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The Translation of Inclusion/Acceptance, Accessibility, and Empathy with Online Community Engagement

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As a recent graduate of Virginia Commonwealth University (VCU), a mid-sized public and urban research university in Virginia, who experienced the COVID-19 pandemic as a student, I experienced first-hand the impacts of the pandemic on the mental health of university students. At the time, I was also serving as a Service-Learning Teacher's Assistant (SLTA) for a biology-based service-learning course: "Citizen Science: Flora & Fauna of Virginia." As an SLTA, I facilitated reflections amongst the students and engaged in self-reflection and group discussions with other SLTAs.

With the onset of the COVID-19 pandemic, the biology course, including its service-learning component, shifted from in-person to an online format. During the group reflections with the other SLTAs, the impacts of the changes in course modality was heavily discussed. SLTAs noted concerns that substantially undermined students' ability to benefit from the service-learning experience. Reflecting on it now, I realize that there were several themes we were concerned that our students were facing due to the circumstances of the pandemic. These concerns revolved around students' lack of exposure to inclusion/acceptance, accessibility, and empathy which could hamper the development of academic, civic, or career growth associated with service-learning. Holistic student growth requires feelings of inclusion/acceptance, as feelings of social rejection can negatively affect future academic outcomes (Garrote et al., 2020). Furthermore, accessibility is crucial to course work and service-learning, as it affects students' opportunities for academic, civic, or career growth (Auxier & Anderson, 2020).

At the onset of the pandemic, several VCU service-learning courses opted to maintain synchronous online meetings with their community partners. However, due to the need for isolation, many courses were unable to continue their service. From conversations with students in the course I facilitated, as well as reports of other SLTAs, students expressed concerns

regarding the impact on their mental health due to the shift away from in-person courses. Specifically, students were concerned about inclusivity and accessibility, and the wellbeing of under-resourced local communities. This student feedback was troubling and led me to question how online service-learning courses could continue to serve their intended population while mitigating student concerns about a sense of belonging?

This article explores the possible role of different academic service-learning methodologies in mitigating negative effects of the COVID-19 pandemic on the themes of inclusion/acceptance, accessibility, and empathy.

Throughout the history of the US education system, educators altered pedagogy to meet the demands, needs, and expectations at that time (Ryan, 2012). In 1993, the federal government funded the development of service-learning programs and pedagogy to promote civic change and community engagement in university students (Ryan, 2012). Today, service-learning has evolved into a national movement engaging millions of students each year (Ryan, 2012). Service-learning courses typically enhance course material by integrating organized community engagement addressing a community identified need followed by guided reflections. (Weiler et al., 2013, Caspersz & Oлару, 2015). This intentional service-learning pedagogy provides students the opportunity to augment their learning by leaving the traditional classroom setting to enhance the community and bolstering holistic student development, including civic responsibility (Vanderbilt University Center for Teaching, n.d., Caspersz & Oлару, 2015).

At VCU, courses that receive a service-learning designation are defined as experiences where students perform at least 20 hours of community service within the community with an emphasis on addressing community-identified needs. Students then participate in guided reflections in order to help them further engage with the course material as well as become more

active and aware citizens (Sohal et al., 2018). The VCU Office of Institutional Equity, Effectiveness, and Success (OIEES) has a growing body of research that correlates community engagement with deepening students' academic learning, and personal development—all while improving graduation and retention rates (Sohal, n.d.). In fact, “at VCU, 72% of service-learning students graduate in five years or less, compared to the 62% of non-service-learning students” (Cason et al., 2020, p. 3).

This data is expanded on each semester through the Service-Learning Impact Measure (SLIM) survey which was designed to help the VCU OIEES understand the service that students are participating in and its attendant benefits in order to improve the VCU Service-Learning program (Cason, 2019). The survey focuses on four categories: academic, civic, career, and inclusivity. Specifically, the 2018-2019 SLIM report indicated that participation in these service-learning courses is correlated with a self-reported deepening of academic and civic learning, as well as overall career readiness. The SLIM report found that 92% of students agreed or strongly agreed that they experienced positive personal growth in their levels of empathy, morality, resilience, and inclusivity (Sohal, n.d.). This raises the question of whether these metrics of inclusion/acceptance, accessibility, and empathy would be consistent with different academic environments, in the context of service-learning, specifically during an abrupt shift to online coursework.

The Impact of COVID-19

The spring 2020 semester saw the suspension of in-person classes nationwide due to the COVID-19 pandemic, requiring social distancing measures (Decker et al., 2020). An unprecedented impact of the COVID-19 pandemic was how almost all aspects of modern life had become uprooted (Marshall, 2020). According to the World Health Organization (WHO)

COVID-19 dashboard (n.d.), as of April 2023 there have been 6.9 million COVID related deaths in the world. In 2021, the Pew Research Center conducted an open-ended response study about how the pandemic has affected the lives of Americans. American's reported impacts on relationships due to isolation, disruption of routines, declining mental and physical health, increased social and political divisiveness, decreased work-life balance, and financial strain (Van Kessel et al., 2021).

In addition to the widespread impacts of the pandemic on Americans, marginalized communities suffered disproportionately greater consequences (Marshall, 2020). In the first phase of the COVID-19 pandemic, counties with below average socioeconomic statuses had three times as many COVID-19 infection and death rates (Marshall, 2020). In the later phases of COVID-19, marginalized groups such as African American and Latino communities had COVID-19 infection and death rates that were nine times higher than their white counterparts (Henry, 2020). As of August 2022, people of color (POC) experienced COVID-19 infection rates that were approximately 1.5 times higher and death rates that were two times higher than their white counterparts (Hill & Artiga, 2022).

The COVID-19 pandemic necessitated a forced transition from in-person to online courses, presenting educators with the challenge of rapidly adapting their curriculum and pedagogical approach to a virtual setting with little to no training (Heubeck, 2020). Higher education generally adopted one of two strategies. The first involved maintaining the same course structure through online synchronous meetings; allowing educators to continue the usage of familiar teaching strategies and group work. The other common strategy involved restructuring their course into a fully or mostly asynchronous format (Gillis & Krull, 2020).

Educators had to choose whether a synchronous or asynchronous format best suited their course content. Synchronous teaching, despite its potential to alleviate feelings of loneliness, presents challenges regarding temporal or technological accessibility. On the other hand, asynchronous teaching, provides greater temporal and technological flexibility, with the increased risk of miscommunication and reduced opportunities for socialization (Worcester State University, n.d.).

Impact on Service Modality

For service-learning classes, at VCU specifically, many students experienced challenges in maintaining communication with community organizations, community members, faculty members, and peers. As noted by many SLTAs, a common approach adopted by these courses was to transition their service and group discussions to an online, synchronous format. For example, one education service-learning course had their students serve as mentors to students at a local elementary school in the hopes to strengthen persistence, as well as, increase the likelihood of future college enrollment (Howard & Allison, 2004). In response to the COVID-19 lockdown measures, mentors and mentees met through Zoom, a video conferencing platform, to replicate their original plan as much as possible.

On the other hand, in the biology course that I assisted with, the professor shifted the course from synchronous, in-person discussions and activities to asynchronous, online biology related service-learning. Prior to the pandemic, the majority of the service performed was population data collection, which was then analyzed and shared with partner organizations. Once the university transitioned to a fully remote format, the course operated completely asynchronously and the course was significantly restructured. Students would continue group reflections through online discussion boards, however, their service-learning requirements were

changed to individual population data collection or an alternative of participating in studies through Zooniverse, a platform for people-powered research.

Online classes preceded the pandemic, however, such large scale implementation had never been attempted until this global crisis. Numerous studies have examined the academic differences between online and in-person courses, finding no significant differences in academic performance whether the materials and tests were presented in-person or online (Kemp, 2014). However, the interaction-based nature of service-learning courses has highlighted the limited research on online-based service-learning courses. The benefits of service-learning to the community and students may not apply to online community engagement. This is not to mention the notion that the effects of social distancing due to the pandemic has proven to be a more long-lived experience than previously anticipated. The COVID-19 pandemic was still considered a public health emergency, until May 11th, 2023 (Cubanski, 2023), and while restrictions have been eased, COVID-19 may continue to be present in the community, due to the increasing transmissibility of new sub-variants (Horton, 2023).

Empathy Development and Service as Role Models

There is limited research on online service-learning efficacy and its impact on relationships, such as role modeling and peer-to-peer connections. A vital practice of service-learning is the building and maintenance of such relationships through empathy. Students enrolled in service-learning courses often serve as role models in tutoring and mentoring capacities, but the transition to online service raises critical questions regarding the effectiveness of this kind of service, specifically, how does one build a relationship of the same value on a virtual platform?

The question of whether the service-learning students were able to serve as role models is connected to all aspects of this study, but it most directly relates to empathy. Development of empathy and strong morals can be fostered through practical experience, such as serving as role models, which promotes self-confidence and the cultivation of leadership skills (Barton, 2019). To display empathic development, students need to have the ability to “understand the needs of others, and be aware of their feelings and thoughts” (Leading Effectively Staff [LES], 2022, para 3). According to the Leading Effectively Staff of the Center for Creative Leadership (2022), empathy is critical for working with other individuals from other countries, cultures, and or backgrounds.

Declining empathy levels in today’s youth, paralleled with the rise of technological advancements, is a heavily studied phenomenon (Orlandini, 2019). The replacement of face-to-face interactions by online engagement is often correlated with a diminished capacity for empathy due to difficulty reading social cues, perspectives, and emotional states, all of which are necessary for empathetic responses and relationships (Chakrabarti & Brown, 2020). However, a study done by Carrier et al. (2015) showed that virtual empathy strongly correlated with real world empathy, though relationships formed through real-world empathy were significantly stronger. After the shift to online service-learning, the relationships formed with community members, educators, and peers were exclusively established through virtual engagement. Consequently, relationships formed through role modeling and peer-to-peer connections may not be as strong as established relationships before the COVID-19 pandemic.

Why Interpersonal Relationship Growth?

Empathy is a socio-emotional skill that can encourage high quality interpersonal relationship development and social well-being, which in turn reciprocally improves the quality

of these interpersonal connections (Xu et al., 2022). However, due to potential isolation during the COVID-19 pandemic, it became important to gauge whether or not students could still form interpersonal connections (Ringwald & Wright, 2021). There is much debate regarding the ability of students to develop interpersonal relationships through online education platforms. Some researchers argue that online education may enhance self-esteem and increase relationship formation by providing tools for interaction and opportunities to socialize and support classmates (Kostenius & Hertting, 2016). On the other hand, other researchers assert that interactive technology may create lower levels of connectedness (Laura & Chapman, 2009) and reduced feelings of belongingness due to loss of human touch, presence, and real-time interaction (Toufaily et al, 2018). This raises the question of whether the abrupt transition to online service-learning undermined the ability for students to form strong relationships with their community partners, peers, and professors.

Objective

This study aims to explore the student self-reported levels of inclusion, acceptance, accessibility, and empathy in response to the concerns expressed to their SLTAs after the transition to online coursework. These topics were chosen because of my experiences serving as an SLTA during the COVID-19 pandemic. I witnessed unstable interpersonal connections to the service-learning pedagogy where I questioned if students would receive the benefits of improved emotional intelligence, self-esteem, and empathy growth (Farber, 2017). The abrupt transition to online coursework and service-learning was made without knowledge of the impact it may have on social cohesion. Transitioning service-learning online seemed like the only option with the understandable concerns about disease transmissibility. However, that decision had to be made

without the ability to anticipate the effects on student well-being and social cohesion. The questions this study sought to answer are:

1. How did the self-reported measures of inclusion/acceptance, accessibility, and empathy change through online community engagement in comparison to in-person community engagement prior to the pandemic?
2. Is online service-learning a viable modality for service-learning course delivery?
3. Are there other factors, besides the transition to online service-learning, that may have impacted students' perception of inclusion/acceptance, accessibility, and empathy during the spring 2020 semester?

Research Methods

Each semester, the VCU OIEES creates and distributes a SLIM report survey to all students enrolled in service-learning courses. The SLIM report survey asks students to assess and report on their experiences in the service-learning course to evaluate the impact of service-learning classes. The VCU OIEES uses the SLIM data in their annual SLIM report to enhance the quality of service-learning at VCU.

Prior to 2018, Institutional Review Board (IRB) approval had been obtained when external faculty members embedded questions pertaining to their own research into the SLIM survey. However, in 2018, the SLIM surveys were granted an exemption from IRB approval. Since then, IRB approval for the SLIM surveys has not been pursued because neither the survey instrument nor the goals had changed. In May 2020, I successfully submitted a proposal, in consultation with department faculty, to the VCU OIEES to gain access to the fall 2019 and spring 2020 semester anonymous data. The focus of the study was the real-time impacts of the forced transition, and thus only data from the fall 2019 and spring 2020 SLIM surveys were

requested and utilized. After permission from the VCU OIEES to complete this project was granted, I was provided access to the anonymous data and survey contents from Redcap, data-collection software licensed by VCU for approved research within the scope of employment or affiliation with VCU.

The VCU OIEES categorized the questions from the SLIM surveys of 2019 and 2020 into four areas: academic, civic, career, and inclusivity. I isolated the inclusivity questions for analysis because those are the items that reflected my study's objectives: inclusion/acceptance, accessibility, and empathy. I manually sorted each inclusivity question into categories of one of the three topics of interest. Within these categories, the questions were then further manually separated into two groups: questions from spring 2020 that could be directly compared to fall 2019 and those from spring 2020 that could not.

The SLIM surveys also included demographic sections which were identical in both years and can be found in Appendix A. The remaining portion of the fall 2019 and spring 2020 semester SLIM surveys can be accessed in Appendix B and C, respectively.

In the demographic survey, respondents were first instructed to select the service-learning course that they were enrolled in for that semester and specify if the course was required or elective. If enrolled in multiple service-learning courses, they were instructed to complete a separate survey for each course, as experiences in each service-learning course could be drastically different. Respondents were then asked to indicate their student level, age, racial background, and gender identity. Additionally, respondents were asked if one of their parents or primary caregivers had a four-year bachelor's degree and if they were a Pell Grant recipient, awarded for high financial need.

The fall 2019 SLIM Survey utilized a combination of Likert-type scale and short answer questions to gauge student experiences in service-learning courses. Respondents were instructed to rate, on a scale from 1 (strongly disagree) to 7 (strongly agree), how beneficial the course's core concepts were to their overall educational experience at VCU. Next, they were asked the degree to which they felt welcomed and included by the various demographics within the class. Participants were also instructed to evaluate the extent to which the service-learning course was beneficial in several areas. Lastly, respondents were given several open-ended short answer prompts about the courses.

In contrast to the fall 2019 survey, the spring 2020 SLIM survey predominantly used short answer questions to better assess the effects of the forced transition to online modalities due to the pandemic. Similar to the fall 2019 survey, respondents were first asked to rate how beneficial the course was in several areas using a Likert-type scale, with additional transition-specific questions such as those regarding course engagement throughout the semester. Lastly, participants were prompted with several short-answer questions concerning the forced transition and its effects on various factors, both within their education and personal lives.

Sample

The anonymous surveys, designed by the VCU OIEES, were distributed via email to all students enrolled in a service-learning course during that semester. The data was collected and imputed via RedCap for analysis.

Demographic information for the fall 2019 and spring 2020 SLIM survey respondents were collected and analyzed. In fall 2019, there was a 74.2% survey response rate and in spring 2020 the response rate dropped slightly to 70.1%. More information on the demographics and response rate of the sample is available in Table 1.

Compared to the racial makeup of VCU, the fall 2019 sample had an over-representation of White students (VCU: 45.3%; sample: 52%); over-representation of Biracial students (VCU: 6.2%; sample: 7.3%); an under-representation of Hispanic students (VCU: 9.1%; sample: 6%); an under-representation of International/Visa Holder students (VCU: 3.9%; sample: 2.3%); and an under-representation of students who preferred not to answer the racial background question (VCU: 4.8%; sample: 2.6%). Compared to the racial makeup of VCU, the spring 2020 sample had an over-representation of Asian students (VCU: 13.2%; sample: 17.9%); an over-representation of Biracial students (VCU: 6.2%; sample: 7.6%); an under-representation of Hispanic students (VCU: 9.1%; sample: 6.4%); an under-representation of International/Visa Holder students (VCU: 3.9%; sample: 1.4%); and an under-representation of students who preferred not to answer the racial background question (VCU: 4.8%; sample: 1.8%).

Compared to the gender demographics of VCU, the fall 2019 and spring 2020 samples had an over-representation of females (VCU: 61.3%; fall 2019: 78.6%; spring 2020: 79.4%); and under-representation of males (VCU: 38.3%; fall 2019: 16.2%; spring 2020: 19%).

Analysis

Redcap was utilized to collect and analyze the data from the fall 2019 and spring 2020 semester SLIM survey to perform a comparative mixed-methods study. After isolating questions specifically pertaining to respondents' degree of alignment to statements regarding inclusion/acceptance, accessibility, and empathy the responses were collapsed into percentages of students who agreed and disagreed. Questions from both semesters were directly compared and analyzed with two-proportion z-tests, a method of comparing two proportions to determine if they are different from each other when the sample size is greater than 30, with a significance level of $p < 0.05$.

The majority of the data gathered through the spring 2020 semester primarily consisted of open-ended, short-answer questions. I manually analyzed the data for recurring themes and subsequently quantified the frequency of these themes. To accomplish this, I first performed a brief review of all of the open-ended responses, providing insight into the various sentiments expressed by participants which allowed me to develop an initial set of thematic categories. I then revisited the text, and organized the responses into the initial themes. If I felt that a response did not align with any existing categories, then I would establish a new category. Once all responses were sorted into “major themes” I, then again, manually broke them down into smaller, more specific, “sub-themes.” Answers to short-answer questions that were invalid such as a random set of numbers or letters were not included in themes or in the calculated proportions. From there the proportion of responses in each “major” and “sub- theme” were counted and quantified into proportions.

Results

The differences in self-reported feelings of support between the fall 2019 and spring 2020 semester were not statistically significant. The fall 2019 SLIM survey assessed three metrics: support from their instructor (88.2%), support from the community (87.8%), and support from other students (86.3%). In contrast, the spring 2020 SLIM survey evaluated only one metric, which condensed the three items from the fall 2019 into an overall feelings of support metric (84%). As seen in Figure 1, the statistical analyses of these values were: support from instructors ($p = 0.0891$), community ($p = 0.1443$), and other students ($p = 0.3799$). The data from the spring 2020 semester was not significantly lower than the data from the fall 2019 SLIM survey.

The differences in self-reported ability to serve as a role model in the fall 2019 and spring 2020 semesters were also not statistically significant (fall 2019 = 77.8%, spring 2020 = 80.5%; p

= 0.3477). However, the difference in self-reported measures of social activism between the two semesters was statistically significant (fall 2019 = 74.8%, spring 2020 = 83.7%; $p = 0.001193$).

Additional metrics explored in the Spring 2020 semester, but not in the fall 2019 semester included: the degree that students gained a better understanding of inequities present in their community (83.6%) and the percentage reporting that they were provided with opportunities for reflection (87.6%).

As previously mentioned, the spring 2020 SLIM survey primarily consisted of open-ended and short-answer questions. The two areas assessed were: helpful/beneficial experiences and challenges experienced through the semester. The most frequently identified major themes were: (a) the challenge of transitioning to online coursework; (b) a sense of isolation or reduced connection; (c) the importance of supportive faculty; (d) the challenge of coursework due to its difficulty and volume. Refer to Table 2 for more specific details on recurring themes.

Within the major theme of *the challenge of transitioning to online coursework* there were four identified sub-themes: (a) a sense of less efficient and effective communication due to slower response times on online platforms such as email and learning management systems such as Blackboard and Canvas; (b) the frustration with the need for constant use of platforms such as Zoom; (c) the lack of access to in-person course resources such as labs and equipment; (d) the lack of access to stable internet. An example of this frustration was expressed by one student describing simulations versus in-person experiences: “The most challenging is not being able to utilize our resources at school. The 3D printers or other machines would've been useful for prototyping. Without it, the group has been using online simulations to test the prototype instead.”

Regarding the major theme of *sense of isolation or reduced connections*, there were two identified sub-themes: (a) the loss of contact with professors, peers, and community members; (b) The sudden physical displacement in the middle of the semester. One student described the effects of moving communication online: “I think the most challenging thing that has happened has been the pandemic. This work is a group project so communication is key and we have had to fight time schedules and internet connectivity issues....”

For the major theme of *the importance of supportive faculty*, there were three identified sub-themes: (a) having a professor who was understanding of extenuating circumstances; (b) having more flexible deadlines for coursework; (c) having a professor who consistently provided beneficial resources to their students. One student spoke highly of their experiences during the transition:

Our professors and school administration have shown a spectacular level of empathy and understanding during this difficult time with transitioning to online courses through the quarantine. I know they have been working tirelessly for the students, and I appreciate everything they're doing to ensure our education continues.

Lastly, for the major theme of *the challenge of coursework due to its difficulty and volume* there were two identified sub-themes: (a) the increase in coursework load and difficulty; (b) new challenges with online service-learning such as finding new service activities and providing their own transportation. One student highlighted the challenges they faced in completing coursework:

Classes that did not understand that there are certain limitations that come with going back home while juggling the work of the semester. Being at home means that there are more responsibilities and commitments that I have to return to. Of course, as a student, it is my

responsibility to handle everything but it was discouraging when the course did not let up but got harder instead. I felt that the course wasn't understanding in decreasing campus outreach requirements. In fact, the replacements were even harder as they required more time and work than participating in an event.

Discussion

The primary objective of this study was to explore how the self-reported measures of inclusion/acceptance, accessibility, and empathy changed during the obligatory transition to online community engagement due to the COVID-19 pandemic. Furthermore, the study also aimed to explore the viability of online community engagement as a modality for service-learning course delivery and to identify any significant factors, in addition to the forced shift to remote instruction, that may have impacted study's results.

Despite the structural differences in questions of the two SLIM surveys, direct comparisons were drawn between identical questions from the fall 2019 SLIM survey and the spring 2020 SLIM survey. Certain questions from the fall 2019 SLIM survey were not directly comparable to the spring 2020 SLIM survey since the former was administered pre-pandemic and therefore did not include questions pertaining to accessibility and pandemic-induced circumstances. As mentioned above, a common approach utilized by educators was to adopt an asynchronous course format. While asynchronous learning may allow for increased temporal and technological flexibility, it may have several drawbacks (Worcester State University, n.d.). These may include the limitation of student to professor/SLTA and peer-to-peer communication, improper and distracting learning environments, varying technology comfort levels for both students and educators, and poor construction of online coursework (Dhawan, 2020).

The reported 3.4% decline in perceptions of inclusion/support in the spring 2020 semester SLIM, while not significant, could have been a result of the shift to asynchronous teaching. Although there were severe consequences from social isolation during the COVID-19 pandemic, there was no evidence for this when comparing the fall 2019 and spring 2020 semester SLIM survey results. Perhaps there were some more protective factors at VCU, such as substantial support from professors, which 14.76% of students reported in the short answer responses of the spring 2020 SLIM survey. The slight drop in feelings of social support could also be due to the possibility of the switch to online service-learning undermining the immersive nature of community engagement.

The COVID-19 pandemic continues to impact daily life and may continue to do so (Merchant, 2020). While the differences in social support levels were not statistically significant, the 3.4% decline may reflect students' sense of loneliness due to social distancing. This decrease in perceived support could be attributed to the fact that students in the spring 2020 SLIM survey reported physical displacement and loss of contact with peers, faculty, and community members. Decreased perceived levels of social support are typically associated with poorer mental health, often seen in areas that experienced a natural disaster (Wang et al., 2018).

A 2.4% increase in the number of students who reported being able to serve as a role model was observed from the fall 2019 to spring 2020 semester. Although this increase was not statistically significant, serving as a role model may have functioned as a protective factor against social isolation. In comparison, there was a statistically significant 8.9% increase in the number of students who reported becoming more active engaged citizens in the spring 2020 semester. The increase in social activism in the spring 2020 semester was unanticipated due to the decline in social opportunities caused by the pandemic.

It is important to recognize that this particular time frame was characterized not only by the pandemic, but also the presidential election campaign, rise in anti-Confederate statue activism (Benjamin et al, 2020), and an uptick in a multitude of other national/global historical events (History.com Editors, 2020). According to polls conducted by Civis Data Science (2020), the largest age demographic participating in civic engagement, such as participating in protests, was comprised of 18-34 years-olds. Most VCU undergraduates fall within this age group.

During crises, we often see patterns of increased social activism and leadership, potentially due to the participatory nature of social media (Rotman et al., 2011). For example, the infamous George Floyd video, which went viral, catalyzed nationwide protests. This phenomenon was also observed with the increasing political violence following the false narrative of a stolen presidential election in 2020 (Kleinfeld, 2021). Buchanan et al. (2020), asserted that this increase in social activism among young adults in 2020 may have been driven by individuals having more time available as a result of shutdowns caused by the pandemic.

In the same vein, the result that 83.6% of students reported an increased understanding of community inequities seems related. Social media may be a large driver in heightening awareness of inequities present in their community. The Pew Research Center reported that 23% of social media users claimed their views on social or political issues were influenced by social media content (Perrin, 2020). This percentage is a substantial increase from the 2018 survey, in which only 15% of respondents altered perspectives on social or political issues due to social media. Laster-Pirtle & Wright (2021) argued that events such as the novel COVID-19 pandemic, anti-confederate statue protests, and the Black Lives Matter (BLM) movement have brought

“historically rooted inequities of our society to the forefront” (para. 1), and we are now confronted with the persistent inequality in our communities.

The growing awareness of historical social inequities in our communities presents increased opportunities for reflection to facilitate learning and social consciousness (Hatcher et al., 2004). According to Motzkus et al. (2019), reflection is critical to service-learning, as it encourages students to adopt alternative perspectives and learn to recognize their implicit biases. The rise in social awareness of inequities facilitated by social media provides more opportunities for social activism (Mavrodieva et al., 2019). This uptick in awareness of social inequities may also be related to the rise in self-reported ability to serve as a role model and level of social activism in the spring 2020 semester. In this semester, 87.6% of students reported being provided with opportunities for reflection and 83.6% of students reported gaining a better understanding of community inequities.

In addition to the increasingly polarized political and social climate in the United States at the time of the survey, the elevated levels of reported social activism and reflection observed in the spring 2020 semester may also be attributable to the nature of online courses, particularly asynchronous courses. In addition to social activism and reflection that may have occurred from the increase in inequities documented by social media, students were also assigned written reflections through online discussion boards. This notion is supported by some students in the spring 2020 semester who reported an increased workload due to additional assignments, such as written reflection activities, as opposed to synchronous classroom discussions. However, the increased opportunity for reflection may have also been a positive latent result of the increased amount of required written reflections.

The sudden transition to online service learning courses introduced new challenges that may have increased the difficulty of online courses compared to their in-person counterparts, possibly due to lack of resources and accessibility. In the spring 2020 SLIM survey, students identified their most significant challenges as isolation from friends, increased workload, loss of resources, and displacement. In the U.S., there are 19 million Americans that do not have steady internet access. The Federal Communications Commission (n.d.) found that many of these individuals reside in low-income or rural areas. With the national shift to online learning, “the homework gap” is becoming more apparent: many individuals lack the high-speed internet required to attend online classes or complete homework. This issue is particularly pronounced in low-income households populated by people of color. Additionally, a quarter of low-income households lack an in-home computer (Auxier & Anderson, 2020). Ready access to technology is more likely to be present in households with students whose parents/caregivers had some form of post-high school education (Auxier & Anderson, 2020).

In the spring 2020 service-learning cohort at VCU, 26.7% were Pell Grant recipients and 33.8% reported that neither of their parents or primary caregivers held a four-year bachelor’s degree. Considering that 33.33% of students cited physical displacement or returning home as one of their most significant challenges, many may have lacked the necessary access to reliable high-speed internet to succeed in their online courses. Students also reported increased distractions at home, preventing their focus on coursework. Students also mentioned additional responsibilities at home, such as cooking for the family and caring for siblings, which made completing their coursework more challenging. A common survival strategy of low-income families is relying on children to assume essential, time-consuming family labor (Dodson & Dickert, 2004). In the long term, these familial obligations may be a contributing factor to

intergenerational poverty if students cannot adequately concentrate on academics, ultimately limiting access to jobs and careers with more sustainable incomes, thus exacerbating income disparities (Dodson & Dickert, 2004).

The pandemic's onset could be an explanation for students' perceptions of diminished overall support. Paradoxically, increased reliance on technology and social media, in tandem with various external factors, prompted increased civic engagement, whether as role models or through reflection of issues such as community inequities. However, this increased reliance on technology for distance learning has further intensified the impact of socioeconomic barriers on student learning and highlighted the potential pitfalls of asynchronous learning, namely increased familial responsibilities and lack of home resources (Leanos, 2022).

The study's results indicate that the pandemic's adverse effects on inclusivity/acceptance metrics, specifically social support, in the spring 2020 semester were not statistically significant. While statistically significant positive correlations were observed concerning social activism and reflection, it is difficult to determine if these results were attributable to service-learning courses or extrinsic factors. The short-answer portion of the spring 2020 SLIM survey proved invaluable in providing study participants with a "voice" and offered context for some of the study results. Without the short-answer portion of the spring 2020 semester SLIM survey, the diverse, personalized experiences of the VCU service-learning students could not have been captured. For instance, the participants' responses in the spring 2020 SLIM survey ranged from highly positive remarks about support from VCU professors both in and out of the classroom to negative feedback regarding the increased difficulty of online service-learning courses. In the more extreme negative cases, numerous participants also mentioned family death as a factor impeding their ability to participate in online courses.

The results suggest that the transition to an online service-learning modality may have had a positive impact on service-learning efficacy. However, the transition may have had a more negative impact on accessibility, as students may have not have had access to necessary resources. The concept of online service-learning courses and the forced transition to online service-learning courses are deeply interwoven, so the findings from this study may be applicable to online non service-learning courses in general.

In the event of another large-scale pandemic, due to our increased understanding about disease transmission, discontinuation of in-person courses and service-learning may once again become necessary. While the likelihood of another extreme pandemic, similar to the mass community shut-downs seen with the COVID-19 pandemic, is currently only 2%, that value may continue to increase due to several factors, such as global warming, that may introduce previously dormant diseases (Joi, 2022). In that case, we can apply these findings to inform future decisions about what needs to be accounted for when initiating a mass-migration to an online modality—not just for VCU service-learning students, but also for other universities and community members/organizations.

Limitations

A limitation of this study is that it is unclear whether the survey respondents were specifically addressing online service-learning or the shift to online classes. According to the World Health Organization (2022), the COVID-19 pandemic was a global disruption, leading to increased anxiety and depression; which typically results in poor decision-making in both static and dynamic environments due to altered perceptions of rewards and punishments (Zhang et al., 2015). Zhang et al. (2015) also note that heightened negative emotions can contribute to a phenomenon called “clumping” where individuals categorize similar ideas or instances into one

category. Furthermore, the COVID-19 pandemic was not the only significant event during the semester; the rise in anti-confederate statue protests and the election campaign could have been substantially influential factors. Therefore, it remains unclear whether the observed benefits and challenges were solely due to the pandemic or if the series of historic events throughout the spring of 2020 was a factor.

One participant's response to a question regarding challenges faced during the spring 2020 semester exemplifies how participants were struggling with various challenges rather than solely the transition of service-learning to an online format:

This semester has also been very hard because I haven't been able to play my...clarinet...because of my tonsil issues...Basically, this whole semester has been the worst, really. But what has helped me cope is just being with my family. I actually stopped all communication with people for a while, and although it caused concern in others, it really helped me not get so overwhelmed about my situation. Although I am so grateful for the people who care about me, it would've just made me feel even worse at that time if I had people reach out to me. Singing has been helping me cope!

Many students used the spring 2020 survey as an opportunity to discuss challenges with other classes or life aspects. With the heightened frustration and anxiety levels, when asked, students may have taken the opportunity to discuss topics outside of service-learning because it was an opportunity to be heard. From my experiences as a VCU student who participated in service-learning courses and served as an SLTA, there were no other courses that specifically and systematically inquired about students' feelings regarding the abrupt transition. Furthermore, service-learning courses often feature written and verbal discussions potentially creating an expectation and a more comfortable environment for student sharing.

Another limitation of this study was the availability of data on accessibility, which was only measured in the spring 2020 semester. Prior to the pandemic, accessibility to coursework completion and class attendance was not a strong enough concern so accessibility was not extensively studied in previous SLIM surveys. However, given the pandemic and numerous studies highlighting the disproportionate effects on people of color and individuals with high financial need (Leanos, 2022; Hill & Artiga, 2022), the proportion of students able to access or complete the course became an essential topic of discussion.

Lastly, while the thematic analyses of text generated from the open-ended questions in the spring 2020 SLIM survey was thorough and followed clear procedures, it is possible that the perceptions and conclusions resulting from this analysis were biased by my perspective and frame of reference.

Future Directions

As the potential for the continuation of adverse effects from the COVID-19 pandemic remains, it is prudent to determine whether the results examined in this study have remained consistent, given the prolonged duration of the pandemic. Reconstructing the annual survey to allow for more direct comparisons (i.e., posing identical questions) could allow researchers to discern if the results were solely due to the abrupt transition or if they would persist with online service-learning.

A compelling future study could compare these findings to a campus-wide metric at VCU that measures the degree of connection students experienced throughout the pandemic. The present data revealed overall increases in the proportions of students who reported serving as role models, gaining a deeper understanding of others' perspectives, and becoming more active and informed citizens in spring 2020. However, there was a decline in the proportion of students who

reported feeling supported during the spring 2020 semester. Some recommended actions that service-learning programs could consider in implementing strategies that allow students to safely establish and maintain relationships with peers, instructors, and community members. For instance, maintaining synchronous service-learning courses may facilitate reflective discussions rather than relying solely on discussion boards. Several students also noted an increase in written assignments following the shift to online learning, as opposed to engaging in community service. Another viable step for service-learning programs could involve ensuring that all students can continue to meet with their community partners online if in-person courses are suspended again. Exploring ways for students to safely perform service-learning activities without compromising the overall objectives of the service-learning course may facilitate the development of interpersonal relationships.

For future service-learning students, professors, and practitioners, these findings suggest that online service-learning positively contributes to empathy development. However, accessibility and social support appear to have declined, implying that a hybrid-synchronous model may be beneficial so that students can continue social distancing while reaping the benefits of empathy development and minimizing feelings of social isolation. In the event of a complete societal shutdown, like we saw with the COVID-19 pandemic, a hybrid-synchronous model may not be possible. Under such circumstances, it would be most beneficial for service-learning programs to be completely online, ensuring course synchronicity and enabling students to meet with their community partners. Additionally, to ensure equal opportunities for success, efforts should be made to provide them with high-speed internet and readily available technology.

Finally, should another pandemic compel universities to modify course modalities, the findings of this study could prove invaluable in guiding the VCU administration when deciding whether to opt for an online or a hybrid approach to service-learning courses and the impact on community partners. While the initial actions taken by VCU in response to the pandemic were understandably reactionary, reassessing the implications of the forced transition to the online format—with the flexibility to be synchronous or asynchronous—reveals both beneficial and detrimental impacts. While it is impossible to retroactively alter those decisions, it is crucial for VCU and other universities to learn from this experience and prepare for potential future anomalies. It would be prudent to involve service-learning stakeholders (community members, students, and professors) as they would be the most impacted by any administrative decisions.

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Appendices

Appendix A: Demographics from the fall 2019 and spring 2020 SLIM Survey

1. Please select the service-learning course that you are evaluating.
(If you're enrolled in more than one service-learning course this semester, complete a separate survey for each course.)
2. Is this course: (A required course for your major/minor, An elective for your major/minor, A general elective.)
3. What is your student level? (Undergraduate, Graduate/Professional student, Non-degree student.)
4. What is your age? (Please use numerals only.)
5. Which option best describes your racial background?
White, African American, Asian, Hispanic, Hawaiian/Pacific Islander, Native American, Two or more races (biracial or multiracial), International (i.e., visa holder), Other (Please specify below.), Prefer not to answer
6. Which option best describes your gender identity?
Female, Male, Transgender, Genderqueer/Gender non-conforming, Another preferred descriptor (Please specify below.), Prefer not to answer
7. Does at least one of your parents or primary caregivers have a 4-year bachelor's degree? (Yes, Not Sure, No)
8. Have you received a Pell grant (for high financial need) to attend VCU? (Yes, Not Sure, No)

Appendix B: Fall 2019 SLIM Survey

1. For each item below, select the number that describes the degree to which this service-learning class has been beneficial in the areas listed. Use a scale of 1 to 7 where 1=NOT BENEFICIAL and 7=HIGHLY BENEFICIAL.
 - a. How beneficial to your learning were the reflection activities/assignments of this class?
 - b. How beneficial to your learning was the community service component of this class?
 - c. How beneficial to your learning were your interactions with the instructor of the class?
 - d. How beneficial to your learning were your interactions with other students in the class?
1. For each item below, select the number that describes the degree to which this service-learning class has felt welcoming and inclusive in the area listed. Use a scale of 1 to 7 where 1=NOT WELCOMING and 7=HIGHLY WELCOMING.
 - a. How included/supported did the instructor of the class make you feel?
 - b. How included/supported did the other students in the class make you feel?
 - c. How included/supported did the community partner/community site make you feel?
2. How much do you agree with the following statements? Use the scale of strongly disagree to strongly agree.
 - a. The service-learning course enabled me to apply my skills and knowledge to new situations.

- b. The service-learning course enabled me to recognize how theories and conceptual models can be applied in real-world situations.
 - c. The service-learning courses enabled me to develop a network of professional contacts and/or mentors.
 - d. The service-learning course enabled me to understand how people within the profession think and behave.
 - e. The service-learning course enabled me to better understand my own strengths and weaknesses
3. For each item below, select the number that describes the degree to which this service-learning class has been beneficial in the areas listed. Use a scale of 1 to 7 where 1=NOT AT ALL and 7=VERY MUCH.
- a. Connect my learning to societal problems or issues.
 - b. Connect my learning to things I have learned in other classes.
 - c. Examine the strengths and weaknesses of my own views on a topic or issue.
 - d. Be more aware of local, state, national, or global issues that need to be addressed.
 - e. Be more aware of some of my own biases and prejudices.
 - f. Work effectively in a group where people from different backgrounds feel welcomed and included.
 - g. Clarify my career or professional goals.
 - h. Be an active and informed citizen.
 - i. Consider different cultural perspectives when evaluating different social problems.
 - j. Be more committed to using the knowledge and skills I have gained in college to help address issues in society.
 - k. Be a role model for people in the community.
 - l. Feel comfortable interacting with people from a cultural group that is different from my own.
 - m. Develop a personal code of values and ethics.
 - n. Better understand someone else's views by imagining how an issue looks from their perspective.
 - o. Rate the degree to which this service-learning course challenged you to do your best work
4. How much do you agree with the following statements?
- a. I experienced positive growth in my level of empathy (e.g., ability to walk in another's shoes and understand their perspective) as a result of my service-learning course.
 - b. I experienced positive growth in my level of morality (e.g., understanding right and wrong) as a result of my service-learning course.
 - c. I gained the appropriate skills and experiences for my desired career as a result of my service-learning course.

Appendix C: spring 2020 SLIM Survey

1. For each item below, select the number that describes the degree to which this service-learning class has been beneficial in the areas listed. Use a scale of 1 to 7 where 1=NOT AT ALL BENEFICIAL and 7=VERY BENEFICIAL.
 - a. Provided me with a place where I felt included/supported.

- b. Helped me to stay engaged in the course despite the mid-semester disruption.
 - c. Provided me with opportunities to reflect.
 - d. Understand my own strengths, skills, and beliefs.
 - e. Be an active and informed citizen.
 - f. Be a role model for people in the community.
 - g. Increased my understanding of inequities in communities.
 - h. Helped me learn to be more flexible and adaptable to changes in my life.
 - i. Be more committed to use the knowledge and skills I gained in college to help address issues in society.
2. Approximately how many service hours did you provide in the first half of the semester? (Please enter an integer (whole number))
 3. Approximately how many service hours do you anticipate providing in the second half of the semester? (Please enter an integer (whole number))
 4. If you were able to provide service hours in the second half of the semester, did your service activities change? (yes or no)
 - a. Please describe how the service you provided in the second half of the semester differed from that of the first half.
 - b. If you were not able to continue providing service after spring break, did the service you were able to provide in the first half of the semester deepen your learning in this course? (yes, not sure, no)
 5. Clearly, the COVID-19 crisis has disrupted the semester in unique and unprecedented ways. Please share some of the experiences you have navigated the spring 2020 semester.
 - a. What experience stands out in your mind as being most helpful or beneficial to you this semester?
 - b. What have you found to be most challenging this semester? What, if anything, has helped you to cope with this challenge?
 - c. What have you learned about yourself (e.g., your strengths, needs, beliefs, etc.) this semester?
 - d. Is there anything else you would like us to know about your service-learning experience or what you got out of it?

Tables and Figures

Table 1

Demographics of the fall 2019 and spring 2020 survey responders in comparison to VCU 2019-2020 population data

Characteristics		VCU 2019-2020		Fall 2019		Spring 2020	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Racial	White	13637	45.3	199	52	193	44.4
Background	African American	5208	17.3	63	16.4	78	17.9
	Asian	3974	13.2	43	11.2	78	17.9
	Hispanic	2739	9.1	23	6	28	6.4
	Hawaiian/Pacific Islander	30	0.1	0	0	2	0.5
	Biracial	1866	6.2	28	7.3	33	7.6
	International/Visa holder	1174	3.9	9	2.3	6	1.4
	Other	n/a*	n/a	8	2.1	9	2.1
	Prefer not to answer	1445	4.8	10	2.6	8	1.8
Gender Identities	Female	18453	61.3	301	78.6	347	79.4
	Male	11529	38.3	62	16.2	83	19
	Transgender	n/a	n/a	1	0.3	0	0
	Gender Non-Conforming	n/a	n/a	9	2.3	4	0.9
	Other	n/a	n/a	2	0.5	1	0.2
Pell Grant	Prefer not to answer	n/a	n/a	8	2.1	2	0.5
	Received	n/a	n/a	107	28	116	26.7
	Not received	n/a	n/a	245	64.1	287	66
	Unsure	n/a	n/a	30	7.9	32	7.4

Note. This table demonstrates the demographics: racial background, gender identity, and Pell Grant recipient between the VCU 2019-2020 population, as well as the fall 2019 and spring 2020 SLIM survey respondents.

† We were not able to obtain certain aspects of the VCU population data as the metrics were slightly different. These sections are denoted by *.

Table 2*Reported Accessibility to their Online Courses in spring 2020*

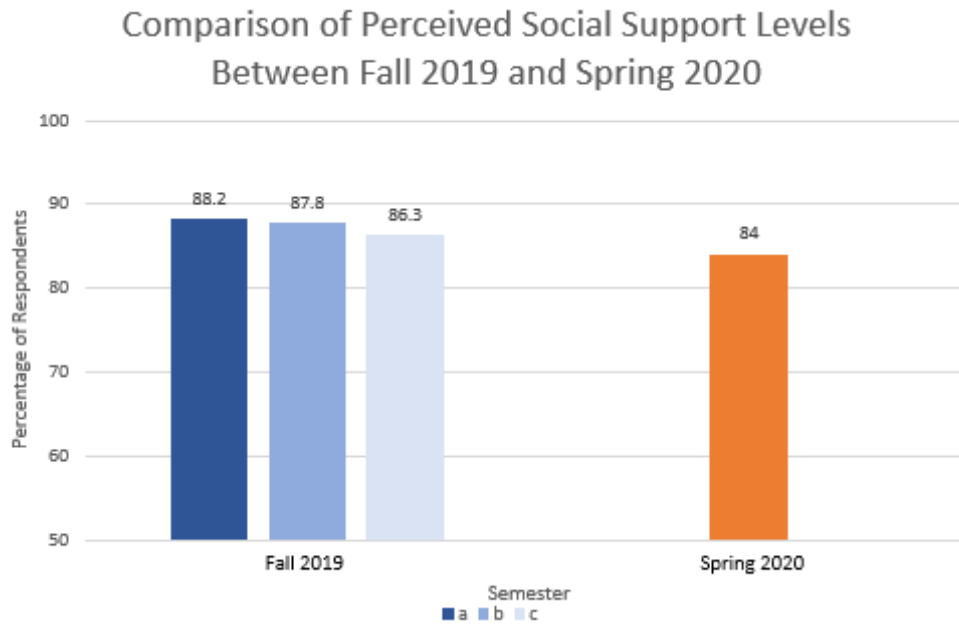
Major Theme	Sub-Themes
22.8% of students reported that the transition to online coursework was a very large challenge that semester	79.6% of students reported that communication slowed down with online formats
	15.53% of students reported that had to consistently be on online platforms such as Zoom
	8.74% of students reported that they lost access to in-person resources
	2.91% of students reported that they lacked access to stable internet
15.27% respondents reported that losing connections to others was a major challenge this semester	72.56% of students reported that they lost connections with professors, peers, and community members
	33.33% of students reported that were displaced in the middle of the semester
14.76% of students reported that having a supportive and understanding professor was extremely beneficial in terms of helping them complete the semester	25.37% of students reported that having a professor understanding of extenuating circumstances due to the pandemic
	8.96% of students reported that professors had more flexible deadlines
	5.97% of students reported that their professors consistently provided resources to their students
8.19% of students reported that the difficulty or amount of course work was the biggest challenge this semester	89.19% of students reported that the course load or difficulty level with online service-learning classes were too high
	35.14% of students reported that there were new challenges with online courses such as finding their own service activities or transportation

Note. This table demonstrates the reported levels of accessibility to their courses reported in spring 2020.

† Percentages of the major themes do not total 100% since some open-ended questions were left blank or consisted of invalid responses. The percentages of the sub-themes do not total 100% as responses could be classified into more than one sub-theme.

Figure 1

Comparison of Perceived Social Support Levels Between fall 2019 and spring 2020



Note. This figure demonstrates the comparison between perceived levels of social support in spring 2020 to perceived social support from (a) instructors, (b) community members and sites, and (c) other students in fall 2019.