using a sequential explanatory mixed-methods design (Creswell, 2014), I first explored this research question through quantitative analysis of survey data and then explored those results in more detail through qualitative analysis of both survey and interview data.

Quantitative analysis

I performed statistical analyses (independent sample t-tests, one-way ANOVAs, and Pearson correlation coefficients) using IBM SPSS Statistics (Version 24) to compare the effect of the following demographic factors on pre-/post- survey change scores for the 8 GES survey scales: gender identity, racial/ethnic identity, first-generation to college status, and parent income. An alpha level of .05 was used for all comparisons.

Pre-/post- change score=[post-survey score] – [pre-survey score]

Through the pre-/post- survey change score, I can observe a quantitative change in self-reported knowledge, values, mindsets, and motivation to participate in future global and civic engagement. Through the statistical tests, I compared average change scores within different groups related to demographic factors that may influence student learning.

<u>Statistically significance difference: First-generation students</u>

Independent sample t-tests were performed to compare mean change scores on each of the 8 GES scales between first gen students (N=40) and non-first-gen students (N=140). Independent sample t-tests revealed a statistically significant difference in mean pre- and post-survey scores where $p \leq .039$ on 7 of the 8 survey scales (highlighted in blue in the chart below): openness to diversity, cultural adaptability, civic efficacy, conscious consumption, political voice, global civic responsibility, and critical reflection. The paired sample t-test did not result in statistically significant results for one scale: the human rights belief scale, where $p=.214$.

Table 18

Independent t-test results: First-gen and non-first-gen students

Non-First Gen and First Gen independent t-test results on the 8 scales

	Openness to Diversity	Cultural Adaptability	Civic Efficacy	Political Voice	Conscious Consumption	Global Civic Responsibility	Human Rights Beliefs	Critical Reflection
Non-First Gen Mean Change Score	.14	.08	.25	.25	.20	.19	.0018	.12
Non-First Gen SD	.365	.361	.452	.620	.340	.478	.355	.313
First Gen Mean Change Score	.38	.29	.59	.48	.36	.42	.08	.29
First Gen SD	.389	.381	.461	.593	.406	.511	.198	.386
p	≤.001	=.002	≤.001	=.039	=.013	=.010	=.214	=.003

Created with Datawrapper

On 7 of the 8 scales, the mean change score increased from the pre- survey to the post- survey for both first-generation and non-first-generation students. First-generation students had a higher mean change score on all of the scales. Like the total data set, the human rights belief scale had the highest pre-mean score (4.67) of all the scales; thus, there is not much room for students to increase on the post-survey, and this is likely the reason there is no statistically significant difference on this scale. The confidence interval was set at 95% for the independent sample t-tests, which means that the results would be considered statistically significant if $p \leq .05$. Therefore, it is notable that the p value for the t-test on these 7 scales were all well below the confidence interval with the highest p value being p=.039 on

the *political voice* scale and the lowest p value being $p \leq .001$ on the *openness to diversity* and civic efficacy scales, which gives very high confidence that the statistically significant change in pre-/post- scores did not result by chance. Thus, after participating in an online community-based learning program, first-generation students reported a statistically significant greater learning gain compared to their non-first-generation peers.

As this study utilizes an explanatory mixed-methods design (Creswell, 2014), this quantitative finding will be explored further through qualitative survey and interview data below.

Statistically significant weak correlation: Parent income

A Pearson correlation coefficient revealed a statistically significant weak negative correlation between parent income and the mean change score on one of the 8 GES scales: the human rights belief scale. On the human rights beliefs scale, a Pearson correlation coefficient with a 95% confidence interval revealed a significant weak negative relationship between parent income and the pre-/post- change score, $r(180) = -.22$, $p = .003$. Thus, as parent income decreased, the pre-/post- change score increased for this one scale.

Although this result is significant, it is a weak correlation and found on only one of the 8 scales; therefore, I did not explore this finding in more depth through qualitative data. However, socioeconomic status as a common intersectional identity of first-generation students is discussed in more detail through qualitative analysis below.

No statistically significant difference: Gender or racial identity

a. Gender identity

An independent sample t-test was performed to compare mean change scores on each of the 8 GES scales between students who identify as male and students who identify as female. There was not a statistically significant difference in mean change scores on any of the 8 GES scales between students who identify as male (N=34) and students who identify as female (N=150) where $p \geq .285$ for all tests. Note: One student in the dataset identified as "other gender identity" but this case was not included in the analysis due to the small N.

b. Racial/ethnic identity

An independent sample t-test was performed to compare mean change scores on each of the 8 GES scales between students who identify as White and students who do not identify as White. There was not a statistically significant difference in mean change scores on any of the 8 GES scales between students who identify as White (N=68) and students who do not identify as White (N=117) where $p \geq .151$ for all tests. Note: Students who do not identify as White identify as: African American/Black, Asian or Pacific Islander, American Indian/Alaskan Native, Hispanic/Latino, Other racial identity (includes bi or multi-racial).

A one-way ANOVA was performed to compare the effect of racial/ethnic identity on the mean change scores for each of the 8 GES scale. A one-way ANOVA revealed that there were no statistically significant differences between the mean change scores of the racial/ethnic identity groups on any of the scales where $p \geq .067$ for all tests. The groups

included: African American/Black (N=18), Asian Pacific Islander (N=51), Hispanic/Latino (N=15), White (N=68), Other racial/ethnic identity including bi and multi-racial (N=32).

One plausible reason I did not observe a significant difference in mean change scores according to gender or race is that the n for males and for each racial/ethnic group is small. Perhaps a higher n would lead to more statistical power. Another plausible reason that a statistically significant result did not reveal itself related to gender of race is that 71% of the students in the sample identify as liberal or far left. Perhaps their values, mindsets, and motivations for future action are already similar; therefore, even if I look at different demographics, they are not significantly different. Especially in a world where polarization in politics and identity politics is so strong.

Demographics of first-generation students in the sample

First-generation and non-first generation students in the sample align in that they are both mostly of traditional college-age and female. First-generation students are more likely to be Non-White, born outside of the United States, and low-income than their non first-generation peers in the sample. First-generation students also make up a particularly large portion of students who identified as Hispanic/Latino in the sample. Further, the one student in the data set who identified as "other gender identity" as well as the one student who identified as American Indian/Alaskan Native are both first-generation students. The chart below details the demographics of first-generation students compared to non-first-generation students in this sample in more detail.

Table 19

First-gen and non first-gen key demographics

	Non First-Gen		First-Gen	
	n=140	%	n=40	%
Age				
Trad. college age (≤23)	113	81%	32	80%
Not trad. college age (≥24)	27	19%	8	20%
Gender identity				
Female	114	81%	31	78%
Male	26	19%	8	20%
Other gender identity	0	0%	1	3%
Race/ethnic identity				
African American/Black	14	10%	4	10%
American Indian/Alaskan Native	0	0	1	3%
Asian/Pacific Islander	37	26%	11	28%
Hispanic/Latino	5	4%	9	23%
White	59	42%	9	23%
Other racial/ethnic identity (includes bi or multi-racial)	25	18%	6	15%
Non-White	81	58%	31	78%
Country of birth				
Born in the US	114	81%	30	75%
Not born in the US	26	19%	10	25%
Combined parent income				
<$25,000-$49,999	19	14%	19	48%
$50,000-$99,000	25	18%	8	20%
$100,000-$199,000	48	34%	7	18%
≥$200,000	27	19%	1	8%
Missing	21		5	

Qualitative analysis

Non-first-generation students overwhelmed by new learning

Qualitative evidence emerged from survey and interview data to shed light on the quantitative findings that first-generation students reported a statistically significant greater learning gain compared to their non-first-generation peers. An instructive starting point to understanding the difference between reported learning from first-generation and non-first-generation students is that some non-first-generation students expressed feeling overwhelmed by a new understanding of the scope of social change and interconnected global systems in a way that did not emerge for any first-generation college students, as these non-first-generation students stated:

> They [learning experiences] have made me understand that making a difference is more complex than I originally thought, so it is going to take more effort to cause as much change as I originally thought.
>
> It has helped me realize the ability I have to make change but, at the same time, it made me realize how much help I will need to achieve it.
>
> It made me confident in my ability to make a difference and a sustainable difference, but reinforced my perception of how difficult it is and how few opportunities turn into real change.

For these non-first-generation-to-college students, a more complex understanding of global social issues caused them to believe that change was much more difficult than they had previously believed. Andreotti (2006) warns that a potential problem of critical global

citizenship education is paralysis or helplessness. In this dataset, students did not articulate paralysis, but they did express a sobering effect on their motivation to participate in future social action that was not pre-sent for first-generation students.

First-generation students bring cultural wealth

Qualitative data demonstrates that first-generation students in the sample, who are more likely than non-first generation students to be non-White, born outside of the United States, low-income, and include unique perspectives in this data set (i.e. non-binary gender identity and American Indian or Alaskan Native identity), came into the online community-based learning experience with lived experiences that they drew on in the online community-based learning program (Santana et al., 2023; Yosso, 2005). Mindsets such as *openness to new experiences* and *intrinsic motivation for experiential learning* may have provided knowledge and skills needed to sustain motivation despite uncertainty and barriers during the online community-based learning program. Further, lived experiences of intercultural collaboration and resisting systems of oppression in their own lives may have given first-generation students more realistic understanding about what it means to be a global citizen and contribute to social change than their non-first-generation peers.

Thus, first-generation students knowingly or unconsciously, brought lived experiences or *cultural wealth* to the community-based learning experience. Tara Yosso's (2005) theory of *community cultural wealth* is a concept within critical race theory which values the strengths students of color have learned from their families and communities to resist oppression and then bring into the educational experience. This asset-based theory

challenges deficit theorizing, such as traditional Bourdieuean cultural capital theory, which suggests that people of color are at a social and academic disadvantage because they lack cultural capital as defined by White middle-class values (education, language, social networks, and money) (Bourdieu & Passeron, 1977). Yosso has named six forms of cultural capital which students of color bring to the educational experience: aspirational, navigational, social, linguistic, familial, and resistant. While race and ethnicity are central elements of *cultural wealth,* Yosso says that culture also includes intersecting identities like gender, immigration status, and sexuality. Influenced by the theory of *community cultural wealth*, I apply an asset-based lens to examine learning of a group that is marginalized in higher-education—first-generation students. In the following sections, I identify some of the lived experiences that first-generation students brought into the online community-based learning program and facilitated their learning.

Approach the unfamiliar learning environment with openness and curiosity

First-generation students in the data set displayed a strong sense of openness and curiosity when approaching the unfamiliar learning environment of online community-based learning. In participating in the online community-based learning during the COVID-19 crisis, students had to deal with a lot of ambiguity in their academic program and in the wider world. Many students thought they would be participating in an in-person community-based learning experience, and this was changed to an online experience. Students also had to deal with uncertainty about their own health and the health of their loved ones during the pandemic. First-generation students, who were more likely to be low-income than their non-first-generation peers, may have also faced uncertainty about their own or their family's

financial situation at the time. The online community-based learning experience was new for students, universities, and community partners alike. Therefore, it is very likely that students did not fully understand their exact role or the norms of communication right away. However, initial evidence shows that first-generation students were better able to deal with the ambiguity of participating in an unfamiliar and perhaps uncomfortable learning environment—that of online community-based learning—than their non-first-generation peers.

First-generation students displayed more openness and curiosity when approaching the online community-based learning experience than their non-first-generation peers, evidenced by interview data. I broadly categorized the ways that interviewees viewed the online community-based learning program as: a) a *great opportunity*, b) an *ok alternative to the "real experience"* and c) *no significant learning*. The chart below gives a visualization for how first-generation students in the interview sample viewed the online community-based learning program compared to non-first-generation students in the interview sample.

Table 20

How first-gen and non-first-gen students viewed the online learning program

	Great opportunity	**Ok alternative to the "real experience"**	**No significant learning**	**Total interview sample**
Non first-generation	11	7	1	19
First-generation	3	0	1	4

Many non-first-generation college students said that they saw the program as preparation for future in-person learning experiences like study abroad, internships, volunteerism, or community-based learning. These students viewed the in-person experience as *real* and the online as an *ok alternative* given the circumstances of not being able to travel or have in-person contact during the pandemic. It was common for non-first-generation students to state things like "if this was an *actual* program, I would have probably been traveling around India and the survey that I ended-up creating would have gone out far earlier" or "Whereas, the online one [community-based learning program]. You know, I kind of forget it. Sometimes, I forget I did that." What is most revealing about this finding is that no first-generation students in the interview sample expressed the view that the program an *ok alternative to the "real experience."* Instead interview data revealed that first-generation students overwhelmingly viewed the online community-based learning program as a *great opportunity* saying things like "I pray that such opportunities could be available for other people because it was beneficial for me. I would love to do more of this, and it exposed me to a lot of knowledge and skills" and "I was thankful for it. Though, it wasn't what I expected in terms of like doing an internship." Thus, first-generation students showed more openness to engage in a learning experience that was not what they expected.

It is possible that non-first-generation to college students, the vast majority of whom were of traditional college-age, had fixed ideas from their family and friends about what their college experience was supposed to look like—internship in their sophomore year, study abroad in their junior year, apply to medical school in their senior year. One non-first-generation student said the only reason they participated in the online community-based

learning program was that the competitive summer internships in their field of Architecture did not happen during the pandemic. Whereas first-generation to college students who did not have such set script about their education were thus less stuck in ideas about "how things are supposed to be" and more willing to engage with openness and curiosity to something new, like online community-based learning.

Research in the field of positive psychology shows that people who display mindsets such as openness and curiosity are better able to explore, take risks, and trust others; therefore openness and curiosity are agents of personal growth and learning (Kashdan & Silvia, 2009; McCrae, 1996; Neff et al., 2007; Seligman & Csikszentmihalyi, 2000). Approaching the unfamiliar and perhaps uncomfortable experience of online community-based learning with an open and curious mindset may have spurred greater learning for first-generation students compared to their non-first-generation peers.

Intrinsic motivation: Persistence in the face of barriers

Only one student in the interview sample specifically named their first-generation identity as impacting their learning experience; however, her reflection, shows evidence of intrinsic motivation, or a "yearning for" learning from diverse people and experiential knowledge. This first-generation student who identified as female, White, and traditional college-age said:

> I come from a first-generation, low-income background. And I came from a pretty diverse community and going into college, there wasn't that much diversity in my school. And so it was something that I was kind of yearning for.

This student provides insight into how first-generation students on predominately White elite campuses may find comfort and belonging through community-based learning and global learning experiences where they can interact with people of diverse socioeconomic backgrounds, races, etc. She went on to describe why she values learning from diverse perspectives and how she might apply this to her future career as a medical doctor:

> I wanted to learn more about people who have lives that are different than me, because I know what it's like to feel not understood in different ways. And I wanted to be able to understand, especially if I'm going to work with people directly for the rest of my life…I definitely think I pursued a lot of what I did just so that I wouldn't be ignorant to what someone is going through.

This student describes how her own experiences with marginalization or "knowing what it's like to feel not understood" as a first-generation and low-income student provide an entry point for wanting to learn about other ways of thinking and doing things. Further, this student describes how she came into her college experience already valuing the experiential knowledge of those outside of the university, saying:

> I was a Spanish major at first at school. I loved learning like the language, but I felt like I was missing something. It was definitely the actual interaction aspect. So I think proximity is definitely what drew me to travel to all the different places.

Through lived experiences of growing up low-income and in a self-described diverse community, this student came into the college experience already valuing learning from diverse and marginalized perspectives as well as experiential knowledge. And she was not

deterred from participating in the community-based learning program, which was with a Bolivian doctor, when it turned to the online modality. However, she found the experience to be very meaningful, and described sharing with her family at home her learning about the language and even sharing food from a cooking class. Thus, this first-generation student displayed intrinsic motivation or, "yearning for" experiential learning like community-based learning and travel abroad.

This intrinsic motivation to participate in community-based learning may have helped this student sustain commitment when the program pivoted to the uncertain online modality or when she faced barriers, like balancing family and work responsibilities with her education. Research in psychology shows that people who are intrinsically motivated want to achieve their goals in order to gain knew knowledge and skills, and are more likely to take risks and follow through on goals in the face of challenges. While those who are extrinsically motivated want to achieve their goals in order to gain the approval of others, and are less willing challenge themselves or risk failure (Yeager & Dweck, 2012; Neff et al., 2007; Yeager & Dweck, 2012). The student quoted in the paragraph above persisted despite several barriers. She was one of the few students who reported they were working full-time at a hospital while she also participated in five hours-per-day synchronous session for the online community-based learning program. She said she made an arrangement with the mentor who led the program that once per week she joined the session late and once per week watched the recording of the synchronous session. Thus, this initial evidence, while limited, suggests that first-generation students, due to their lived experiences of interacting with diverse people, may be more likely to be intrinsically motivated to participate in community-based

learning experiences, including in the online modality, than their non-first-generation peers, and thus better able to sustain motivation in the face of uncertainty or barriers.

Linguistic capital: Lived experience of bridging cultures

First-generation students in this sample show evidence of displaying *linguistic capital* (Yosso, 2005) or the linguistic and cross-cultural communication skills that many Students of Color possess and bring to educational experiences, including community-based learning (Santana et al., 2023). This could mean literally speaking another language and could also refer to more subtle cross-cultural communication skills like storytelling. The first-generation identity of students often intersects with other identities and are more likely to be Students of Color as well as first-generation Americans (or the children of immigrants). A first-generation to college student, who is also first-generation American who identifies as Asian/Pacific Islander, described the linguistic capital she learned through the experience of being a bridge between two cultures (that of their parents' and the US):

> Being a first-generation American, there are often ideas that I might need to explain to my family members that they do not understand about culture here or to my friends that they do not understand about my culture if there is the potential for a clash of ideas.

Thus, this student has a lifetime of practicing intercultural collaboration, which she brought to the online community-based learning experience. Similarly, another first-generation student whose parents were born in South Korea described embodying linguistic wealth by

adjusting her speech (speaking slowly and repeating when needed) when speaking with those for whom English is not their primary language:

> When I speak with individuals whose primary language is not English, I always make sure to speak slowly and to take pauses. In addition, I'm always happy to repeat myself if they wanted to hear what I said a second time. As my parents are not native English speakers, I can understand their frustration to some extent, especially when I saw firsthand how my parents struggled to speak their mind with a language they hardly knew.

This student says that this linguistic wealth of adjusting her speech came more easily as a first-generation American with parents who speak English as a Second Language. This first-generation student came into the community-based learning experience with empathy and skills needed to communicate with non-native English speakers. Students who have family and friends in other countries have likely been building personal relationships with them in the online modality for many years. Perhaps this linguistic wealth gave first-generation students, particularly those who were also first-generation American, confidence in communicating and building cross-cultural relationships even in the online modality, resulting in greater motivation to continue to participate in future global social action than their non-first-generation peers.

Resistant capital

First-generation students in this sample show evidence of displaying *resistant capital* (Yosso, 2005) or the knowledge and skills gained through facing discrimination and resisting

inequitable systems. First-generation students have successfully resisted discrimination in at least one system that marginalizes them—the higher education admissions process. As many first-generation students are also low-income and Students of Color, they have likely been resisting discrimination in systems such as education, healthcare, and law their entire lives. Some first-generation students said that due to lived experiences of marginalization, they were already thinking about systemic inequalities as well as how they can take action to address those inequities before taking part in the online community-based learning program, as this student reported:

> Being a first-generation low-income college student, I feel that my education has given me the opportunity to be exposed and equipped to think critically about existing systemic inequalities and how I can be a part of making a difference.

This student describes how personal experiences of marginalization as a first-generation and low-income student provide motivation to be involved in social change. They also move beyond motivation, and further say that these identities contribute to their confidence in taking action or confidence in "how I can be part of making a difference." Therefore, first-generation students who came into the online community-based learning program with resistant capital, may have had a more realistic idea about the complexity of social change as well as greater confidence in their ability to continue to be involved in resisting systems of oppression in the future than non-first-generation students.

First-generation student future actions

Of the four first-generation students who participated in interviews, two said they were currently engaged in civic action, both in the form of educational volunteerism. One, who is a medical doctor, was conducting volunteer sexual-health education programs for women in universities in their home country of Uganda and another student participated in a second community-based learning program, also coincidentally in Uganda, and was currently volunteering as an English teacher in her local community in the United States. Thus, the evidence presented below regarding first-generation student future actions is based on limited yet rich and compelling data that which is triangulated with mixed-methods survey data.

Evidence emerged through interviews that openness to the online community-based learning experience and persisting in the face of barriers impacted first-generation student learning which was then applied to future actions. The alum who described a "yearning for" learning from diverse people and experiences in the "intrinsic motivation" section above reported that the online experience was completely different than what she was expecting. This alum said that at her university she was participating in many extracurriculars focused on "helping others" and she originally thought she would be doing in-person service work in Bolivia. When the program shifted into the online modality, it focused on learning about the Bolivian culture and healthcare through things like lectures with Bolivian medical professionals, Spanish classes with locals, a video tour of the salt mines, and a cooking class with a Bolivian family. These program elements occurred online in real-time. This alum

described the shift to learning online from local experts as something that impacted her in a positive way:

> I thought I would be literally doing something in terms of like helping in some sort of way for the organization. But it was definitely more beneficial for me to see that it's sometimes not my place. Sometimes I need to learn.

This alum said she took this changed mindset from a focus on "helping" to believing that "learning about a community is part of social action" into future in-person volunteerism, saying:

> It really prepared me to go forward with that mindset of you can't work in a community if you don't know that community.

The next summer this alum volunteered with a Ugandan organization providing vocational education to women. Before traveling to Uganda, she conducted her own research and contacted people at the organization ahead of time to "learn about what I could do to better prepare myself, and to learn even more when I got there." If this student had been so disappointed by the change to the online modality that she approached the experience with indifference or if she had decided not to continue with the program at all, it is unlikely she would have experienced this changed mindset or change in actions. Thus, for this first-generation alum, being open to take on "learner" as her primary role and persisting in the face of barriers resulted in a new view that learning about a community is an important part of social action, which she applied to future volunteerism.

The role of mentorship: A sense of belonging and a space for reflection

It is important to note that while most first-generation students in the interview sample reported an openness and curiosity to the unfamiliar learning environment and reported learning gains, one first-generation student reported "no significant learning" after the program. This student said that they had very little guidance from mentors at the community-partner organization saying, "I didn't really have a supervisor. It was just like a point of contact for me with the organization." For both in-person and online learning programs, mentorship has been suggested as way to instill a sense of belonging and confidence in first-generation students who often struggle with imposter syndrome and understanding academic systems (Gardner & Leary, 2023; Ilett, 2019; Ives & Castillo-Montoya, 2020). Further, fostering a sense of belonging and support, or social presence, is one of the main ways that online learning researchers pose can reduce feelings of social isolation that are common in online learning (Garrison et al., 1999; Liu et al., 2009; Means et al., 2014). Thus, I pose that mentorship plays an especially important role for first-generation students in the online learning environment where feelings of isolation may be heightened due to both the modality of learning and the identity of students.

This same first-generation student went on to say that in the online modality they were not working with anyone else, like peers, thus lacking mentorship meant they were also missing a space for reflection and thus learning:

> If you're not able to get a second pair of eyes on things your work can really suffer…If I can't talk through a project with somebody else, it makes it harder for me to process and understand and take lessons away from it.

This student saw a space for reflection as key to their own learning, which is central to community-based learning and experiential learning theories (Dewey, 1938; Kuh, 2008). Thus, the limited evidence here suggests that community partners acting as mentors are a vital piece of the learning process because they are also serving as the primary space for reflection during the learning experience.

Summary and significance of the findings

Analysis revealed a statistically significant self-reported learning gain for first-generation students compared to their non-first-generation peers on 7 of the 8 survey scales after participating in an online community-based learning program. Analysis did not reveal a strong statistically significant learning gain for any of the other demographic factors examined (gender identity, racial/ethnic identity, and parent income). Disaggregating data by key demographics for analysis has been called for by scholars in online learning, community-based learning, and global citizenship education (Brownell & Swaner, 2010; Chittum et al., 2022, Deardorff, 2015; Hartman et al., 2020; Post- et al., 2019; Waldner et al., 2010) and led to important findings related to first-generation students, which could otherwise not be seen in the total data set.

Qualitative analysis of both survey and interview data suggests that first-generation students, who are more likely to be non-White, born outside of the United States, and low-

income than non-first-generation students in this sample, brought lived experiences that facilitated their learning. Influenced by Yosso's (2005) theory of community cultural wealth, this analysis finds that many first-generation students brought strengths, such as a lifetime of practicing intercultural collaboration and resisting systems of oppression in their own lives, to the online community-based learning experience, which may have facilitated greater learning gains for this group than for their non first-generation peers. Further, first-generation students in this study were more likely to display a strong sense of openness and curiosity when approaching the unfamiliar environment of online community-based learning than their non first-generation peers, which may have been a way to sustain motivation despite uncertainty and barriers that came with participating in an unfamiliar learning experience in the middle of a global pandemic, and thus facilitated greater learning gains. Initial evidence suggests that the role of mentorship is of heightened importance for first-generation students in online community-based learning programs as a way to lessen feelings of isolation which may be enhanced by the first-generation identity and online modality. While much of the literature in higher education regarding first-generation students focuses on challenges and how to support this group (Barber et al., 2021; De La Cruz et al., 2021; Gardner & Leary, 2023; Killham et al., 2022), this research contributes an asset-based approach to analysis.

E. What is missing?

As described in the literature review, the definition of global citizenship I put forward in this study is rooted in Oxfam's (2023) definition as well as Andreotti's (2006) concept of *critical global citizenship*, and centers three themes: critical reflection, collective action, and justice. The definition I pose is:

> A global citizen strives to understand global interconnected systems of equity and inequity and their own place in those systems. They take an active role in their community and work with others to make the world more just.

In this section I use both survey and interview data to examine if student learning and alumni actions reflect an understanding of global citizenship as conceptualized in this study, as well as what is missing.

Critical reflection

Reflecting on "global interconnected systems of equity and inequity and their own place in those systems" is an important piece of global citizenship as understood in this study as well as key to critical pedagogy and experiential learning theories which inform this study (Andreotti, 2006; Dewey, 1927; Freire, 1970). An important piece of Andreotti's (Andreotti, 2006) *critical global citizenship* is *reflexivity*, or reflection about one's own power and privilege. Students in this study largely displayed *reflexivity*, though this was not applied to the context of online collaboration.

Critical reflection does not translate into critical understanding of online collaboration

While directly after program completion students displayed critical reflection skills in thinking about their own privilege in terms of race, education, and access to technology; evidence did not emerge that students applied this critical reflection to how *technology* impacts power dynamics in online collaboration. A critical understanding of online collaboration would include attention to how *technology* impacts the way we collaborate in the online environment with attention to power and privilege—including what we say and do,

how we perceive others, and how others perceive us (Hauck, 2019; Morris & Stommel, 2018). Examples of a critical understanding of online collaboration might be students reflecting on how power dynamics and personal characteristics impact who speaks on Zoom calls. As the concept of critical online collaboration is a bit abstract, especially because the data set does not provide evidence of exhibiting this mindset, below I provide two concrete examples of the uncritical way students approached online collaboration through: a) lack of reflection on way the online modality promotes the dominance of English and b) viewing online collaboration as "less real" than in-person collaboration.

The online modality fostered a community-based learning environment where the majority of students interacted exclusively with partner community members with a very high-level of English. The issue of English as the main language of communication is significant in this study because half of the community partner organizations were located outside of the United States. In countries where English is not the primary language, this meant that students were most likely interacting exclusively with those who had the economic and educational privileges that come with learning English. An exception is one alum who said their program in India utilized a translator during Zoom calls and two alum who participated in a Spanish-immersion program as part of the virtual global-health program. Thus, students working with community-partner organizations in countries where English was not the primary language were less likely to be interacting with community members that the organization was serving (i.e. youth, students, clients, patients). Outside of the Spanish-immersion program, few students reported that they tried to learn the local language or incorporate words or phrases into their conversations, which could help bridge

the power divide by showing mutual interest and respect. And no students reflected on the dominance of English as the language of the online community-based learning program as a barrier to equitable collaboration and partnership. In fact, some students reflected on the opposite—their relief that they could communicate in English during the community-based learning program—as this alum recalled:

> It just occurred to me that I'm not sure what they speak as the primary language in Zambia. I do believe it is English, and then I forget what their second language is, but we did primarily communicate in English. So, all our part partners were very fluent in English, and the language barrier wasn't necessarily an experience that we had, which I was thankful for.

The prominence of English as the language of communication can also be a problem for equal partnership building in in-person community-based learning or education abroad programs; however, this dominance is exacerbated in the online modality. In the in-person modality there may be more room for local-language classes for students, translators, or non-verbal communication through body language and gestures which allow non-English speakers to be a part of the partnership. Thus, if students are not thinking critically about how technology promotes the dominance of English in the online community-based learning program, online community-based learning programs risk reinforcing a neocolonial patterns of uncritical community-based learning and education abroad programs, which has also been problematized in the related-field of virtual exchange (Hauck, 2019; Zak, 2021). Failing to notice how technology encourages the dominance of the English language in online

community-based is an example of how students were not thinking about how technology impacts power dynamics in online relationship building.

Many students, especially non-first-generation students as explored earlier, viewed the online collaboration as less "real" than in-person collaboration. In the earlier section of this chapter *B. Interviews with alumni: Change in future actions*, an alum described coming to better understand her own biases, especially a sense of American superiority, through real-time Spanish classes with Ecuadorian professors. This alum felt that a benefit of the online environment was that it "prepared me to go to different places. I was able to confront that [sense of superiority] in my own home, with these online lessons. Dealing with it before I got to a new setting." This aligns with a commonly-cited benefits of virtual exchange as a safe environment to practice intercultural communication in preparation for future in-person cross-cultural collaboration (Rubin, 2017). However, viewing the sole purpose of online collaboration as preparation for in-person collaboration detracts from the importance of the very real interactions taking place in the online environment.

Viewing the main purpose of online community-based learning as preparing students for future in-person collaboration promotes a lack of awareness that online interactions can be both beneficial and harmful to the people involved. The alum quoted in the paragraph above held power in the online relationship regarding her status as an American university student and a native English speaker. It is possible that the Ecuadorian Spanish teacher, who was also being paid to deliver a service to this student, would not have conveyed to the student any harm they felt through the student expressing a sense of American superiority in their lessons. In our current world where education, work, political, social, and civic life are

increasingly taking place in some form of online or hybrid modality, online collaboration has real consequences for everyone involved. If people who hold privileges such as—access to technology, wealth, education, and speaking English natively—do not recognize their own power in online collaborations, technology-mediated communication will only exacerbate already great inequities within and between countries around the world. If online community-based learning with the goal of global citizenship education aims that students work with others to make the world more just, it is crucial that students understand online collaboration as "real" and their interactions with people in the online environment as having genuine impact.

Collective action

In this study I pose that global citizens "take an active role in their community and work with others to make the world more just." Both Oxfam's (2023) and Andreotti's (2006) conceptions of global citizenship hold action as central. Andreotti (2006) makes the distinction between a responsibility towards others (soft global-citizenship) and a responsibility to learn with others (critical global citizenship). Further, scholars of social movements name acting together in community as a central element of social change (Homan, 2015; Kallman & Ferorelli, 2024; Pyles, 2020). My analysis suggests that students were more likely to express an individualistic than a collective understanding of civic action.

Individualistic understanding of civic action

When alumni described their future actions, namely volunteer activities, they were generally missing an understanding of utilizing their individual skills in the context of

collective action. As most students were working mostly independently on a product-oriented task or in a consultant-like capacity—research report, grant, or educational materials—it may have been difficult to de-center themselves because they were put into the role of "expert." It would be much more difficult, if not impossible, to learn and act with community members and recognize their strengths if the interaction was minimal. Thus, working independently in the online environment may have resulted in students learning skills which boosted their confidence and motivation to participate in future social action but also reinforced an individualistic approach to social action.

It is possible that the lack of physical community occupying the same space exacerbated a sense of isolation and self-important individualism that has been increasing in the United States and around the globe. Scholars have posited a shift to a neoliberal market-driven society has resulted in a hyper-individualism which permeates social movements and deteriorates collective action and community life more generally (Bourdieu, 1998; Kallman & Ferorelli, 2024; Malin & Kallman, 2022; Putnam, 2001). Hyper-individualism is especially pronounced in the United States, which has placed a high cultural value on individualism, competition, and achievement since its inception. And a sense of isolation and individualism is further exacerbated in our current societal transformation to online and hybrid collaboration as the norm.

Collective understanding of civic action

Initial evidence also emerged that the smaller number of students who engaged in collaborative tasks with partner community members were more likely to express an

understanding of their own civic action in the context of collective action. As one student expressed in the post-survey, “This experience has affected how I view collaborative work by showing me the increased potential you can have on a team versus as an individual.” Another alum described earlier in the section of this chapter: *Program aspects that impact student learning and actions*, described forming trusting interpersonal relationships with mentors at the global anti-capital punishment non-profit. She worked independently on some projects such as creating a death penalty database of practices around the world and then also collaboratively, for example organizing several virtual conferences for a network of global lawyers and activists working on capital defense issues. This alum also expressed the idea that becoming a part of international-human-rights networks during the online community-based learning program increased her confidence in in creating global social change, saying in the post-survey:

> This experience introduced me to a global network of human rights advocates. I met many people who are passionate about reducing inequality and serving communities. Knowing that I can join such a strong network of global advocates made me more confident that I can contribute to positive change.

She is one of few students who directly after program completion said that networks, as opposed to gaining new skills, increased her sense of civic efficacy. And her future actions reflect this collectivist attitude, as she continues to work professionally in capital defense for a different organization yet draws on the network she became a part of during the online community-based learning experience saying the experience “put me in contact with a bunch of amazing people that I'm sure I'll be in contact with forever.” For this alum, working

collaboratively with mentors at the community-partner organization meant that she became part of network of international-human-rights advocates, and provided her with a new sense of the importance of collective action in creating global social change.

Other alumni expressed forming personal relationships with partner community members, such as mentors with whom they checked-in with regularly, but then worked independently on a task in a consultant-like capacity producing a product such as a research report, grant application, or educational materials. For example, one alum with a professional healthcare background formed a personal relationship with her mentor, a Ghanian doctor, and together they considered community needs and her skills to decided that her project would be to develop educational materials for hospitals and patients about women's health issues such as post-partum hemorrhage. While she checked-in once or twice per week with her mentor, and felt that they formed a trusting interpersonal relationship, her work was independent. Importantly, *none* of the alumni who said they formed personal relationships with partner community members but then worked independently in a consultant-like capacity articulated a clear view of collective action as important for social change. Thus, this limited initial evidence suggests that participating in collaborative tasks with partner-community members holds the potential to impact student understanding of collective action.

First-generation students and collective action

While there were no obvious patterns in terms of demographic factors (gender identity, racial/ethnic identity, first-generation status, or parent income) for students who clearly articulated the importance of collective action as an important piece of civic action;

one of the few students who reflected this view through her actions was a first-generation student. This alum said she was currently working as a volunteer English teacher for mostly Spanish-speaking immigrants and migrants in her local community. Importantly, she said that she not only teaches English but also regularly utilizes the Spanish-speaking skills gained in the online community-based learning program to connect new immigrants with legal and other resources to help them adjust and thrive in the United States. This alum shows an understanding of the importance of collective action, in that many skills and resources are needed to create true change. Thus, it is possible that this first-generation student's past lived experiences with marginalization and *resistant capital* (Yosso, 2005) were motivation to utilize her individual skills and actions in the context of collective action in her current volunteer work.

Justice

Both critical reflection and collective action are necessary for the final key aspect of global citizenship as understood in this study to be realized, which is that actions of global citizens should aim to "make the world more just." This study understands that working towards a more just world means identifying root causes and changing systems of inequality, and thus entails changing policies (Andreotti, 2006; Sen, 1999; Sturm, 2007).

Directly after program completion, many students in this study expressed an increased motivation to take part in justice-oriented actions which would impact policy change; however, in interviews only a few alumni described actions which included an understanding of their actions as contributing towards changing policies. In the post-survey, the vast majority of students expressed an increased motivation to vote for policies or

politicians who displayed an understanding of social issues or parts of the world they learned about in their online community-based learning program. However, alumni did not express a change in actions related to voting behavior and most did not emphasize that their volunteerism efforts were aimed at identifying root causes or changing systems of inequality.

On-campus advocacy

The small number of alumni who did express future actions that were both collective and aimed at policy change mostly reported participating in on-campus advocacy efforts after program completion but before graduation. One alum described participating in an environmental-justice campaign aimed at getting their university to de-invest in fossil fuel. Another described leading a student effort to influence changes in the STEM curriculum at their university to be more inclusive of under-represented students like women and Students of Color. And another alum described being involved in voter registration campaigns on their campus. And one alum who was in law school was volunteering with a local innocence project as part of a curriculum requirement, and applying knowledge gained in law school to exonerate wrongly convicted people. Perhaps students felt a sense of belonging to their college-campus community and were thus motivated to take part in efforts to make that community more just. Maybe their friends were involved in the campus advocacy efforts, so it was fun to participate with them. Further, these students attended universities where students traditionally live on or near campus; thus, it is likely that many clear paths to become involved in social activism on their campus were presented to them regularly, for example student groups setting up a table on campus or putting up flyers. Thus, it is possible that post-graduation it was more difficult for alumni to actively seek out opportunities to

become civically and socially active in their community. Perhaps post-graduation the opportunities for civic engagement were not obvious or even identifying their community was not evident. Evidence from alumni in this study suggests that after graduation, even for those few students who held an understanding that justice requires collective action for policy change and were motivated take part in social action, found it difficult to apply this knowledge and motivation outside of the campus community.

Summary and significance of the findings

This section provides analysis of student learning and actions related to the three key components of global citizenship as conceptualized in this study: *critical reflection*, *collective action*, and *justice*. While critical and justice-centered actions are increasingly named as theoretically important in community-based learning, global citizenship education, and online learning literature, they are not typically analyzed through empirical research (Andreotti, 2006; Bringle & Clayton, 2020; Hauck, 2019; Mitchell et al., 2019); thus, this empirical study adds important critical and longitudinal contributions to these literatures.

Through both post-surveys and interviews many students and alumni expressed *critical reflection* regarding their own privilege in terms of race, education, and access to technology; however, evidence did not emerge that students applied this reflexivity to communication and collaboration in the online environment. Alumni did not express a critical understanding of online collaboration, or how *technology* impacts power dynamics in online collaboration, which aligns with research in virtual exchange programs (Hauk, 2019). Analysis also suggests that students were more likely to express an individualistic than *collective* understanding of social action. In the online community-based learning context

working independently on product-oriented tasks may have resulted in students learning skills that increased their confidence and motivation to participate in future social action while at the same time instilling an individualistic attitude towards global social change. While less common, students who displayed an understanding of collective action as an important part of civic participation were more likely to have worked on collaborative tasks with partner community members where they had the opportunity to recognize the benefits of learning and acting with others. Limited yet rich analysis suggests that first-generation students may bring cultural wealth (Yosso, 2005) that impacts future civic participation realized in the context of collective action. Finally, while directly after program completion many students expressed an increased motivation to participate in *justice*-oriented actions by impacting policy change, few alumni described their civic actions in the context of collective action aimed at changing policies. Alumni who did report taking part in future collective action aimed at addressing root causes of inequities through changing policies, mostly described on-campus advocacy efforts. This analysis suggests that most students displayed conceptual knowledge of critical reflection and justice as central pieces of global citizenship; they also experienced Freire's (1970) *conscientization*, or motivation to transform unjust systems; however, only a few were able to actualize this learning into future *collective* civic action, and this became even more challenging after leaving the campus community.

CHAPTER V.

IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSION

The purpose of this study was to understand the potential of one pedagogical strategy –online community-based learning– for fostering global citizenship capacities in an increasingly interconnected, unequal, and digitized world. This multi-institutional study utilized a sequential explanatory mixed-methods design to address the main research question: How does participation in online community-based learning programs impact the development of global citizenship capacities (collaborative and civic) in college students? Research sub-questions aimed to better understand which teaching and learning strategies are effective and for whom. The previous chapter detailed the results and analysis, and some main themes included: increased confidence and motivation to participate in future civic action due to skill development, sustained participation in future volunteerism, the importance of intentionally building interpersonal relationships in the online modality, assets that first-generation students bring to online community-based learning, the need for a better understanding of critical online collaboration, a lack of understanding of individual skills and

actions in the context of collective action for social change. As a found-problem research study influenced by a transdisciplinary research approach, this study's aim was to produce results and recommendations that are useful for the public good. Thus, in this chapter I discuss the implications and evidence-based recommendations which can be utilized to develop global citizenship capacities in college students.

Gaining global citizenship capacities which center critical reflection, collective, action, and justice, could never be complete after participating in one online community-based learning program—this is a developmental and lifelong process. However, this study suggests that even in the middle of the COVID-19 pandemic and a rapid change to online learning, college students were eager to develop new knowledge, mindsets, and skills and that they are applying these capacities to their future actions (mostly in the form of volunteerism and professional actions). Thus, educators have the opportunity to develop curriculum which begins to foster global citizenship capacities that students may carry forward into their future behaviors.

A. Implications for teaching

Multiple scaffolded learning opportunities

The recommendations I provide below would be impossible to incorporate into one program or course. Therefore, I recommend that universities create curriculum which incorporates multiple scaffolded opportunities for students to learn about and practice different components of global citizenship. As many courses, programs, departments, and universities as a whole state learning goals centered around global citizenship (DeWit, 2016;

Landorf et al., 2018; S. Stanlick & Szmodis, 2022), a department may restructure the requirements for their major to link discipline-specific knowledge and skills with global citizenship capacities. Other possibilities for scaffolding multiple opportunities for learning about and practicing global citizenship could be through a global citizenship minor or certificate program. Due to the gains in global citizenship capacities students and alumni reported after participation in an online community-based learning program in this study, I recommend that both community-based learning and online collaborative learning are components of curriculum which promotes global citizenship capacities.

Guide students from motivation to participation in collective action

Mixed-methods analysis found that students overwhelmingly self-reported increased knowledge, skills, and motivation to take part in future global social action after participating in an online community-based learning program; however, only a few reported future behaviors that reflected an understanding of their individual actions in the context of collective action aimed at changing inequitable systems through policy change. This finding aligns with other community-based learning research which has found that increased motivation to participate in future social action does not always translate into an understanding of how to actualize learning in future civic actions (Kiley, 2004; Lake et al., 2021; Mitchell et al., 2019) as well as literature which emphasizes the importance of fostering an understanding of collective action as part of social change in civic education programs (Andreotti, 2006; Morton, 1995; Westheimer & Kahne, 2004). Dewey's (1938) *philosophy of experience* poses that moving from one's *purpose* to a *change in actions* happens slowly over time with experiences building on one another, and requires careful

guidance from educators. Thus, below I provide some evidence-based recommendations for educators to guide students from "motivation" to "participation" in future collective action aimed at policy change.

a. Provide a framework for understanding individual skills and actions in the context of collective action for policy-change

Educators can provide a framework to guide students to understand collective action as key for changing systems. Students could read literature about social movements which poses that acting together in community is a central element of all successful social change movements as this fosters a motivation to act, accountability to follow-through, a variety of skills and experiences, and numbers to make change effective (Homan, 2015; Kallman & Ferorelli, 2024; Pyles, 2020). Language and a framework for understanding social change is a key foundation educators can provide to students.

b. Multiple opportunities for reflection: Focus on the So what?

Students also need multiple opportunities to apply this framework by reflecting on how their individual skills and actions could contribute to collective action for policy change. Originally developed for the nursing profession, but utilized commonly in community-based learning, the *What, So What, Now What?* reflection model is useful for prompting students to think about applying learning to future actions (Rolfe et al., 2001). Educators should pay special attention to the *Now What*? piece of this framework, and guide students to be specific about linking their learning to potential actions. Perhaps by inviting campus groups, local civic groups, alumni, or other guest speakers to be part of post-program reflection so that

students see actual clear examples of how they could become involved in civic activities. It would be especially useful to ask presenters to explain their organization's goals around policy-change and how individual skills and actions can contribute towards these goals.

c. Practice teamwork

Students should have multiple opportunities to practice teamwork. This could include community-based learning, project-based learning, or a Collaborative Online International Learning (COIL) program (*Center for Project Based Learning*, 2024; Kuh, 2008; Rubin, 2017). This would offer the opportunity to practice and reflect on teamwork, communication, listening, group dynamics, critical thinking, and reflecting on their own positionality in group situations. Based on evidence from this study, I make a few recommendations specifically for teamwork in the context of community-based learning partnerships.

Recommendations for community-based learning partnerships

a. Co-create community partnerships which prioritize collaboration not the end product

Initial evidence from this study suggests that students who worked on collaborative tasks with community partners were more likely to express an understanding of social change which held collective action as a key element. This seems to be especially important in the online format, which in this study lent itself to product-oriented as opposed to community-oriented projects, such as creation of research reports and grant applications. Co-creation requires that both the university and community partner are clear about goals, expectations, roles, and responsibilities. Recommendations for co-creating and assessing mutually-beneficial community partnerships, which were created with partner-community

organizations, include: the Fair Trade Learning Framework (Hartman, 2016) and the Community Benefit Survey (Gendle et al., 2023).

b.Plan intentional opportunities for students and community partners to build trust

Over any other program aspect, alumni reported that a sense of social support through forming trusting interpersonal relationships with partner community members (mentors, peers, and community members) was what facilitated learning that translated into a change in future actions. Alumni also reported that intentionality making space to share and learn about others as whole people, beyond productive roles like student and mentor, was key for humanizing people who were not sharing the same physical environment. Alumni named some intentionally planned online interactions which could be replicated by educators including: emotional check-ins, small talk before meetings, co-authoring a research report with a partner community peer, and recreating social spaces (i.e. book club, coffee hour, dance party. I suggest explicitly describing the purpose of these intentional interactions to adult learners (students and partner community members) by linking to Ardendt's (1958) concept of *action*, or recognizing others as whole human people as what makes one human, or linking to literature in social movements which holds that a trusting community is central to social change (Flesher Fominaya, 2010; Kallman & Ferorelli, 2024). Learners could reflect on trust-building activities linked to theoretical learning through journaling or discussion.

c. Recognize partner-community members as co-educators

Many of the recommendations named here hinge on partner-community members being highly involved in the student learning process. This would require a large commitment of time and likely other resources on the part of the partner-community mentors. Therefore, partner community members should be properly recognized as co-educators in community-based learning program which focus on global citizenship, which has been recognized by others in community-based learning scholarship (Larsen, 2016; N. P. Reynolds, 2014). I pose that recognizing partner-community members as co-educators is of even more importance in the online community-based learning environment because of the heightened role they play in student learning. In the online modality, conversations with partner-community mentors also commonly served as the main space for ongoing student reflection about the learning experience, which is foundational to experiential learning theory and community-based learning (Dewey, 1938; Freire, 1970; Kuh, 2008). Recognizing partner-community members as co-educators should include dedicating resources such as: paying partner-community members, providing training, and professional development opportunities.

Guide students to sustain uncertainty

In the wake of COVID, and with rapidly developing technology like artificial intelligence and virtual reality, students need to be able to sustain uncertainty both inside and outside of the classroom. Thus, I provide several recommendations to guide students to sustain uncertainty.

a. Guide students to reflect on their strengths

First-generation students in this study were more likely than their non-first-generation peers to draw on their lived experiences and display an open and curious approach to the unfamiliar experience of online community-based learning, which I pose facilitated greater learning gains for this group. Thus, I suggest that educators utilize Tara Yosso's theory of *community cultural wealth* (2005) to guide students to think about how their past lived experiences can be assets. A visual resource to guide student reflection is the university of North Texas' cultural wealth wheel (Gurley, 2019). Providing concrete language and a framework for students to think about their assets is necessary as students may not be consciously aware of how their lived experiences can be strengths, this is especially true of students who are traditionally marginalized in higher education (i.e. first-generation students or Students of Color) because they have often been told that their lived experiences are deficits their whole lives. Thus, reflecting on the strengths students bring to the learning experience would be useful for all students, but is especially important for students who are traditionally marginalized in higher education, as they could draw on these strengths when faced with difficult and uncertain situations.

b. Foster growth mindset

Research in the area of positive psychology has found that mindsets of openness and curiosity over fear of failure fosters greater growth and learning (Kashdan & Silvia, 2009; Neff et al., 2007; Seligman & Csikszentmihalyi, 2000). Thus, fostering a growth mindset over perfectionism in students could help them to deal with the discomforts and uncertainties

of intercultural collaboration or online collaboration. While intercultural collaboration and online collaboration can be difficult, and it can also be enjoyable. And educators can guide students to intentionally reflect on the joy which exists within uncomfortable and ambiguous experiences. Research in positive psychology suggests that teaching mindfulness exercises, such as meditation or mindful walking in nature, can help individuals sustain discomfort and recognize joy amidst uncertainty (Neff et al., 2007). I pose that teaching students mindfulness exercises may help them to sustain discomforts and identify joy in educational and life experiences that are new and uncertain. Other ways to reflect on joy and a growth mindset could include writing prompts or a think/pair/share exercise.

c. Provide multiple mentorship opportunities

In this study, mentorship from partner community members was found to facilitate a change in student learning and future actions. Initial evidence also suggests that mentorship was of heightened importance for first-generation students in the online environment, where feelings of isolation and marginalization, which are already common in first-generation students, were heightened. Thus, I suggest that mentorship should occur in various formats in community-based learning and is especially vital for students traditionally marginalized in higher education. Mentorship from those with similar identities has been posed as having greater impact on first-generation students and Students of Color in both online and in-person environments (Brinkman et al., 2013; Chavez, 2015; Killham et al., 2022), and is a strategy I suggest.

I also pose that alumni could act as mentors by responding to journal prompts or having one-on-one discussions with current students as a way for both students to engage in more consistent ongoing reflection and meaning making with others as well as for alumni to continue to think about their own learning and actions after program completion. Opportunities for continued reflection for alumni are also important if a change in actions is the goal. In fact, many alumni said they enjoyed participating in the interview because it gave them the space to reflect on their learning and actions for the first time since they completed the online community-based learning program. Further, alumni who were engaged with product-oriented projects and did not form interpersonal relationships with partner community members, reported that they did not have ongoing ways to reflect on their experience with others during the online community-based learning experience. Alumni serving as mentors would give the opportunity for students to engage in ongoing *dialogue* (Freire, 1970) and alumni to reflect on the *continuity* of their experiences, or how their learning and experiences may be building on one another (Dewey, 1938).

Consider online collaboration a crucial global citizenship capacity

Traditionally global online collaborative learning, such as virtual exchange or COIL programs, have been promoted as safe spaces to prepare students for future in-person intercultural collaboration (Rubin, 2017), which I argue devalues the interactions taking place in the online environment as important and "real." Many alumni in this sample, especially those who were non-first-generation students, expressed a perception of their online community-based learning program as not "an *actual* program" and lacked a critical understanding of online collaboration. A small but growing number of scholars in online

learning have been calling for increasing students' critical understanding of online collaboration, or how *technology* impacts online collaboration including attention to power and privilege (Bringle & Clayton, 2020; Hauck, 2019; Morris & Stommel, 2018). While students largely expressed critical self-reflection about their own privileges (especially related to race, education, and access to technology), this reflexivity did not transfer over into how *technology* impacts power dynamics in online collaboration. In a world in which much of students' future collaborations—whether it be in their professional, personal, or civic lives—will be in an online or hybrid format, educators must consider online collaboration a crucial global citizenship capacity and design learning experiences that take advantage of the online modality. Here I suggest evidence-based recommendations for educators developing learning programs which consider online collaboration as a crucial global citizenship capacity:

a. Help students gain critical digital media literacy skills

Directly after program completion, students reported gains in media literacy, describing how an increased motivation for deepening learning about a social issue or part of the world they engaged with during the online community-based learning program caused them to seek out news sources and perspectives beyond the United States. However, in interviews alumni did not express that they followed through on this increased motivation to engage with political news. Educators could develop critical media literacy skills through guided exercises where students compare and reflect on differences in how events are covered and biases that exist in different sources. These types of exercises would help students carry critical media literacy skills with them in life after completing the program

because students would be asked to identify and subscribe to alternative news outlets that they could use as resources when seeking different views than the mainstream U.S. news in the future.

In online learning programs, educators could also take advantage of the online modality and develop critical *digital* media literacy skills. Critical digital media literacy skills are increasingly crucial with Artificial Intelligence (AI) able to generate realistic videos and images and social media accounts spreading unverified or false information rapidly. This has prompted an increased interest in higher education to develop critical digital media literacy skills in students, with some colleges even recently creating digital media requirements (Coffey, 2024). Guiding students to practice identifying and examining different digital news sources for accuracy and biases is an urgent skill that global citizens must learn, and this study suggests that online collaborative learning environments, like online community-based learning, are an opportunity to foster critical digital media literacy skills.

b. Guide students to think critically about online collaboration

Educators should include learning about and reflecting on *critical online collaboration* as one of their main learning goals, by providing opportunities for students to read and reflect on concepts like *critical digital pedagogy* (Morris & Stommel, 2018) and *critical digital literacy* (Hauck, 2019). As a resource, the European Union Erasmus+ program SLIDE project (Service-learning as a strategy to promote inclusion, diversity, and digital empowerment) offers a free massive open online course (MOOC) which includes critical reflection regarding online collaboration for educators and students (SLIDE, 2024). Students could reflect on how technology interacts with power and positionality in online

collaboration and what this means for the online community-based learning program (or other online collaborative learning program) as well as what it means for future online collaboration in their professional, personal, and civic lives.

B. Implications for research

Disaggregate data by demographics

This study found value in disaggregating data by demographics to reveal meaningful differences in earning outcomes for students of different demographic identities—particular to this study, mixed-methods analysis found that first-generation students self-reported greater learning gains than their non-first-generation peers. I suggest that it is important for researchers to understand the power we have to put people into categories when we disaggregate data by student demographics; however, we should also overcome fear of criticism over how we disaggregate data. When we disaggregate data by demographics, we need to put people into categories and there will always be limitations to the decisions we make. However, if we do not disaggregate the data, the results and recommendations of our studies will always reflect *non-inclusive universalization*, which means they will be based on the majority and leave out those who are traditionally marginalized in higher education (Nkomo, 1992). Thus, when disaggregating data by student demographics, I suggest that if researchers make decisions carefully and explain them transparently, important learnings can be uncovered to then inform the development of inclusive and critical pedagogy.

Longitudinal research focusing on actions

This study found that directly after program completion students did not understand how mindset shifts might impact their future actions; however, in interviews alumni articulated how mindset shifts (i.e. valuing non-Western perspectives) impacted their behaviors. Thus, longitudinal research which examines actual future actions is important in global citizenship education which aims to impact positive social change.

C. Limitations and recommendations for future research

All data collected in this study is self-reported by students, which is subject to social-desirability bias, or the phenomena of respondents answering untruthfully in order to present themselves in a favorable light (Holden & Passey, 2009). Social-desirability bias as related to this study, is the idea that students may offer responses that they feel are desired by their professor, institution, or the researcher rather than an honest evaluation of themselves. Pertinent to this study, research regarding social-desirability bias in self-report surveys regarding college student identity and learning gains has mixed results—some has found social desirability bias in self-report surveys (Bowman & Hill, 2011; Ferrari et al., 2009) and other studies report no social desirability bias (Ferrari et al., 2005; Miller, 2012). Ultimately, researchers point to a need for more large-scale multi-institutional studies which examine social desirability bias in self-report student surveys amongst different student characteristics (i.e. first-year, seniors, racial identity, gender identity, class, etc.) (Bowman & Hill, 2011; Miller, 2012). Further, some research indicates that students may be more forthcoming in qualitative responses such as interviews than in quantitative surveys (Lake, 2021). It is possible that social-desirability bias in the GES is high–for example students reported that

the program increased their desire to engage with political news, change voting behaviors, or participate in future civic action because that is what they think their professor or program leader wanted them to say. In the analysis, I regarded students' self-reported increased desire to participate in future civic actions to be an honest expression of their future motivations, and also took their self-reported civic and collaborative actions to be true. Social-desirability bias in self-report student surveys deserves future research, especially as a lot of educational research regarding student learning relies on surveys.

Additionally, this research looks at the perspective of students only and does not examine the perspective of other stakeholders such as community-partner organizations or faculty and staff facilitating global citizenship education programming. Partner-community perspectives in online community-based learning is a much-needed area of future research.

D. Final thoughts

We are at a pivotal time where global systems are increasingly interconnected, inequitable, and digitized. It is crucial that those facilitating global citizenship education strive towards the aspirational goal of promoting capacities that inform future actions (realized in the in-person, online, or hybrid modality) that are critical, collective, and just.

APPENDIX A

SUMMARY OF GLOBAL CITIZENSHIP CAPACITIES THROUGH THREE LITERATURES

Global Citizenship Capacities	Community-based Learning Lit	eService-Learning & eVolunteerism Lit	Virtual Exchange Lit
Collaborative	Global knowledge and understanding (Sherraden et al., 2008) Intercultural communication (Sherraden et al., 2008) Language skills (Sherraden et al., 2008) Cultural adaptability (Gendle & Tapler, 2022) Intercultural conflict resolution (Sherraden et al., 2008)	Global understanding (Schwehm et al., 2017) Acceptance of other's opinions (Steckley & Steckley, 2021) Flexibility (Steckley & Steckley, 2021) Technology-mediated communication (Culcasi et al., 2022; Steckley & Steckley, 2021; Schwehm et al., 2017) Intercultural communication (Forward, 2021) Teamwork skills (Steckley & Steckley, 2021; Schwehm et al., 2017; Forward, 2021) Collaborative writing skills (Steckley & Steckley, 2021)	Language learning (Rienties et al., 2022; Guth & Helm, 2012; O'Dowd, 2018; Porto, 2014) Bias reduction (Poe, 2022) Increased empathy (Poe, 2022; Virtual Exchange Coalition, n.d.) Intercultural communication (Hauk, 2019; Guth & Helm, 2012; Porto, 2014) Technology-mediated communication (Hauk, 2019) Teamwork (Porto, 2014; Hauk, 2019)

Global Citizenship Capacities	Community-based Learning Lit	eService-Learning & eVolunteerism Lit	Virtual Exchange Lit
Civic	Understanding of global and local social responsibility (Kiley, 2004) Civic efficacy (Gendle & Tapler, 2022) Increased value and commitment to civic engagement (Cattaneo et al., 2021; Lake et al., 2021; Mitchell, 2008; Mitchell et al., 2015; Mitchell et al., 2019; Westheimer & Kahne, 2004) Increased value and commitment to global civic engagement (Kiley, 2004; Raykov & Taylor, 2018; Sherraden et al., 2008) Long-term sustained or increased civic engagement behaviors (Cattaneo et al., 2021; Lake et al., 2021; Mitchell et al., 2015; Mitchell et al., 2019; Meyers et al., 2015; Raykov & Taylor, 2018)	Understanding of role the individual plays in the wider community (Schwehm et al., 2017) Civic efficacy (Waldner et al., 2010) Understanding of global social issues (Forward, 2021) Value of and commitment to civic engagement (Schwehm et al., 2017) Commitment to global social responsibility (Garcia-Gutierrez, 2017; Forward, 2021)	Understanding of global social issues (Helm, 2018; Porto, 2014) Critical media literacy (Porto, 2014) Call for more attention to global social action in the field of Virtual Exchange (Helm, 2018; O'Dowd, 2020)

APPENDIX B

RESEARCH DESIGN SUMMARY

RESEARCH QUESTION	**THEORETICAL FRAMEWORK**	**SAMPLING DECISIONS**	**DATA COLLECTION METHODS**	**DATA ANALYSIS**
What do I need to know?	*What literature informs my RQs and research design?*	*Where will I find these data?*	*What kind of data will answer this question?*	*How will I make sense of the data I have collected?*
1. How does participation in online community-based learning programs impact the development of student global citizenship capacities (collaborative and civic)?	-Philosophy of experience (Dewey, 1938) -Praxis (Freire, 1970) -High-impact practices (Kuh, 2009) -The Global Engagement Survey (Hartman et al., 2015)	Global Engagement Survey data set -Students who participated in fully online community-based learning -Three programs	-Global Engagement Survey (pre-/post- mixed methods) -Interviews with students	-Quant data pre-/post- survey: paired sample t-tests -Qual data: survey short-answers and interviews: invivo and thematic coding

RESARCH SUB QUESTIONS	**THEORETICAL FRAMEWORK**
a. Do students self-report a change in civic and collaborative capacities directly after program completion?	-Philosophy of experience (Dewey, 1938) -Praxis (Freire, 1970)
b. Do alumni self-report a change in civic and collaborative actions one to three years after program completion?	-Philosophy of experience (Dewey, 1938) -Praxis (Freire, 1970) -Call for longitudinal studies examining behaviors (Lake et al., 2021; Kiely, 2004)
c. What program factors impact student learning and actions? d. What demographic factors impact student learning and actions?	Call to examine program factors and student characteristics related to student learning (Chittum et al., 2022; Deardorff, 2015; Means et al., 2014; Waldner et al., 2010)

APPENDIX C

GES: MAJOR THEMES AND EXAMPLE SURVEY ITEMS BY SCALE

Global Citizenship Capacities	**Survey Scales**	**Major themes of survey scales**	**Example survey item (Closed response options: strongly agree, agree, neither agree nor disagree, disagree, strongly disagree)**
Collaborative	Openness to diversity	Values, mindsets, and actions related to communicating and collaborating with diverse people	Closed: When I am in a cultural space that is different from my home culture, I make efforts to adapt my language to include local language, sayings, or speech patterns.
			Open: What is an example of a time you have adapted your language or speech patterns to improve your culturally appropriate communication?
	Cultural adaptability		Closed: I have a hard time working with people who are different from me.
			Open: Could you describe a point when you had a hard time working with someone who was different than you?
Civic	Civic efficacy	Confidence in ability to contribute to the social good locally and globally	Closed: I feel I have the ability to make a difference in the global community.
			Open: How have your program experiences influenced your personal sense of your ability to make a difference, locally or globally?
	Political voice	Commitment to express views on social issues	Closed: Over the next 6 months, I will contact or visit someone in government to seek public action on domestic actions or concerns.
			Open: How, if at all, do you think your program experiences have affected your future voting behavior?
	Conscious consumption	Commitment to spend money ethically	Closed: I try to spend money ethically.
			Open: Please provide an example of the last time you made an ethical decision when spending your money.
	Global civic responsibility	Value of individual responsibility to a global community	Closed: My responsibility to people of other countries is as great as my responsibility to people of my own country.
			Open: NA
	Human rights beliefs	Value of government responsibility to a global community	I believe that governments have a responsibility to ensure that all of their citizens have basic human rights.
			Open: NA
	Advocacy and Activism	Commitment to social activism	Closed: NA
			Open: How do your plans to engage in advocacy in the future compare to your advocacy activities prior to your program experience?

APPENDIX D

INTERVIEW GUIDE

Thank you so much for your time. I'm Caitlin, working on my dissertation at UMass Boston in College of Education. The goal of this research is to gain a better understanding of how technology influences student global and civic learning. The interview will be 30-40. As there is no expected benefit or risk to you from participating in this study, you are not required to sign a consent form, but I need to review some information and ask for verbal consent. After the verbal consent, we will get to the interview questions

Your participation in this interview is completely voluntary, you do not have to answer any questions that you do not wish to answer, and we can stop at any time. Whatever you decide will in no way penalize you or involve a loss of benefits to which you are otherwise entitled, and it will not affect your relationship or status with the school. If you wish to end your participation, you should let me know.

Your participation is also confidential. There is a risk of the loss of confidentiality, but I will do everything I can to protect your information. All identifying information (name, email) will be removed from my notes and from any written or electronic materials from this interview. After I remove all identifiers, the information may also be used for future research or shared with other researchers without additional consent. The University of Massachusetts Boston Institutional Review Board (IRB) that oversees human research and other representatives of this organization may inspect and copy your information. If you feel uncomfortable when completing the research materials, You may skip any questions or stop participating at any time.

If you have further questions about this research or if you have a research-related problem, you can reach me, Caitlin Ferrarini, at Caitlin.Ferrarini@umb.edu or my dissertation Chair, Meghan Kallman at Meghan.Kallman@umb.edu. If you have any questions or concerns about your rights as a research participant, please contact a representative of the Institutional Review Board (IRB), at the University of Massachusetts, Boston, which oversees research involving human participants. The Institutional Review Board may be reached by telephone or e-mail at (617) 287-5374 or at human.subjects@umb.edu.

With your consent, I would like to audio record this interview. The recording will be destroyed after it is transcribed. Also, any quotes or attributions will use only a pseudonym.

Do you have any questions before we begin?

Do you agree to participate in the study?

Do you agree to being audio recorded?

May I begin the audio recording now?

A. Background

First, I'd like to know what you are up to now? Have you graduated, are you working?

B. Context: Collaboration with the partner community organization

Can you tell me what was a typical day like for you during the internship/fellowship?

Why were you interested in working with this organization?

C. Change in behaviors:

What was most impactful for you about the learning experience?

Is there anything that you learned during the internship/fellowship that influences the way you think about things or your day-to-day actions now?

Have you become involved in any civic engagement or social action since completing the program? If yes, why did you become involved with this action? If no future plans, were there barriers?

D. Your recommendations for students and educators

Based on this experience, what would you like to tell educators and future students about online experiential learning?

Conclusion

Is there anything else that you want to tell me that we haven't discussed yet?

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