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THE JOURNAL OF SERVICE-LEARNING IN HIGHER EDUCATION IS AN ONLINE, INTERNATIONAL, PEER-REVIEWED JOURNAL FOR THE DISSEMINATION OF ORIGINAL RESEARCH REGARDING EFFECTIVE INSTITUTIONAL-COMMUNITY PARTNERSHIPS. OUR PRIMARY EMPHASIS IS TO PROVIDE AN OUTLET FOR SHARING THE METHODOLOGIES AND PEDAGOGICAL APPROACHES THAT LEAD TO EFFECTIVE COMMUNITY-IDENTIFIED OUTCOMES. THE JOURNAL OF SERVICE-LEARNING IN HIGHER EDUCATION IS A SUBSCRIPTION-FREE JOURNAL WITH A REVIEW BOARD MADE UP OF VARIOUS ACADEMIC DISCIPLINES OF THE MEMBER INSTITUTIONS OF THE UNIVERSITY OF LOUISIANA SYSTEM AS WELL AS OTHER NATIONALLY AND INTERNATIONALLY ACCREDITED COLLEGES AND UNIVERSITIES AND AFFILIATED ORGANIZATIONS.

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TABLE OF CONTENTS

JOURNAL OF SERVICE-LEARNING IN HIGHER EDUCATION

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Summer 2024

POST PANDEMIC COMMUNITY ENGAGEMENT

Welcome to the 19th edition of the Journal of Service-Leaning in Higher Education. When I am asked what we do on our campus, I say that we try to do everything. Institutions of higher education are living labs for the wider world. We function much like the communities where we are embedded: providing transportation, housing, maintaining buildings and greenspaces, and providing all (or most) of the goods and services necessary for our "residents." We micro-manage every dollar spent and every dollar earned. We react to the variances of our environment – and try to collect and report data that can be used to benefit our communities, regions, and the world at large.

Much of what we report is the dry data of academic research. Occasionally, we get to highlight flashes of brilliance and surprise. Mostly though, our impact goes unnoticed in our communities except for the change in traffic from summer to fall. But why then are so many university communities considered ideal locations for family life? I believe college communities thrive in no small part due to the community service commitment that students, faculty, and staff embrace. According to Gallup News, college students (and graduates) volunteer at a rate about double that of non-college students (30% vs 14%). The Corporation for National and Community Service which oversees AmeriCorps volunteers, reports about 200,000 members complete about 1.8 billion hours of service each year. This translates into a healthy volunteer workforce contributing to service agency outreach, primary and secondary school support, support for community events, and more. An incalculable economic impact that is seldom celebrated except within the benefiting agencies themselves.

Service-Learning, or course-based community engagement, is a primary feature of teaching excellence across many of the 4000+ colleges and universities in the United States and internationally. The nine articles that are in this edition of JSLHE represent the application of discipline-specific study translated to direct community impact. Students and mentors engaged in communities on three different continents. It is my honor to be able to present these experiences. Thank you for reading and for sharing – but mostly, thank you for your service.

David Yarbrough
Journal of Service-Learning in Higher Education

ABSTRACT

Service-learning is a form of experiential-learning being incorporated into many academic programs to enable students to practice skills learned in class while providing a service to communities in need. Being able to justify the implementation of service-learning experiences can be a challenge. Some benefits include increased awareness of global health, development of comparing and compassion for the community and patients, development of critical and clinical thinking, and practice of skills learned.

This study assessed Core Value Self-Assessment of students from a cohort of entry level Doctor of Physical Therapy students who had a mix of participation in service-learning (local, regional, and international). It was hypothesized that students who participated in international service-learning experiences would score higher on the Core Value Self-Assessment tool (total score and each individual core value). One -Way ANOVAs were used to assess the data. Results found that international service-learning participants scored highest in social responsibility. The results were not statistically significant. Participation in service-learning is an option to consider for experiential learning to help develop professional behavior. Future research could consider Core Value Self-Assessment pre and post service-learning experience to consider more causative relationship between service-learning and Core Value Self-Assessment changes.

INFLUENCE OF INTERNATIONAL SERVICE-LEARNING ON DPT STUDENT PROFESSIONAL BEHAVIOR DEVELOPMENT

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Over the past decade, Doctor of Physical Therapy programs have incorporated service-learning experiences into the curriculum, working collaboratively with local, regional, and international communities. This is in response to the growing emphasis on the globalization of healthcare. Pechak and Thomas (2011) defined the concept of globalization as the "social, educational, and business interactions that lead to progressive standardization across cultures and borders" (p. 226). The World Confederation for Physical Therapy (WCPT) supports the work of establishing equality across boarders through the mission to promote appropriate healthcare with trust and dignity (WCPT, 2020).

Service-learning (SL) is a type of experiential-learning, where students apply classroom knowledge to a structured, real-life activity while providing service to a community in need (Boysen et al., 2016; Bugnariu et al., 2015; Crandell et al., 2013). Doctor of Physical Therapy (DPT) programs can incorporate SL experiences to promote service participation, civic engagement, and to improve awareness of health concerns and practices. The inclusion of SL is not required for program accreditation, but does help meet some criterion, such as professional behavior development, practice exposure, providing service to those in need, and experiential learning to reinforce classroom learning (Clark et al., 2015; Pechak & Thompson, 2011). Professional behavior is reinforced by these Core Values, including professional duty, altruism, and compassion.

Service-learning can be created in several formats, including local, regional, and international locations. Local and regional service learning (RSL)

experiences involve providing needed services within the local area or region in which the program resides, such as the surrounding county or within the country (for the programs accredited by CAPTE this is the United States). International Service-Learning (ISL) is the implementation of SL in a different country, providing needed services that were identified in program planning and development. The challenge that falls upon these academic programs is to provide evidence that the SL experiences are worth the financial cost of establishment and execution.

The American Physical Therapy Association (APTA) Core Value Self-Assessment is a standardized tool that incorporates personal reflection by a physical therapist or physical therapy student in assessing personal performance on identified core values. This assessment tool is used to steer and assess professional development in physical therapists and physical therapy students. This study will use the APTA Core Values Self-Assessment tool to identify difference in scores between groups of students who participated in local and international service-learning experiences.

A challenge is that it is not yet concretely determined how the ISL experience impacts the professional behaviors of DPT students. Many DPT programs are establishing ISL experiences as part of their elective curriculum. ISL experiences in DPT programs require a strong rationale and sufficient resources to gain acceptance and prevent opposition, including the potential argument of educational time being lost when students are outside of the classroom. Following the promotion of globalization of healthcare by the WHO and WCPT, ISL for educational institutions incorporated hands-on, service-based experiences grounded in academic teaching and volunteer services in an international community where a need was identified (WCPT, 2020; WHO, 2020).

Purpose of the Study

The purpose of this quantitative quasi-experimental study was to identify the impact of an ISL experience on the professional behaviors of U.S. entry-level DPT students. The Commission on Accreditation for Physical Therapy Education (CAPTE) has noted the importance of professional behavior and requires DPT students to demonstrate the American Physical Therapy Association (APTA)'s identified Code of Ethics and Core Values. The APTA has developed a standardized tool for assessment of professional behaviors through the Core Values Self-Assessment tool. This tool represents the seven identified core values that are assessed via Likert scales which are totaled for a total core value self-assessment score and 7 sub-section scores. Differences in Core Value Self-Assessment total scores and within the seven core values were assessed during this research to identify differences surrounding the SL experience. Identified differences in core values could help guide program development to help promote professional development as defined and promoted by the APTA. Participants were recruited from an Appalachian based entry level DPT program that offers varying levels of SL within the curriculum (local, regional, and international).

Three groups participated: those who participated in regional SL, those who participated in ISL, and those who did not participate in either regional SL or ISL.

The following research questions guided this quantitative quasi-experimental study:

- Was there a significant difference in DPT student total scores on the APTA Core
- Values Self-Assessment tool after an international service-learning experience compared to those who did not attend a service-learning experience or who attended a regional service-learning experience?
- Was there a significant difference in DPT student perceptions of individual core values after an international service-learning experience as measured by the APTA Core Values Self-Assessment tool as compared to those who did not attend a service-learning experience or those who attended a regional service-learning experience?

Service-learning (SL) is defined as “experiential learning in which a community’s needs are met while incorporating academic learning and meeting academic outcomes” (Reynolds, 2009, p.3). A key component to SL is the link between academic outcomes and SL experience goals; this distinguishes SL from volunteering, where there is not academic connection. Hayward et al. (2017) note that SL facilitated student growth in improved cultural competence, appreciation of professionalism and core values, and enhanced collaboration and communication. Brigle and Hatcher (1995) expanded on this definition, stating that SL is a method to gain further understanding of course content and grow a broader appreciation for the profession as well as civic responsibility. This process of practicing and working to meet a community need with incorporated reflection follows the direction for Kolb’s writings regarding experiential learning (Nadioo et al., 2018).

The experience of providing service via experiential learning during SL in communities in need occurs both domestically and internationally. Hall et al. (2018) mentioned that SL is a means for reciprocal learning and benefit for both the involved students/university and the host community. Prior to SL implementation, community partner needs should be identified. Community partner needs could include a wheelchair clinic, gait assessment, wound care, positioning, consultations, and evaluation and treatment recommendations. The needs of the community partner are met during SL while the students benefit from the process of patient interaction, time to practice learned skills, and decision making, and the process of reflection. Five recommended characteristics of SL from Liu and Lin (2017) include “collaboration, reciprocity, diversity, learning orientation, and social justice” (p. 240). Collaboration is important between the academic program and community partner, facilitating a strong relationship. Reciprocity occurs through SL as both parties benefit from the collaboration. The learning aspect is important when linking the service component to

the academic component in developing a SL experience, remembering that the experience is to help students in their educational journey.

The hands-on experience allows students to become more confident in their skills and resource usage and realize the value of compassion and caring (Brown & Bright, 2017; Ivers, 2019). The students are able to practice talking to community members, learning to communicate effectively and respectfully. Hands-on skills are demonstrated by faculty and students, including communication and decision making. Students reported that the SL experience confirmed their decision to be a physical therapist (Collins et al., 2019; Danzl et al., 2019). Research has found students report decreased anxiety in practice following SL experience, feeling more confident in their knowledge and hands-on skills (Bugnariu et al., 2015). In SL experiences, working to meet a community's needs and providing professional services benefited the students in enabling them to realize their skills.

Pros and Cons of Service-Learning

Gaster (2011) wrote about the pros and cons of SL. Benefits to the student included: personal goal development, fostering sense of caring, collaboration, enhancing content comprehension, exploration of values, ethics, and civic engagement, and encouraging students to become lifelong learners and be aware of social and political issues. As students work to help meet community needs, they should incorporate social and political factors to ensure services and behaviors are appropriate.

Students were able to practice skills and decision making, helping one another with modeling and teaming. Faculty were able to guide with modeling and probing questions. The SL experience allows students to interact with faculty outside of the classroom. Seeing faculty practice professionally helps provide professional models for students. The interaction between faculty and students facilitates development of communication and problem solving.

Identified benefits for the community included: exposure to learning experiences, building collaborations, and partnerships, meeting community needs, and addressing community issues with funding for education, healthcare, public safety, and the environment (Danzl et al., 2019; Gaster, 2011). A critical component of SL and a means to assess the benefits or outcomes of SL is reflection. The reflection component is important to the SL process (Anderson et al., 2014). Davis (2013) described reflection as the bridge between the service component and the educational content. Reflection allowed for participants (students, faculty, and community partners) to assess personal beliefs and values in comparison to academic and community outcomes and needs (Clark et al., 2015; Crandell et al., 2012; Garcia-Romero et al., 2018). Students reflected on topics including personal challenges, lessons learned, and personal goals to work on. Faculty reflected on preparedness of the group, student performance, and the group's ability to meet the community partner's needs. The community partners reflected on their perception on how the students performed and if their needs were met.

Sandaran (2012) noted that SL is different from volunteering in that it focuses on the learning and service combination ensuring that the service provider and recipient both benefit from the partnership. SL is not necessarily a replacement to clinical experiences required by CAPTE but can be used to prepare students for these clinical placements.

Some PT programs place SL as an elective course for students within curriculum, while other programs have SL experiences as a requirement for graduation. Nowakowski et al. (2014) found that these experiences facilitated DPT programs addressing public health issues, health promotion, safety, mobility, physical performance, and professionalism (Collins et al., 2019). The SL experiences allowed DPT students to engage in interprofessional collaboration and caregiver/family training. These experiences aided students to grow with situated cognition, critical thinking, content knowledge, and tool usage (Danzl et al., 2019; Rincon and Castillo-Montoya, 2018). Service-Learning enabled DPT students to learn content in the classroom and apply it in a real-world setting, then follow with reflection to assess personal learning and growth within the field (D'Appolonia Knecht et al., 2020; Ricon & Castillo-Montoya, 2018). Service-learning experiences vary greatly in timing and focus. Connecting an SL experience to academic outcomes is important to show the pertinence of the experience, which allows programs to justify development to students and administration.

Local Service-Learning

Local service-learning (LSL) focuses on services provided to the local community in need. Due to shorter distance to travel to the identified community partners, LSL can occur more frequently for shorter periods of time. LSL does not necessarily require the same amount of planning or expenses for travel. This type of set up would include the establishment of a pro-bono clinic to help meet community medical needs. A benefit to this type of experience is the connection created between the academic institution and the community and the more frequent contact with those in need.

Regional Service-Learning

Service-learning can be developed on a number of levels. One way to categorize SL is by the location of the service or location. Some complete SL at a local level, working with community partners in the area surrounding the academic institution. These activities can include health fairs, screenings, and community education programs. Regional SL may expand the idea of SL, but within a given region surrounding the facility. These programs can expand to being more involved with immersion into a new community away from the school where students meet the needs of the community partner. This approach to SL can be beneficial to meet the needs of underserved communities that have a shortage of healthcare practitioners or facilities. These programs can help students become aware of healthcare programs, strengths

and weaknesses, and other needs within their community and region. Expanding further, some programs move to work with international community partners. Regional SL exposes students to regional cultural differences. This exposure can help students realize differences close to home, such as socioeconomic differences, religious differences, and healthcare availability. Understanding community differences enables students to be more aware of community needs and how to best meet these needs.

International Service-Learning

International Service-Learning (ISL) is an extension of SL, expanding services to communities and countries in need. This work helped to strengthen student skills, improve collaborative decision making, cultural responsiveness, and concern for other communities and populations (Collins et al., 2019; Crawford et al., 2017; Eidson et al., 2018). Prior to their ISL experiences, students reported some anxiety regarding personal preparedness for the experience, skill level to meet the needs of the community, and being prepared to interact with patients from a different culture and country. It was recommended that ISL be supported by the implementation of multicultural teaching and reflection as well. Inclusion of intercultural sensitivity is recommended to better prepare students to work in an international setting (Chapas-Cortez, 2019; Ferrillo, 2020; Liu & Li, 2017; O'Sullivan et al., 2019; Peterson et al., 2015). Preparing students prior to the experience, educating students on what cultural traditions and values are, healthcare systems and education, and needs of the community are help students be more effective during their trips (Peterson et al., 2015).

Students have reported that these experiences have helped them feel more confident in the ability to have personal success, provided a new view of the world, confirmed decisions to go into the physical therapy profession, and facilitated professional development (Crawford et al., 2017). Studies have shown that ISL also helped to promote professionalism in the development of the APTA core values, such as altruism, compassion/caring, integrity, and professional duty (Borstad et al., 2018; Reynolds, 2009). Interaction with patients, peers, faculty, and community members and the process of reflection can facilitate student growth professionally and personally. Merritt and Murphy (2019) discussed the role of ISL in allowing students to study global health and develop clinical skills and cultural competencies. This process follows the work of Kolb, who suggested incorporating experience and reflection into experiential learning (Ferrillo, 2020). After analyzing reflections following an ISL experience, Borstad, et al. (2018) identified student usage of core value terminology in written reflection without prompts.

Developing an awareness of global issues and cultural competence is essential in health profession education (Boysen et al., 2016; Collins et al., 2019; Hall et al., 2018). This supports the mission and Code of Ethics from CAPTE and the APTA and was pertinent given the diversification of the populations living within the United States. The WCPT encourages academic programs worldwide to prepare students to work with

clients from different countries and experience diversity in healthcare worldwide (WCPT, 2020). Students reported personal growth in the following areas after an ISL experience: acceptance of cultural and communication differences, ability to let go and be accepting of uncertainty, confidence in oneself as a professional, awareness of global healthcare issues, and affirmation of career path (Audette, 2017; Collins et al., 2019; Elverson & Klawiter, 2018). Similar to studies assessing SL, Liu and Lin (2017) found that students reported decreased anxiety post ISL experience with improved awareness of barriers to healthcare services.

Service-Learning and Physical Therapy Education

The direct exposure to diverse patients and a community in need allows students the opportunity to incorporate hands-on skills and academic learning with professionalism, critical thinking, and problem solving in a safe educational environment.

About thirty percent of Doctor of Physical Therapy programs mention ISL in curriculum and program descriptions (APTA, 2019c). Many DPT programs offering ISL as part of their curriculum voice concerns about program viability (Collins et al., 2019; Eidson et al., 2018). These ISL experiences are structured to support program and academic outcomes, including professional development, skill demonstration, communication, inter-professional experiences, and awareness of the global community (CAPTE, 2019).

Academic outcomes matching to SL objectives are unique per programs, meaning the purpose for the experience are distinctive per the developing program. One commonality between programs that offer SL and ISL as part of the curriculum is the use of experiential learning (Eidson et al., 2018). Recognizing the impact of hands-on learning, clinically applying skills, and learning from personal reflection reinforced the value of ISL experiences within DPT programs, but this recognition has little research to support its value (Bandy, 2011; Borstad et al., 2018; Elverson & Klawiter, 2018).

Identifying and connecting with local participants is an important step in SL (Audette, 2017; Eidson et al., 2018; Hayward & Li, 2017). Community partners are those in the population, either individuals, groups, or institutions, with which the group participating in the SL experience will collaborate. The communicated needs and desires of stakeholders help establish the SL activities, outcomes, and purposes (Hayward & Li, 2017; Uy, 2019). Reflecting on the ability of the SL group to meet the local community needs can help determine if the trip was a success from the perspective of the community, and thus encourage the participants to continue with the SL groups.

ISL experiences are opportunities for students to provide services to a community in need within a different country than their own, by working with patients and applying the skills and knowledge learned in school (Stetton et al., 2019). The SL and ISL work allow for gaps in national and global healthcare to be identified and addressed.

Assessment and modification of the SL experience should occur on an ongoing basis, and should consider input from students, the educational institution, faculty, and community partners.

As part of the APTA Vision 20/20, the APTA noted professionalism as a priority (Denton et al., 2017). Vision 20/20 defined professionalism as "physical therapy practitioners who consistently demonstrate behaviors related to the APTA's 7 core values in their practice and interactions with other professionals to help advocate for the health of the community" (Guenther et al., 2014). In 2007, the APTA introduced Professionalism in Physical Therapy: Core Values (APTA, 2019b). A team of selected physical therapists worked together to identify seven core values: accountability, altruism, integrity, compassion/caring, excellence, professional duty, and social responsibility (APTA, 2019a; Denton et al., 2017). Each of the identified core-values was expanded to include sample indicators to help explain what each value represented.

The core values were used to create the APTA's Professional Core Values Self-Assessment tool (Anderson et al., 2016; Guenther et al., 2014; McGinnis et al., 2016). This self-assessment tool was developed to assist physical therapy professionals and students with professional reflection and to gauge their core values in comparison to those established by the APTA to assess and develop professional behaviors (Denton et al., 2017). The committee identified sixty-eight sample indicators, and each is rated on a five-point Likert scale. Resulting scores can help identify core-values to work on or to grow upon. Anderson (2015) found that the Core Values Self-Assessment tool demonstrated internal consistency, reliability, and test-retest reliability when used with Doctor of Physical Therapy students while comparing student scores before their first clinical rotation to scores following their second clinical rotation. Denton (2017) and Anderson (2015) both found the APTA Core Value Self-Assessment tool to be reliable with the DPT student population when considering changes in core values during academic work and clinical rotations. The APTA Core Value Self-Assessment tool has been found valid in assessing change in core values surrounding academic training and clinical education, which makes it an ideal tool to measure changes pre and post ISL (Guenther et al., 2014).

This project utilized a quantitative quasi-experimental design using a between-subjects design that compared APTA Core Value Self-Assessment scores of DPT students enrolled in an entry level DPT program who attended a regional or ISL experience to those in the program who did not participate in a service-learning experience. Participants received an email to obtain consent as well as the electronic assessment tool. The students' clinical education director sent the e-mails twice over a 3-week period. The clinical education director sent out a third round of e-mails for further recruitment of participants to help increase participation and interest. An online assessment tool was made of demographic questions: age, gender, type of service learning participated in, and the APTA Core Values Self-Assessment tool that was used. Each participant completed the self-assessment one time, so that no further identifying information was collected.

A convenience sample was used, recruiting a single cohort of students from a U.S. based entry-level DPT program to participate in the research. Convenience sampling is a type of nonprobability sampling in which the participants are recruited from a convenient population identified by the researcher (Hammond et al., 2015). Inviting a single cohort from a DPT program that offers SL helped minimize differences among the three groups assessed (no SL experience, regional SL experience and ISL). All participants were finished with their didactic coursework and were participating in their third clinical education rotation. Of the 53 students, about 1/3 of the cohort attended regional SL, 1/3 ISL, and 1/3 did not attend a trip due to cancellations related to COVID-19. The participants were recruited from this particular cohort as a convenience sample that the researcher had access to, and who meet the inclusion criteria of the study. The participants were recruited via email sent by their clinical education director inviting them to participate in the study (including a brief study description). After the individual participants agreed to participate, they received a link to the online consent form with a description of the survey. At the end of the consent, participants received a link to the online assessment. By completing the online assessment and submitting it, the participant provided implied consent, as was explained in the consent form. Data was saved in passworded datasheets and SPSS files on a password protected computer.

Data analysis, completed with SPSS version 23, included completion of computing variable values, or sub-section scores, for each of the seven core values (accountability, altruism, compassion/caring, excellence, integrity, professional duty, and social responsibility) and a total core values score (all core value scores combined). These values were used to compute multiple One-Way ANOVAs, which assessed differences between the three groups of service-learning experience (no service-learning, regional service-learning, and international service-learning). Analysis included descriptive statistics, such as group score means.

This research assessed the potential impact that service-learning (SL) experience may have on entry-level DPT student professional behavior development by assessing student scores on the APTA Core Values Self-Assessment. The selected cohort of students had the same academic preparation but varied by service-learning experience. These students were assessed during their seventh term of DPT school, placing them in the latter end of the program when the Core Value Self-Assessment tool was found to be more valid.

The results of this study were congruous with the current literature that shows a difference in student self-assessment of core values, although not statistically significant. Service-learning is experiential learning, which integrates hands-on skills application based on academic knowledge with the provision of service to a community in need. The design of SL should align with the objectives of the learning experiences and program/student learning outcomes. Prior research has found subjective reports of improved professional behavior development through SL participation (Anderson et al., 2014).

The results of this research found that students from the identified cohort of a DPT program who participated in regional service-learning (RSL) reported a higher score on the APTA Core Values Self-Assessment total score than those who did not participate in an SL experience or those who participated in ISL. This indicates the possibility that RSL leads to a greater development of professional behaviors and core values development than no participation or participation in international service-learning (ISL). The RSL participants were found to score higher on accountability, altruism, compassion/caring, integrity, professional duty, and total core value score than those who did not participate in an SL experience or those who participated in ISL. The ISL participants scored higher in social responsibility. Students who did not participate in RSL or ISL scored higher in excellence.

There were several limitations in this study. First, the original plan was to assess pre and post ISL experience Core Values Self-Assessment scores for DPT students from a variety of entry-level DPT programs that offered ISL. Unfortunately, due to COVID-19 occurring in the spring of 2020, international travel was suspended nationally. This limitation meant that none of the DPT students were able to participate in ISL. Second, the single cohort of students that were identified as potential participants was from a program who had already offered one ISL trip in January 2020 and RSL in summer of 2019, which some of the cohort members had attended. A third of the class had not been able to participate in an ISL experience due to COVID-19 leading to the cancellation of their trips. Using a single cohort of students resulted in a small population (*N*=53). Third, due to students being from one cohort and from a single entry-level DPT program in the United States, results of this study have limited application to other students attending different DPT programs and ISL experience.

Conclusions

Although the results of this study were not statistically significant, some interesting trends were noted. This study assessed the potential difference in APTA Core Values Self-Assessment tool total score and sub-section scores of students enrolled in a single cohort of a DPT program. The group population represented students who did not participate in SL, those who participated in regional service-learning, and those who participated in international service-learning.

Of the 53 students in the identified population, 23 participated (43.4% response rate). Eight participants had not participated in a SL experience. Seven participants had participated in RSL. Eight students had participated in ISL. Each of the three sub-groups of students based on SL experience were represented.

When assessing results from the American Physical Therapy Association's Core Values Self- Assessment, each participant's total core value score was calculated. Participants' scores on each of the 7 sub-sections were also calculated. These scores were compared by group as defined by SL experience. The research questions

investigated were based on the total core value and 7 sub-section scores by group. The question was whether there would be a difference in scores on the APTA Core Values Self-Assessment between students who did not participate in a SL trip, those who attended RSL, and those who attended ISL.

The hypothesis that the students who participated in ISL would have the highest Core Value Self-Assessment total score was not supported by the findings of this study. The hypotheses regarding students who participated in ISL scoring the highest on the individual core value assessments were not supported either, except for H_8. The hypothesis regarding the social responsibility core value, H_8, was supported. The ISL group scored highest on this core value of the three groups assessed. This finding is interesting as it was expected that the ISL experience would help DPT students develop professional behaviors. It is unclear if the score difference between the three groups is due to natural personal beliefs of the involved students, or if their SL experiences influenced their responses.

Previous research had found indications that SL participation helped develop professional behaviors, including cultural competence and appreciation for professionalism, core values, and interprofessional collaboration (Hayward et al., 2017). Further research had found that students believed that their SL experiences reinforced their decisions to pursue PT as a future profession (Collins et al., 2019; Danzl et al., 2019). This current study did not find statistically significant differences between the groups based on SL experience in their Core Values Self-Assessment scores. Part of this lack of difference could be due to the students all electing to attend a DPT program that offered SL as an integral part of the curriculum. Program selection before entering into a DPT program could have begun the shaping of the DPT student professional behaviors and beliefs. Further, the participants from the single cohort shared the same professional preparation to the point of assessment throughout their curriculum, including participation in local service-learning and interprofessional experiences. The group of the participants who did not get to attend a SL experience were slated to attend an ISL but were not able to due to COVID-19 travel restrictions. It is possible that the ISL and no SL groups scored similarly due to commonalities in goals and desire to participate in ISL before attending. These participants may have developed similar professional behaviors and core values before the SL that impacted them more than the experience may have.

Although the results of this study were not statistically significantly, it is possible for SL experiences to impact DPT student professional behavior development. One question raised is whether the experience of service-learning in any of the assessed settings (local, regional, or international) makes a similar impact on student professional behaviors? Could the idea of providing service and helping a community in need help develop core values regardless of setting? ISL did appear impact social responsibility, indicating these students had come to appreciate this core value more due to their awareness of global health issues and the impact their experience had on the community partner.

Although previous research found that ISL facilitated the development of some core values, such as altruism, compassion/caring, integrity, and professional duty, the findings of this study did not have the same trend (Borstad et al., 2018; Reynolds, 2009). The higher scores of the RSL participant group may indicate that participation in RSL could be beneficial to DPT student professional development. Lack of statistical significance could have been related to the small population size. The results are not applicable to other DPT students in general due to the sample population being representative of only one program in the United States that offered SL within its curriculum. When assessing academic or professional benefits of SL participation, it is recommended based on the results of this research that the APTA Core Values Self-Assessment be used as a pre and post experience assessment in combination with written reflection.

Reflection is integral to SL because it allows students to process their individual experiences (Anderson et al., 2014). By combining student reflection with the APTA Core Values Self-Assessment and result in a more wholistic assessment of student professional development can be completed. The APTA Core Values Self-Assessment integrates self-reflection for the participant to submit his or her responses. The connection between academic and professional development with SL experience can help reinforce the implementation of SL experiences, both regional and international.

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ABSTRACT

This study addresses two areas of need in the literature. First, we recognize the impact of experiential-learning on student outcomes and fewer opportunities within the social sciences. Second, as academics in criminal justice and education, we are aware of educational needs of incarcerated persons. The current study blended together experiential-learning alongside a reading program within one state's women's correctional facility, targeting (grand)mothers. Two faculty and 40 students, spanning two academic departments, completed a research-based experiential-learning project with one community partner. This undergraduate project sought to benefit students, incarcerated (grand)mothers, and the (grand)children of incarcerated (grand)mothers through a read-aloud program. Through student observations, themed results found incarcerated (grand)mothers had negative school experiences regarding reading. Subsequently, they did not read with their (grand)children prior to incarceration but used reading as a means to escape their incarceration. Students' reflections demonstrated value to self, participants, and the community, through participation in research-based experiential-learning.

A CROSS-DISCIPLINARY UNDERGRADUATE RESEARCH PROJECT: BONDING THROUGH BOOKS WITH INCARCERATED MOTHERS AND GRANDMOTHERS

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"It is clear that undergraduate research, by any definition, is beneficial. For students, the opportunity to define a problem and work toward a solution that might have practical, real-life applications constitutes significant value" (Beckman & Hensel, 2009, p. 43).

Experiential-Learning

Many academics support the idea that learning is best understood as a process (see Kolb, 1984; Penn, 2003). Experiential-learning, a broad set of pedological practices, captures a range of processes whereby students learn from connecting experience to classroom learning, and beyond. As one example, Burch and colleagues (2016) reviewed forty years of research, finding experiential-learning activities continue to increase student learning. More specifically, participating in research-based projects is more effective for teaching students methods, skills, and an appreciation for research than course readings and assignments (DeLyser et al., 2013) and also promotes the necessary development of skills for success in today's workforce (Mellon et al., 2018).

Research-Based Experiential-Learning

"The goal of higher education should be to facilitate learning through experiences" (McClellan &

Hyle, 2012, p. 240). Undergraduate research, much like the many forms of experiential-learning, benefit students through skill development (Craney et al., 2011) and improvements in technical and interpersonal skills (Kardash, 2000; Landrum & Nelsen, 2002), producing greater gains in student learning outcomes (Astin, 1997). Studies have consistently found students have increased content knowledge and both technical and analytical skills as well as self-efficacy (Jordan et al., 2014; Shaffer et al., 2010). Research-based projects also have the potential to benefit students by increasing motivation in the field (Alkaher & Dolan, 2014), learning to tolerate obstacles (Jordan et al., 2014; Shaffer et al., 2010), interacting with peers (Alkaher & Dolan, 2014), and gaining a sense of belonging to a larger community (Jordan et al., 2014; Shaffer et al., 2010).

Yet, most previous studies find fewer opportunities for student research within the social sciences and humanities than the natural sciences (Seymour et al., 2004). Additionally, according to Ishiyama (2002), further value is added in cross-discipline research as it positively influences independent analytical development. Through unique and innovative research-based cross-discipline learning activities, students can grow through unfamiliar context, stepping outside of familiar environments and seeing themselves as researchers (McClellan & Hyle, 2012). This can be accomplished through community-based research, taking on more of a problem-solving focus geared towards students' development and skill acquisition, and less focused on publishable outcomes (Beckman & Hensel, 2009). Course-based undergraduate research experiences (CUREs) have gained attention as an effective way to engage students in research (Corwin et al., 2015). Therefore, the purpose of this study was to explore how literacy could play a role in facilitating a relationship between incarcerated mothers/grandmothers and their children/grandchildren as part of an undergraduate cross-disciplinary research project.

Literacy and Incarcerated Women

Sixty-to-sixty-two-percent of mothers in state prisons had minor children prior to incarceration (Glaze & Maruschak, 2008; Hagan & Foster, 2012; Huebner & Gustafson, 2007). Research has also shown the longer one is incarcerated, the more difficult it becomes for mothers to maintain relationships with their children (Arditti, 2012). These findings, coupled with statistics suggesting that up to 70% of U.S. incarcerated populations are functionally illiterate (Loring, 2012), create a great opportunity for helping mothers/grandmothers, through literacy, maintain prosocial relationships with their children/grandchildren.

The National Assessment of Educational Progress (NAEP) considers fourth-grade literacy a predictor for future achievement. Approximately 68% of children in the U.S. do not meet this standard, with most coming from rural, low-income, or at-risk homes (*Zoukis, 2016). This statistic mirrors in*carcerated women in our midwestern state. With most incarcerated women being parents of minors, and over one-third being the mother of multiple children (Glaze & Maruschak, 2008), this work is timely and important. Incarcerated mothers report concerns about separation from their children

and find retaining bonds is one of the most challenging aspects of serving time (Kazura, 2001). Positive social supports, such as communicating with one's child, has been shown to reduce prison acting out, reintegration, and recidivism (reoffense) (Cochran & Mears, 2013).

Research on prison reading programs targeting parents and children have shown successful outcomes in maintaining parental connections while reducing the negative impact of parental incarceration (Blumberg & Griffin, 2013). The Storybook program, offered by Aid to Inmate Mothers, has sent local volunteers to prisons to aid with recording mothers reading a children's book. However, programs like this cannot address the shame and embarrassment of illiterate mothers—those either avoiding the program or needing assistance with reading. Incarcerated parents with literacy deficiencies have been linked to having children placed at high-risk for becoming less than proficient readers themselves (Glaze & Maruschak, 2008). According to the Annie E. Casey Foundation (2009), children of incarcerated parents are one of the most vulnerable groups of children struggling with functional literacy.

Purpose of the Study

It was the faculty members' hope that involvement in an undergraduate project exposing students to the process of research would allow students to learn about unique barriers mothers/grandmothers experience when "doing time." Additionally, knowing that many youths with incarcerated parents struggle to reach literacy milestones (see Glaze & Maruschak, 2008), faculty members believed that students' involvement in the research project would provide an example of applying techniques to serve these youth and ultimately work to increase their interest in reading and reduce their involvement within the juvenile justice system. Lastly, while students engaged in observation-based research while in attendance of the different research phases, the two faculty members engaged in their own mixed-methods research. Faculty engaged the women in conversation through questions surrounding literacy and parenting practices. These question probes were intended to generate conversation regarding the project and allow students to observe responses. Two example questions included, "*How do you fulfill your role as 'parent/grandparent' while separated from your children/grandchild?*" and, "*In what ways have/do you use reading in your life since you have been incarcerated?*"

Faculty members facilitated connections for students between their real-world experiences and in-class learning of terminology, theory, methodology, and best practices of their profession. It was anticipated that students would gain a deeper understanding of how to relate ethically and sensitively with people of a diverse background, as reported on their final reflection paper. Further, faculty members expected the project would provide for the modeling of research methods to further examine real-world system barriers experienced by incarcerated mothers/grandmothers. Students were able to apply one methodological approach to research collection by engaging in field observation when interacting with the incarcerated (grand)mothers. The project allowed faculty to assess the impact research-

based experiential-learning can have on students' learning experiences while also engaging the incarcerated (grand)mothers in a project intended to increase interest in reading for self and (grand)children. As such, the project included the following working questions:

1. According to student observations, what themes exist regarding reading experiences for incarcerated mothers and grandmothers?
2. According to student perceptions, how are students impacted from participation in a research-based experiential-learning project?

Methods

As part of a larger collaborative project, this research received many approvals to ensure ethical conduct. The researchers first secured Institutional Review Board approval at their current university. Next, the researchers received correctional facility approval from the current Deputy Warden. Additionally, the research was then approved by the Executive Committee who oversees prison research within the state's Department of Corrections. Upon approval of this committee, the final approval was provided by the state's Secretary for the Department of Corrections. An amendment to the original IRB included requests to use an in-class student assignment for research and this amendment (submitted just to the university) was not submitted to the other entities as it only impacted ethical concerns regarding the instructors/researchers using a course assignment as part of the data collection process. This amendment was also approved by the current university's IRB. The incarcerated sample as well as student samples all completed an informed consent process outlining the project.

Faculty

As noted above, the research-based experiential-learning project was embedded in a larger project including two faculty members (n=2)—one within a department of criminal justice and a second in a teacher education department. One faculty member held expertise in working with incarcerated girls and women as well as at-risk youths, while the other was a recognized reading and literacy expert, knowledgeable of the impacts of the school-to-prison pipeline. Both faculty have experience sponsoring and monitoring a variety of experiential-learning projects.

Students

In total, 40 undergraduate students participated in the project. Students were currently enrolled in an upper-division women and crime course housed in a criminal justice department (n=24) as well as an upper-division literacy assessment and interventions course in a teacher education department (n=16). At the beginning of the semester, all participating students completed the Collaborative Institutional Training Initiative (CITI) and teacher education students completed an additional confidentiality training. The students' role then included engaging in field observation including note taking. Teacher education students also provided weekly read aloud examples to the participants as part of their course requirements.

Incarcerated (Grand)Mothers

Several criteria were used to recruit mothers/grandmothers at a rural Midwestern state's only women's correctional facility. With the aid of the facility's Women's Activity Learning Center (WALC) coordinator, women were recruited who met the following criteria: 1) women needed to be at, or below, a basic reading level based on educational assessments completed at the facility during the intake process; 2) women needed legal rights to communicate with their children/grandchildren throughout the duration of the project; and 3) women needed to have at least six months of time left to-be-served (to complete the full project). Participants who resided in maximum-security level units were excluded, per facility request, as these units were devoid of any means to viewing virtual read aloud videos (one aspect of the research project).

In total, 16 mothers and five grandmothers (n=21) were recruited by the WALC coordinator. The age of participating mothers ranged from 23 to 41 (Mage = 32, SD = 5.5) with the range for grandmothers being 42 to 49 (Mage = 45.5, SD = 4.95). Consistent with the racial and ethnic compositions for the state, 18 participants (14 mothers, four grandmothers) identified as white while the remaining four (two mothers, one grandmother) identified as Black. Mothers reported having one to five children (M = 3.7) while grandmothers reported having one to seven grandchildren (M = 4.1). All mothers/grandmothers (100%) had completed a parenting program at the facility prior to the current study involvement.

Data Collection

Faculty and students within the criminal justice and teacher education departments met the participating mothers and grandmothers at the beginning of the academic semester, via Zoom. Students engaged in observation-based qualitative research during this visit as well as an end-of-semester gathering (also completed remotely). Faculty researchers asked the participating women questions about reading and parenting experiences and students were asked to document their observations regarding their responses.

After completing the initial meeting, students enrolled in the literacy practicum course then recorded two ten-minute read aloud sessions per week, to then be supplied to the WALC coordinator. Participating mothers/grandmothers were able to watch the read aloud recordings each week as they followed along in the provided young-adult chapter books as well as selected children's books. These books were mailed and supplied before the initial meeting. In total, the participating women viewed recordings for a total of 12 weeks. After completing the review of the recordings mothers and grandmothers were then aided in recording themselves reading a recordable book with the help of the correctional facility staff.

Throughout the academic semester, all students engaged in two reflection days. During the reflection days, students shared their notes from the observations, including suggested themes. These days were unstructured and guided by organic discussion about their proposed findings. Towards the end of the semester, students were also required to complete a final reflection essay focused on the totality of the semester-long

research-based experiential-learning project. Students were provided with a rubric asking them to reflect on their overall awareness for the purpose of the service-learning project; explicitly connecting the project to societal issues as well as course content; and expressing any changes in self due to their participation. All reflection components were a required part of the project participation, but students could opt out of their responses being used for research purposes. All 40 students provided consent.

Data Analysis

The data collected as evidence in this study were analyzed using a deduction model of reasoning common to qualitative studies. Independently, students color-coded the data to help guide them during the data analysis process. The use of anecdotal notes was especially important as they helped the students identify the key information relevant to the study. Then, separately, the criminal justice and teacher education classes worked collaboratively within class, to identify common themes across observations. With the guidance of the two faculty members, a consensus was made on the final observed themes.

Findings

Student Observations

The incarceration rates for women continue to rise, with most of these women fulfilling the role of primary caretakers and mothers/grandmothers of school-aged children. Professionals in the fields of both criminal justice and education must arm themselves with knowledge regarding the role literacy plays in student success and being able to function as a productive member of society. Historically, literacy has been used for a wide array of purposes such as self-help, entertainment, and education. In this project, the researchers' had hoped to use literacy as a platform to provide an opportunity for mothers and grandmothers to bond with their children/grandchildren while allowing students to observe the process first-hand. Specifically, the purpose of this study was to explore how literacy could play a role in facilitating a relationship between mothers/grandmothers and their (grand)children as part of an undergraduate cross-disciplinary experiential-learning project and how such a project and student involvement could impact student learning.

Theme One: Negative feelings about school experiences

Most of the mothers/grandmothers described early struggles in elementary school, especially when learning to read. For example, one mother/grandmother described her literacy acquisition as, "*behind the other students in my class*." Her classmates teased her for reading slow and often made so much fun of her that she became reluctant to read aloud when called upon in class. Another mother/grandmother discussed how numerous moves during her education resulted in frequent changes in schools. She reported that this interruption of learning undoubtedly played a role in her academic struggles. Each mother/grandmother reported some type of traumatic event in

their lives that clouded their academic success. Persistent difficulties at home such as domestic abuse and financial struggles made academic achievement an afterthought. Gradual disengagement from school occurred because of a disconnection from peers, problems at home, or because many of the women were thought of as troublemakers by teachers and officials at school.

Theme Two: Reading not central to parenting

Low literacy is an intergenerational problem. According to the Foundation for Child Development (2014), the strongest indicator of a child's success in school is the mother's level of education. Many of the mothers/grandmothers reported not reading to their children/grandchildren regularly before incarceration. Admittedly, they did not relegate much of their time to share books with their children/grandchildren due to work demands and other obstacles they faced in their daily lives. Furthermore, many reported having few books in the house and felt uncomfortable with their own reading abilities to read books aloud. All of the mothers/grandmothers were excited to be considered for this study and were optimistic that it would help them develop their confidence and skills to enable them to share books with their children/grandchildren. One mother said, "*I don't get to see my kids much since I'm here. It's too far. What you all are doing is great. I just want to be a better mom to them*."

Theme Three: Reading as a means to escape

The mothers/grandmothers participating in the study claimed to spend a good majority of their free time reading. Although the preference of genres differed on occasion, many of the mothers/grandmothers mentioned James Patterson and Kathy Reichs novels along with self-help books as their go-to for reading pleasure. One mother/grandmother said, "*I'm trying to improve myself you know, so I can try and have a better life in here and when I get out*." Other women reported enjoying familiar titles such as The Diary of Anne Frank and the Bible. One mother/grandmother said, "*Reading books takes me somewhere new, somewhere different than here*."

Students' Personal Reflections

Criminal justice and teacher education students connected in-class lecture to real-world issues while learning about the research process and importance of community-based partnerships. According to Beckman and Hensel (2009), undergraduate research can be viewed on a continuum. According to their continuum, this project moved learning away from an outcome, product-centered form of learning to a student, process-centered focus. A few examples of students' thoughts regarding their involvement with the project taken from written reflections follow:

Awareness of Purpose for Service-Learning.

> *The kids had not received their books just yet, but I can imagine how much it would mean to them. I am sure it is hard having a parent in prison, but having a book like this, with their mother or grandmother's voice,*

would be something they could forever cherish. They would have a physical copy to hold until they see their mother or grandmother again.

The best part of this semester was my service learning activity. We completed this activity while everyone was learning. This literacy program teaches women to better read which they can pass on to their kids. This may mean their kids are less likely to get in trouble in school and maybe they can stay out of the juvenile justice system.

Critical Thinking.

I want to continue helping people because of the positive effect this project had on others. I have a humbling feeling when I realize the different reasons that got a person into prison, which could go as far back as issues with their literacy. Drawing on issues such as literacy, from their past, and thinking about how we could change this, may have resulted in a different outcome. This intervention is worth the time and effort, and I feel inspired and want to help.

Some kids are not given the right interventions to help them do well in school or life. This class taught me how some of these needs are not met and how kids are not given the right interventions and resources. Some things we cannot change, but there should be accountability in our communities to see that all kids, of all backgrounds, are helped.

Impact on Personal Life.

Thank you for creating this opportunity. It truly was life changing. This project changed how I view my own life and how lucky and blessed I am. My heart was pounding out of my chest talking to these women and I cried when visiting with them. Thank you so much for this experience!!

This classroom experience was a once in a lifetime event and I thank you for the best day. I enjoyed listening to these women and seeing their eyes light up when they were told about receiving the books and recordings to give to their children/grandchildren. I will never forget this experience. The opportunity was amazing and helped me look at new ideas.

Application to the Course Content.

In class, we learned about the gendered pathways research and how girls enter the juvenile justice system. This project helped me see this pathway for girls transitioning into our adult correctional facility. I heard one woman talk about being a juvenile in the system, and someone who got into trouble. So, I was about to see the gendered pathway.

I learned in my literacy class that incarcerated women have lower literacy scores than those who live in their own homes. This evidence shows why it was so important for the project we completed. We helped their literacy skills so they could then teach their kids, in turn. Maybe this would help keep their kids out of the juvenile justice system.

This project allowed students the opportunity to explicitly connect how societal issues—literacy deficits, compounded with gendered issues—lead many young women into the juvenile and criminal justice systems. Subsequently, their children are then at greater risk for this intergenerational cycle.

Challenges and Lessons Learned

The current project, an unlikely cross-disciplinary collaborative research project, has partnered criminal justice and teacher education students with incarcerated mothers/grandmothers and a community partner. Bonding through books with incarcerated mothers and grandmothers was a unique research-based project promoting attention to a community need—targeting a rising population of incarcerated mothers—a group typically at or below basic reading levels. While this project has many strengths for all involved, lessons learned must also be disclosed.

First, accessing a correctional population is a time-consuming, tedious task, requiring much preparation. The current project took nearly one full year to gain access even with one faculty member having an already established relationship with the state's department of corrections and women's correctional facility. With additional amendments made, the faculty researchers then had to secure additional IRB approvals and ensure students completed CITI training. Faculty considering a similar project should be prepared to set up the community partnership at least one year in advance. This helps to secure the facility's approval process, state requirements, and university IRB protocol. Faculty should also consider the chronological order of these approvals—as the process ebbs and flows.

Second, faculty should be knowledgeable of facility operations and general correctional facility populations. Criminal justice students may be more attuned to these processes and demographics but non-majors are likely not formally educated on working with an incarcerated population. Many times, their "knowledge" is that which they have observed in popular television shows relating to the criminal justice field. For the current project, the criminal justice faculty member met with the teacher education students to provide basic information on incarcerated women, their backgrounds, daily living experiences in correctional facilities, and security steps and issues. This pre-research work is a must in preparing students for this type of experience.

Faculty must also be proactive in outlining objectives, goals, outcomes, and working questions. Many times, this is drafted in collaboration with the community partner. Other times, the faculty may realize better means to measuring the effectiveness of projects mid-activity. In the current project, faculty discovered, post-completion, the lack of quantifiable measures for reaching goals outside of reflection days and an assigned reflection paper with an accompanying rubric. To produce

"evidence" of project effectiveness, faculty should think deeply about the most meaningful approach(es) to measuring the impact of their project, on students, and their community partner(s).

Ending Remarks and Beginning Discussions

The current research-based experiential-learning project began as a pilot project and has undergone several modifications since its inception. The researchers would recommend this of other institutions. Piloting such an intensive out-of-class project requires much labor, funding, and commitment outside most regular requirements of universities. Prior to exerting efforts to make this a long-term commitment, it is wise to first focus on a small group of participants. This allows faculty to work out issues and overcome barriers prior to including too many participants and/or students. Additionally, syllabi should include a point value related to the project—when projects are optional, students will be less engaged, at least upfront. When community partners are relying on the student involvement, the relationship is negatively impacted if students do not follow through.

This continued partnership has potential to impact the research community and practitioners, both in the fields of literacy and criminal justice, while providing benefits to the incarcerated individuals, their children, and students. This project has the ability to be expanded to other correctional facilities across the U.S. While we targeted incarcerated mothers and grandmothers, work could be done with incarcerated juvenile mothers as well as fathers and grandfathers. Such an initiative provides students with the opportunity to engage in research-based experiential-learning with diverse populations. The project requires extensive collaboration, but is worth it, in order to gain the rich and unique experiences for all involved. Future students can assist with the exploration of outside funding to sustain this one-of-a-kind, research-based experiential-learning project.

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ABSTRACT

Training the next generation of public health practitioners to promote health equity requires public health graduate programs to cultivate students' skills in community partnership. The Council on Education for Public Health (CEPH) requires Master of Public Health (MPH) students to produce a high-quality written product as part of their culminating Integrative Learning Experience (ILE). Because CEPH recommends that ILE written products be useful to community partners, ILEs can draw lessons from the field of experiential education, especially the social justice aligned principles of critical service-learning (CSL). However, the current literature lacks descriptions of how to operationalize CSL's principles within graduate-level culminating experiences. To help fill this gap, we discuss a CSL ILE for MPH students, called Capstone. We describe CSL's key components as well as explain and assess how each is operationalized within Capstone. We hope Capstone's model will help other educators engage more deeply with CSL practices to advance health equity.

USING A CRITICAL SERVICE-LEARNING APPROACH TO PREPARE PUBLIC HEALTH PRACTITIONERS

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Introduction

To promote health equity, public health practitioners must enter the workforce prepared to collaborate with communities on addressing complex problems (*Core Competencies for Public Health Professionals: Revised and Adopted by the Council on Linkages Between Academia and Public Health Practice*, 2021; DeSalvo et al., 2017; Grimm et al., 2022; Schober et al., 2022). Public health training programs are therefore responsible for cultivating students' skills in community partnership (*Core Competencies for Public Health Professionals: Revised and Adopted by the Council on Linkages Between Academia and Public Health Practice*, 2021;

Papadopoulos et al., 2013). The accrediting body for schools and programs of public health, the Council on Education for Public Health (CEPH), requires Master of Public Health (MPH) students to complete an Integrative Learning Experience (ILE).

> The ILE represents a culminating experience and may take many forms, such as a practice-based project, essay-based comprehensive exam, capstone course, integrative seminar, etc. Regardless of form, the student produces a high-quality written product that is appropriate for the student's educational and professional objectives. Written products might include the following: program evaluation report, training manual, policy statement, take-home comprehensive essay exam, legislative testimony with accompanying supporting research, etc. […] Ideally, the written product is developed and delivered in a manner that is useful to external stakeholders, such as non-profit or governmental organizations (Council on Education for Public Health, 2021).

To maximize ILE products' usefulness to external partners and students' experience working with communities, ILEs can benefit from lessons learned and best practices developed in the field of service-learning.

Jacoby (1996) defines service-learning as "a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development" (p. 5). Literature on service-learning documents positive impacts on students' critical thinking, leadership, communication, problem-solving skills (Celio et al., 2011; Espino & Lee, 2011; Gupta et al., 2021; Huang & Lei, 2023; Jacoby, 1996; Mitchell, 2008; Schober et al., 2022) and academic success (Celio et al., 2011; Coombs et al., 2019; Huang & Lei, 2023). Another benefit of service-learning is its potential for mutually positive relationships between universities and communities (Coombs et al., 2019; Gupta et al., 2021; Jacoby, 1996). At the same time, service-learning has been criticized for maintaining the status quo of systems (Mitchell & Latta, 2020; Stoecker, 2016), reproducing dominant power relations (Donaldson & Daughtery, 2011; Foulis & García, 2022; Mitchell, 2007; Stith et al., 2021), oversimplifying solutions to social issues (Eby, 1998), and being skewed toward student professional development (Clifford, 2017; Mitchell, 2007, 2008) while failing to enhance students' skillsets for advancing social change (Marullo et al., 2009; Mitchell & Latta, 2020; Stith et al., 2021).

In response to these limitations, "critical" service-learning has an explicit focus on social justice (Mitchell, 2008). Mitchell (2008) explains that operationalizing a critical service-learning approach requires 1) working to redistribute power among participants in the service-learning partnership, 2) developing authentic relationships rooted in connection, and 3) operating from a social change perspective. Many service-learning programs have adopted the discourse of social justice; however, few have published about the critical service-learning structures and practices that yield positive impacts for students and community partners. In particular, the literature lacks descriptions of how to operationalize critical service-learning principles within graduate-level culminating experiences. To address this gap, we describe "Capstone," a community-led, yearlong,

group-based critical service-learning ILE course within the Department of Health Behavior (Department) at the Gillings School of Global Public Health (Gillings) at the University of North Carolina at Chapel Hill (UNC). Next, we present our pedagogical framework for each of Mitchell's (2008) three elements of critical service-learning, describing their key components and explaining how we operationalize and assess them in Capstone. Finally, we reflect on the successes and limitations of our approach. We hope the processes, outcomes, and lessons learned distilled in this paper will support other educators within public health and beyond to engage more deeply with transformative potential of critical service-learning practices to advance health equity.

Learning Environment

Setting & Historical Context

Capstone is a graduate-level course that serves as the ILE and UNC's Graduate School master's thesis substitute for students in the Health Behavior (HB) and Health Equity, Social Justice, and Human Rights (EQUITY) MPH concentrations at UNC Gillings. The Department, which has an eighty-one-year history of community-engaged coursework, administers and resources the program. Created in 2009, Capstone was designed in response to faculty concerns about the variable investment in and quality of master's papers (Linnan et al., 2010), coupled with a desire to design a practice-based culminating experience that is a mutually beneficial for students and community partners (Linnan et al., 2019). Although Capstone's program objectives and staffing model have remained consistent over the past fourteen years, project recruitment, selection, and matching processes; course assignments; and use of class time have evolved in response to ongoing quality improvement processes, changes to accreditation criteria, the EQUITY concentration joining Capstone in 2020, and the COVID-19 pandemic.

Program Overview

Capstone's aims are to 1) increase capacity among students and partner organizations to address public health issues and promote equity; 2) create new and or/improved public health resources, programs, services, and policies that advance health equity; 3) enhance student preparedness and marketability for public health careers; and 4) strengthen campus/community partnerships. During this year-long course, which occurs during the second year of a residential two-year MPH program, students synthesize and apply their MPH training to community-designed public health projects. This community-led approach prioritizes community partners' specific interests and gives students an opportunity to work on a range of approaches to social change (e.g., community organizing, policy advocacy, education) with a variety of organization types (e.g., nonprofit, government, health care, social services, academic) on a wide array of public health issues (e.g., harm reduction, food access, tobacco control, affordable housing, aging, substance use, etc.). Over an entire academic year (August-April), each team of four to five MPH students works with a partner organization and its constituents to produce a set of four to six deliverables (e.g., literature reviews, data collection instruments, program and evaluation plans, needs assessments, policy briefs,

training materials, presentations, manuscripts, etc.) that are responsive to the community partner organization's self-identified needs. The project examples included in Table 1 demonstrate the range of partner organizations, approaches to social change, and deliverables present in Capstone.

Table 1: Sample Capstone Projects

Partner Organization	**Project Title**	**Deliverables**
ACHIEVE Project	Utilizing community-engaged participatory methods to inform implementation strategies and advance respectful care for birthing people experiencing gestational hypertension in Chatham and Caswell Counties	1. Community Needs Assessment Report 2. Charette Report 3. Speak Out Planning Guide
Chatham Habitat for Humanity	Assisting Chatham Habitat for Humanity (CHFH) in creating and implementing surveys and interviews with CHFH homeowners to gather and analyze data on the long-term health, educational, economic, and social outcomes of affordable homeownership	1. Dual Language Script & Interview Guide 2. Dual Language Codebook 3. Data Collection & Analysis Protocol 4. Final Report Presentation
Orange County Health Department	Assisting the Orange County Health Department in understanding racial equity in the department and community to review and update policies, practices, work culture, and department leadership to better serve residents in Orange County equitably	1. Evidence Table 2. Racial Equity Capacity Assessment Tool 3. Racial Equity Capacity Assessment Report 4. 360 Evaluation Process Report 5. Racial Equity Curriculum and Facilitation Guide
Rural Opportunity Institute	Evaluating an adaptation of the Social Accelerator Model for rural public institutions focused on healing trauma and building resilience	1. Interview Guides 2. Interview Codebook 3. Summary Code Report 4. Manuscript
Southern Coalition for	Analyzing and evaluating strategies to decriminalize adolescence and developing a participatory research	1. Landscape Analysis 2. Interview Guide 3. Interview Transcripts 4. Program Plan

Partner Organization	Project Title	Deliverables
Social Justice	plan to work with youth impacted by the Criminal Legal System	5. Partner Case Studies & Recommendations Report 6. External Report
TABLE-PORCH-IFC	Developing a meaningful collaboration plan for IFC, PORCH, and TABLE to most effectively distribute healthy food to hungry residents of Chapel Hill and Carrboro, North Carolina	1. Organization & Community Profile Report 2. Qualitative & Quantitative Assessment Tools – Interview Guide and Dual Language Survey 3. Qualitative & Quantitative Data Report 4. Recommendations Report
UNC School of Social Work	North Carolina victims of crime needs assessment to improve access to services and programs for individuals who experience crime victimization, with a focus on historically marginalized populations	1. Organizational Survey Tool 2. Methods Protocol 3. Facilitation Guides 4. Codebook & Do-File 5. Summary Report

Personnel & Resources

Each Capstone team is led by one to two preceptors (i.e., main points of contact for the partner organization) who create a vision for and direct the project work. One faculty adviser per project provides technical expertise and quality assurance. The Capstone teaching team, which consists of one instructor for every 10 teams and one teaching fellow for approximately every five teams, provides structures, guidance, and support to promote mutually beneficial experiences for all involved parties. Departmental administrative staff manage Capstone-related program expenses such as mileage and travel, services (e.g., interpretation), and project supplies. Students pay a one-time university-approved $600 field fee to help cover program expenses once enrolled in the course.

Course Format

Capstone is three credits per term and spans the fall and spring semesters. To maximize shared availability to collaborate, most class sessions are protected time for teams to work on their projects. Select class sessions are used for project onboarding, check-in meetings, and reflection sessions to evaluate the impacts and implications of the project work. Students are expected to spend six to nine hours per week on Capstone activities outside of class time while classes are in session. Table 2 shows

the tasks and timelines associated with implementing this programming. Landfried et al. (2023) provides details on Capstone's staffing model; project recruitment, selection, and matching processes; course format; and assignments.

Table 2: Capstone Program Gantt Chart [*authors*]

Responsible Party/Task Key TT = teaching team ST = student teams FA = faculty advisor Capstone team = students, FA, preceptor, Capstone ▒ = Tasks for current year's projects ■ = Tasks for next year's projects	Month											
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
TT administers pre-course survey to students, preceptors, and FA.	▒											
TT hosts orientation for students, preceptors, and FA .	▒											
ST co-create work plans and team charters with preceptors and FA.		▒										
ST apply learning from MPH training to implement work plan.		▒	▒	▒	▒	▒	▒	▒	▒			
ST sends weekly updates to TT, FA, and preceptor.		▒	▒	▒	▒	▒	▒	▒	▒			
ST facilitates check-in meetings with TT.		▒		▒		▒		▒				
ST produces project summary visual and script.					▒							
Students complete [*school*] course evaluations.					▒				▒			
TT facilitates whole-class reflection sessions.			▒		▒		▒		▒			
TT administers mid- and end-of-semester evaluations.			▒		▒		▒		▒			
TT solicits potential Capstone projects for the next academic year.					■	■						
Community partners submit project proposals for the next academic year.							■					
A committee selects which projects will be presented to incoming Capstone students.								■				
TT presents selected projects to incoming students.								■				
Incoming Capstone students and FA rank top five preferences for Capstone projects.								■				
TT matches incoming Capstone students and FA to projects.								■				
TT announces next academic year's selected projects and team composition.									■			
ST submit final deliverables.									▒			
TT hosts a celebration of Capstone projects.									▒			
FA assess application and synthesis of competencies in student exit interviews										▒		

Responsible Party/Task Key TT = teaching team ST = student teams FA = faculty advisor Capstone team = students, FA, preceptor, Capstone ▒ = Tasks for current year's projects ■ = Tasks for next year's projects	Month											
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
TT meets with each incoming Capstone team.										▒		
TT prepares for incoming projects (e.g., submits IRB applications).										■	■	■

Program Evaluation

This study was exempted by UNC Chapel Hill's Institutional Review Board (IRB 21-0510) because it falls under the exemption category of "educational setting," which includes research on pedagogical approaches and their efficacy. As such, consent was not required by UNC's ethics board. The teaching team administers mid- and end-of-semester evaluations to students, preceptors, and faculty advisers to collect their perspectives on Capstone and assess students' work. These internal online evaluations are non-graded assignments for students. Gillings also administers course evaluations at the end of each semester to students that provide additional insight on student outcomes and satisfaction with the course. Capstone evaluations were not specifically designed to assess elements of critical service-learning; however, they contain proxy measures that help us evaluate Capstone's pedagogy.

To ensure findings and reflections represent current programming (e.g., inclusion of EQUITY concentration and COVID-19 adaptations), we analyzed data from academic years 2020 and 2021. During that time, 98 students and 22 preceptors participated in Capstone. The teaching team received a 100% response rate from students and preceptors on the eight internal evaluations (four per year) and an overall response rate of 72% from students on the four Gillings course evaluations (two per year).

Our own positionality—as current and former teaching team members, operating and trained within a predominantly white Tier 1 research university—may have biased our interpretation and presentation of evaluation findings. For example, our proximity to power may unintentionally obscure some of this course's drawbacks. At the same time, Capstone is a practice-based course led by a professor without a doctorate; advocating for Capstone in an environment that prioritizes research over practice necessarily frames our evaluation and discussion of the course. We describe our assessment of the three elements of critical service-learning in Capstone below.

Operationalizing & Assessing Critical Service-Learning

Working to Redistribute Power

Traditional service-learning programs often neglect the power dynamics innate to community-academic partnerships and in doing so can perpetuate systems of inequity (Mitchell, 2007, 2008). Mitchell (2008) explains that "A critical service-learning pedagogy not only acknowledges the imbalance of power in the service relationship, but seeks to challenge the imbalance and redistribute power through the ways that service-learning experiences are both planned and implemented" (p. 57). Redistributing power requires service-learning efforts to act on community-identified needs (Mackenzie et al., 2019; Rodríguez et al., 2021); incorporate all participants' perspectives (Mitchell, 2007, 2008; Rodríguez et al., 2021); recognize community expertise (Black et al., 2013); acknowledge the unique strengths all involved parties bring to the partnership (Black et al., 2013); share resources (Israel et al., 1998; Mitchell, 2008); and ensure mutual benefits for all involved parties (Israel et al., 1998; Mitchell, 2008).

How Capstone Works to Redistribute Power

The teaching team strives to acknowledge and challenge power differentials throughout Capstone's structures and activities. Specifically, they designed the course

to be community led to help ensure community interests are as central to the experience as student learning and development. Moreover, Capstone project work is sustained through university funds and staffing, which helps to redistribute power by funneling resources back to community organizations. To identify community needs, the teaching team solicits project proposals from community-based organizations by sending out an email to current and former Capstone partner organizations and community partner listservs. The teaching team encourages recipients of the call for Capstone project proposals to share the communication with their networks. Before submitting a proposal, each prospective partner organization has an informational meeting with a course instructor to discuss their project ideas and receive advice about the proposal process. Next, prospective partner organizations submit project proposals that outline a scope of work to address their self-identified needs. This process of soliciting proposals directly from community partners redistributes power by prioritizing community expertise in identifying project goals, activities, and deliverables, ensuring projects act on community-identified needs.

The teaching team typically receives twenty project proposals. To identify which projects to present to students, a committee comprised of the teaching team and current Capstone student representatives uses the criteria in Table 3 to score project proposals. The teaching team presents the 15 highest scoring proposals to students. To maximize buy-in and ensure agency in project selection among incoming Capstone students and faculty advisers, the teaching team matches them to projects based on their ranked preferences. Involving multiple constituents in the project selection process honors the varied perspectives on what types of projects are most likely to yield positive experiences and helps share decision-making power among participants.

Table 3: Capstone Project Selection Criteria

Selection Criteria	Description
Project Clarity	The proposed deliverables have clear purposes and steps, are interrelated, and connect to the overall project goal.
Project Feasibility	The breadth and depth of deliverables and proposed timeline is appropriate for 4-6 students to produce over two academic semesters (August-April while classes are in session). The proposal accounts for the time and effort needed to onboard students.
Learning Opportunities	The project will facilitate acquisition of knowledge and skills that will enhance students' growth as public health practitioners.
Mentorship	The preceptor has the time (2-4 hours per week), expertise, and interest needed to mentor MPH students.
Organizational Capacity	The partner organization has capacity and funding to sustain support for a Capstone project over the upcoming academic year. Leadership at the Capstone partner organization demonstrates full support of the Capstone project. Sustainability and contingency plans are clear and feasible
Approach	The Capstone partner organization demonstrates commitment to equity, inclusion, and social justice in their approach to addressing public health problems. The project work is designed to be equitable and sustainable.
Engagement	The project work is informed by and responsive to project stakeholders including those most directly impacted by the issue. Students will have an opportunity to interact with the intended beneficiaries of the project work.
Public Health Impact	The project has strong potential to make a meaningful difference in the health of the beneficiary communities and population(s).

Once assembled in teams, students, preceptors, and faculty advisers cocreate workplans based on scopes of work outlined in the project proposals. During project implementation, distributing mentorship supports across preceptors, faculty advisers, and the teaching team capitalizes on the expertise of all involved parties to maximize student development while reducing burden on community partners. To further honor the expertise and perspectives of all parties and share power, students, preceptors, and faculty advisers recommend grades for students' project management (i.e., management of Capstone project relationships, processes, and tasks) and project participation (i.e., individual contributions to the project work). The greatest weight is given to the preceptors' grade recommendations. By prioritizing the preceptors' perspectives, Capstone redistributes power through ensuring that Capstone work is directly responsive to community partners' needs.

Assessment of Redistributing Power

Service-learning is often critiqued for benefiting students more than community partners (Chupp & Joseph, 2010; Mitchell, 2008). Capstone aims to alter this dynamic by shifting power typically held by the university into community partners' hands. We assessed "mutual benefit," defined as positive takeaways for both community partners and students, as a proxy for successful redistribution of power. Two authors analyzed 88 student qualitative responses to the Gillings course evaluation question, "What will you take away from this course?" and 22 preceptor qualitative responses to the internal evaluation question, "Please describe how, if at all, your organization benefited from hosting a Capstone team." All data were analyzed using thematic analysis (Braun & Clarke, 2006; Kiger & Varpio, 2020). The authors familiarized themselves with the data, inductively created a codebook, then applied codes to the data. To apply codes consistently, two authors simultaneously coded approximately 25% of transcripts to establish shared coding practices. The remaining transcripts were then coded separately and compared. Coding discrepancies were discussed and resolved.

Through our thematic analysis of students' responses, skill development emerged as a theme for student benefit to participating in Capstone. Skills related to collaboration (e.g., communication, teamwork, conflict management, facilitation, community engagement, coalition building) were mentioned most often. However, students named a mix of interpersonal and technical skills in their responses. For example, one student explained that they will take away "Skills such as collaboration both with an internal team as well as with partner organizations, flexibility and setting realistic and feasible deadlines and timelines, and hard skills such as strengthening quantitative and qualitative skills." Application of collaboration skills during the project work may allow for increased redistribution of power within the Capstone partnership. Collectively, the interpersonal, project management, and technical skills students gain through Capstone help increase their capacity to work with communities to promote health equity.

Community partners also identified increased capacity as a benefit of Capstone. In the past two years, Capstone students have provided over 35,280 hours of in-kind service and produced 80 deliverables with Capstone partner organizations. In some cases, students' efforts enhanced partner organizations' internal operations as described by a preceptor:

> I believe every deliverable the team created moves [our department] further into our racial equity work. Every deliverable was an action step in our Strategic Plan; therefore, we can now say some things in our plan are completed. The Capstone team kept racial equity work in our [department] going, especially over the last year when most of our racial equity team could not dedicate time because of their additional duties related to COVID. While other organizations put their equity work to the side, [our organization] was able to keep going because of the students.

The community-led and power-sharing nature of Capstone yielded positive impacts for this community partner's strategic plan, increasing their capacity, and advancing their commitment to racial equity. In other cases, students' contributions helped partner organizations expand their reach. One preceptor shared:

> Our org NEVER would have had the capacity or budget to write a manuscript, and now we have an asset of a manuscript that can be used for other rural communities to replicate our systems mapping process. It's a pretty incredible feat by the student team and will benefit our org/ community for many years to come. It brings real legitimacy to our community work and the assets that exist in our community.

Increased capacity for this organization yielded a product that adds credibility to their approach and allows other communities to adopt their process. Shifting power and resources from the university to the community benefits Capstone students and community partners for years after project work ends.

Developing Authentic Relationships

Authentic relationships are rooted in connection, collaboration, reciprocity, mutuality, respect, and trust (Cashman & Seifer, 2008; Mitchell, 2008; Stith et al., 2021). A commitment to developing authentic relationships is a defining characteristic of critical service-learning (Mitchell, 2008). Stith (2021) explains, "To better understand and intervene on systems, it is prudent to get to know individuals organically" (p. 12). Developing authentic relationships requires a significant time commitment and ample preparation of all parties involved in the partnership (Mitchell, 2008). To support the creation and maintenance of authentic relationships to promote social change, existing literature underscores the need to understand the history of community-academic relationships (Stith et al., 2021); collaborate to identify shared norms, expectations, and goals of the partnership (Clifford, 2017; Israel et al., 1998; Mitchell, 2008; Stith et al., 2021); create opportunities to exchange feedback and assess the partnership (Mitchell, 2008); and focus on "process rather than product, and solidarity instead of reciprocity" (Clifford, 2017, p. 17).

How Capstone Develops Authentic Relationships

To cultivate authentic relationships, the teaching team begins preparing community partners for the Capstone experience nine months before the class starts (see Table 2). Once the teaching team assembles project teams, the course instructor meets with each student team, their preceptor, and their faculty adviser. These initial team meetings are designed to support community building, review expectations for the Capstone experience, and plan for project onboarding.

When the project work officially begins in the fall, the teaching team hosts an orientation session for all preceptors, students, and faculty advisers to provide

participants with the historical context of Capstone, review program structures (e.g., class format, assignments), and reinforce roles and responsibilities. Each team cocreates a team charter to document strategies the group will employ to promote authentic partnership. This document outlines team values, processes such as task management, communication, decision making, conflict management, support and celebration, and an accountability plan for upholding expectations. Team charters are working documents that are formally revisited at the mid- and endpoints of each semester. Twice a semester, whole-class reflection sessions provide an opportunity for teams to learn from one another's experiences and update their processes accordingly.

To strengthen relationships, share information, and exchange feedback, the teaching team conducts check-in meetings throughout the Capstone experience. The teaching team meets with each student team three times per semester and with preceptors and faculty advisers in a group setting twice a semester. Furthermore, the teaching team augments the feedback exchanged during check-in meetings by administering mid-and end-of-semester evaluations. These evaluations ask students, preceptors, and faculty advisers to reflect on accomplishments and challenges to date; assess students' project management and project participation; and evaluate all parties' adherence to roles and responsibilities. The teaching team shares the results of the mid- and end-of-semester evaluations with all members of each Capstone team to promote accountability, transparency, and mutual benefit between all parties.

Finally, to encourage interactions among students, preceptors, and faculty advisers outside the project work, the teaching team gives each team a community-building budget. Teams typically use these funds to share meals or participate in extracurricular activities together. The teaching team finds that these extracurricular interactions help deepen relationships and investment in the project work.

Assessment of Developing Authentic Relationships

To assess Capstone's efforts to develop authentic relationships, we examined preceptors' "satisfaction with their teams' adherence to agreed upon roles and responsibilities, group norms, and team processes as specified in the Team Charter" on a scale of extremely satisfied to extremely dissatisfied. The teaching team surveyed preceptors on this topic once in the academic year 2020. Wanting to measure change, the following year the teaching team collected this data at two timepoints. In Fall 2020, 86% of preceptors were extremely satisfied with their teams' adherence to the contents of the team charter. In Fall 2021, 89% of preceptors were extremely satisfied with their teams' adherence to the contents of their team charters. By the following spring, 100% of preceptors were extremely satisfied. This high level of satisfaction among preceptors underscores the effectiveness of the team charter to promote equitable engagement and authentic collaboration between students and community partners.

Additionally, two authors thematically analyzed 98 student and 22 preceptor responses to the spring end-of-semester evaluation question, "What were your team's greatest achievements this year? What factors contributed to those successes?" to identify recurring themes. One author reviewed and summarized each response to

develop possible codes and avoid implicit bias in the coding process. After the summarization of all responses, possible codes were developed based on the initial review. Each response summary was then reviewed and coded appropriately.

Effective collaboration emerged as a theme within both data sets. In some cases, respondents described the impact of this accomplishment. As one preceptor explained:

> All of our deliverables were great achievements this year but the most valuable achievement was working together with [our coalition] to develop a sense of community that will serve us as we work towards our collective goals of alleviating hunger in our community in the most efficient way, working together.

This example demonstrates how effective collaboration, rooted in authentic relationships, led to community building that created efficiencies for the partner organization to advance its mission.

The below quote from a student respondent sheds light on the specific process used to promote effective collaboration:

> Overall, I think creating a collaborative, equitable, and welcoming teamwork culture was the greatest achievement of the semester. Creating time for check-ins/check-outs, prioritizing time outside of our meetings to share food and get to know each other as people allowed us to show up as our full selves, ask for what we need, and ultimately work more productively together!

By attending to the relational aspects of the project, the student highlights how both equity and productivity can be encouraged. Through attention to the processes that create the potential for authentic relationships, students create the possibility of more meaningful interpersonal and professional impacts.

> Students also noted how effective collaboration yielded impactful deliverables:
>
> Our greatest achievements this year were creating products that truly will help [our partner organization] grow and improve (and their effects are already being felt!) There were several factors that contributed to that success: a supportive preceptor and faculty mentor, a wonderful team dynamic, and the trust between all the members of the team.

Community partners and students alike highlight the interconnectedness of authentic relationships to Capstone's benefits and impacts. Capstone's unique emphasis on

process and relationship-building strengthens students' and partners' ability to effect change through their work.

Working from a Social Change Orientation

Whereas traditional service-learning tends to emphasize student development through volunteerism, critical service-learning pedagogy requires educators to shift students' focus from addressing immediate needs toward dismantling structures of inequity to promote social change (Boyle-Baise & Langford, 2004; Mitchell, 2008). Available literature recommends preparing students for social change approaches by guiding them on how to engage in dialogue and discussion to build critical consciousness (Espino & Lee, 2011; Stith et al., 2021); identify strategies to recognize, understand, and dismantle oppressive systems and power differentials (Clifford, 2017; Mackenzie et al., 2019; Mitchell, 2008; Stith et al., 2021); and recognize how these systems operate and how individuals and institutions contribute to social injustices (Clifford, 2017; Mitchell, 2007, 2008). Universities can best support social change efforts within service-learning courses by facilitating cross-sectoral collaboration (De Montigny et al., 2019; DeSalvo et al., 2017); prioritizing community-identified needs over student outcomes (Hidayat & Stoecker, 2021; Mitchell, 2008); actively involving community partners in creating and defining the experience (Mitchell, 2008); and operating from an assets-based approach (Israel et al., 1998; Mitchell, 2008). Although there are numerous documented strategies for working toward social change, the semester model is a noted barrier to enacting critical service-learning (Clifford, 2017; Mitchell, 2007, 2008; Shostak et al., 2019). Mitchell (2008) explains, "Social change oriented service takes time. Social justice will never be achieved in a single semester nor systems dismantled in the two-to four-hour weekly commitment representative of many traditional models of service-learning" (p. 54).

How Capstone Works from a Social Change Orientation

Prior to Capstone, students complete two semesters of coursework and a practicum, which is a planned, mentored and evaluated applied practice experience that gives students an opportunity to use their MPH training in a professional public health setting. This foundational training equips them with critical public health knowledge and skills that they can apply to their Capstone projects. Moreover, their foundational MPH training helps them understand root causes of social problems and how to reckon with systems that create and surround them. Capstone check-in meetings and reflection sessions help reinforce and expand on students' knowledge and skills surrounding social change.

The primary ways in which Capstone works from a social change orientation are through the course's design and project selection process. Designing Capstone to be a year-long experience helps maximize the potential for social change and student development. To further extend our Capstone partnerships, we encourage community partners to host practicum students before and after the Capstone project work. Also, when appropriate and feasible, we urge partner organizations to propose sequential Capstone projects to deepen relationships and extend impact.

In addition to designing the timeline of our program to maximize potential for social change, we also seek out and select partnerships with organizations that have an explicit commitment to social justice and health equity. Organizations that focus on equity and social change are a valuable training ground for our students to develop a social change orientation while our students' efforts support the organizations' enactment of social justice. We partner with organizations within and outside the traditional public health sector who take a variety of approaches to social change (e.g., community-based participatory research, direct service, education, policy advocacy, etc.). As part of our project selection criteria, we evaluate project proposals for evidence of a commitment to social change. Specifically, we look for organizations that have a social justice-oriented mission, are working on systems/policy change, and/or apply a health equity lens to their work.

Assessment of Working from a Social Change Orientation

Social change orientation is difficult to assess given both a lack of published examples and a wealth of potential indicators. Given these limitations, two authors examined each of the academic year 2020 and 2021 Capstone project proposals for a specific commitment to social justice or health equity. The authors reviewed each proposal together, identified project work that explicitly addressed structural oppression, and came to consensus. Fifty-two percent of the 21 project proposals had an explicit focus on social justice or equity-related work.

Although our course evaluation tools do not include social change measures, some qualitative feedback organically noted a shift in social change perspective. For example, a preceptor shared:

> The work the team did for [our organization] is work that we've talked about doing for several years - but we never had the time. The protocols are important for injured children, so we're grateful for the team's work. We also have never addressed social equity as a group. Working with this team has prompted us to take a look at our practices. The evaluation plan the students developed will provide a mechanism for us to assess and trend our implementation of the protocols and our efforts to reduce inequities in trauma care.

The above example underscores how students' familiarity with equity allowed the organization to reexamine practices and reduce inequities. On an individual level, a student reported acquiring specific tools and knowledge to advance social change:

> I learned a lot about abolition through working with our community partner organization. Additionally, I was able to develop interviewing skills and learn more about CBPR [Community-Based Participatory Research] and YPAR [Youth Participatory Action Research] while completing the deliverables.

Capstone is an opportunity to develop knowledge, skills, relationships, and orientations toward social change that can have ripple effects for our partner organizations' work and students' career trajectories.

Discussion

Public health training programs are responsible for equipping students with the knowledge, skills, and tools they will need to navigate the complex public health challenges they will confront during their careers (Grimm et al., 2022; Schober et al., 2022). To effectively address challenges and promote health equity, students must gain experience in collaborating with communities (*Core Competencies for Public Health Professionals: Revised and Adopted by the Council on Linkages Between Academia and Public Health Practice*, 2021; Papadopoulos et al., 2013). Service-learning courses can facilitate such experience; however, the field of service-learning has been criticized for its discursive commitments to justice that are unmatched by the practices and material commitments that support the enactment of justice (Mitchell, 2007, 2008). In this paper, we use the critical service-learning framework to describe the practices we believe both prepare our students to address complex public health challenges and contribute to social change.

While the literature within critical service-learning suggests that power redistribution involves a range of approaches, e.g., acting on community-identified needs (Mackenzie et al., 2019; Rodríguez et al., 2021), incorporating all participants' perspectives and expertise (Black et al., 2013; Mitchell, 2007, 2008; Rodríguez et al., 2021), ensuring mutual benefit (Israel et al., 1998; Mitchell, 2008), etc., literature is less clear on depth of collaboration and power sharing necessary to achieve a more equitable power arrangement. Literature from approaches such as Community Based-Participatory Research highlights that inclusion and participation do not always equal power sharing (Israel et al., 2017; Sánchez et al., 2021). While our proxy measure of mutual benefits suggest that a more equitable power sharing arrangement may be occurring in Capstone, future evaluations of our program could more specifically seek to understand students' and preceptors' perceptions of power redistribution. Despite these limitations in measuring power redistribution, we believe that Capstone's practices of following community-identified visions for projects, grading according to preceptors' perspectives, and building in structures for ongoing accountability and transparent communication offer instructive lessons for others to apply when designing culminating experiences that yield benefits for students and community partners.

While Capstone does not yet fully address every aspect of building authentic relationships that the literature suggests, the teaching team works to continually integrate practices that deepen relationships. During orientation programming, the teaching team touches on the history of community-engaged scholarship within the department; however, they do not cover UNC's complex history of relationships with communities. Especially given the range of partner organizations present in Capstone, it is difficult to generalize the dynamics at play across the community-academic partnerships. The evidence presented suggests that students and preceptors are generally happy with the quality of the relationships within Capstone. However, students struggle with the amount of time the relationship-building assignments, such as the team charter, take. Additionally, every year some relationships fall short of hoped-for

quality, underscoring the gap between the teaching team's intent for these relationships and the reality of these partnerships under the constraints of the experience. Relationship challenges between students, preceptors, faculty advisers, and the teaching team continue to push the teaching team to refine how they promote authentic relationships within Capstone. Future programming could better emphasize why the teaching team deeply values authentic relationships and the importance of structures to promote them. The teaching team is also working to clearly communicate the department's culture of engaged work during every moment of the students' experience, from application to graduation. Through building a culture within our department where engaged practice is celebrated in similar ways to research accomplishments, the teaching team hopes to support students in bringing the intention, energy, and integrity needed for authentic relationships within Capstone. Further refining the quality improvement assessments to identify what factors are associated with developing healthy authentic relationships is another opportunity for improved assessment within our Capstone experience.

Finally, the literature suggests that working from a social change perspective entails changing systems, rather than simply working inside the status quo. Because Capstone is a culminating experience with most class time dedicated to project work with partners, whether student teams build skills for social change and accomplish social change through their Capstone work varies significantly between teams. While equity is a criterion in project selection, some proportion of partner organizations are not explicitly focused on social change in their mission or the support they request is not focused on social change. Additionally, current evaluation practices do not adequately assess whether students are more effective agents of social change after the Capstone experience or whether organizations more effectively implement their social change work through the Capstone partnership, though encouragingly many organizations do report increased capacity for their missions through the Capstone experience. The varied nature of the Capstone projects, coupled with the lack of impact evaluation, limits our ability to understand how much social change is accomplished for students or community partners. Measuring social change orientation for both preceptors and students is a challenge within existing evaluation frameworks. Future research could contribute to better defining and creating measures for this important construct.

The results from existing measures of both satisfaction and impact, combined with their alignment with the principles of critical service-learning suggest that Capstone has many promising practices for others in the fields of public health and service-learning. The primary weaknesses in our assessment of these practices are twofold. First, our evaluation efforts have been primarily focused on course improvement, and thus have resulted in us using proxy measures for several critical service-learning constructs of interest. Second, within the literature on critical service-learning, there is no consensus on how to assess each of the named constructs.

Conclusion

Despite limitations of our existing quality improvement evaluations to assess our operationalization of the elements of critical service-learning, we believe the Capstone model holds important insights both for the field of public health and service-learning.

Capstone is an experience that has challenges and complexity commensurate to those students will face during their public health careers. For critical service-learning, Capstone serves as a model for moving beyond naming a desire for social change into enacting the processes that might bring it about. By sharing the practices, outcomes, limitations, and lessons learned through our fourteen years of implementing Capstone, we hope other educators will consider the limitations and possibilities of critical service-learning practices to promote health equity.

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ABSTRACT

This paper explores service-learning as a mode of cultivating student stakeholders in university education. Previous studies have examined increasing student engagement through experiential learning, writing across the curriculum, and recognizing the interdisciplinarity of general education classrooms, but few have brought these elements into conversation as contexts that might foster students' sense of ownership of their education. While students are recipients of carefully planned faculty-designed curricula, this study suggests that cross-curricular programs, such as writing in the disciplines, could benefit from student input given their direct experience of writing assignments and expectations in multiple classroom environments. This study investigates, in hybrid mode (intersectional pedagogy and auto-ethnographic case study), a plan aimed at developing cross-campus knowledge about writing instruction through an inter-campus service-learning project. The featured project underscores the importance of experiential learning that enhances student estimation of writing as a mode of learning, involves students in the evaluation of campus writing curricula, and develops a sense of writing as highly valuable to university education and integral to all fields in subsequent professional lives.

TOWARD A MODEL FOR SERVICE-LEARNING IN ADVANCED WRITING CLASSROOMS: CULTIVATING INTERDISCIPLINARY STUDENT STAKEHOLDERS

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Introduction

It is a truism to note that students are the reason that institutions of higher education exist. Although universities are unlikely to forget their missions of educating students, few have clear mechanisms for inviting students to participate in the creation of the signature product of the university: scholastic value. Kroot and Panich (2020) suggest that the university's aim of "educating people" entitles "students to be included, in some form, in the planning and execution of how knowledge about their home institutions will be produced and communicated" (p. 135). Additionally, Rutti et al. (2016), while focusing more on value for students post-graduation, make the case for service-learning during university as one significant means for empowering students in ways beyond traditional classroom routines (see also Rosenberg 2000) and suggest service-learning will "enhance the student's sense of civic responsibility and/or civic leadership" (Rutti, 2016, p. 425) in their career.

This essay looks at service-learning as one means for developing greater student engagement in university education. The scope of our work looked at the results of a service-learning project for an on-campus client, conducted by undergraduate students in five sections of advanced technical writing over three semesters. The service-learning client, a professional

communication center at a large R-1 university, sought information from students about the quality of their writing education across the campus. The client, hereinafter the PCC, wanted to understand, in advance of launching a concerted Writing Across the Curriculum program, where on campus writing instruction was already happening, and thus, what departments were likely partners for future WAC and Writing in the Discipline collaborations. One traditional method of identifying departmental partners—i.e., faculty surveys—proved to be a challenge for two main reasons: 1) bad timing given a high-level of turnover among Deans and upper administration officials; and 2) complex campus structures, given more than 55 departments, each disparate in size, student reach, and organization. To obtain timely and consistent information, we decided on a backdoor approach—surveying students—which we soon realized had an extremely fortuitous side benefit: cultivating stakeholder awareness for students.

The specific service-learning project, The Writing Across Campus Survey (Writing Survey, in brief), takes full advantage of writing: as the subject of student survey and analysis, as the medium that facilitates the interdisciplinary methodology of the project, and as the vehicle of knowledge transfer that offers a pivot point from university education to workplace communication and back again. To use an agricultural conceit suitable to our land grant university, our project encouraged cross-fertilization of ideas among teams of students working across disciplines, dug deeply into practices grounding the pedagogical practices for writing activities in various campus sites, cultivated student belonging to the university while on campus, and planted seeds that might flower into rich attachments to the collegiate sphere after graduation.

We open with a brief description of the project—which will be elaborated in an autoethnographic mode later in the paper—then we shift to discussing the contexts informing this service-learning project, which we understand as educationally "intersectional." Four pedagogical practices deeply influence this venture, experiential learning structure, writing across the curriculum (WAC) aims; interdisciplinary practices, and stakeholder theory. In other words, the Writing Survey provides an inter-campus opportunity for students to use writing to learn, to immerse themselves in diverse modes of thinking and conducting work, and to develop attachments to the university through active participation in educational content.

The Project

The authors of this essay, constituting a faculty-administrator partnership, designed, planned, and executed The Writing Survey. This partnership prepared and activated undergraduate students within several technical writing classes housed in the English Department in order to take on an internal college-level "client," the Professional Communication Center. The PCC wanted to learn where its potential partners for WAC programming existed on campus. The underlying questions motivating the client were these: where on campus, given the university's heavy emphasis on science, engineering, and business, is writing instruction already being used as a tool and strategy for learning? What, in the student view, is the quality and benefit of this writing

instruction, particularly as it is being deployed in non-English classrooms? Where are the partners for building disciplinary knowledge through writing?

The project involved student-designed surveys calculated to meet the client's interest in understanding the quantity and quality of student writing, not only in a broad range of classrooms, but also in non-academic (i.e., personal) situations. The rationale for this project was that students could give the client, but also the writing instructor, valuable feedback on their experiences of writing in a variety of classes, disclosing "pockets" of interest in writing in non-English classrooms, while also giving students practical experience and training in the kinds of writing likely required in the students' future career fields (i.e., surveys, progress reports, presentations). Additionally, the project had the potential to bring students into the process of developing the writing curriculum of which they were subject; that is, the PCC planned on future faculty development programs in WAC and WID, making these students stakeholders and co-producers, and not just consumers, of their university education (Langrafe et al., 2020).

In schematic terms, The Writing Survey gave student groups responsibility for writing two short progress reports during the data collection phase; required them to collate, analyze, and present their collected data, and, finally, produce a written formal research report to the client and to the instructor.

The client-faculty partners hypothesized that the data would show what writing looked like in several disciplines and classrooms, which in turn, could be used to improve writing pedagogy and writing experience at the university. The hypothesis informed the aims of the project; students were 1) to produce for the client a portrait of the writing activity that happens across campus, not only in English classrooms, but also disciplinary classrooms across a broad array of science and engineering courses, the university's largest departments; 2) to develop a survey instrument that would be used to canvas selected students interviewed in ways that produced both qualitative and quantitative date, and 3) to analyze the results of their survey, drawing conclusions about the quantity and quality of writing instruction in its various manifestations.

The project began with several premises: 1) the university's advanced technical writing classrooms are interdisciplinary; 2) the "client" in this project is internal to the university, and 3) the writing assignments are non-traditional in that they were student-designed and deployed. In the next section this essay examines various elements that contextualize the student work proceeded, asking: 1) what is beneficial, even necessary, to project aims about interdisciplinary work environment; 2) what unique contributions to the university itself arise from university students working with a university client, and 3) how does this project cultivate student stakeholders invested in university curriculum and in more long-lasting ties to the university after graduation?

The Contexts

The Writing Survey was conducted as an intersectional activity. Its contexts include client-based practices, writing across the curriculum, interdisciplinarity, and stakeholder theory. Each of these contexts is discussed below before we turn to the

case study, the project methodology, and the project outcomes. At end, we make recommendations for future development of service-learning as a component of WAC programs.

Client-based Projects in the Advanced Writing Classroom

Working through the questions raised above, we begin by detailing the benefits and need for interdisciplinary environments. The two-part short answer is that 1) interdisciplinary is the nature of the modern work environment, and 2) more immediately interdisciplinary work can be a revelation to students deeply involved in learning the thoughts and strategies of their majors. That is, the interdisciplinary writing classroom can offer comparative perspective that interrogates the singularity of a disciplinary mode.

The site of the client-based project at our institution is the advanced writing classroom. Though not the only CBP site at our university, it is one of the longest running and has proved fruitful because they are sites of interdisciplinarity (about which we say more below). Advanced writing is often a required, but not necessarily anticipated course in the careers of science and engineering undergraduate students. Our experience suggests client-based projects can change their perspectives. In our university's English department, writing courses that include client-based projects have earned a reputation for being meaningful and purposeful. Students working on projects that have a real-world client for whom work is prepared and to whom a final report is presented learn to write to meet the needs of that client. Questions concerning the rhetorical situation, which may seem esoteric and not applicable to their disciplines, e.g., questions of audience, tone, style, and language use, are made immediately relevant.

Client-based projects, part of a broad category of experiential learning that includes service-learning, study abroad, co-ops, internships, among others, has been a growing movement for two decades (Gaumer, et al. 2012, pg. 70). It has become particularly important as a tool by which the university assures students, parents, and future employers that it is adequately preparing students for real-world careers. Encouraging students to think not only beyond the classroom, but also beyond their disciplinary constraints is an important aspect of experiential learning. Experiential learning has been adopted as a strategy in the academic realms of greatest practical application. For example, Cooke & Williams (2004) suggest that experiential learning addresses the shortcomings of the business course case studies (pg. 140), which are too academic in focus and often pose crisis situations, rare in actual business operations (pg. 139). Experiential learning may be particularly important to professional and technical writing courses. Not only do students who find academic writing of little use – Kiefer and Leff (2008) describe student lackluster attitudes towards "writing tasks […that] have no real audience or purpose beyond fulfilling course assignments" – but also STEM students often think that they will not need to write once they are on the job. Kiefer and Leff (2008) have attempted to surmount this barrier through a client-based Writing for Science course that operates similarly to the one we propose here. For their

course, campus and community clients volunteer to become "site partners" to the class "because they need various documents for the audiences they want to communicate with" (pg. 3); the focus of the writing in the Kiefer-Leff project was translation: students were required to "translate complex disciplinary knowledge for non-expert readers" (pg. 2).

In our venture, we have created a particular kind of client-based project, one in which technical writing students provide a service to a university "client." We describe this particular service-learning project as "client-based" so we might emphasize its inter-collegial, cohesive potential. Working against the silos that often form in response to departmentally organized campuses, that at times pit departments against one another for the same resources, internal client-based projects reach across disciplinary boundaries to create working partnerships, not only among faculty and administrators, but also in this case among students. Also, and unlike traditional service-learning projects that most often involve partnerships with community members, client-based projects can, we suggest, identify broad range of organizations within, as well outside the university, as "clients."[1]

Client-based projects often emphasize that students will be working on "work that *matters*" (Dingus & Milovic, 2018, p. 65); authentic work projects make for committed student engagement, and "students begin to see how work really works" (Cooke & Williams, 2004, pg. 148). However, finding a client is often a major challenge (Dingus & Milovic, p. 66) and often depends on a professor's personal network of non-profit or corporate contacts (Cooke & Williams, 2004, pg. 144).[2] The professor often has the extra pressure of choosing the "right" client, given that a "bad" client may be over- or under-involved, or may present a project that is too simplistic and not challenging (Gaumer, et al., 2012, pg. 71). Client-based projects may also require extra work from faculty. For example, those with a strong iterative focus mean that students need more frequent feedback in terms of revision and resubmission (Gaumer, et al., 2012, pg. 71). For a client-based project at University of North Texas, the professor acted as project manager for several groups of four to five students, facilitating communication between clients and students (Cooke & Williams, 2004, pg. 142). Client-based projects aimed at building "academic consultancy services" (Cooke & Williams, 2004, pg. 143) may require the involvement of outside experts. For example, an early client-based project for Venture Guide at Clemson University enlisted outside support from computer

[1] While the distinctions are not hard and fast – that is some client-based projects work with community partners and some service-learning projects are cross-departmental – for the purposes of this paper, we find the term "client-based" useful as defined by Waldner and Hunter (2008), who explain that the "'client' terminology signals to the student the importance of their work—the client is counting on them, and nothing less than their best output will be acceptable" (pg. 220).

[2] Julie Watt (2010) suggests one solution: "student-professionals" involved in Independent Research (IR) projects at the university while working at industry jobs, "are uniquely poised to collaborate with faculty and industry colleagues" (pg. 319).

programmers, lab associates, and the project director (Cooke & Williams, 2004, pg. 142).

The challenges of client-based projects also provide potential upsides. Schmitt, et al. (2018), suggest using client-based projects to stage "productive failure" and thus have students (and clients) experience the transformation that comes with disorientation, learning from being "at sea" in a project when expectations are not met and disappointments accumulate (pg. 37). In Schmitt's view, productive failure is not a project bust, but rather a situation in which students cannot reach a final solution on their own (pg. 38), resulting in transformative learning that moves from the "disorienting dilemma," to "critical reflection," dialogue, and action (pg. 39). Risking failure is a possibility we were willing to entertain by giving students leeway in designing and executing the project.

In sum, The Writing Survey, took advantage of the existence of an interdisciplinary environment of the English department advanced writing classroom, avoided over-burdening the instructor with concerns about client suitability, and yet provided opportunity for flexibility and experimentation from students in designing elements of the assignment, risking failure and gaining in learning the consequences of decisions.

Writing Across the Curriculum

Writing Across the Curriculum (WAC) has always considered itself to be interdisciplinary. In a seminal article recording the first fifty years of WAC programs, Palmquist, et al. (2020) write: "WAC draws on theory, research, and practice within writing studies even as its interdisciplinary nature positions WAC at the intersection of a wide array of disciplines" (33). However, for all its focus on student writing—and indeed it is *the* focus of WAC, which considers supporting writing as "an integral part of the learning process throughout a student's education, not merely in required writing courses but across the entire curriculum" (Principles, pg. 1)—WAC is largely a faculty-led initiative. While one strategy for assessment of WAC programming has been student surveys and focus groups, the assessment tools, like the programs, are crafted by faculty. Our project is unique in having students themselves craft the questions they will ask about writing. Each student group devised questions unique to their team, but several questions had common concerns that might be identified by their student-orientation, such as "what formats do you often have to write in?" and "how much feedback do you receive from your instructors?"

Bazerman et al., (2005), in their reference guide to writing across the curriculum (WAC), made particular note of the importance of WAC programs attending to "student position, stance, voice, and agency with[in] academic and disciplinary discourses" (98). Specifically, they espoused "the ideals of student empowerment through language" (100). Recently, student position has been seen as a way to counter an "assimilationist" nature of disciplinary discourses (Villanueva 2001, Delpit 1993, McCrary 2001, LeCourt 1996). That is, if disciplinary discourses tend toward the homogeneity of standard discourse, then "WAC instructors [need to…] become aware of the voices students

bring with them from their cultures" (LeCourt, 1996, 101). Although beyond the scope of this paper, these scholars bring to our attention the work that interdisciplinary environments can do towards increasing inclusivity in classroom settings.

Related, and more on point for our study, WAC programming has an important role in creating student stakeholders in the university. Thomas Deans (2000) highlights nine potential points of intersection between WAC and service-learning programs. Bazerman reviews and summarizes these intersections, suggesting they boil down to the centrality of writing in both WAC and service-learning (Bazerman 2005, 115). Although Deans' frame of reference is service, his conclusions apply to our client-based project in that it requires students to think beyond the enclosed classroom and "promote[s] re-visioning within disciplines" as students grapple with non-traditional assignments. In our study non-traditional assignments included composing survey questions, testing them for usability, conducting surveys, analyzing the data, and finally synthesizing the collective information into recommendations for action.

At each step of our project, WAC-informed notions emphasized writing as crucial to individual student understanding and writing as facilitating interdisciplinary interaction among students while recognizing disciplinary differences in writing genres, styles, organization, and structures.

Interdisciplinarity

Interdisciplinarity is a key premise of our project; however, realizations about the practical meaning of interdisciplinarity also constitute a key outcome of the project. That is, given the composition of the English Department based technical writing classroom at our university, students are perforce working in teams comprised of students from various disciplines. Learning what that key buzz word—*interdisciplinary*—means in practice was a major constituent of the learned outcomes associated with the client-based project. The research on interdisciplinarity provides context.

Fang and Chak (2021) define interdisciplinarity, following Laura Bronstein (2003), as individual, interdependent units working toward the same ends: "Interdisciplinary collaboration refers to a team comprising members from different disciplines who bring to the collaboration their expertise that is complementary to each other, share a common purpose in what they intend to achieve, and work towards achieving the same goal" (pg. 20). Fang and Chak cite the benefits of service-learning in promoting key components of interdisciplinarity, including not only interdependence, but also creativity, flexibility, collective ownership of goals, and reflection on the process to assess outcomes of their service-learning project (i.e., social work with immigrant children in China to develop language competencies (pg. 21)). They credited the interdisciplinary nature of the instruction, between social work faculty and English language faculty, with expanding the instructors' perceptions of the field and the students' engagement with the practical tools of language learning.

Zawacki and Williams (2011) pose a learning community (LC) as a particularly effective mode of interdisciplinarity. The LC model focuses on curricular change: they

identify LCs as “curriculum change initiatives that link, cluster, or integrate two or more courses during a given term, often around an interdisciplinary theme, and involve a common cohort of students” (pg. 109). Additionally, despite the range of structure and implementation, the LCs “all have the common goal of fostering greater academic coherence and more explicit intellectual connections among students. between students and their faculty, and among disciplines” (pg. 109). This latter point—working toward internal academic coherence—within the university is a major aim of our client-based project.

Zawacki and Williams (2011) also discuss the model of linked courses with an experiential learning component, which as they emphasize, ensures students are engaging with “the kind of writing practitioners in the field might be doing” (pg. 119). A key element of the learning process arising from experiential learning is “action-reflection-action” (pg. 120): beginning with “field notes,” this model “required students to be careful observers, write factual descriptions of what they observed, reflect on and analyzed these observations, and pose questions arising out of their observations and reflections” (pg. 120).

Similarly, the Writing Survey asked students to take their questions to the field, to survey their classmates regarding their writing experiences, and then, to compare those experiences with their own coursework, including the advanced writing course. The surveys functioned as a kind of reflective two-step field note. That is, the surveys made visible a step-wise process that field notes require: observation: description: reflection, which taken together result in the questions that drive the research outcomes. The end-of-project surveys suggest that students experienced interdisciplinarity even if they were not aware of it. Several students suggested that major diversity within groups (since they were often grouped by major) might help them derive a better understanding of WAC for the project, while others acknowledged they experienced something knew, such as gathering primary research and analyzing data.

Stakeholder theory

Stakeholder theory emerges to analyze the effectiveness of partnerships and relationships in the realm of business. Lau (2014) suggests stakeholder theory functions toward four intentions: descriptive, instrumental, normative, and managerial (pg. 762). These intentions lead to strategic tasks associated with an institutional stakeholder approach: identifying interested partners and defining the relationships, evaluating the success and satisfaction generated by those relationships, articulating the ethical grounds and the best practices associated with maintaining satisfied stakeholders (pg. 763). Stakeholder theory is beneficial to our project in its broad definition of interested parties in higher education.

The study by Langrafe et al. (2020) provides a crucial connection between business and higher education, extrapolating from the foundational document for stakeholder theory, R.E. Freeman’s *Strategic Management: A Stakeholder Approach*

(1984) and adapt the theory to higher education. Originally, Freeman suggested that organizations would run more effectively if a broad network of people invested in the outcome of a particular organization were consulted. Further research, (Freeman et al., 2015) extended this idea to maximizing value by managing the relationships between interested parties. In particular, stakeholder theorists began to consider: "both tangible and intangible factors […] are important to stakeholders. […] Value can refer, for instance, to community service programs, employee participation in the decision-making process, better payment conditions for suppliers, lower prices for customers, etc." (Langrafe 2020, 299). That is, if values, demands, and resources are optimized, then not only management and administrators should decide how an organization best meets its goals, but also employees, customers, shareholders, and suppliers should also be engaged in organizational management.

Expanding stakeholder theory to higher education, Langrafe et al. (2020) consider a broad range of stakeholders that include both internal stakeholders (i.e., administrators, faculty, students, staff), as well as external stakeholders (i.e., community members, future employers in business and government, alumni, and suppliers). Important for our analysis, Langrafe et al. consider students to be members of both the internal and external stakeholders; they are both co-producers of the "product" of the university (i.e., education) *and* consumers of that product. It is important to note that students occupy a liminal role; they are a hinge between production and consumption of university value (i.e., education).

Although the researchers affirm that the very existence of the university depends on students, and thus advocate along with other researchers the need for satisfaction surveys and other measures of student approval of the university business, their particular study indicated a low correlation between strategic planning and value creation, suggesting that "current students are not considered as being well prepared to participate in decision-making processes" (pg. 309). The researchers noted that their institutional findings (from Brazil) may not be broadly applicable, but we think it important to note the disconnect between planning for the work of the university and the creation of value from that work when it comes to students, especially when they occupy a crucial position. That is, they have a viewpoint of great importance to the university, being both involved in the inner workings and primary beneficiaries of the outcomes.

A recent study by Degtjarjova et al. (2018), following Garvin (1984) and Newton (2007), comes to the same conclusion: students are pivotal as educational stakeholders. Degtjarjova et al. see Higher Education Institutions (HEIs) as offering "both a service and a product" (pg. 389) that can be measured along a continuum spanning the dual offerings. That is, they suggest an Input-Process-Output (IPO) model defines a continuum along which the quality of HEIs might be measured. Importantly for our study, in this model, stakeholders have different interests and investments: "Students and faculty members' attention is usually drawn to the quality of the process, whereas employers' attention – to the quality of the result" (390). The authors find, in an extensive review of the literature that "[…] most of the researches (*sic*) show that the

students are the most important stakeholders and failure in fulfilling the students' needs and expectations may dramatically affect the operation of HEIs" (pg. 391). They find students to be particularly important stakeholders because they are pivotal, literally standing at the hinge point between faculty inputs and employer expectations for output. This hinge point, while between two other critical players, is not narrow. Students occupy a broad threshold and "have a multi-faceted understanding of quality in higher education as interested party (*sic*), study members, external and internal assessors, advisors, direct and indirect investors, beneficiaries" (pg. 391).

These contexts—client-based practices, advanced writing, writing across the curriculum, and stakeholder theory—demonstrate the student-centric focus of university business. But even in the most aware circumstances, students are often left to the margins in terms of their participation in university decision-making. For example, In *Sustainable WAC,* Cox et al. (2018) consider stakeholders within each of five theoretical frames that the authors bring to bear on the question of how to establish and sustain a viable writing program. But despite considerable attention to the complex interaction of stakeholders, including students, faculty, administrators, and board members, there is little attention to student involvement in the process of developing a sustainable university writing program on campuses. Additionally, in typical client-based projects, the emphasis is on student opportunity to interact with stakeholders—participating in negotiations over project elements, deliverables, and timelines; preparing proposals and plans to meet client expectations (Cooke & Williams, 2004, pg. 148); but at end, the term "stakeholders" does not include students. We suggest involving students in these processes and decisions is a form of interdisciplinarity because it extends boundaries of authority and knowledge beyond the professoriate and administrators.

Our project addresses this oversight. In an autoethnographic style, Professor X describes the tasks given to her technical writing students; they were to design, implement, and analyze a Writing Survey that would collect students' opinions on the amount and quality of writing instruction and practice they were receiving during their university experience. The technical writing students, thus, created the measurement tool, collected data with the self-designed tool, analyzed that data, and made conclusions about the content and quality of their education, granted in a limited area—writing practice. The technical writing students were treated as both producers of educational material and beneficiaries of its product. The Writing Survey, then, allowed students to inhabit a crucial role as student-stakeholder, producing and consuming the data gathered through work in interdisciplinary teams examining writing practices across the campus.

The Writing Survey: A Case Study

(A first-person autoethnography)

At our R1 institution, technical writing is taught in the English Department and, with few exceptions,[3] the classes are interdisciplinary; the university, at this time, makes no particular effort to schedule technical writing by major. Over the course of three semesters, the technical writing courses had students from major fields, such as engineering, computer science, agribusiness, and packaging science. As noted earlier, the partnership between the authors resulted in a client-based project allowing students an opportunity to work in groups on a project with stakes beyond just their classroom. Client-based projects, though well-established pedagogical tools within advanced writing classroom, were new to me. As instructor of record, I taught the classes and oversaw the design and implementation of the project, saw it as an exciting opportunity both to expand my expertise from literature to writing, and for my students, to learn the practical value of writing in non-academic genres and for using writing as both the medium (of reporting) and subject (of reporting on). In the paragraphs below, I recount the steps taken to execute the project from methodology to outcomes.

Methodology

The course began in Spring 2019, a year before instruction was coopted by the pandemic. Although the methodology developed over three semesters, several main elements remained the same: the class 1) received a detailed assignment sheet with deliverables and deadlines, 2) were organized into groups, 3) heard the project aims and an overview from the client, and 4) then, by group, developed a plan for writing survey questions, conducting the survey, and analyzing data.

My goal with my assignment design was to provide as much structure as possible (since it was an ambitious project) while also allowing the students some flexibility in how they designed their surveys; what questions they asked; how they organized work distribution within the group; and, most importantly, what information they thought was most illuminating and what the significance of that information might be. Each group had to create surveys; conduct usability tests on those surveys; write

[3] An exception has been carved out for Nursing majors, who had a need for online technical writing courses even prior to the pandemic, and thus they are collected into mono-disciplinary groups for this course. Randomly, courses will be majority engineering- or science-major, but not by plan.

two memos over the course of the project to update me on their progress; and write a final report that they would present on to the class. I tied these deliverables to the topics we were learning about in class so that the students would see how even within the straight-forward templates in which we had been writing (memos, reports, instructions, etc.), there was space to alter these templates to meet a given project's needs. Finally, the students had to fill out feedback forms on each of their groupmates to encourage accountability throughout the project, as well as feedback on the project in general and how it could be improved in subsequent semesters.

A client-based project requires an enormous amount of cooperation and organization. I created a Google folder for each group so that they could easily collaborate with one another and share information with me. The deliverables were sequenced to ensure students remained on track with their projects and were steadily making progress in the month they had to work on it in class. I gave each student the goal of distributing the survey to 10-15 people who would likely respond to it. The students could use whatever method they wanted to distribute surveys, but many chose Google Forms or Survey Monkey. One group decided to interview an engineering professor about how he viewed student writing, and they included the interview in their final report. Though this was not a requirement, it proved illuminating to hear a faculty member from a different discipline discuss his views on student writing.

The second semester I taught the client-based project (Fall 2019), the structure and requirements of the project were the same (I added a request for recommendations in the conclusion of the report), but I had a clearer understanding of the project based on my experience designing and teaching it in the previous spring. I also had strong final reports from the previous classes to show my students as examples to help guide them in their project construction. One issue I noticed in the spring semester was my students got bored with working on the project for the entire last month of the semester. For Fall 2019, I restructured the project over the course of the semester so that they would work on it periodically, a move I hoped would keep the project fresh for them but would also allow them more time to distribute the surveys and collect data. This change would be fortuitous for the spring semester when COVID-19 would force us to move online in March. Because my students had established their group dynamics and begun their survey gathering, the conclusion of the project was much smoother than it might have been.

Outcomes

Regarding learning outcomes, our client-based project yielded a variety of results. Speaking from an instructor perspective, my students spent time in composing low stakes writing (e.g., informal memos updating me on their progress; composing their surveys; and communicating with one another on messaging apps and email threads), which as WAC programming has demonstrated, gives them practice on the type of writing they will very likely be doing in their workplaces. While students can be

dismissive of low stakes writing, writing instructors know that it is crucial for developing essential communication skills.

In addition to low-stakes writing skills, our client-based project encouraged the students to reflect on writing in a deeper way. Developing the surveys required them to think metacognitively about writing: what "counts" at writing in the university classroom beyond the academic essay? Many of the survey questions ticked the same boxes: what is your major? What is your class standing? How much time do you spend (in hours) working on a typical writing assignment? What type of writing assignments are you given? However, beyond this basic information gathering, many groups came up with interesting questions to elicit deeper information: do you receive helpful feedback from your instructors? Who sees and evaluates your writing (e.g., professors or graduate students)? Do you write collaboratively? Do you feel prepared to write in your future career field? What does writing look like in non-English classes? When the first semester students were building the surveys, they were frustrated with what they perceived to be a lack of guidance on my part, but since the client genuinely wanted their insight into what they thought about writing, it was necessary to challenge them to come up with their own questions. Later classes benefited from being able to review strong sample reports, but groups still produced a variety of questions such as: what are the benefits of peer review in the workplace? Are you aware of/do you use the campus writing center? Do you get your writing reviewed before you submit it?

While these questions afford a substantial amount of insight into what student writing looks like across the curriculum, they leave many questions unanswered. While it is possible and/or generative to debate the merits of quantitative and qualitative data, the realities of this particular classroom did not afford us the space and time for qualitative data gathering, though that is a promising future path. Several groups reported that half of their respondents do feel prepared to write in their workplace while half do not. What accounts for this discrepancy? What criteria is behind a student's response to that question? Would these judgements align with how an instructor or supervisor thinks about those individuals' writing? In many ways, the survey data elicits as many questions as it supplies answers, but an important part of the project not only yielded, but also developed student interest in writing by cultivating as sense that students were stakeholders in the process.

While the data students gathered illuminated how their peers experienced and thought about writing, we are more interested in student response to the project in our discussion here. By asking students to analyze the data they collected, we challenged them to reconsider their own understanding of writing. What do these results mean? What recommendations can you make for us (instructors, supervisors) based on them? These processes go beyond telling the students writing is an important skill; the premise of the project requires them to take it seriously before they have written anything. If students think the writing they are doing might impact future students' learning, they have a stronger incentive to "buy in." Some students might not care ("I will not personally benefit from it"), but many students have already bought in to being part of their college or university community; improving that community for others is an

additional way students can think about the practical impacts of their own writing. This kind of student involvement encourages students to move away from thinking of themselves solely as consumers of their education by helping them model how to be co-producers of it, a participatory behavior that emphasizes a culture of building useful knowledge for ourselves and others.

The feedback I received from student evaluations for the Spring 2019 project suggests that, while many students enjoyed the project (or at least found it preferable to a final exam), there was a lot of frustration with how we articulated the goals of the project, finding the exploratory nature too vague. A handful of students wrote that they found the project interesting and challenging; several students mentioned liking the project in tandem with being part of an effective group. Students did see clear links between the lessons we were going over in our textbook and the deliverables they were submitting for the project. One student mentioned that it would be helpful to have the whole semester to work on the project so that the groups had more time to collect data, advice I would implement into the second iteration of the project.

Student feedback from the Fall 2019 semester skewed more positive though there were critiques. Positive feedback included that the assignment was well-structured and enjoyable/interesting. However, students continued to struggle to make connections between what they were doing and the larger goals of the project. Some students wrote that they were not sure of the tangible outcomes of the project and how it would benefit writing across campus. A handful of comments reflected a similar frustration with vagueness around the project prompt, which I attribute to our inability to explain to our students that they were helping to produce knowledge and to many students' desire to have stricter guidelines. Thus, student stakeholder engagement depends partly on the project designer's ability to articulate project goals in a compelling way.

An interesting piece of feedback that I received from a handful of students is that it would have been preferable had they been grouped with students from a variety of majors. Originally, I thought that the students would develop stronger survey questions if they were grouped with classmates with the same or similar majors to them, leading them to develop questions tailored toward their disciplines that they would likely distribute to their friends and classmates from their major classes. One student commented that there would have been more diversity in the survey questions and responses if there had been different majors grouped together. Another student wrote that because people in the same majors tend to think alike, collecting meaningful data about writing across the curriculum was difficult because those majors tended to answer questions in very similar ways. My original idea to group them by major reveals my own academic biases and training; I assumed that only engineering students should speak to engineering students, without thinking about the way that limits the information the students could gather. By breaking students into groups with different majors, perhaps they would have broken down some of those barriers in their own minds and felt more connected to students outside of their departments.

Collecting specific student feedback each semester helped improve the project. For the final semester, Spring 2020, there were fewer student complaints about the

vagueness of the project. This was probably because we had developed a clearer idea of what the project was and grew more skilled at explaining it to the students. There was positive feedback that the project was well-constructed, and more students expressed enjoyment in the project this semester even if their enjoyment was often tempered by disinterest in the topic (STEM students do not tend to like writing—got it!). COVID-19 complicated the project by moving us online to asynchronous class. Students inevitably struggled to complete the project on top of their other work, and some mentioned the difficulty of working in groups with people who were hard to reach. While not ideal, these conditions challenged students to tackle a group project and adapt to the virtual environments we would all face for two years, meeting with one another on Zoom and recording and editing their presentations together.

Overall, I view the project as successful because it required students to work together in groups (a common feature of many professional jobs); to conceive of and execute their visions of the task we assigned them; to analyze data; and to present their findings to a client. A few students in every set of evaluations expressed interest or found value in what the project was trying to do: explore what writing looked like across the curriculum. I did not have the student stakeholder language to work with when I taught this project. Future iterations could benefit from having instructors articulate these ideas when introducing a client-based project, possibly even having the students read a short and accessible essay that explains student stakeholder theory, a method described by Honadle and Kennealy (2011). If students thought of themselves as co-producers of knowledge, would they find more enjoyment in writing and tackling a project like this? Stakeholder theory is often conceived of as a means of bridging the university with the communities in or by which it is located; the connections that can be forged between the two are deeply important and valuable. However, by bringing it into the advanced writing classroom, we propose that stakeholder theory can also strengthen the relationships across campus by teaching students to think of themselves as knowledge producers capable of impacting curricula, improving their own understanding of written communication, and fostering student investment across the disciplines.

Recommendations

In this essay, we have advanced the thesis that intra-collegial client-based projects can cultivate a deep investment in the university during the period of student matriculation, and further that advanced writing is an apt, unique topic for service-learning. Given that writing, as a subject and a process in and of itself, provides the perfect vehicle for intensifying connections with subject material and with process of learning. It is a long-established precept that writing engages students in critical thinking (Miller 2002, Yancey 2015, Rademaekers 2018, Nicholes & Lukowski 2021) through its attention to the power of words, to the necessity of logical organization for persuasive purposes, to its ability to draw upon a writer's tacit knowledge to use in combination with

new material for solving problems, to its invitation to reflect on learning and to situate new information in unfamiliar circumstances to wrestle with difficult challenges.

When employed in the service of a real-world client, writing allows students to pay particular attention to its creation of a particular discourse community. That is, client-based learning can cultivate for students a sense of belonging to the university, not only through material content, which especially in the sciences and health fields may change rapidly, but also through a particularly way of thinking through contemporary issues. More long-lasting than the mere content of a major at a particular time in history, the process of approach, evidence gathering, interpretation, reflection, and problem solving is likely to be more persistent, thus structuring a sense of "thinking together" that will outlast time at the university, but which will have firm grounding during the university experience.

Timely and active investment in experiential learning will lead to stronger post-graduation attachments to the university. After graduation, factors such as employment, student debt, the conditions of an individual's social environment may enhance, but may detract from attachments to the university. Client-based and service-learning has often had an outward-facing objective, not only building skills that help students function more effectively in the labor market or in graduate school (Rutti, et al., 2016), but also helping students understand problems of communities, including potentially unfamiliar social problems, as well opportunities for civic engagement and for real-world projects. These outwardly directed projects consider community members the stakeholders. Studies like Honadle & Kennealy (2011) engage students in stakeholder analysis as part of their service-learning project. Students learn to consider all those "affected by the outcome of a community or environmental initiative" (Honadle & Kennealy, 2011, p. 4). However, we suggest service-learning might focus on campus challenges, so that students not only think of others as the stakeholders in a certain community project, but instead consider themselves as stakeholders not only in the campus project, but also in the university. Campus-based service-learning projects develop student stakeholders and in the process life-long supporters of the university.

Client-based projects can bridge between more traditional writing classrooms and writing in the disciplines. Students advanced writing classrooms are in unique positions, taking classes across departments, to design the research survey questions that will elicit information about the state of writing instruction on campus, in all its manifestations. If information from the survey is put toward campus initiatives, such as WAC and WID faculty development, writing-enhanced (WE) and writing-intensive (WI) courses, a campus Writing Board, increased locations where STEM communication is taught on campus, then experiential learning will have created a strong sense not only of stakeholder engagement, but also material results from developing student stakeholders.

Conclusion

Students, of course, often greatly value the education they receive at the university or college of their choice. The degree they earn opens doors to careers and social opportunities; students who remember fondly their experiences at university become alumni who give back to the university, sometimes in the form of substantial donations. The faculty-student relationships they cultivate offer opportunities to learn how to be critically involved with their social environments, whether textual, personal, or professional, thus ready to be life-long active learners and discerning citizens of the world. This essay opens with the observation that the university is highly aware of the importance of cultivating in current students a desire to become active alumni, who continue to support its efforts as an institution and in the community, but concludes that it is missing an opportunity to consider students as stakeholders in the most active sense of the term, involving them in planning educational mission, goals, and learning objectives.

This essay investigates the opportunity of cultivating student stakeholders through a client-based project focused on a critical, but underappreciated aspect of university education: advanced or professional communication. We have presented a two-pronged hypothesis: 1) client-based programs are an under-cultivated aspect of engaged learning practices at universities, which not only put students in real-world circumstances, but also cultivate cross-university ties, and 2) professional communication is highly valued by employers and employees after graduation but is often under-appreciated during the college years, we suggest in part because students are not consulted as to the kinds of professional writing and communication they would find most valuable not only after, but also during college years.

Through experiential learning projects, informed by stakeholder theory and WAC principles, faculty and students can become more interdisciplinary in their thinking, teaching, and research. As academic disciplines continue to grow more siloed, student stakeholder theory might be one way to resist the rigid boundaries between departments, a development that we can pass down to our students who might enjoy writing more if they learn to see it as integral to all fields.

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ABSTRACT

International service-learning provides valuable cultural and clinical experiences to healthcare students. Little is published on best practices regarding the design of international service-learning for maximum learning on this group. This study utilized a mixed methods approach to gather occupational therapy students' perceptions of the pre-trip preparation and experience logistics, supports, and activities during an international service-learning trip to Morocco to guide future experiences for optimal student learning. The quantitative survey indicated participants desired more clinical activities on the experience while keeping the number of cultural activities the same. The qualitative interviews revealed a desire for increased traditional clinical activities that span population, lifespan, and setting. Careful attention to the itinerary to provide balanced time in activities and allow for rest was noted. Participants also indicated qualities of activities that would enhance their learning along with the importance of structured pre-departure meetings. Careful attention to the itinerary to provide a diversity of clinical and cultural activities with appropriate faculty support enhances student learning on international service-learning activities. Participants value quality over quantity, and proper experience design plays a large role in student learning during these experiences abroad.

GRADUATE HEALTHCARE STUDENT PERSPECTIVES OF THE FEATURES OF AN EFFECTIVE INTERNATIONAL SERVICE-LEARNING EXPERIENCE: A MIXED METHODS STUDY

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Service-learning experiences involve a community service component for a population with expressed needs that mutually benefits the host community and involved students while also allowing for reflection on integrated learning objectives (Bringle & Hatcher, 2011; Cipriani, 2017; Naidoo et al., 2020; Pechak & Thompson, 2009; Witchger Hansen et al., 2007). International service-learning contains the same learning and community service components as a domestic experience except it takes place in a foreign country (Cipriani, 2017; Hall et al., 2018). It differentiates itself from volunteer mission trips due to its connection to learning objectives within a curriculum (Cipriani, 2017; Pechak & Thompson, 2009). International service-learning has been explored as an opportunity for healthcare students, such as nursing, physical therapy, dentistry, pharmacy, and occupational therapy, to develop clinical, communication, and therapeutic relationship building skills while also increasing their ability to provide culturally sensitive care (Aldrich & Grajo, 2017; Cipriani, 2017; Hall et al., 2018; Humbert et al., 2012; Johnson & Howell, 2017; Kaddoura et al., 2014; Muñoz, 2007). Benefits for healthcare students also include understanding public health, developing confidence, and increasing general

clinical knowledge (Cashman & Seifer, 2008; Davies et al., 2017; Hall et al., 2018; Mu et al., 2009; Sim & Mackenzie, 2016).

In order to meet these learning objectives, the different aspects of the international service-learning experience need to be designed to optimize student preparation, comfort, and ability to learn. Small factors, such as the amount of sleep and rest allowed by an itinerary, can greatly impact student learning capacity and performance (Curcio et al., 2006). However, there is little information on what constitutes successful logistics of a successful international service-learning experience specifically for healthcare students. Most literature for this population focuses primarily on outcome-based assessments regarding the measurement of student clinical or cultural sensitivity skills (Cashman & Seifer, 2008; Cipriani, 2017; Davies et al., 2017).

Asking for students' opinions can play a key role in understanding the logistical aspects of an international service-learning experience that can positively impact the achievement of learning outcomes. Students who are satisfied with their experience and find personal relevance within it are more likely to be involved and put forth more effort in the learning experiences, which increases their learning and achievement of learning outcomes (Tessema et al., 2012). Other international service-learning experience logistics that correlate to achievement of learning outcomes include pre-experience training on interprofessional collaboration and discussions on cultural and ethical scenarios, social welfare, and community resources (Amerson, 2014; Kaddoura et al., 2014; Saenz & Holcomb, 2009). From a student's perspective, poor orientation to the service-learning experience, lack of preparedness around ethical dilemmas, and even unaddressed anxiety regarding issues such as potential for injury, inappropriate behaviors from patients, and contraction of infectious diseases can negatively impact a program's success at meeting intended learning objectives (Humbert et al., 2012; Naidoo et al., 2019; Reisch, 2011). However, aside from an examination of occupational therapy students' perceptions of the impact of different types of activities on cultural sensitivity and professional development, little has been explored regarding the logistics of a supportive and successful international service-learning experience for healthcare students from a students' perspective. This study addresses this knowledge gap by exploring the lived experiences of occupational therapy students during an international service-learning experience to Morocco regarding the impact of experience logistics on their learning and development of clinical and professional skills related to their future careers in healthcare.

Methods

All occupational therapy students who traveled with a specific service-learning organization on one of five international service-learning experiences to Morocco were invited to participate in a mixed methods study to explore students' perceptions of trip logistics and its impact on their overall learning throughout the entire international service-learning experience. The experience was open to all occupational therapy students enrolled full time and in good academic standing at the institutions partnering with a specific service-learning organization between 2017 and 2018. Twenty-two students responded to the quantitative survey, while seventeen students scheduled and participated in the qualitative interview. All participants identified as female and were

predominantly Caucasian (73%) with a mean age of 26.1 years old. The majority reported being second year students at the time of travel (68%). Institutional Review Board approval was sought and obtained by Philadelphia University.

The international service-learning experience to Morocco lasted nine to ten days, spanning all geographical regions of the country, with an itinerary curated by a Moroccan American occupational therapist. Students spent each day engaged in a purposeful equal split between clinical and cultural activities. Clinical activities included provision of biomechanical and psychosocial interventions in a variety of settings ranging from nursing homes, community centers for people with disabilities of all ages, hospitals, schools, and orphanages. There was a higher concentration of community-based settings over traditional healthcare environments, such as a hospital, due to the novelty of occupational therapy services in Morocco. Cultural activities included mosque visits, guided tours of historical sites, shopping in local souks, camel rides on the beach, traditional dance and music shows, and visits with Moroccan families in their homes for daily tea. Incidental cultural exposure also occurred from interactions with people on the street and following a traditional Moroccan flow of day. All students were required to participate in four pre-experience meetings to educate on culture, language, travel health, and pre-departure information to prepare students for proper etiquette and experience expectations. All information was provided by the service-learning organization and delivered either in person or via email to be reviewed on their own time, depending on the requirements of the study away program of the students' home institution.

Quantitative data was collected via a Qualtrics survey designed by the investigators inquiring after the participants' opinion regarding the number of clinical and cultural activities present on the experience. The data was analyzed using descriptive statistics with Microsoft Excel. Table 1 contains the quantitative questions.

Table 1

Quantitative Survey Questions

Rank the amount of each experience that should be present on future trips:

Item 9.1	Cultural/Tourist Experiences	More	The Same	Less
Item 9.2	Clinical Experiences	More	The Same	Less

Qualitative interviews were conducted with a researcher not associated with the participants' home institution or specific service-learning experience to reduce response bias. The interviews utilized a phenomenological approach to investigate further into the lived experiences of the participants and collect suggestions and opinions regarding experience improvement, both in terms of general experience logistics and overall learning outcomes (Creswell & Poth, 2018). The interviews were recorded and transcribed verbatim before undergoing a multi-step coding and consensus process with five investigators. The transcripts were coded utilizing NVIVO to identify common themes. Table 2 contains the qualitative interview questions.

Table 2

Qualitative Interview Questions

1. Have you traveled abroad? If so, where have you traveled abroad before? Tell me how those past experiences influenced your participation in this experience.

2. Tell me how this experience to Morocco has impacted your viewpoint on culture and occupation.

3. Tell me about the impact this experience has had on your educational journey.

4. Think back on the entire experience and tell me what lessons you took away from the trip.

5. Tell me about which experiences (either clinical or cultural/tourist) had a greater personal impact on you and why. How did these impact you personally?

6. Tell me which experiences (clinical or cultural/tourist) had a greater professional impact on you and why. How did these impact you professionally?
7. Tell me about your perception regarding your ability to provide culturally sensitive care in your future practice. How has this changed, if at all, since before the trip? What experiences do you feel are responsible for any changes?

8. Which specific experiences do you wish there was more of and why?

9. Which specific experiences do you wish there was less of and why?

10. What suggestions do you have to improve future trips to increase your understanding of culture and healthcare provision or better prepare you for the experience in general?

Results

Quantitative Results

The majority of participants indicated a desire for more clinical activities, with a smaller percentage feeling the number of clinical activities was appropriate. No participants indicated a desire for less clinical activities on the experience. With cultural activities, almost all participants felt the amount of cultural activities to be appropriate with no changes suggested in either direction. Table 3 shows the percentage and count of responses to Items 9.1 and 9.2.

Table 3

Participants' Quantitative Response to Number of Clinical and Cultural Activities

Statement	**More**	**The Same**	**Less**
Item 9.1: Cultural/Tourist Experiences	5% (1)	91% (20)	5% (1)
Item 9.2: Clinical Experiences	64% (14)	36% (8)	0%

Note: n=22. Count of responses in parentheses next to percentage.

Qualitative Results

In all, 17 participants completed the interview process. Five participants did not respond to multiple attempts to schedule the interview and were assumed to no longer be interested in participating. Five main themes appeared in the data: "Additions," "Deletions," "Enjoyable Activities," "During Trip Logistics," and "Pre-Trip Preparation."

Theme 1: Additions

The first theme identified by participants involved additions to the experience, defined in this case as any experience where more options or time spent was identified. The majority of participants indicated a desire for more traditional clinical experiences with increased opportunities to provide hands-on treatment within healthcare settings versus a primary focus on community-based settings. Participants also reported a desire to experience the entire spectrum of care within Morocco across settings, socioeconomic levels, and lifespan.

Participants also expressed a desire to spend more time at single sites, be it in the same day or spanning days. Participants felt the increased duration of time in a single site would also lessen the feeling of being a visitor while providing the opportunity to advance clinical skills by moving past the initial evaluation phase and following through with clients. Participants also noted that within the busy itinerary, they would readily trade cultural activities for more time in the clinical activities.

Within cultural activities, participants indicated a desire to meet and work alongside more Moroccans, especially those who are local healthcare workers or students, for networking purposes. Participants also desired time with local families to better understand the culture. A few participants requested more independent exploration as part of the cultural activities. While they noted the necessity of close faculty supervision for safety and the ability to get lost in traditional Moroccan markets easily, some participants wished to explore Morocco on their own terms and gain their own cultural exposure through their own lens.

Theme 2: Deletions

In addition to increased activity inclusion into future experiences, participants were asked about removals of any particular activity. The vast majority of participants commented on the itinerary's high intensity, challenge, and overall busyness. The experience was designed to be very busy with activities running from early morning through traditional Moroccan dinner time, with the day often ending around 9:00-10:00 in the evening. However, upon reflection, most stated they had no suggested deletions as they valued all the activities for the breadth of opportunity they provided. They were simply observing that the itinerary felt very busy but that most could not specifically identify any deletions that would result in a more relaxed itinerary without losing a meaningful activity.

The few recommendations for deletions varied based on the itinerary of that specific experience or individual preferences. The only clinical activity for deletion or reduced time was recommended by those on one specific trip who spent more time than others in conferences. Individual preferences were most apparent regarding cultural activities. Two cultural activities were mentioned once by individuals with the suggestion to eliminate: multiple camel rides and a visit to the hammam, a traditional spa. The only cultural activity that was mentioned across years and trips was a reduction in the time spent shopping in the traditional Moroccan markets or souks. This was mentioned by two people who concurrently admitted a dislike of shopping or were mentioning it in advocacy of their peers who did not prefer to shop in general.

Theme 3: Enjoyable Activities

While identifying potential additions or deletions to the program, participants commented on activities they found to be particularly enjoyable or beneficial to them professionally. The majority of participants made general comments about the entire experience being valuable, with no specific clinical or cultural activity identified. A general expression of support for peers who wish to partake in a service-learning experience was shared. Typically, participants made these comments after noting they had no suggestions of changes to activities to improve their learning or professional development.

Participants recognized the benefit of having an international service-learning experience on their resume, the ability to highlight specific clinical activities and the overall cultural immersion in interviews for their first clinical position. The ability for some participants to partake in professional activities was highlighted; January trips had the unique opportunity to present at an occupational therapy conference in Morocco, while other participants were able to present posters at American conferences on research or program development projects related to the experience. These were mentioned by those participants as enjoyable outcomes of their service-learning experience.

Theme 4: During Trip Logistics

Participants had suggestions around the logistics of the itinerary and how to improve their clinical activity experience, separate from increasing the number of clinical activities. The intensity of the itinerary meant long days, and the cities visited were scattered across the country. Participants spent many hours on the bus, traveling between cities. The majority of participants reflected that a focus on quality over

quantity would improve the itinerary and overall experience. Reducing the amount of time lost to travel would allow for an increased amount of time to be spent in meaningful educational activities, especially in the clinics. Slowing the pace in cultural activities would allow appropriate time to observe and partake in the activity and giving participants the opportunity to obtain more sleep. Some participants felt the itinerary was unbalanced in that some cities and activities were allotted too much time, leading them to feel rushed through other cities and activities. Participants also reflected that attention to the pace of activities and cities with a reduction in travel would allow them to be more rested and therefore mentally more available to learn.

Related to the itinerary was suggestions on when the experience would run within the academic year. Participants who traveled mid semester found it difficult to keep up with their other coursework; other participants felt they could have been better contributors to the communities if they had traveled after they finished their didactic coursework, rather than during their first year. Other participants felt challenged by weather, with their experience occurring when it was very hot or very cold; their discomfort and lack of preparation for the weather was noted as negatively impactful on their ability to fully participate in the experience.

Participants made several suggestions to improve the logistics of the clinical activities to better meet their learning needs. The most common suggestion was to increase the number of available interpreters, as typically only one to two interpreters might be available for the entire clinic separate of any bilingual faculty chaperones. Related was an observation that more experienced clinicians on site would be helpful for learning, in addition to a smaller client to participant ratio to allow everyone hands-on learning opportunities. Participants who were completing a fieldwork placement requested more information on the clients they would meet as they found it difficult to prepare and treatment plan ahead of time with the limited information provided by the community clinics. They also noted a desire for the experience to be structured similarly to a typical American Fieldwork I experience as completed by their peers in order to feel as if the experiences were comparable for their learning.

Theme 5: Pre-Trip Preparation

The final theme indicated by participants deal with pre-trip preparation. It is important to note that one university and set of participants were required to undergo pre-trip meetings on specific topics face to face with an experienced faculty chaperone, namely culture and travel health, while other participants from other universities did not have that requirement. Those participants had received the exact same information via email to review on their own time. A clear distinction between the two groups of participants can be seen within this theme.

All participants indicated two suggestions under this theme: a desire to receive more specific clinical skills preparation prior to the trip to prepare them for the specific populations they would meet and more language specific training. Some comments related to clinical skills reflected on their own confidence and comfort due to the majority of participants being either in or just finished with their first year of occupational therapy training. All mentions were framed within the context of a desire to provide the best possible care. With language, no participant expressed a desire to be completely fluent in Arabic or French but wished they had more useful phrases to use in the clinic. They

also wished use of the provided phrases were practiced more often with faculty and enforced more strongly during the trip.

The following comments appeared only with the participants who did not have the university mandated hour-long workshops. Participants expressed more exposure to cultural norms, transparency regarding expectations, and overall logistical preparation for the trip to increase their comfort and ability to prepare for different experiences. Within culture, food was the primary focus, from the types of food typically found at meals to the timings of meal schedules. The fluidity of time also appeared as a Moroccan day is structured very differently from a typical American day. The fluidity of time was stated as challenging, not only from an adjustment standpoint but also knowing when to call home, sleep, or complete assignments if in the middle of the summer semester. In addition to understanding cultural norms, participants in this group expressed a desire for more information regarding travel logistics, packing information from clothing to snacks, appropriate preparation with clothing or electrolytes to handle Moroccan weather, and a detailed list of donations needed by the communities being visited. Expectations regarding professionalism or clinical activities were not mentioned by either group of students.

Discussion

This study explores occupational therapy students' perceptions of the impact of logistics of an international service-learning trip to Morocco on their ability to learn and develop clinical and professional skills related to their future careers in healthcare. While the information was gathered is specific to these international service-learning experiences and one group of healthcare students, information gathered here about perceived successes and challenges of the trip logistics can be used to inform the design of other international service-learning experiences for other healthcare students to maximize the student experience and allow them to better opportunities to learn.

When discussing clinical sites, it is worth noting that participants focused mainly on traditional healthcare clinics versus the community-based clinics or activities where treatment was occurring within a natural context. In the interviews, a mismatch between the facilitators' identification of an experience being clinical versus cultural and the participants' classification of the same activity existed, which may have influenced the development of these themes. This occasionally made the activity look like less traditional healthcare provision and more in line with a cultural activity. Other studies across healthcare disciplines acknowledge the challenges in managing student expectations between traditional and community-based practice settings regarding the structure, supervision, and comprehension of their professional roles and identity in community-based practice settings (Baglin & Rugg, 2010; Golos & Twkuzener, 2021; Tanna et al., 2020). Clarity regarding the completion of clinical activities regardless of site would have yielded more accurate information.

However, there were some participants who appeared to understand the differences between traditional healthcare and community-based clinical sites; they still indicated a desire to see more traditional clinics as a means of feeling they have explicitly increased their clinical and professional skills as they would be under the supervision of other healthcare professionals. This aligns with a reported perception

from a comparison of occupational therapy students in community-based and traditional fieldworks. Despite no statistical difference between the groups in terms of professional and personal skills, those at the traditional fieldwork placement self-reported a perception of higher skill development compared to their classmates at community-based placements (Gat & Ratzon, 2014). Despite this, all our participants indicated a positive impact on their professional and clinical skills through exposure to community-based settings, a development which is also supported by the literature (Baglin & Rugg, 2010; Gat & Ratzon, 2014; Golos & Twkuzener, 2021; Tanna et al., 2020). The participants would simply prefer a balance of settings to understand the breadth of healthcare provision within the country while also getting the chance to meet more local clinicians and students.

How time was spent was a frequent discussion across all themes. The quantitative results indicate the majority of students desired more time spent in clinical activities while keeping the cultural activities the same. Participants appeared to be eager for authentic and deep experiences with the opportunity for full and long-term immersion in specific settings, places, and people. The ability to interact with international students is considered an aspect of an international service-learning experience, and one that appears to be desired by the participants (Concepcion et al., 2017). Additionally, this desire to interact on a deeper level with local clinicians, families, and fellow healthcare students aligns with other studies where a desire to build connections and relationships with the local communities and individual clients and meet international students were considered valued experiences of those service-learning trips (Aldrich & Peters, 2019; Amerson, 2014; Chabot et al., 2021; Chabot et al., 2022; Humbert et al., 2012).

It was noted the pace of the itinerary impacted participants' mental capacity to learn and to feel as if they were providing meaningful support to the local communities. An itinerary with more focus on one or two cities with more chunks of time spent in a couple of targeted clinics would meet the expressed desire of participants and respect the quantitative data that requested more time in the clinic but not necessarily less time spent in cultural activities. Namely, this would increase the depth and meaning of clinical immersion and ability to spend time with local clinicians, families, and healthcare students on a deeper level while reducing physical and cognitive fatigue and the impression of being tourists. To determine where to gain time can be a difficult task when the overall results indicate an overall satisfaction and positive perception of all activities. However, aside from a reduction in cities with a consequential reduction in travel time, participants noted a willingness to reduce time in cultural activities, especially shopping trips, in lieu of more time in clinical activities.

Supports with an attention to detailed logistics also appeared as a subtheme across all themes. Discussions related to supporting students appeared in reference to how time was being spent across activities as already mentioned. Additional logistics revolved around increasing participant comfort in the activities to promote their learning with suggestions to increase supports such as overall preparation for travel, increased number of interpreters and clinical supervisors, more clinical skill preparation, and better language preparation especially given the scarcity of interpreters. These are all areas of preparation indicated as important in the literature to ensure a successful service-learning experience (Humbert et al., 2012; Naidoo et al., 2019; Reisch, 2011). The

mention of language support and training aligns with other students where it was also desired to have more practice speaking the local languages (Aldrich & Peters, 2019; Amerson, 2014; Reisch, 2011). Participants also indicated not feeling prepared for the number of people in the clinic as once it was known healthcare was being provided, the clinics would experience a significant increase in clients within a very short time frame. Additionally, most participants were traveling during or after their first year of didactic coursework as that was when it best aligned with fieldwork rotations in individual curricula, however felt they could have been more useful with more clinical skill preparation. The mention of clinical skills reflects typical decreased confidence in professional and clinical skills as anticipated in any healthcare student on fieldwork, however, these experiences can develop that confidence (Andonian, 2017; Chesser-Smyth, 2005; Davies et al., 2017). Confidence building experiences, more attention to language skills, and more preparation of establishment of rapport across language barriers could be added to pre-trip meetings to a potential positive impact.

Also related to timing for optimal student preparation and feeling available to learn is the timing that the experience falls within the academic year. Unfortunately, there appears to be no consensus on the best time to travel as participants from all permutations of travel time expressed challenges with the timing of their specific experience. Participants who went in the summers expressed challenges keeping up with summer coursework and the Moroccan heat; those who went during breaks between semesters expressed other concerns with weather, such as winter cold, or an inability to have downtime between semesters. Mentions of not feeling confident in their skills due to only completing one year or less of didactic preparation also appeared with this theme. Ability to have optimal rest and sleep continues to be a key factor in student learning and is complicated by other variables such as jet lag (Curcio et al., 2006). All these factors could be mitigated through reduction of the itinerary to allow rest, reservation of time to complete coursework if in the middle of the semester, and better preparation for situations, like packing appropriately for weather.

The presence of pre-experience preparation meetings to prepare students for cultural expectations and overall macrolevel trip logistics made a positive impact on student preparation as only the group of participants who did not receive these meetings were the only people to mention a desire for this information. The information provided in these meetings did not influence the presence of themes with the other questions in this study as those were mentioned by the majority of participants across both groups, except for weather related concerns. Basic information around cultural norms, types of food, preparation for weather and potential health needs, and needs for various forms of donations to generally prepare students plays an important role in increasing their comfort and ability to self-prepare for various experiences. Transparency of expectations regarding learning objectives and professional behaviors supports students' preparedness and performance (Cashman & Seifer, 2008). Other studies also support the importance of pre-experience meetings and preparation to increase student comfort and preparedness, though it is also noted that there is no way to fully prepare for the impact an experience can have on a student personally and professionally (Hall et al., 2018; Humbert et al., 2012; Resich, 2011). This should be a mandatory part of every trip planning.

The results show significant individual preferences, especially when participants were asked about program deletions. Some suggestions appeared only with one to two participants, indicating that some areas of deletion cannot be considered an overarching theme. Examples of these individualized suggestions included times spent in conferences, completing duplicates of activities, and reducing the amount of chaperone supervision. Participants tended to remark on the value of the overall experience for their professional preparation, preferring to see their time as a holistic experience that benefitted their resumes and professional development. It is acknowledged that making all traveling students happy with every activity is an impossible task. The overall holistic value of an experience is seen upon return after self-reflection with benefits that can last years (Cipriani, 2017; Collins et al., 2019). This study shows that, upon later reflection, all activities had value to the participants, and it is an intentional balance of authentic experiences and attention to logistics that support student learning that is important in the moment to meet learning objectives.

Limitations

Limitations include a convenience and volunteer sample; saturation was reached despite the small sample size (Saunders et al., 2018). The participants were all female, which may have resulted in gendered patterns. Additionally, the participants were homogenous in terms of age and identified ethnicity; generalization to other groups should be done with caution. Since all participants were studying occupational therapy, they may have viewed the experience through a specific professional lens when considering the different activities on the experience. The professional values of other healthcare professions should be considered when applying findings to the design of their own international service-learning experience. Also, while the basic experience was the same between all groups, there were minor variations in activities between groups and years, including changes as a result ongoing internal evaluation by organizers and faculty chaperones.

Conclusion

International service-learning is viewed by healthcare students as beneficial for their clinical and professional skill development and is generally considered valuable within the context of their educational journeys. An itinerary consisting of intentionally authentic, high quality, and diverse clinical and cultural activities that also allow for a substantial time in each city and setting for full immersion is perceived as most impactful for their learning. Appropriate preparation prior to the experience with plentiful logistical support during clinical settings also supports student learning. With a balanced itinerary, well considered preparation, and plentiful student support, healthcare students will be able to meet learning objectives and return from international service-learning experiences with improved clinical and professional skills and the ability to provide culturally sensitive care.

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ABSTRACT

In response to the COVID-19 pandemic, a California public university launched the Pandemic Histories Archive Project (PHAP) in collaboration with the library. This online service-learning opportunity empowered undergraduates to describe and reflect on their pandemic experiences and represent their communities by contributing to the library's digital archive. From 2020-2021, nearly 300 undergraduate students completed PHAP's asynchronous online training modules and documented the COVID-19 pandemic and social justice issues by producing materials such as field notes, interviews, photographs, and reflections. According to open-ended surveys, students responded favorably to this novel project, valuing the creative freedom, knowledge, and skills gained through community archiving. This case study summarizes the literature on online and service-learning, presents the pros and cons of each, and offers recommendations for creating a student-centered learning environment. PHAP's teaching approaches, which emphasized student wellness and strengths, can be applied beyond the pandemic in future online, hybrid, and in-person courses.

SERVING STUDENTS THROUGH SERVICE-LEARNING: A DIGITAL PANDEMIC HISTORIES ARCHIVE

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In 2020, many higher education institutions temporarily halted in-person instruction to prevent the spread of COVID-19, resulting in the sudden, widespread implementation of remote learning, including courses with a strong service-learning component. At the University California, Irvine (UCI), approximately 1,000 undergraduates per year complete quarter-long internships coupled with classroom instruction as a requirement for their bachelor's degrees. There was a risk that changing service-learning from in-person to online would negatively impact students. While online learning can offer convenience and flexibility to working students, the estimated dropout rate for online courses is higher than the rate for traditional, in-person courses (Annetta, 2004; Levy, 2007; Kim et al., 2017). Common reasons for online students to drop out include dissatisfaction with how the course is designed and facilitated, lack of

motivation, and difficulty self-regulating their learning while balancing other commitments, such as work (Barratt & Duran, 2021; de Oliveira et al., 2018; Kim et al., 2017; Lee, 2017; Levy, 2021). Likewise, service-learning, a form of pedagogy that engages students in addressing community issues, has the potential to increase students' sense of belonging and motivation for learning (Miller et al., 2019; Schulzetenberg, 2020; Song et al., 2017; Yen & Carrick, 2021), but may be difficult for students with limited time due to employment or family obligations, or those who lack reliable transportation to an off-campus site (Miller et al., 2019; Owen et al., 2019).UCI's abrupt switch to online service-learning during the pandemic could have posed challenges to its diverse student body, which includes a high proportion of minoritized, low-income, and first-generation students who would be more vulnerable to the issues associated with these approaches. Yet, student feedback revealed that the Pandemic Histories Archive Project (PHAP), which combined service and online learning, was perceived as empowering, healing, and pedagogically valuable. By analyzing data regarding PHAP students' experiences, we explore why this online service-learning approach succeeded and suggest ways that this model can be implemented in other contexts.

To analyze PHAP, we draw on two theoretical frameworks. First, the Community of Inquiry framework (Garrison et al., 2000) describes cognitive, social, and teaching presence as foundational elements of the educational experience, particularly in an online context (Brennan et al., 2022). Garrison, Anderson, and Archer (2000) define cognitive presence as the extent to which participants (students and teachers) can construct meaning through communication, a "vital element in critical thinking" that is "most basic to success in higher education" (p. 89). Social presence, the ability of participants to present themselves authentically, can be fostered through open discussion and reflections (Brennan et al., 2022). The element of social presence is essential for learners to collaboratively understand and create knowledge (Garrison et al., 2000). Teaching presence involves both course design and facilitation of learning activities (Garrison et al., 2000). Typically, instructors are responsible for selecting, organizing, and presenting content, but facilitation may be carried out by either teachers or learners, in the form of initiating discussion or sharing personal meaning (Garrison et al., 2000). Student feedback regarding PHAP suggests that the elements of the Community of Inquiry framework are present in core parts of PHAP, as students applied their training to real-life problem solving, practiced communication skills, and reflected on their experiences through assignments and guided discussions.

Second, we draw on Yosso's (2005) Community Cultural Wealth model, which was designed to acknowledge the various strengths that students of color bring to their college environment. Yosso (2005) argues that universities should highlight the cultural knowledge, skills, abilities and contacts of students, rather than focusing on the deficits experienced by marginalized students. The Community Cultural Wealth model includes six forms of cultural capital: aspirational, navigational, resistance, linguistic, familial, and social (Yosso, 2005). Student feedback regarding PHAP suggests that this remote service-learning opportunity gave them the opportunities to reflect on and preserve their

families' and communities' experiences, thus validating the cultural wealth that they brought to the classroom. Though PHAP served as an emergency alternative to in-person service-learning, it also empowered undergraduate participants (who were primarily minority and first-generation students) to conduct research on topics of their own interest, independently select the format of their project, and feature underrepresented voices in their archival materials.

To demonstrate how our experience with PHAP suggests ways that the benefits of online service-learning can be maximized, particularly for first generation and underrepresented youth, we first review literature on digital instruction and service-learning. Our literature review identifies the strengths and weakness of each of these forms of pedagogy and discusses how the Community of Inquiry and Cultural Wealth frameworks help to make sense of these potential strengths and weaknesses. We then present PHAP as a case study of a successful digital service-learning opportunity. We analyze student demographics, exit survey data, and course materials, focusing on the alignment between instructional goals, student feedback, and Community of Inquiry and Cultural Wealth theoretical frameworks. Our analysis concludes by suggesting ways that the model used in PHAP could be adapted for other courses and institutions. Throughout our analysis, we are attentive to ways structuring digital service-learning to build communities of inquiry and recognize students' cultural wealth can overcome disadvantages of online instruction and service-learning while maximizing the instructional value of such opportunities.

Benefits and Challenges of Distance and Service-Learning

Studies of distance and service-learning have suggested that while these approaches expand accessibility and improve students' motivations and problem-solving skills, such approaches may pose challenges for certain disadvantaged students. Distance learning programs have existed for over a century, aiding farmers, blue-collar workers, military personnel, and marginalized groups in pursuing higher education (Lee, 2017). In 1858, the University of London launched correspondence study programs for "women and racial minorities" (Haughey, 2010, p. 48) who were not always permitted or welcomed in classrooms (Lee, 2017). Like these early distance education programs, online learning can potentially increase accessibility by offering students the flexibility to complete courses at their own pace, from nearly any geographic location, and without the need for face-to-face interaction (Ali, 2020; Barratt & Duran, 2021; Cung & Xu, 2018; Swanson et al., 2015; Wong, 2020). Online learning, also known as e-learning, enables teachers and learners to share and access information via the Internet and digital technologies such as computers and smartphones (Arkorful & Abaidoo, 2015; Fry, 2001). As a form of distance education, it allows students to learn without attending scheduled face-to-face classes (Arkorful & Abaidoo, 2015; Cung & Xu, 2018; de Oliveira et al., 2018). Universities may also favor online education as it allows for higher enrollment beyond the limits of physical classrooms (Arkorful & Abaidoo, 2015; de Oliveira et al., 2018).

Yet, as seen in Table 1, each benefit of online learning corresponds to a related challenge. For example, online classes may appeal to students intending to learn on their own schedule, but such courses also demand higher self-regulation and time-management skills (Arkorful & Abaidoo, 2015; Barratt & Duran, 2021; de Oliveira et al., 2018; Lee, 2017; Zhou et al., 2020). Instructors can potentially use online classes to offer ease of access to information and higher student engagement through multimedia content, but this is dependent on their level of online teaching experience and technical support (Annetta, 2004; de Oliveira et al. 2018; Juniu, 2005; Zhou et al., 2020). For institutions, potential profit gains from online enrollment may be outweighed by higher dropout rates, training costs for instructors, and the expense of building the infrastructure and support systems necessary for remote learning (Arkorful & Abaidoo, 2015; Ali, 2020). Although online learning can potentially increase access to education, Lee (2017, p. 16) argues that "authentic accessibility" goes beyond increasing student enrollment, and that institutions need to recognize and accommodate the needs of disadvantaged students. Online courses pose several challenges for underserved populations, particularly for students with limited access to the Internet and technology, and those who struggle with feelings of isolation and lack of support (Ali, 2020; Arkorful & Abaidoo; Adnan & Anwar, 2020; Aristovnik et al., 2020; Barratt & Duran, 2021; de Oliveira et al., 2018; Juniu, 2005; Händel et al., 2020; Swanson et al., 2015; Warschauer et al., 2004).

Table 1

Benefits and Challenges of Online Learning for Students, Instructors, and Institutions

Benefits	Challenges
For Students	
● **Flexibility** for students to choose when and where to study[1-4] ● **Opportunity** for non-traditional students, such as those who work full-time or student parents[1,3] ● **Ease of online communication** for those comfortable with technology or struggle communicating in-person[1] ● **Online recorded materials** (such as lectures) can be replayed as often as needed[7,8] ● **Potentially lower cost**, depending on tuition and expenses related to commuting or living on-campus[1,3]	● **Inaccessible or less accessible** to those who lack adequate technology and Internet connection[4-8] ● **No in-person communication**, which can reduce students' ability to engage with instructor and peers[3,4] ● **Higher chance of dropout** compared to in-person learning[3,4] ● **Perceived higher workload** as learning is self-directed[9] ● **Feelings of isolation** due to lack of peer socialization[3,4] ● **More difficult for students who struggle with** time management, motivation, and computer skills[1-4,10]

• **May enhance certain skills**, such as critical thinking, independence, and computer proficiency[7]	
For Instructors	
• **Flexibility** for instructors to choose when and where to teach[1-4] • Potentially less time to implement, as content can be reused[1] • **Multimedia-enhanced content** can engage students and improve understanding of concepts[8] • **Ease of access to information**, such as links to related resources and services[1] • **Remote active and collaborative learning** can be achieved through activities such as virtual breakout rooms and discussion threads[7]	• **Technical difficulties** such as computer and Internet issues can disrupt teaching[5,6,7,8] • **Lack of training** to teach and create online courses[3,11,12] • **No in-person communication** reduces potential for learning to be a collaborative process, and makes it difficult to assess if concepts are understood[1,7] • **Unable to be used effectively by all disciplines**, such as scientific and artistic fields requiring hands-on practical skills[1,8] • **Difficult to prevent cheating** as information is easily accessible online[1]
For Institutions	
• **Potentially higher profit** as more students can be enrolled and less physical space is required[1-4] • **Possible to implement during shortage of academic staff**, such as instructors or lab technicians, to lead in-person classes[1]	• **Potentially higher cost** to build ICT support infrastructure, provide training, and accommodate for higher dropout rate[8] • **Perceived lower quality** by students, especially in a cultural context where online learning is less accessible[3]

[1]Arkorful & Abaidoo, 2015; [2]Barratt & Duran, 2021; [3]de Oliveira et al., 2018; [4]Lee, 2017; [5]Adnan & Adwar, 2020; [6]Händel et al., 2005; [7]Swanson et al., 2015; [8]Ali, 2020; [9]Aristovnik et al., 2020; [10]Zhou et al., 2020; [11]Annetta, 2004; [12]Juniu, 2005

There is evidence that service-learning can improve academic outcomes, increase persistence and retention, and enhance students' civic engagement (Schulzetenberg et al., 2020; Song et al., 2017; Yue & Hart, 2017; Heinrich & Green, 2020; Miller et al., 2019; Yen & Carrick, 2021). Service-learning, also referred to as engaged scholarship, motivates students to learn by "active participation in organized services that address community issues and is linked to academic study through structured reflection" (Yue & Hart, 2017, p. 25). For example, Owen et al. (2019)

describes how students in the Research Consultation Project (RCP) provided community partners with research-based information through consultations and a brief of key issues and recommendations. RCP students also met with a faculty/research advisor once every two weeks, attended group meetings with other RCP students, and produced a 20-25-page research paper. Through this service project, students learned how to synthesize, integrate, and apply knowledge, developed their writing skills, and felt greater career preparedness, although students' experiences varied depending on community partners' level of engagement and availability (Owen et al., 2019).

Findings from Owen et al. (2019) align with that of other studies, which suggest that service-learning allows students to practice critical thinking and gain professional skills by applying their studies to community issues (Alexander et al., 2020; ChanLin et al., 2012; Miller et al., 2019; Song et al., 2017; Trolian & Jach, 2020; Yen & Carrick, 2021). Additionally, students engaged in projects serving diverse populations may be able to build new language skills and learn about different cultures (ChanLin et al., 2012; Lavery et al., 2014; Miller et al., 2019; Yomantas, 2021). Several theories offer further explanation for why service-learning is correlated with increased graduation rates (Yue & Hart, 2017). Service-learning allows students to apply their academic knowledge to address community issues (Alexander et al., 2020; Song et al., 2017; Yen & Carrick, 2021). Kolb's (1984) theory of experiential learning suggests that connecting theoretical knowledge to practical, hands-on experience is a key component of the learning process (Trolian & Jach, 2020). According to Kuh's (2003) theory of student engagement, participating in purposeful, high-impact activities enhances learning by increasing student motivation.

Yet, as with distance learning, service-learnings' strengths are associated with corresponding weaknesses, as shown in Table 2. Effective service-learning requires time and resources from students, instructors, and institutions (Song et al., 2017; Yen & Carrick, 2021). In addition to instructors' time spent teaching, they may need to fulfill additional roles such as identifying appropriate service-learning projects and coordinating between community partners and students (Heinrich & Green, 2020; Miller et al., 2019). To implement service-learning effectively, it is critical that institutions provide instructors with appropriate training, establish strong relationships with community partners, and maintain clear communication between stakeholders (Alexander et al., 2020; Miller et al., 2019)

Table 2

Benefits and Challenges of Service-learning for Students, Instructors, and Institutions

Benefits	Challenges
For Students	
● Enables students to link their studies to real-life problem-solving[1-7]	● **Additional time commitment** on top of courses and employment[3]

• Opportunity to gain professional knowledge and skills, such as critical thinking and communication[2,8,9] • **Potential to enhance socio-cultural awareness** by interacting with diverse populations[2-4,8,9,10] • Positive effect on academic, social, personal, civic and professional development[3,5,7] • Sense of achievement and ability to facilitate social change[2,9]	• May need to arrange transportation to service-learning site[3] • **May perceive few or no gains from service,** as experiences vary depending on the instructor, service-learning project, and community partner[3] • Community partners' level of engagement and availability may not align with student needs and expectations[4]
For Instructors	
• Increases students' motivation, attendance, and academic success[1,3,5,6] • Allows instructors to adapt their courses to address a variety of community issues[10] • **Opportunity to create more meaningful engagement** and deeper connections to students as learners and individuals[3] • Enhances community involvement[3]	• **Training**, which may not be available, is needed to ensure whether best practices are followed (such as reflection, meaningful service, sufficient duration)[5,7] • **Time and resources** needed to discern appropriate service-learning projects and develop courses accordingly[5,7] • **Requires flexible teaching approach** to maximize benefits for both students and community partners[1,3,11,12]
For Institutions	
• Increases student persistence, retention, and graduation rates[3,5,7,13] • Bridges institutional research with policy and practice[4] • Opportunity to build long-term relationships with community members and organizations[4]	• **Time and resources** needed to train instructors and establish partnerships with community partners[1,3] • **Communication is crucial** to prevent misunderstandings between students, instructors, and community partners[3]

[1]Alexander et al., 2020; [2]ChanLin et al., 2012; [3]Miller et al., 2019; [4]Owen et al., 2019; [5]Song et al., 2017; [6]Trolian & Jach, 2020; [7]Yen & Carrick, 2021; [8]Gasper-Hulvat, 2018; [9]Lavery et al., 2014; [10]Yomantas, 2021; [11]Heinrich & Green, 2020; [12]Hall, 2020; [13]Yue & Hart, 2017

Combining distance learning with service-learning can potentially overcome some of the challenges associated with each of these approaches in isolation. For example, disadvantages of digital learning include lack of motivation and difficulty preventing cheating. Service projects may increase students' motivation, and cheating is less of an issue with such projects than it is with forms of assessment like papers and exams. Likewise, digital approaches can mitigate service-learning challenges such as the need for flexible scheduling and transportation issues. Creating digital service-learning opportunities that are aligned with the community of inquiry and cultural wealth educational approaches can further maximize benefits and minimize challenges associated with distanced learning and service-learning. The community of inquiry model emphasizes the importance of communication, feedback, collaboration, and community building, according to which instructors and students are part of a broader community that exchanges ideas and values all participants' contributions, rather than a hierarchy in which knowledge is supposed to flow primarily from professors to students. Such an approach helps to overcome the communication challenges and feelings of isolation that can be associated with digital learning, as well as the risk of lack of engagement on the part of community partners in the case of service-learning.

Furthermore, the cultural wealth model values the knowledge and experiences that students – especially those of underrepresented backgrounds – contribute to educational initiatives. Prioritizing students' interests, knowledge, and values helps to ensure that distance learning approaches are student-centered, both in design and content, and thus helps to overcome challenges associated with time management and motivation. Additionally, adopting a cultural wealth model enables students to develop service projects that they find meaningful, thus addressing students' potential perception that they will not benefit from service-learning. To further explore how a digital service-learning project grounded in community of inquiry and community cultural wealth models can benefit students (and instructors and institutions), we analyze our experiences with the Pandemic Histories Archive Project.

Case Study: The Pandemic Histories Archive Project

The Pandemic Histories Archive Project was created in 2020, in response to the COVID-19 pandemic, when in-person, community-based serving learning suddenly became remote. Since 1970, undergraduates seeking a baccalaureate degree from UCI's School of Social Ecology have been required to complete Field Study, a service-learning program in which students complete 100 hours of service at a Field Study site over the ten-week academic quarter in conjunction with an interdisciplinary faculty-led seminar. Field Study provides students the opportunity to engage with community members and impact social change. The program assists community partners in building organizational capacity while students gain new skills and further their professional development. Students have access to an extensive catalog of placements from the public, for-profit, and nonprofit sectors, in areas such as child and family

services, health care, education, environmental planning and policy, law enforcement, and legal services. Field Study sites are responsible for creating and managing their own application system. After a student applies and is accepted by a Field Study site, they may enroll in a Field Study seminar that enables students to synthesize their experiences in the field with theory from their coursework. Approximately 1,000 undergraduate students complete Field Study annually.

In March 2020, Field Study had to rapidly pivot when the campus halted in-person learning in compliance with measures to reduce the spread of COVID-19. During Spring and Summer of 2020, students enrolled in the Field Study Seminar, but the requirement to complete service hours was temporarily suspended, thus contravening a key goal of the program. As Fall 2020 approached, the service requirement was reinstated but at a reduced level of 5 hours per week, in recognition of the many challenges students experienced during the height of the COVID-19 pandemic. Furthermore, only remote placements were permitted. The community agencies where Field Study students were placed were also experiencing emergency conditions. As their resources and the nature of their work varied, not all partner agencies were able to host interns remotely. It quickly became apparent that there was a considerable gap between available placements and the number of students who needed to complete Field Study during the 2020-2021 academic year. In response, Field Study expanded placements to include opportunities to serve as a research assistant and learning assistant. By issuing a regular call for faculty to announce such opportunities, undergraduate involvement in research and teaching increased. Yet, even with these measures, the placement gap remained.

PHAP was created in a matter of weeks as an emergency solution to this sudden need for remote Field Study placement sites and was grounded in redefining the “Field” to include students’ own lives and communities. Inspired by other university projects documenting the COVID-19 pandemic, two associate deans reached out to the university library to ask whether they would be interested in establishing a digital archive to document undergraduates’ experiences of this unprecedented historical moment. The libraries responded positively, as this initiative was consistent with their own commitment to community-centered archiving, an approach in which community members, rather than experts with formal training in library science, are recognized as content creators, appraisers, and curators of materials regarding their own histories (Caswell, 2014; Caswell et al., 2016; Copeland, 2015; Flinn, 2007). Community-centered archiving is designed to alter the power dynamics that more typically undergird archives by ensuring that underrepresented voices and histories are preserved for future generations. As UCI’s library explains on their website, “community-centered archives come into being through collaborative partnerships between mainstream archival institutions and communities that are underrepresented in the historical record. The goal is to empower communities in the process of telling and preserving their own histories.”

Based on the principles of community-centered archiving, the Pandemic Histories Archive was rapidly developed as a virtual Field Study service-learning opportunity. During 2020-2021, approximately 100 undergraduates per academic quarter participated in PHAP in fulfillment of their Field Study requirement. PHAP students were expected to perform 50 hours of remote service work by completing asynchronous training modules, attending virtual meetings with supervisors and fellow student interns, recording oral histories, writing ethnographic fieldnotes about their experiences, and producing metadata (such as abstracts and narrator biographies) regarding their materials. Project supervisors provided weekly feedback on students' work-in-progress, and, at the end of the quarter, students had the opportunity to submit materials their archival materials to a new digital archive established as part of the library special collections. Designing this opportunity was a collaborative process in which faculty instructors, TAs, the Field Study office, and librarians shared their expertise regarding learning, research, and archiving. Constant communication was critical to the success of this project. The teaching team was able to structure PHAP to comply with the library's goals for archival submissions and shifts in the immediate stresses that students were facing, such as surges in COVID-19 cases and the 2020 elections.

In designing PHAP, project supervisors relied heavily on the cultural wealth and community of inquiry models of student learning. PHAP served a unique group of students who are historically underrepresented in higher education (students who are female, who are the first-generation to attend college, who transfer from community college, and who are Black, Latino/a/e/x, or indigenous to the US and its territories). Consistent with both community-centered archiving principles and the cultural wealth model, PHAP empowered students to draw on their own backgrounds and interests to decide what would be of enduring historical value for future generations. This invitation to preserve their own history recognized and honored their cultural capital and enabled them to construct meaning from their personal experiences. Furthermore, because community-centered archiving empowers community members – in this case, student interns – PHAP also established a community of inquiry in which supervisors provided guidance and mentorship while student interns were also recognized for their expertise. For example, while the supervisors taught students how to collect oral histories and write fieldnotes, some students drew on their own skills to produce other forms of documentation, such as poetry, diaries, zines, artwork, photography, videos, and even a cookbook featuring recipes that a student had prepared during the pandemic. Additionally, the community of inquiry model encouraged project supervisors to respect the challenging social conditions that students faced. Supervisors provided students with feedback on a weekly basis, reached out if assignments were missing, and were flexible regarding deadlines. Supervisors communicated that PHAP was intended to be a source of support rather than stress, devoting a full week of the internship experience to wellness activities such as meditation, breathing exercises, and self-care.

PHAP was successful in that it met the need for 300 additional remote service-learning placements during 2020-2021, and that it produced a digital archive featuring the work of the approximately one-third of the PHAP participants who chose to submit

their materials to the libraries. However, how well did PHAP work as a form of digital service-learning? Are there lessons from this experience that can serve as a model for others? To address these questions, we turn now to feedback from student participants.

Methods

To assess how effectively PHAP combined online instruction with service-learning, we evaluate two forms of data: 1) exit surveys completed by 268 PHAP participants over the 2020-2021 academic year, and 2) student satisfaction data obtained by the Field Study office. PHAP students (*n* = 268) completed the **PHAP Exit Survey** as part of their Field Study course on Canvas Learning Management System (LMS), the online platform for their remote internship. There were six students who participated in PHAP but withdrew from Field Study during the quarter and thus did not complete the PHAP Exit Survey. Exit surveys were used to share access to their archive materials, document students' service hours, and comment on their project experiences through open-ended questions regarding the materials that students created, how these materials would help future archive users understand the current historical moment, what aspects of PHAP students considered to be the most valuable, and recommendations for improvement. Exit surveys provide insight into how students experienced this online service-learning opportunity. In addition, the Field Study office surveyed all field study students over the 2020-2021 academic year to gauge satisfaction with their placements. The **Field Study surveys** create an opportunity to compare PHAP with remote placements in community agencies. During the 2020-21 academic year, a total of 1,049 undergraduates participated in Field Study. The PHAP provided Field Study opportunities to 26% of the field study participants across three quarters (Fall 2020, *n* = 74; Winter 2021, *n* = 96; Spring 2021, *n* = 98). In addition, all Field Study students were asked to complete a Field Study Evaluation on Qualtrics by the Field Study office. The PHAP response rate for the Field Study Evaluation was 74% (*n* = 198).

Data Analysis

The (internal) PHAP Exit Survey responses were anonymized, then qualitatively coded by a graduate student researcher and faculty member who supervised PHAP students. Open coding is the "active process of identifying data as belonging to, or representing, some type of phenomenon" (Tracy, 2013, p. 189). First, responses were examined and assigned codes, words or short phrases that captured their essence, such as "communication," "flexibility," and "skills." The constant comparative method was used to compare responses for each code and modify code definitions to fit the data (Charmaz, 2006; Tracy, 2013). Then, a systematic codebook (Appendix A) was developed with key codes and definitions for the analysis. Based on these codes, survey responses were categorized into different themes.

The (external) Field Study surveys asked students to rate their experience at their remote site and describe beneficial aspects and challenges of their Field Study

experience. Students were asked to rate their experience at their Field Study site as either “extremely good,” “somewhat good,” “neither good nor bad,” “somewhat bad,” or “extremely bad,” and could elaborate by providing additional comments. Results from the PHAP Exit Survey were compared to the responses of the Field Study Evaluation.

Participant Demographics

Demographic data of undergraduate students who participated in Field Study during the 2020-21 academic school year was obtained from enrollment records. Table 3 compares the race/ethnicity of PHAP students to those who participated in other remote Field Study opportunities, such as assisting a community partner, campus center, or faculty.

Table 3

Race/Ethnicity of Field Study Students 2020-21 (N =1,049)

	PHAP Students (n_1 = 268)	Other Field Study Students (n_2 = 781)
Latinx	36%	46%
Asian	32%	28%
White	13%	14%
American Indian, Alaskan Native, Native Hawaiian, other Pacific Islander	8%	5%
Black or African American	6%	5%
Decline to State	4%	2%

Like students in other Field Study sites, most PHAP students identified as Asian (32%) or Latinx (36%). As shown in Table 4, the majority of those who participated in Field Study are female and first-generation students, meaning that they are the first in their families to attend college (University of California [UC], 2021). About 40% of all Field Study students are categorized as low-income, much like the overall campus and system-wide population (38% of UCI undergraduates are low-income).

Table 4
Additional Demographic Characteristics

	PHAP Students (n_1 = 268)	Other Field Study Students (n_2 = 781)
Female	71%	76%
First-Generation	61%	65%
Transfer Student	57%	39%
Low-Income	40%	42%

Nearly 20% more transfer students participated in PHAP compared to other Field Study placement sites. Aside from the higher number of transfer students, PHAP students were demographically similar to those in other Field Study placement sites.

Results

PHAP Exit Survey Analysis

Seven recurring themes were identified in the PHAP Exit Surveys: 1) **student-centered approach**, 2) **skills**, 3) **knowledge** 4) **public service**, 5) **communication**, 6) **attention to wellness**, and 7) **areas for improvement** (see Appendix A for codebook). Of these themes, **student-centered approach** recurred the most overall and for each quarter. Over half (55%) of students responded that documenting the historic moment for themselves and developing project goals based on personal interests and strengths were valuable aspects of their experience. Commenting on their PHAP experience in Winter 2021, one student wrote, “I learned that our stories matter, my story matters. With the use of field notes we can preserve these stories for later generations to look back on and learn from.” A student from the Spring 2021 quarter, who chose “uplifting the voices of street vendors” as the focus of their project, described how they could “speak more freely on what I observe and my own experiences.” Overall, students enjoyed the creative freedom to choose what to work on and include in their final project portfolio, as opposed to “rigid assignments.”

The next most common theme mentioned by 44% of students was the acquisition of research and professional **skills**. According to the PHAP Exit Survey responses, students valued learning archival techniques, improving their writing through assignments, managing their project, and acquiring skills that would prepare them for

graduate school and/or future careers. One student interested in the field of psychology "found the lesson on field notes very valuable, as … being able to properly document interviews, observations, etc. [in their field] is a must." Students also described how they developed soft skills, such as creating a work-life balance, becoming more independent, and increasing self-awareness.

About 43% of students stated that they had gained **knowledge** through critical reflection on the COVID-19 pandemic and other current events, such as the 2020 United States presidential election, discrimination against Asian Americans (Tessler et al., 2020), and the murder of George Floyd, which had resulted in a global protest movement against police brutality (Eichstaedt et al., 2021). One student felt that their social justice reflection "will allow archive users to understand the frustration felt by the U.S. public following the murder of George Floyd… a moment in history that will be talked about as we continue to fight against social injustice against African Americans." Through documentation such as field diaries and interviews, students were able to preserve stories from family, friends, and community members. Another student who interviewed Asian Americans described how the interviews "encapsulate… unease some Asian American individuals feel when going into public spaces with others" and "harassment or threats witnessed or experienced by Asian Americans that may not make the news but are still concerning nonetheless." Students learned firsthand how community archiving allows diverse perspectives to be included in historical events and reported increased awareness of issues such as racial inequality, social injustice, political polarization, and public health disparities.

Public service was the next most common theme overall (37%), and the second most common theme during Winter quarter (48% of the 99 Winter participants). Students from Winter specifically described the importance of documenting the United States Capitol attack, which had occurred January 6, 2021. One student from Winter quarter 2021 recounted:

> I was in my room at the time and seeing everything happen through my tiny phone screen; I was in complete disbelief and also a little bit scared, honestly. Yet, after all of that, I still had to carry on about my day and act as if nothing had happened so I could focus on my schoolwork. My drawing represents the struggles with mental health and mental illness during this pandemic. I believe, without a doubt, that this has been a pressing issue for many people this past year. The drastic changes to everyday life, the threat of sickness and death, unemployment, racial injustice, political turmoil, and more, have impacted countless individuals and their mental health has suffered because of it.

Across all quarters, students expressed pride and gratitude for the opportunity to contribute to a historical archive, pass on knowledge to future generations, and represent the people they connected with during the project (such as family and community members featured in archive materials).

Over a third (36%) of students stated that **communication** between supervisors and students was a valuable aspect of their Field Study experience. One student said, "I felt really secluded from the people in this project (due to the distance learning). I felt much better after [the supervisors] made reassurances to be available every week and to start up discussions for students to talk to one another." Another student stated, "This Field Study [project]… opened up the idea that I am not alone in my experiences… Being in this community of leaders and peers has made me feel safe." Online communication helped students feel a sense of social interaction and community, despite the experience being remote.

In their open-ended responses, about 28% of students discussed the project's **attention to wellness.** Students valued the "understanding" and "caring" nature of the supervisors, flexibility provided through asynchronous training materials and recorded virtual meetings, and the opportunity for self-reflection. Students appreciated that the supervisors "foster[ed] a stress-free environment" and "cater[ed] to students when necessary," by providing assignment extensions and a week of "Reflection, Rest, and Respite" dedicated to self-care during midterm season.

Responses to the question, "How could we improve this experience for future students?" were coded as "**Areas for improvement**." About half of all PHAP students (49%) answered this question with recommendations for the project. In Fall, 57% of students responded with feedback for improvements, such as additional Zoom meetings and group discussions to increase peer interaction, clearer guidelines for project expectations at the beginning of the quarter, and additional assignments. Although the Winter student cohort included over 20 more students, the percentage of responses (47%) decreased by over ten percent. Similar to the Fall cohort, Winter students requested additional Zoom meetings and assignments, and also suggested more examples from previous students, assistance with project management, and updated instructions for DocuSign, the electronic signature website used to send signed consent forms to the library. Feedback from 44% of Spring students recommended clarification in "what [remote activities] counted" for Field Study service hours, correcting inconsistencies in the guidelines for naming project folders and files, and improving the organization of the Canvas page, which one student described as "intimidating" and "clunky."

Field Study Evaluation Analysis

At the end of each quarter, the Field Study office emailed an evaluation survey to students. This evaluation was conducted separately from the previously described PHAP exit survey, and was intended to collect student feedback on their overall Field Study experience. According to survey data, the majority (75%, n = 141) of students across all three quarters rated PHAP as "extremely good." Many students provided additional feedback regarding benefits of participating in PHAP and challenges they faced. For example, one PHAP respondent who rated their experience as "extremely good" wrote:

> The Field Study course was a lighter load than I had expected, which was pleasantly surprising. However, it did feel very one-sided; despite that, getting feedback directly from the professor was a nice experience. The field study site was also well-constructed, despite being online. The supervisors and TA were always ready to answer questions or provide feedback on assignments!

Another PHAP student reported that the project gave them "intrinsic purpose at a time that is very low for me & so many others," by "collecting stories from real people," to share their perspective and the perspectives "of the people [they] know who would have been forgotten."

About 19% (*n* = 36) of PHAP students rated their experience as "somewhat good" and 5% (*n* = 10) rated their experience as "neither good nor bad." One PHAP student who gave a rating of "somewhat good" explained, "In the beginning, I was very confused as to the expectations of the field study and what I had to do for hours." However, the same student reported that through the project they gained "interview skills" and the ability to "think in different perspectives" about current events. A PHAP student who felt their experience was "neither good nor bad" wrote that PHAP "wasn't as challenging" as they expected, since they received "a lot of freedom with what [they] wanted to submit." The student found it unclear whether their submission was "appropriate to the archives," but "liked the insight" they received on the pandemic through "other students' comments on discussions."

When asked to choose the most beneficial aspects of their field study experience, 32% (n = 61) of the PHAP student respondents selected "improved communication (e.g., learning interview methods)" and 29% (54) of students selected "improved writing skills (e.g., writing field notes, interview transcripts, time logs, resume writing, etc.) Other beneficial aspects selected by students included "honing professional career skills (e.g., time management)," "freedom to research & reflect on topics of interest in this contemporary moment," "being a part of a large collaborative project," "schedule flexibility," "learning how an archive works," "collecting data & synthesizing research information for history (meaningful/purposeful)," and "helpful Field Study supervisor & course professor/teaching team."

PHAP student respondents were also asked to select the challenges they faced during their field study experience. The most common challenge selected by 29% (*n* = 55) of the PHAP students was "lack of social interaction (e.g., conducting interviews remotely, disconnect from peers)." About 14% (*n* = 26) of the PHAP students also faced "technical difficulties (e.g., internet connectivity)." Additionally, students reported that they faced challenges with "personal struggles (e.g., loss of loved ones, mandatory quarantine, etc.)," "figuring out the [library] system," "lack of guidance from supervisors (e.g., no regular meeting times)," "increased difficulty learning material remotely," "lack of interest in site/Zoom fatigue," and "time management."

Discussion

Overall, the majority of the PHAP students reported a positive experience with digital service-learning and commented on gaining skills and knowledge through producing archival materials, curating their project, and reflecting on current events. Consistent with both the Community of Inquiry and Community Cultural Wealth models, PHAP was able to foster a sense of belonging among students, which supports previous research on community archives (Caswell et al., 2016, Gilliland & Flinn, 2013). As members of a shared research community who were empowered to draw on their own cultural wealth in developing archiving projects, students felt intrinsically motivated to participate in PHAP, and went beyond the initial Field Study requirements by creating additional materials, such as photographs, videos, artwork, poetry, and zines. PHAP students were encouraged to use their existing strengths and cultural capital, and had the opportunity to develop bonds with friends, family, and community members while documenting their stories (Yosso, 2005). Furthermore, PHAP students reported feeling safer and reassured that they were not alone in their experiences.

Reliance on the Community of Inquiry model encouraged PHAP supervisors to be attentive to students' situations and needs and accommodate them accordingly, thus contributing to "authentic accessibility," as suggested by Lee (2017). PHAP's emphasis on student wellness aligned with research from Stanton et al. (2016), who found that learning environments that enhance wellbeing also increase satisfaction and engagement with learning. Supervisors offered extensions on assignment deadlines, shared basic needs and wellness resources, and allowed students to devote a week to self-care. The first module on the PHAP Canvas page is a list of resources, including links to the university's hotspot and laptop loaner program, campus centers, and public assistance for food, housing, and unemployment. Anticipating the stress that students may have felt during midterms (and during Fall quarter, the 2020 presidential election), supervisors scheduled a week of "Reflection, Rest, and Respite," which offered a break from assignments and provided self-care resources, such as meditation and exercise videos.

PHAP participants' feedback demonstrates ways that PHAP effectively drew on the Community Cultural Wealth framework. Enabling students to pass down knowledge to future generations could be considered an example of aspirational capital, the "ability to maintain hopes and dreams for the future" (Yosso, 2005, p. 77). As part of their service-learning, PHAP students wrote field notes and social justice reflections, which often touched on navigational and resistant capital. Navigational capital involves the ability to maneuver through social institutions, particularly in environments that are "racially-hostile" or "not created with Communities of Color in mind" (Yosso, 2005, p. 80). This relates to resistant capital, which refers to knowledge and skills gained by challenging inequality in order to secure equal rights and freedom (Yosso, 2005). In their archive submissions, students described how they adapted to institutional changes caused by the pandemic and reflected on topics such as racial injustice and health

disparities. PHAP students were also trained to conduct oral history interviews. Students were encouraged to develop their linguistic, familial, and social capital by interviewing people in their families and communities, to capture culturally significant events and perspectives. Using the Community Cultural Wealth model in conjunction with the Community of Inquiry framework enabled supervisors to create a supportive, online teaching environment that honored students' cultural capital and empowered them to construct meaning from their personal experiences.

PHAP students did experience internet connectivity issues and other technical difficulties, a disadvantage of online learning mentioned by several scholars (Adnan & Adwar, 2020, Händel et al., 2005, Swanson et al., 2015, Ali, 2020). Challenges unique to this project included ambiguity in earning remote service hours and technical instructions becoming outdated within the ten-week quarter. For example, a video created in Fall 2020 to demonstrate how to electronically sign consent forms via DocuSign became obsolete in Winter 2021, when DocuSign changed the layout of its website. Additionally, certain students were not granted access to DocuSign due to a technical error. This development prompted the project supervisors to create a list of alternative methods for signing documents electronically, including using a different electronic signature service, or simply scanning a physically signed copy of the document.

PHAP rapidly adapted to student feedback and to offered a plethora of digital resources, similar to online courses described in previous research (Arkorful & Abaidoo, 2015, Barratt & Duran, 2021, de Oliveira et al., 2018, Ali, 2020). Throughout the quarter, the team of supervisors quickly added and updated content, such as clearer project guidelines and examples, to the Canvas page as needed. The PHAP supervisors recorded instructional videos to answer questions that students asked via email, Zoom meetings, and in the space for comments on their weekly timesheet. At the end of each quarter, the PHAP implemented changes based on feedback from student exit surveys, such as updating instructions and adding more project resources. The percentage of students who commented on project deficits decreased each subsequent quarter, suggesting that while there was room for improvement, PHAP addressed some of the previous concerns raised by students.

PHAP participants' positive experiences with remote service-learning are particularly noteworthy given the ways that the COVID-19 pandemic exacerbated preexisting educational disparities. The pandemic disrupted students' access to support services and ability to share resources with one another (Aristovnik et al., 2020; Barratt & Duran, 2021; Fruehwirth, 2021; Händel et al., 2020; Huckins et al., 2020; Zimmermann, 2020). Such changes were particularly damaging to socioeconomically disadvantaged and historically minoritized students (Barratt & Duran, 2021; Bintliff, et al., 2020). Pre-pandemic research suggests that these students are more likely to withdraw from college before obtaining their degree, due to working more hours, living off campus, and commuting longer hours compared to their peers (Schulzetenberg et al., 2020). Furthermore, although some students (particularly those who enjoyed the increased autonomy of remote learning) increased their academic performance during

the pandemic (Gonzalez et al., 2020, Wong 2020), many students grappled with stress, loneliness, anxiety, depression, and personal difficulties related to the crisis (Aristovnik et al., 2020; Fruehwirth et al., 2021; Händel et al., 2020; Huckins et al., 2020; Wong, 2020; Zimmermann et al., 2020; Zhou et al., 2020). In a survey of over 1,800 students enrolled at a German University, Händel et al. (2020) found that while most students had access to digital resources (such as a notebook, personal computer, or tablet), about half of students reported not having prior experience with online learning. These studies support previous findings that suggest institutions must address educational inequities and provide additional support for underserved student populations (Lee, 2017; Warschauer et al., 2004). To reduce students' feelings of isolation and lack of motivation, educators may be able to increase engagement in online courses by implementing elements of service-learning, as occurred through PHAP (Alexander et al., 2020; Barratt & Duran, 2021; Miller et al., 2019; Trolian & Jach, 2020).

Conclusion and Recommendations

This case study of PHAP has implications for teaching beyond the pandemic. Teaching approaches modeled in PHAP demonstrate how instructors can create more meaningful learning experiences for students, regardless of where learning takes place. Students' positive experiences of PHAP demonstrate how service-learning and remote instruction can effectively be combined, drawing on the Community of Inquiry and Community Cultural Wealth Models. Although in-person instruction has resumed for many universities, online courses continue to be offered. It is also inevitable that students may face obstacles that prevent them from attending lecture in-person. Therefore, it is important for educators to be aware of best practices and solutions for potential difficulties that diverse students may face (e.g., illness, work, taking care of family).

For instructors to create inclusive, authentically accessible courses, we recommend implementing elements of service-learning (such as exploration of community issues and contribution to a public service project), prioritizing wellness, and adapting the online space to fit student needs. As our own team found while returning to in-person instruction, these aspects of PHAP can be adapted for online, in-person and hybrid learning. Despite technical difficulties and desire for more social interaction- a recurring challenge during the pandemic- PHAP students enjoyed the freedom to select project formats and adapt instruction to their own schedule. Students felt a sense of belonging through community archiving, which celebrated their existing strengths and distinct backgrounds. Overall, this study suggests that a flexible, student-centered approach to course design can successfully engage students in online learning.

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Appendix A
Codebook for Analyzing Exit Survey Responses

Code	Definition	Examples
Student-centered approach	Statements describing the creative freedom to develop their own project goals, pursue personal interests, utilize existing strengths, and document the historic moment for themselves.	"It was also very easy to keep up with all the requirements, and everyone was very understanding, so it was not difficult to get done even if there were a lot of other things going on in our lives. Also, it was very open with the materials that could be included in the project and allowed students to be creative in what they wanted to do."
Skills	Statements describing the acquisition of research and professional skills, such as preparing archival materials, writing, project management, and teamwork.	"The emphasis on documenting historical events and how to gather data to make an archive were the most interesting to me, especially the field notes exercise as I think it is the most hands-on and practical exercise for students."
Knowledge	Statements describing the ability to reflect critically on the experience they are living through. Students learned the perspectives of family, friends and community members, and gained knowledge of issues such as racial inequality, social injustice, political polarization, and public health disparities.	"...this pandemic has brought up the many indifferences and injustices that many go through in their lives here in the US. Either from their jobs, their living conditions, or learning we are all going through something and this pandemic has brought up the many things people

		have to do to earn an education or to simply get food on their table."
Public service	Statements describing the public service component of PHAP, including gratitude for the opportunity to contribute to a historical archive, the ability to represent the people they connected with during the project (such as family and community members featured in interviews, field notes, photographs), and the desire to pass on knowledge to future generations.	"One aspect of this experience that I considered to be the most valuable includes knowing that I am contributing to something bigger than myself. I am very excited and proud to know that my contribution to the Pandemic Archive Histories Project will serve the purpose of illustrating and informing future generations of what I have endured throughout 2020."
Communication	Statements describing communication between supervisors and students, such as supervisors' continual updates and feedback on Canvas, and the sense of community among students in discussion boards and Zoom meetings.	"Going into this project was a bit difficult at first because I didn't know what was expected of me and I felt really secluded from the people in this project (due to the distance learning). I felt much better after [the project supervisors] made reassurances to be available every week and to start up discussions for students to talk to one another."
Attention to wellness	When asked about valuable aspects of the project, students described the flexibility provided through asynchronous training materials and recorded virtual meetings, the compassion demonstrated by supervisors, and the opportunity for	"...I was able to stop and think about my feelings, because it was the assignment. It allowed me to stop and cope, to think about my situation without feeling like I was wasting

	self-reflection. Students appreciated self-care resources, assignment extensions, and the week of Reflection, Rest, and Respite during midterms.	the time that I could be spending doing homework or studying. I think it really helped with my well-being…"
Areas for improvement	Comments about areas where the project felt lacking, and it could be improved in the future.	"The modules are organized in a very intimidating, clunky structure and make it hard to sort through items due each week. More clear-cut direction on how each project is to be completed and what is expected of the student I think would make this more enjoyable."

ABSTRACT

The degree to which international immersion programs affect participants can be influenced by and attributed to their experiences in the host country or community. Embedded critical experiences allow participants to immerse themselves within the breadth and depth of humanity, thus fostering connections and relationships. Further, critical experiences can heighten emotions and disrupt values discourse. A mini-ethnographic case study of 20 Australian pre-service teachers' immersion in Kenya explored the impact of embedded critical experiences on participants' values, emotions, and relationships. Analysis of participants' journals, researcher's field notes and recorded debrief sessions identified key themes: emotions are heightened; values are questioned; relationships build community through positive connections; and relationships and understanding are at the core of teaching. Embedded critical experiences allowed for points of comparison across the data, which illustrated that while the participants valued the immersion for many reasons, the cultural interface of those experiences had the most significant impact

CRITICAL EXPERIENCES IN AN INTERCULTURAL IMMERSION PROGRAM IN KENYA

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Universities are increasing the range and scope of opportunities offered to students to improve intercultural competency. Global interconnectedness has opened communities to diverse cultures, beliefs and events that transform understandings of the world (Bamber, Lewin & White 2018). Of the many developmental outcomes of these types of global activities is intercultural competence (Berka, Erickson, & Pérez-Ibáñez, 2022). Smolcic & Katunich (2017) defined a cultural immersion experience as removing individuals from a familiar culture and environment. Embedded critical experiences, as part of cultural immersions, allow participants to immerse themselves within the breadth and depth of humanity (Onosu, 2021). Further, critical experiences can foster connections and relationships whilst also heightening emotions and disrupting values discourse (Myers, 2020).

Within Australia, undergraduate teacher education programs are being framed and transformed as they adopt a set of national professional teaching standards (Australian Institute for Teaching and School Leadership (AITSL) (2011; 2015). Located within these standards is the tenet of developing greater cultural competence, expressly Standards 1.3, which requires teachers to understand students' diverse cultural backgrounds and 1.4, which specifies teachers understand the impact of cultural identity on education. It has become critical for teachers to have the requisite pedagogical knowledge and skills to meet the increasing cultural diversity of students (Szelei, Tinoca, & Pinho, 2020). In addition to the national standards, intercultural competence is one of seven general

capabilities included in the Australian Curriculum, requiring teachers to critically reflect on their cultural perspective and practices to respond effectively to others. Through the Australian Curriculum, the development of dispositions including empathy, respect and responsibility are critical to the development of intercultural competence (Australian Curriculum Assessment and Reporting Authority (ACARA), 2014)

This article reports on a mini-ethnographic case study of 20 Australian pre-service teachers' (PSTs) three-week immersion to Kenya. One goal of the immersion is to build intercultural competence transferrable to their future profession. In the study, the PSTs would undergo several cultural struggles as part of planned critical experiences to enhance and deepen their experience. This article explores these embedded critical experiences and the effects on participants' values, emotions, and relationships as part of their intercultural competence. Analysis of participants' field journals identified the following key themes: emotions are heightened because of their experiences, which then causes values to be questioned. Participants establish relationships and build community through positive connections, which aids in their professional understanding that relationships and consideration of the child are at the core of teaching.

Literature Review

Harmon defined the internationalisation of higher education as a "process of integrating international or intercultural dimensions into the teaching, research and service functions of institutions" (2006, p.120). The drive towards greater internationalisation has led to international activities within universities to expand in volume, scope and complexity (De Wit, & Altbach, 2021). Such activities include study abroad, exchange and immersion programs, and internships (Gozik, & Oguro, 2020).

Intercultural immersions occur within various sociocultural platforms, which have significant potential to shape one's identity (Duxbury & Richards, 2019). Seminal research by Lave & Wenger (1991) viewed identity as a component of social practice, embedding the construction of identity within a variety of communities: "We define ourselves by what we are not as well as by what we are, by the communities we do not belong to as well as by the ones we do. These relationships change. We move from community to community. In doing so, we carry a bit of each as we go around" (p. 239). Identity as belonging or positioning is surmised by Urrieta & Noblit (2018, p. 4), posits that identity was initially used to describe how one positioned oneself but is now "a self-concept or self-perception that is both existential and categorical, individual and sociocultural, and that shifts and develops over time." Identity, in part, is considered an aspect of one's culture, which in turn is characteristic of a social system.
Bayart (2005), suggests that the terms cultural and identity combined make the concept a contested one, as the two words are polysemic, slippery and illusory as analytical categories. Through a social and cultural lens, identity is concerned about how individuals come to understand themselves and how they "come to 'see' who they are, through the social and cultural 'worlds' that they participate in and how they relate to others within and outside of these worlds" (Urrieta & Noblit, 2018, p. 17). The Ancient Greek aphorism γνῶθι σεαυτόν was inscribed in the pronaos of the Temple of Apollo at Delphi. The phrase, as explained by Socrates, translates to: know thyself. As Socrates

taught, the unexamined life is not worth living. To know thyself is the beginning of all wisdom. Avraamidou, (2020), posits that examining identity requires an individual to respond to the question, where do I belong? Previous research by Dervin (2012) contended that one's identity cannot be reduced to a single element but instead is related to people's individual and collective positioning. Social and cultural perspectives allow for critical thinking on identity in more nuanced and complex ways. Identity influences the way we see the world and informs our experiences. Through this lens, cultural immersions engage individuals in meaningful, direct, cross-cultural interactions, increasing the likelihood of developing cultural understanding and empathy, which provides both affective and consciousness-raising learning experiences (Badenhorst, Martin, & Smolcic, 2023). In addition, learning resulting from cultural immersion has been shown to challenge participants' biases and stereotypes, encourage participants' self-reflections and help participants confront prejudice and racism (Barnes, 2022; DeRicco & Sciarra, 2005), which are all relevant and crucial for effective teaching.

Exposing participants to a culture that is markedly different to their own in its language, ethnicity, socio-economic status and physical exceptionality is referred to by Houser (2008) as taking a cultural plunge. Houser's approach consists of three phases: the initial experience (or plunge), a written piece that describes the experiences and reflects on personal insights, and a small or whole group discussion. During phase one, or the cultural plunge, culture shock is likely to occur. Culture shock occurs when one is placed into an environment with different symbols and different ideas of acceptable levels of risk than what one would encounter in their own culture which can then shape identity (Pacheco, 2020).

The current study aligns with the concept by Smolcic and Kanunich (2017, p.51), where "programs attempt to immerse program participants in a different cultural context, participants often live in a homestay situation and have some type of teaching or assisting teacher role in schools and classrooms." This particular program accomplished this through immersion in a foreign culture and planning critical experiences, which take the form of culture shock. Oberg (1960) popularised the term culture shock defining it as the 'anxiety that results from losing all of our familiar signs and symbols of social intercourse' (p.177). In other words, if individuals define and negotiate reality through their symbolic representations of life, this reality is called into question when facing alternative representations (Irwin, 2007).

Elements of taking a cultural plunge, in the form of critical incidents, intended to cause culture shock and were reference points for participants' experiences. The intention was that the critical experiences would be significant points in the immersion that all students would journal about without being told or encouraged to. These included access to potable water, witnessing extreme poverty, communication difficulties, and general feelings of overwhelm resulting from differing cultural norms, giving the researchers various points of comparison between participants.
This paper focuses on five embedded critical experiences that entrenched interculturality. Research conducted in previous years (2013, 2014, 2015) on this immersion identified these encounters as critical in the cultural interface for the students. These encounters were validated as critical in the current cohorts' experiences and emerged as trends in the data analysis. The experiences induced themes consistent with critical incidents in research literature (Green, & Johnson, 2023):

heightened emotions, questioning values; community building through positive relationships; and understanding relationships as the core of teaching.

Method

This research is a mini ethnography employing a case study design within an interpretivist paradigm. The researcher is positioned as the immersion leader, which allows for ethnographic observation, and a participant. PSTs were required to keep a journal documenting their experiences throughout the immersion. Participants decided which experiences they wrote about, with the only requirements being that all entries include the date, a factual log of the event(s) that occurred and a personal reflection that included their thoughts and feelings. PSTs' journals were triangulated using researcher field notes and audio recordings taken during small group discussions, which were a regular part of the immersion experience, but also doubled as data collection for the project. The researcher handwrote her field notes throughout the immersion, which included detailed notes during and directly following each critical experience. The audio-recorded discussions occurred on three occasions following each of the critical experiences. PST journals, researcher field notes and recorded discussions were all coded. To generate and develop initial codes within each dataset, words and or phrases repeated in the set were logged. Once this was complete, words, word synonyms and phrases were grouped and entered into a spreadsheet and assigned an initial code. Two researchers independently assigned codes. The researchers then switched spreadsheets and considered the other set of codes. Finally, the codes noted by both researchers were accepted and others were negotiated between them to ensure that all codes were carefully considered, confirming they captured the broader pattern of meaning (Braun & Clarke, 2006).

Participants

The participants in this study were all PSTs in their second or third year of a four-year degree. The principles of service learning characterise this immersion, which is designed as a pedagogical tool that includes: experiential learning, reciprocity, relationships and critical thinking. In 2016, 32 PSTs elected to participate in the immersion program. Of the thirty-two, 20 (62.5%) agreed to participate. Most participants were female (90%, n = 18), with two males (10%). All were aged between 19 and 27 and studying to be primary school teachers at a private Catholic university in Sydney, Australia.

Critical Experiences

The immersion program embeds the following critical experiences: Aberdare Ranges Primary School, New Canaan Village, Miti Mingi Village, Giotto dump slum and Homestays. Each is described below within the context of its role in the immersion.

Aberdare Ranges Primary School

Approximately 400–500 children attend the Aberdare Ranges Primary School each day. The children are primarily from the New Caanan Village. Participants delivered a combination of creative and practical arts and sport-related learning

activities to the children at Aberdare Ranges Primary School. Participants were placed into groups of three or four and assigned to a class for the two weeks of the school-based immersion working with children aged 4–14. Each day commenced at 8:30 am and finished at midday when the school provided all the children and PSTs a hot meal for lunch, which was a particularly culturally confronting time for the PSTs. Lunch generally consisted of rice or ugali (a maise porridge), with either beans, kale or, occasionally, goat meat, most of which was completely foreign for the PSTs. Additionally, the PSTs ate with their hands instead of utensils, which was also an unfamiliar experience. It is important to note that because the PSTs were staying in homestays in a fairly remote location, there was no opportunity to choose other foods. In other words, if they didn't like what was served, they either ate it or went hungry. PSTs were also expected to assist in the school kitchen, either serving meals or washing up plates.

New Canaan Village

New Canaan Village was previously known as the Pipeline Internally Displaced Person (IDP) Camp, home to approximately 1,000 families, made up of IDPs fleeing from the internecine violence stemming from the 2007 Kenyan general elections. The village lies about one kilometre east of Aberdare Ranges Primary School, and many children who attend the school also live there. Initially, shelter in the village consisted almost solely of tents supplied by the United Nations High Commissioner for Refugees. However, as of June 2017, these tents have been replaced by rudimentary buildings. These buildings consist of corrugated iron supported by a wooden frame and cost approximately $900AUD to build.

The PSTs were officially welcomed by the village elders, allowing them to enter the village and go into homes when invited. In addition, many PSTs would walk with the children to the village after school and participate in various activities. The intention of exposing them to a local town that was once a refugee camp was to help them understand the context of the school where they volunteered and the experiences of the children and their families.

Miti Mingi Village

Miti Mingi Village is home to 120 orphaned or vulnerable children. Each of these children comes from a background where, for different reasons, they could not remain with their family or community. The village is located approximately 800 metres from Aberdare Ranges Primary School. All of the children in the village also attend Aberdare Ranges Primary School. The village infrastructure comprises 15 family units, each housing eight children cared for by a dedicated house 'mother'. These women are employed, having left their own families to care for these children. The village was intentionally designed so the children live in family groups and can develop and grow as a family unit.

The PSTs spent time playing with the children at the village after school. Similar to visiting New Caanan, exposure to the children's village was intended to help the PSTs understand the situation outside of school to gain insight into the context of the school.

Giotto Dump Slum

Giotto dump slum is located in Nakuru, Kenya, about three kilometres west of the central business district and approximately 10 kilometres from Aberdare Ranges School. Roughly 140 families live in the Giotto dump slum, ~70% of whom are children. In consultation with community leaders, two locals organised a visit to the dump slum. Following the customary practice of bringing a gift as a sign of respect, each PST contributed 1,000 Kenyan shillings (~$10AUD) to buy bulk amounts of staple items, including oil, flour, salt, rice, soap and sweets for the children. Upon arrival, a community leader welcomed the PSTs, who handed out the gifts. PSTs then spent about two hours walking around the dump slum. For some, this included entering family dwellings, while others spent time playing with the children.

As this is quite a confronting experience, a debrief is held afterwards, facilitated by three locals. The debrief helps the PSTs contextualise what they saw and ask questions. In addition, some PSTs shared their feelings and talked about the experience. The debrief lasted for ~2.5 hours.

Homestays

All PSTs were allocated to homestays in groups of 4-8 for the duration of the two-week immersion. Homestay families provided breakfast and dinner for the PSTs. Each family and each home were different, which allowed for various experiences.

The aim of the homestay was twofold. First, it financially supports local families and the community through payment by the PSTs to the families. Second, it provides the PSTs with another opportunity to learn about the culture by immersing themselves in a local family and developing relationships.

Data Analysis

As a mini-ethnographic case study, it was essential to understand the entire database (pre-, in- and post-immersion). Data familiarisation was achieved through reading and re-reading each dataset (field notes, PST journals and recorded discussions). As most of the database was captured electronically, coding and data extracts were done through thematic analysis (Maguire & Delahunt, 2017). Thematic analysis went beyond a semantic or purely descriptive account of PSTs experiences to a constructionist account so as to identify underlying ideas, assumptions and conceptualisations (Braun & Clarke 2006).

Discussion

The discussion is presented in the following three themes: critical experiences result in questioning values and heightened emotions; relationships build community and foster positive connections; and relationships are at the core of teaching.

Through Critical Experiences, Emotions are Heightened, and Values are Questioned.

The visit to the Giotto dump slum and multiple visits to the New Canaan Village elicited detailed journal entries from PSTs. In entering these cultural interfaces, PSTs confronted the complexity of human experience and differences in perceived cultural values. The extent of the poverty witnessed by PSTs, including cultural values around

food, wealth, and access to opportunities, became quite vexing. The angst was evidenced in their journal writing and through non-verbal gestures noted in the field journal of the researcher. The sense of unease was described by one PST this way:

Waking up, I knew this was going to be a hard day. I didn't know what to expect or what I was going to be faced with. When I first stepped out of the matatu (van), I felt extremely uncomfortable; I didn't know what to feel, where to look or even if we should have even been there. (PST1)

This quote is viewed as high-intensity dissonance (Kiely, 2005). This uncertainty reflected the incongruence between participants' frame of reference and the new experience. The PTSs were grappling with their inner feeling and personalised their emotions and feelings (Kiely, 2005). through both verbal and written expression. Another way to view this is as psychological culture shock (Adler, 1995). The dissonances prompting such shock include environmental, social, physical and economic factors (Kiely, 2005). In attempting to process these visits, PST journal entries included the use of questions, illustrating that their values were being challenged. One example is, 'you just look around and see that people are living in such terrible conditions, and you question how is that possible. How is anyone able to live on a dump site?' (PST11). Journal entries reflected on the dichotomy between privilege and poverty. PSTs questioned their privilege concerning the experience and using questions allowed for an internal dialogue that attempted to reconcile their feelings. One PST noted:

It was so hard; I couldn't help but compare what I had to the little that they had. Why is this the case? What could we do? These people don't deserve this, we're all humans, and it's just the circumstances we happened to be born into. We were just born in a better place. (PST17)

Emergent in the data were apparent shifts in individual frames of reference. A majority of the PSTs, (80%) used the terms 'guilt' and 'gratitude' to articulate both shifts in perspective and internal feelings. Such frames are grounded in an awareness of the disparity between their lives and those encountered during the immersion. For many, guilt was experienced as emotional distress, most apparently manifested as crying. As a feeling, guilt was disrupting PSTs' sense of self.

In an attempt to counterbalance the disruption to their sense of self, they juxtaposed the idea of guilt or shame with the need to express gratitude:

I think, sadly, in our world today gratitude is something that's truly missing. It's about being grateful for what I have, rather than being guilty, but also knowing that I'm in a position of privilege and I am able to do something about it. (PST4)

Reflections further included factors that lead to happiness:

I have really started to question my own happiness. You walk through the camp, and you can just feel the happiness; it really highlights how materialistic we are. It doesn't matter what physical items we have; it is the connections that you make that essentially make you. (PST12)

The journal entries revealed that regardless of participants' previous frame of reference regarding happiness, they now understood it as something separate from

material possessions. For example, the above quotation reflects an understanding that happiness is attained through human connection. This idea was articulated by PS3: *I've contemplated and thought about people having the bare minimum. I struggle with what the bare minimum is, what is the bare minimum, when we have so much. I feel that they have so much that we don't have. Their sense of community and independence and their sense of connection is something we miss back home. (PST3).* The dissonances experienced during the dump slum visit and visits to New Canaan Village placed participants in situations that caused them to reflect deeply on social change and their role as educators.

The discussions that occurred directly after the visits were structured to allow PSTs to process their thoughts, express their emotions, and give them time for quiet reflection. Interestingly, while clearly confronted by the experiences, participants began to take a more philosophical view, which led to a further shift in PSTs' frames of reference. The feelings of guilt or shame were replaced with attempts to find a sense of hope; something within this intense experience that could make them feel optimistic.

The visits to the Giotto dump slum and New Canaan Village caused participants to grapple with economic and social dissonance, articulated through an expression of feelings. Feelings initially centred on notions of guilt and shame were gradually replaced with a more philosophical perspective. This perspective was enhanced through a cultural contextualisation provided by Kenyan nationals that facilitated the debrief and centred on concepts of gratitude and happiness. The researcher made the following note at the time:

We all need to be students of life. We need to ensure everyone knows they have the right to be happy. When you start smiling, others smile; when you are peaceful, others are peaceful, and this is how you change the world. (Researcher Fieldnotes).

Relationships Build Community and Foster Positive Connections

A key facet of the immersion was homestays. Staying with local families enabled participants to build cultural understanding and form relationships with their host families. Sharing stories over meals and spending time with the family fostered the development of relationships:

We stayed in the houses throughout our time there and I think without that it wouldn't have been the same trip because you did get to know the community that you were staying in. The family that you stayed with gave you their personal stories and just walking through the town to get home you got to see different things, meet different people. Everyone was so welcoming, and they are so accepting and happy and willing to share their stories. (PST6)

The sense of community was also emphasised at New Canaan Village. PSTs spent time walking through the village, and many were invited to visit the school children's homes. Beyond community connections, at the familial level, PSTs noticed the depth of the bond that existed between people: 'I think one thing that has really stuck out for me has been the sense of community and belonging (amongst) the people here' (PST7), which led them to make comparisons with their cultural frame of reference. Such a cultural juxtaposition, reflective of Western cultural values that tend to support individualism over collectivism, was articulated by PST19:

Sometimes in our society, we can feel as individuals fighting our own battles. But here, they come together as a community and help each other and there is a sense of belonging within a community beyond their immediate family members.

Beyond human connectedness, food is integral to cultural identity (Burton, Forney, Stock, & Sutherland, 2020). Often the sharing and exchange of stories, which facilitated the building of connections, was done over a meal. An essential aspect of the school day at school was the communal lunch. The school provided lunch to ensure that all children had at least one meal daily. As a result, PSTs were able to reflect on the importance of food, on their values and perspectives in their home culture:

I was extremely shocked at the portion sizes. At the school, I was told that in some cases, this meal was their only one for the whole day and that is why the portions are always large. This information shocked me, and I was upset and a bit frustrated because I had not even thought about the lives that each child may be living when they return home. It made me think about all the lifestyles each child would have and how different it would be from the children back in Australia. (PST2)

In the PSTs' culture, access to food is generally assured; however, when placed in a context where access to food is scarce, participants articulated a greater appreciation for it:

Normally, I am a fussy eater but when you are put into another country where food is so scarce you just enjoy it and eat it and when you are given a meal that is prepared for you, you just eat it and enjoy it, you appreciate the food more. (PST 11)

PSTs' reflections on human connectedness were framed through articulating experiences with both their host family and with members of the broader community. This connection contrasted with the perceived absence of connection in their culture. Their reflection on food was part of a broader perspective and discourse around privilege.

Relationships are at the core of teaching.

An experiential understanding of the importance of relationships that PSTs encountered in the community further strengthened their knowledge of the importance of relationships as part of pedagogy.

During their time at the school, PSTs could practice aspects of their teaching. Specifically, they applied and honed their engagement, connection and communication skills. They also built valuable experience in English as an additional language (EAL) pedagogy. PSTs' journal entries focused on building relationships with the children and the importance of language when engaging the children in activities: "when interacting with the children, I've noticed how important non-verbal communication can be when teaching EAL. Just a smile is such a strong connection and way of communication" (PST11). A key aspect of fostering effective relationships and communication was to ensure that a degree of understanding existed between the PST and the children:

The children had a lot of trouble understanding us if we were using English, so we would take them outside and use actions which they were then able to copy. With sharing stories, we used a lot of actions to tell the story, which the children really liked. (PST14)

Experiencing success in classrooms, where the language of instruction is not English, enhanced PSTs' confidence in their teaching practice. As one PST wrote, *'One*

challenge from this trip was the language barrier and being able to make it through lessons where the kids knew zero English, was such an achievement and gives me confidence when teaching' (PST13).

It was being placed in classrooms where they could not draw on language to facilitate learning, leading to increased professional knowledge and efficacy. PSTs discerned that professional knowledge centred on the strategies that fostered a degree of understanding between them and the children. Forming and building relationships substantiated both their knowledge and their efficacy. The relationships with the children at the school were vital to the participants' overall experience.

Conclusion

Including a range of critical experiences that both influenced and heightened the degree of dissonances encountered. Fundamental to these experiences was a connection between PSTs and local community members, which challenged the PSTs' belief structures. Challenging existing belief structures has the potential to influence PST's future careers positively. By making genuine connections in the school and the community, PSTs had to grapple with how their lived experiences shape their life and context. Experiencing absolute poverty firsthand, juxtaposed with their own perceived privilege, led to visceral and emotional dissonances, which corresponds with previous research (see Kiely, 2005). Each of the critical experiences resulted in high-intensity dissonance, which challenged the PSTs to respond to, reflect on and ultimately learn from the discordance. Experiences were deeply felt, which elicited emotions that required participants to reconcile the incongruencies in their worldviews and what they were experiencing. Any transformation that resulted from the dissonances can be attributed to the intensity of those experiences, which were all incongruent with their cultural frames of reference (Hartman & Kiely, 2014).

Encouraging journaling and mediating group discussion allowed PSTs to process the range of emotions they experienced. Group discussions were significantly enhanced when mediated by three Kenyan nationals. The Kenyan mediators contextualised cultural dimensions of the experience, which contributed to the PSTs shifting their frames of reference. These shifts were both personal and professional. As a result, PSTs questioned and challenged their cultural values, developed greater knowledge of the importance of relationships to build community and recognising the importance of relationships in their future profession.

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ABSTRACT

The purpose of this study was to quantify and compare interprofessional skills among first year pharmacy students who participated in healthcare and non-healthcare setting service-learning experiences. This was a survey-based pre/post comparison of interprofessional attitudes among student pharmacists during a first professional year service-learning course comparing two cohorts at healthcare-related sites versus non-healthcare sites. The Interprofessional Attitudes Scale (IPAS) was administered to students in fall 2021 and spring 2022. Healthcare and non-healthcare sites were compared using unpaired t-testing comparing the mean sums of Likert scores. This longitudinal cohort survey encompassed a total of 110 of 117 eligible first-year pharmacy students completed the pre-survey, (96% response rate), and 78 of 112 eligible students completed the post-survey (71% response rate). From pre to post survey, there was a positive increase of the mean Likert scores in all five IPAS subsections. There was no significant difference of mean Likert scores displayed between the sample of healthcare and non-healthcare students from the pre-survey to the post-survey in each of the five IPAS subsections. There was no difference in pre/post mean Likert scores of the five subsections of the IPAS in first-year pharmacy students, regardless of placement at healthcare or non-healthcare related sites.

A COMPARISON OF HEALTHCARE AND NON-HEALTHCARE SERVICE-LEARNING ENVIRONMENTS ON INTERPROFESSIONAL LEARNING IN FIRST-YEAR PHARMACY STUDENTS' EXPERIENTIAL CURRICULUM

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Interprofessional education (IPE) is incorporated into health science curricula to foster collaboration between medical professionals and improve the safety and quality of patient care (Greiner & Knebel, 2004). Following a call to action by the Institute of Medicine and the Accreditation Council for Pharmacy Education, interprofessional education has become a significant component of the education that healthcare professionals are to receive (Greiner & Knebel, 2004; Accreditation Council for Pharmacy Education, 2015). While IPE has shown large benefits to improving practice models, it may be challenging to implement at the learner level due to availability of learning sites; access barriers to educational sites; preceptor availability for IPE experiences; restrictive curricula and schedule requirements between different health sciences programs; and/or attitudes towards performing IPE among other health disciplines (Lash et

al., 2014; West et al., 2016). Despite barriers to implementation of IPE, health science schools continue to look for opportunities for interprofessional education in their curriculum to meet accreditation standards (West et al., 2016; Accreditation Council, 2015).

As defined by the World Health Organization, interprofessional collaborative practice and education is the combination of at least two individuals from different healthcare backgrounds who work to deliver high quality care to patients. Individuals will learn about, from, and with each other to enable effective collaboration and improve health outcomes (World Health Organization, 2010). Including providers within and outside of the typical health care setting and from multiple professions introduces students to unique perspectives that can aid in developing important interprofessional, communication and collaboration skills.

Service-learning is an experiential learning teaching methodology that exposes learners to teams and a variety of providers outside of the typical healthcare system (Infante et al., 2015). Service-learning is an effective strategy for promoting community-based interprofessional education among student pharmacists (Sevin et al., 2016). While there is much literature describing interprofessional service-learning among health professional students, a recent systematic analysis determined that the majority of service-learning experiences among health science students occur in a community setting, rather than a healthcare setting, showing that more robust assessment methods and differing IPE settings are needed (Stetten et al., 2019). There is a paucity of data comparing service-learning IPE outcomes within healthcare settings to those outside of typical healthcare settings, and a need for more robust assessment methods in this area is needed.

The University of Pittsburgh School of Pharmacy (Pitt Pharmacy) has a unique service-learning program for first professional year pharmacy students as part of its experiential learning curriculum (Drab et al., 2004). This long-standing experience integrates learners into community-based settings across the region for early exposure to communication, civic involvement, humanistic care of patients, and social awareness of unmet medical needs. This experience exposes students to various providers within and outside of the healthcare system (Drab et al., 2004). While some of the school's service-learning sites are part of a medical practice where traditional healthcare is rendered, the majority occur in a community site, aligning with national trends. The objective of this study is to compare IPE outcomes of students placed in a traditional healthcare service-learning site to those who were placed in non-healthcare settings and teams. We hypothesize that pharmacy students will still develop positive attitudes towards interprofessional practice despite participating in non-healthcare teams at service-learning sites.

Methods

The study was conducted with first-year pharmacy students during the initial sessions of their experiential learning course, "Community Health," in the fall 2021 semester. The course spans two semesters as Community Health 1 and Community Health 2 using service-learning as a teaching methodology. For the course, students were assigned to diverse community sites throughout the region such as centers for

older adults, free clinics, food pantries, literacy programs, shelters for persons experiencing homelessness, and dispensaries. The students were required to complete approximately 40 hours of service-learning each semester, spread to be approximately four hours per week as part of the required curriculum. All students completed structured reflections to optimize learning including descriptions of the roles of various team members at the sites.

The experiential learning leadership team and the investigators divided the service-learning sites into two cohorts: healthcare setting and non-healthcare setting sites. Healthcare setting sites included ambulatory care health centers, substance use disorder rehabilitation facilities, free healthcare clinics, health insurance navigation assistance, wellness facilities, medical marijuana dispensaries, and nursing and rehabilitation centers. Non-healthcare setting sites included centers for older adults, food pantries, shelters for persons experiencing homelessness, community engagement centers, independent living skills facilities, organizations that foster community inclusion for people with disabilities, literacy programs, after-school programs for children, and the Young Men's Christian Association (YMCA) organizations. Eligible participants were assigned to either healthcare or non-healthcare service-learning sites via a lottery system unrelated to study methodology.

This was a pre/post-survey study with a longitudinal cohort of pharmacy students using the Interprofessional Attitudes Scale (IPAS). The IPAS is a validated survey designed to measure five competency domain subsections for interprofessional collaborative practice. It consists of 27 items with a five-point Likert Scale where 1 = Strongly Disagree and 5 = Strongly Agree. The five IPAS subsections assessed are: (1) Teamwork, Roles, and Responsibilities (nine questions), (2) Patient-Centeredness (five questions), (3) Interprofessional Biases (three questions), (4) Diversity and Ethics (four questions), and (5) Community-Centeredness (six questions) (Norris, 2015).
All first-year students aged 18 years and older were eligible for participation. In September 2021, students were introduced to the survey concept and research project during the class time for their Community Health course, and pre-surveys were administered prior to the start of on-site learning experiences. Students completed the post-survey at the end of the service-learning experience using Qualtrics in April 2022. Students created unique, anonymous identifiers that were used to link their pre-survey responses to the post-survey responses. Participation in the survey was optional and students were given extra credit points as an incentive to participate or the option to submit an alternative assignment for extra credit. This study was approved by the Institutional Review Board at the University of Pittsburgh.

The survey took students approximately 10 minutes to complete and had students rating their agreements with various statements using the Likert scale described above. Both pre and post-surveys were assessed via the means of the sum of the overall Likert Scores by subsection. Unpaired t-tests were used to determine changes in numerical Likert values to demonstrate changes in student attitudes from a statistical standpoint. These t-tests compared differences in student responses between the two cohorts. Data were rendered from Qualtrics and analyzed using SPSS. The p value was set to <0.05 to reduce the chances for incurring a type I error. A confidence interval of 95% was used.

The analysis included a comparison of IPAS Subsection means between the entire student population pre and post-survey, a comparison of IPAS Subsection means between only those in the healthcare cohort pre and post-survey, and a comparison of IPAS Subsection means between those in the non-healthcare cohort pre and post-survey.

Results

A total of 110 of 117 eligible first-year pharmacy students completed the pre-survey, (96% response rate) and 78 of 112 eligible students completed the post-survey (71% response rate). Table 1 describes the demographics of the students in the two cohorts (healthcare and non-healthcare). There was an overall positive increase of the mean Likert scores in four out of five subsections pre and post-experience (Table 2). Specifically, there was a statistically significant increase in the Patient Centeredness Subsection with a mean difference of 0.55 (std. dev. 1.67, p= 0.020 CI95%). Similarly, there was also a statistically significant increase in the Interprofessional Bias Subsection with a mean difference of 1.09 (std. dev. 2.61, p= 0.005 CI95%).

The comparison of IPAS Subsection means of only those in the healthcare cohort pre and post- survey showed an increase in Likert scores in all five subsection; however, using a confidence interval of 95% and a p value of <0.05, none of these results showed a significant difference from pre to post-survey (Table 3). The comparison of IPAS Subsection means of only those in the non-healthcare cohort pre and post-survey showed an increase in mean Likert scores in the following subsection: Patient-Centeredness, interprofessional bias, and Diversity and Ethics. However, using a confidence interval of 95% and a p value of < 0.05, none of these results showed a significant difference from pre to post-survey (Table 3). Figure 1 provides the mean raw scores of IPAS Subsection by healthcare and non-healthcare sites pre and post-survey.

Table 1: Demographics of Pharmacy Students Sampled

	Pre-Survey Total Participants (n=110) (%)	Post-Survey Total Participants (n=78) (%)
Female (%)	66 (60.0)	52 (66.7)
Male (%)	43 (39.1)	25 (32.1)
Non-binary (%)	1 (0.9)	1 (1.3)
Mean Age (Standard Deviation)	20.6 (1.9)	21.6 (2.4)
Healthcare site (%)	44 (40.0)	28 (35.9)
Non-Healthcare site (%)	66 (60.0)	50 (64.1)
Previous Work Experience - None (%)	2 (1.8)	3 (3.8)
Previous Work Experience – Healthcare setting (%)	7 (6.4)	45 (57.7)
Previous Work Experience – Non- Healthcare setting (%)	32 (29.1)	30 (38.5)

Table 2: Overall Pre/Post Comparison of Student IPAS Responses

Subsection	Pre-Survey Score (n=110)	Post-Survey Score (n= 78)	Mean Difference	p-value*
Teamwork, Roles, and Responsibilities (9 questions; max score 45)	39.52	39.96	0.38 ± 3.90	0.265
Patient- Centeredness (5 questions; max score 25)	23.40	23.92	0.55 ± 1.67	0.020
Interprofessional Bias (3 questions; max score 15)	9.71	10.41	1.09 ± 2.61	0.005
Diversity and Ethics (4 questions; max score 20)	19.12	19.32	0.05 ± 1.22	0.401
Community- Centeredness (6 questions; max score 30)	27.59	27.55	-0.45 ± 3.42	0.198

*One-tail p-value.

Figure 1. Mean Raw Scores of IPAS Subsection by Healthcare and Non-Healthcare Sites Pre and Post-Survey

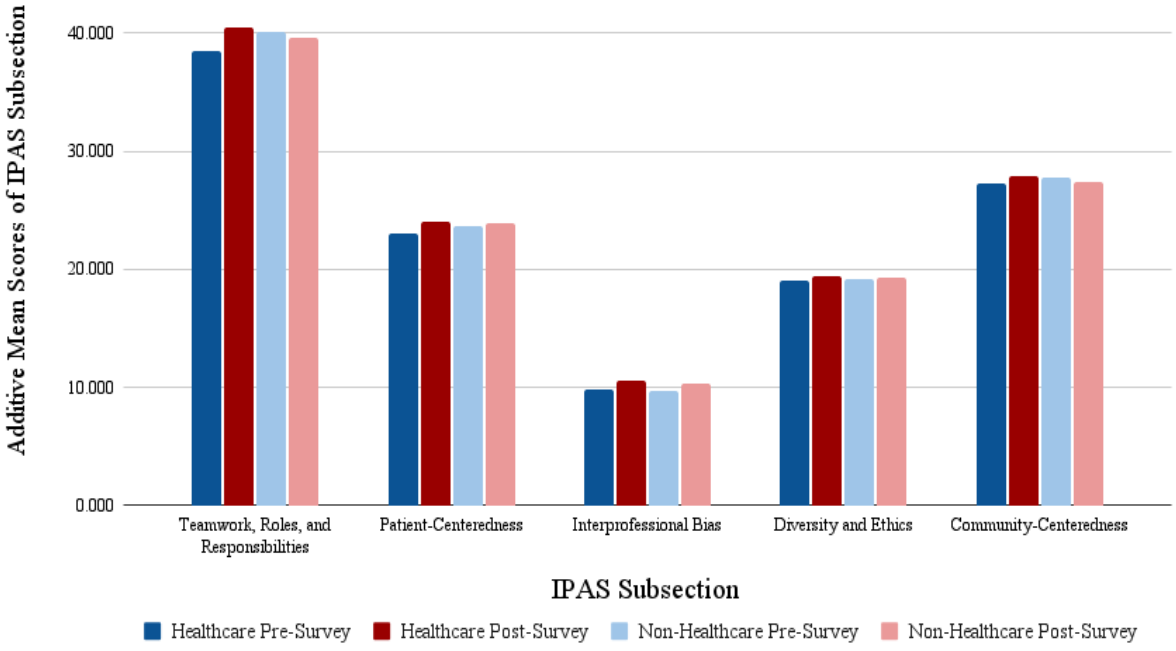

Table 3: Mean Scores of IPAS Subsection and Site Experience by Healthcare Sites Pre and post-survey and Non- Healthcare Sites Pre and Post-Survey

Healthcare Sites						
Subsection	**Pre-Survey (n=44)**	**Standard Error Mean**	**Post-Survey (n=32)**	**Standard Error Mean**	**Mean difference**	**p-value †**
Teamwork, Roles, and Responsibilities (9 questions; max score 45)	38.52 ± 6.59	0.99	40.47 ± 3.79	0.67	1.95	0.14
Patient-Centeredness (5 questions; max score 25)	23.07 ± 3.59	0.54	24.00 ± 1.69	0.30	0.93	0.18
Interprofessional Bias (3 questions; max score 15)	9.820 ± 1.50	0.23	10.61 ± 1.28	0.23	0.79	0.11
Diversity and Ethics (4 questions; max score 20)	19.02 ± 3.02	0.46	19.39 ± 2.93	0.53	0.37	0.27
Community-Centeredness (6 questions; max score 30)	27.27 ± 0.60	0.09	27.84 ± 0.99	0.18	0.57	0.42
Non-Healthcare Sites						
Subsection	**Pre-Survey (n=66)**	**Standard Error Mean**	**Post-Survey (n=46)**	**Standard Error Mean**	**Mean difference**	**p-value †**
Teamwork, Roles, and Responsibilities (9 questions; max score 45)	40.18 ± 3.68	0.45	39.62 ± 4.16	0.61	-0.56	0.45
Patient-Centeredness(5 questions; max score 25)	23.62 ± 1.89	0.23	23.87 ± 1.77	0.26	0.25	0.48
Interprofessional Bias (3 questions; max score 15)	9.64 ± 2.41	0.29	10.28 ± 2.32	0.34	0.64	0.16
Diversity and Ethics (4 questions; max score 20)	19.18 ± 1.30	0.16	19.28 ± 1.33	1.94	0.10	0.69
Community-Centeredness	27.80 ± 2.48	0.30	27.35 ± 2.98	0.44	-0.45	0.39

(6 questions; max score 30)						

†2 Tailed equal variances assumed for significance

Discussion

Our study was the first to include a survey-based pre/post comparison of the change in interprofessional learning attitudes during a service-learning course in first professional year student pharmacists. Our study also is the first to include a comparison of learning between two different categories of interprofessional practice sites. For our study, the IPAS survey was utilized because this validated instrument was designed to assess the Interprofessional Education Collaborative (IPEC) Core Competencies for interprofessional collaborative practice (Norris et al., 2015; Interprofessional Education Collaborative, 2016). Our research demonstrates a slight improvement in the overall IPAS scores from pre to post-survey. Healthcare and non-healthcare intra-cohort score differences were not significant.

The overall survey results reveal that students may develop various interprofessional skills through service-learning, whether the experience is a healthcare or non-healthcare environment. Specifically, students can see an impact in four of the five subsections: (1) Teamwork, Roles, and Responsibilities, (2) Patient-Centeredness, (3) Interprofessional Biases, (4) Diversity and Ethics. This indicates that a student may benefit from service-learning regardless of site placement.

For all five subsections, there was a positive increase in the mean Likert scores of students in the healthcare cohort. For the non-healthcare cohort, students saw an increase in mean Likert scores in only these three subsection: Patient-Centeredness, Interprofessional Bias, and Diversity and Ethics. While the non-healthcare cohort did not see statistically significant changes from pre-survey to post-survey in any of the subsection, this could be due to the responses reaching a ceiling effect on the pre-survey (Fusco et al., 2019).

Through partnering with community health and non-profit organizations across the city of Pittsburgh, expansion of service-learning from traditional healthcare sites to include the non-healthcare sites that offer support and outreach as part of service-learning opportunities mitigated challenges of site prevalence, preceptor availability, and other challenges that could be barriers preventing students from being integrated into early interprofessional learning experiences. The improvement in core IPEC competencies across all service-learning environments supports inclusion of both types of settings in IPE activities.

Overall, the results of this study support the concept that first year pharmacy students benefit in learning the many important aspects of interprofessional collaboration through service-learning, whether they are placed in healthcare settings or non-healthcare settings.

The results from this study parallel the findings revealed by Gillette et al. (2019), indicating that the interprofessional skills practiced at service-learning sites are vital to the success of the world's future healthcare professionals. Although Gillette et al. conducted research in a broader group of healthcare professional students beyond

student pharmacists, this study successfully used the IPAS as a method of gathering student results.

Similarly, the findings of Thurston et al. (2017), reveal that the understanding of each student to another can lead to better interprofessional collaboration in the future. This is an important concept to apply to the research done in this study, for the ultimate goal of our ongoing research is to understand student views on interprofessional interactions gained through experience at service-learning sites, with hopes to improve the system for future student pharmacists to come. This specific research did not use the IPAS to gather student information, rather it used the SSRQ, but the crux of the study yielded findings relevant to our ongoing IPE research.

There are some known limitations in our study. As with other IPE assessment scales such as the RIPLS (Readiness for Interprofessional Learning Scale), students seem to score on the high end of the scale at baseline leaving little room for improvement (Mahler et al., 2015; Fusco et al., 2019). In our study, students were surveyed at the beginning of the first professional year of pharmacy school and scored high at baseline. This finding is similar to other studies using the IPAS, therefore, it may be difficult to determine change from baseline to follow-up (Fusco et al., 2019; Torsvik et al., 2021). There also was a lower post-survey response rate, which could have skewed results as well. Another limitation is that not all participants could recall their unique identifier for the post-survey, so we were unable to match all pre/post surveys to assess individual results through a paired t-test. We were, however, we able to assess the samples overall in healthcare and non-healthcare sites. While the IPAS scale is a validated tool, it is not validated for pre and post-survey comparison, though the developers say it could potentially be used (Norris et al., 2015).

Conclusion

First professional year pharmacy students show overall improvement in the interprofessional domains of Patient-Centeredness, Interprofessional Bias, and Diversity and Ethics in a service-learning placement as part of an introductory pharmacy practice experience. There were no significant differences in mean Likert scores of each of the five subsections of the IPAS in first year pharmacy students, regardless of placement at a healthcare related or non-healthcare related site from the beginning to the end of their experience at the service-learning sites. These findings suggest that students may develop interprofessional skills regardless of service-learning site placement in most of the five IPAS subsections: (1) Teamwork, Roles, and Responsibilities, (2) Patient-Centeredness, (3) Interprofessional Biases, (4) Diversity and Ethics, and (5) Community-Centeredness.

Disclosure

There are no financial disclosures or conflicts of interest to disclose from any of the authors

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ABSTRACT

Why Mindful Service-learning?

While over 30 years of service-learning has yielded many benefits, I have found that students today are more stressed than ever, that meaningful and effective preparation for reciprocal service-learning can be lacking, and that an exclusively Western perspective could be expanded to include Eastern views, thereby better preparing students for a global world. Mindful Service-learning draws on established service-learning practices, the Eastern practice of mindfulness, and Asset-Based Community Development to foster healthful student learning and meaningful university-community collaboration. Specifically, mindful service-learning utilizes Eastern tools—being present, beginner's mind, deep listening, compassion—in addition to more individualistic and analytical practices, to broaden the contemporary approach to service-learning. Focused on an intersectional perspective, it is an innovative way to address privilege, oppression, identity and power dynamics in all environments, but especially in complex urban settings. As I will demonstrate through a review of past practice as well as a study of contemporary student experience, this approach can help students from different backgrounds and various academic disciplines engage in authentic service-learning partnerships as well as learn lifelong wellness skills.

MINDFUL SERVICE-LEARNING: AN INNOVATIVE PEDAGOGICAL APPROACH

Tend the World and You Tend Yourself: Tend Yourself and You Tend the World

Helen Damon-Moore, PhD
DePaul University

Student Testimony From Study:

I was 100% affected by the mindfulness aspect of class. I used to be a whirl of action, execution, homework, details; I had no purpose of learning, doing. I am present now in what I do in service-learning. I received my best grades through mindfulness and I think I did my best work with community.

Introduction to Mindful Service-learning and Its Foundation

The case study presented here provides a guide to (1) relevant service-learning, mindfulness, and ABCD literature; (2) a study of perspectives from undergraduate interviews and written work from DePaul University (Chicago); and (3) the integration of the two in order to explore the benefits of a mindful approach to service-learning. As a feminist professor and service-learning administrator who fosters faculty engagement, I have evolved a Mindful Service-Learning approach that incorporates Eastern and Western perspectives, and an asset-based lens, in courses such as "Mindful Activism" and a Community Service Studies Capstone Internship course. While it is difficult to include perspectives from other institutions here, given the apparent rarity of examples, I have developed this approach through courses taught at a private liberal arts

college, a medical school, an Ivy League institution, and a large urban university, creating an inclusive and possibly transferable model.

Apropos of a combined Eastern-Western perspective, Buddhist educator Jack Kornfield asks,

Here we are at this time on the earth – what kind of seeds are we planting and tending? There are unhealthy seeds of ignorance, greed, fear, hatred, and delusion—when we plant these seeds and allow them to grow they bring enormous suffering… But there are other seeds, there are seeds of generosity, clarity, gratitude, compassion, and mutual respect….Which ones will you water?

Kornfield (1986), The Wise Heart: A Guide to the Universal Teachings of Buddhist Psychology

These are questions that we may ask our students, and their community partners, to address through service-learning, but do we always provide the tools to consider them, answer them, and promote health and lifelong learning? All partners bring assets to the enterprise of service-learning, but when faculty, community partners, and students work interdependently, we introduce complications of identity and experience and systems. While we have traditionally addressed them through critical reflection, such reflection has often occurred after the experience (Jacoby, 2017; Eyler, et al, 2001). In a more proactive and learning-centered approach, interested faculty must first be trained in mindful practices; they can then convey to their students the capacity to be present, listen deeply, and practice compassion toward themselves and others. This does not mean, however, that critical analysis and a focus on citizenship have to be left behind.

Mindful Service-Learning practice gives us the opportunity (1) to think back to the roots of service-learning in both Western and Eastern traditions, (2) to consider and apply contemplative practice to deepen student-community reflection and promote personal well-being, and (3) to apply asset-based approaches in work in the community. In so doing, we can introduce and combine wide-ranging perspectives through the study of authors around the globe, enriching our approach to service-learning (Mitchell, 2008, 2020; Stoecker, 2009), and work toward more egalitarian or decolonizing our community engagement (Santiago-Ortiz, 2019). And by engaging conceptually and practically in the same real-world spaces with a wide variety of community members we can make progress toward meaningful, productive, and sustained relationships, while at the same time supporting all participants' emotional health (Thompson, 2023).

Although the term "service-learning" was not coined until the 1970s, the foundation of mindful service-learning was present much earlier (Busch, 2002). The roots of service-learning can be found in Indigenous, Eastern, and early Western traditions. For example, Wilma Mankiller employed the long-standing traditional Cherokee practice of *gadugi*, based on interdependency and reciprocity among clans and families, before and during the service component of the National Indian Youth Leadership Project in the 1970s. Today the national service family joins the global community in marking Nelson Mandela International Day celebrating the "public

servant of the people" who believed that service to others should be embraced as a cultural norm (Damon-Moore, 2000).

Oft-cited, Paolo Freire emphasized education that aimed to empower, especially those who were economically and socially marginalized. He believed in education that raised critical consciousness *(Conscientizacao*) and enabled students to perceive social, political, and economic contradictions and then take action against the oppressive elements of society (Freire, 1968). Myles Horton and others founded the Highlander School, which advanced similar ideas of emancipatory education, working through the Labor Movement and the civil rights movement of the 1950s and 1960s. (Busch, 2002) Thich Nhat Hanh came to espouse Engaged Buddhism, which combined a reflective monastic life with meaningful involvement in local communities and working for change in the larger world. Today, Kamilah Majied, black feminist educator and Buddhist activist, calls for "joyfully just" engagement in the community. While Freire is commonly referenced, the others are seldom cited in the body of service-learning literature, but they and others afford a wealth of innovative and multicultural approaches to teaching students about privilege, power, and oppression through service. (hooks, 1940; Magee, 2019; Berila, 2022; Barbezat, 2004; Majied, 2024)

Traditional, Critical/Decolonizing, Asset-Based Pedagogical Context

Just as it has roots in multicultural earlier forms of service, Mindful Service-learning is grounded in contemporary service-learning practices, and mindful and asset-based approaches. As Namdrol, et al (2020) note, over the past decades community-engagement scholars have built a solid foundation of knowledge that explores ways in which interaction with the community affects students, community members and organizations, faculty, and institutions. (Holland, et al, 2001; Giles & Eyler, et al,1994; Kescskes, 2015; Chupp, 2020; Howard, 2004). Much of this work has focused on further developing skills, attitudes, and behaviors associated with Western democratic or civic principles (Jacoby, 2017; Howard, 2001; Johnson, 2017; Ehrlich, 2000). Leadership and social responsibility are emphasized in local, national, and global multicultural society (Jacoby, 1996). Traditional service-learning also features reflection after the activity more than preparation before. It is criticized by subsequent service theorists for having little systemic, bigger picture analysis (Mitchell, 2008; Stoecker, 2016) and for being most often initiated by faculty, not in concert with community (Cruz, 1990). From an ABCD lens, the conventional motivation has too often been that the community needs "help," i.e., a deficit analysis (McKnight, 1988; Hamerlinck and Plaut, eds., 2014). Finally, rewards are largely formal and extrinsic—e.g., grades, credit hours (Mitchell, 2008; Wade, 2002; Pompa, 2000; Hernandez, 2016) and students are not viewed as leaders in partnerships (Zlotkowski, et al, 2002). The critical model emerges in the early 2000s in reaction to traditional service-learning, asserting that students should challenge root structures

and avoid paternalism, forced volunteerism, and a condescending concept of charity (Mitchell, 2008; Prentice and Robinson, 2010; Gallini and Moely, 2003; Cress, 2004). Further, decolonized service-learning involves rejecting and dismantling the colonial, racist and inapplicable model of privileged (assumed white) college students helping needy community members (assumed to be of color). As Santiago-Ortiz says, "With the recent shift of global politics to the right and the ever-present neo liberalization of higher education, there is a need to envision pedagogies that disrupt complicity with the neoliberal and settler colonial project in education." (Santiago-Ortiz, 2019; Hurtado, 2018).

Since DePaul University is located in two separate geographic locations, placing 4000 students each year in service-learning courses and internships across the city of Chicago and in nearby suburbs, I use ABCD with my students and community partners more as a lens and a process than as a strictly neighborhood-based practice, grounded in a feminist engaged pedagogy. Students work at what ABCD practitioners call the "association" or "institution" level with schools, after-school programs, food pantries, mindfulness programs, and a variety of other organized activities and deepen their connection to classroom material.

Mindfulness

Mindfulness encompasses a wide variety of practices, processes and characteristics, including the capacities of close attention, awareness, memory/retention, and discernment/acceptance (Van Dam et al, 2018; Kabat-Zinn, 2018). Prior to using a mindful approach, my students typically felt educated and enlightened by their readings and critical analyses, but they also too often felt disempowered or even paralyzed. Connecting the dots from a recognition of systemic oppression to the positive tools for engagement offered by mindfulness and ABCD is one of my original motivations for incorporating these approaches into service-learning practice. With regard to ABCD, Mindful Service-learning offers students—and faculty and staff--an invitation to be more active, intentional, and reflective about their work in the community; it must be *practiced*. Thich Nhat Hanh said that mindfulness "shows us what is happening in our bodies, our emotions, and hearts…and sees it as a process that allows us to avoiding harming others or ourselves." (Steinfeld, 2018). The Buddhist concept of the Bodhisattva, that is, to "tend oneself is to tend the world and to tend the world is to tend oneself," is a profound expression of the concerns for human flourishing, active citizenship, and advocacy.

The benefits of mindfulness and meditation for college students are well-documented (Davidson, 2012). In short, such a practice, even if minimally undertaken, can help students to

- manage stress more effectively and work through it more quickly;
- improve their cognitive performance;
- achieve academic success in a variety of ways; and
- experience greater resilience.

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Mindful Service-learning Pedagogy

My courses feature challenging and fulfilling work for students through their internships or group projects in Chicago non-profit and grassroots organizations. Community partners using an implicit mindful approach--possible to replicate at most sites--have included Mindfulness Leader, which has served over 8,700 Chicago Public School middle and high school students in the last 5 years with its mindful curriculum; as well as San Miguel Middle School, Lakeview Pantry, The Family Place, Just Harvest, Chicago River Alliance, Parole Illinois, Chicago Votes, and a number more. Mindfulness and contemplative pedagogy invites students to situate themselves within the content of the courses and then apply their learning to their lives and their work with their community partners, as Beth Barila puts it, in "a clear parallel to anti-oppression pedagogy." As in traditional service-learning practice, students create websites, research water quality, seek grant opportunities, advocate in food justice campaigns, but with the intention of

1. Focus and attention building through mental exercises
2. Compassion, connection to others through service
3. Contemplation and introspection through reflection
4. Inquiry into the nature of their minds, personal meaning, insight and social action *(Adapted from Barbezat and Bush, 2014, 11)*

Student Testimony From Study:

A garden won't grow on its own; it takes everyone; and in turn it will nurture everyone. I am a better person in the community/earth; climate change is very important to me for ex. The world gives us fruit, beauty, what we need to live. The community is better; we need to be authentic people in exchange.

In the face of the challenging concepts such as diversity, privilege, and systemic oppression present in the readings that I have always taught, I have included selections from Sharon Salzburg's *Real Change: Mindfulness to Heal Ourselves and the World;* Thich Nhat Hanh's *The Miracle of Mindfulness*; Pema Chodron's *Welcoming the Unwelcome*; Rhonda Magee's *The Inner Work of Racial Justice;* Jack *Kornfield's The Wise Heart*; Jon Kabat-Zinn's *Full Catastrophe Living*, Kamilah Majied's *Joyfully Just*, and Dan Harris's, *10% Happier*, among others, providing positive and multicultural tools for critical analysis, coping, and thriving. As their professor I have always asked students to consider and frame their community work in light of challenging issues, but our mindful reflection has added an element of

skillful and healthy “presence” that has seemed to provide a way forward to be more responsible on my part as an educator. Given the potential for service-learning to “promote,” in the words of Chupp and Joseph, “paternalistic attitudes and stereotypes” the “tend the world” approach should “be carefully designed to expose students to the root causes of social problems.” (Chupp, et al, 2021)

Methodology and Results

After evolving a mindful engagement approach over the years and observing mainly positive effects, I embarked on a comprehensive literature review related to service-learning, mindfulness, and ABCD, which yielded only the Loy and Namdrol/Kesckes articles cited below, despite the possibilities for application across institutions and disciplines and bridging theory and practice.

I framed my study in light of the findings of Namdrol and Kesckes (2020) and Loy (2019), to interrogate the benefits of mindfulness as associated with service-learning. In addition, I sought to evaluate the impact of mindful service-learning in light of “Student Difficulties in Service-learning,” a compilation of studies noting that undergraduate students who “participate in service-learning are, while experiencing many positive outcomes, (Seider et al, 2012; Weiler et al, 2013; Wilson, 2011; Burfe, et al, 2016) are also likely to report

- a lack of classroom organization in service-learning
- safety and transportation concerns
- anxiety regarding their new role
- unmet expectations
- interactions with other students
- connecting with community members

While I do not believe that such an approach is a panacea, I do believe that each of these concerns can be addressed by a mindful and strengths-based approach having seen positive effects over the years, as demonstrated by my 2022-2023 study and evaluation.

I sought to understand more formally students’ experiences of serving communities through courses and internships. Of the 16 students interviewed for this study, 3 were Juniors and 13 were Seniors. They were all advanced students for whom the future was uppermost in their minds. While the sample was small, I interviewed each student for 1.5-2 hours, yielding much information. In addition, I analyzed 24 student papers, together yielding an ample amount of relevant material. (Catlett, et al, 2018) Since I invited just two classes (in addition to interns) to participate in the interviews, I was pleasantly surprised when 6 men agreed to participate (disproportionate to the number of men in each of my classes, which reflects national gendered trends in who participates in service-learning (some studies demonstrate that 75% of participants are women, which has implications for society as a whole). I think this may indicate young men’s receptivity to the universality of mindfulness as an approach (Busch, 2022; Rykov, 2014). Given the skills they had learned in class, men as well as women saw mindfulness as well as ABCD as a

valuable way to connect with the community.

According to Yin (2014); and Kesckes (2020) an exploratory research design is most appropriate when there is no pre-determined outcome for the research, and when there is no hypothesis to be tested. Thus, in this case, in addition to the literature review, human subjects' approval was obtained and individual semi-structured interviews were conducted, recorded, and transcribed for the data collection phase. A second reader surveyed my notes. (Gelmon, 2018; Kesckes, 2020) The study was comprised of the experiences of DePaul University undergraduate students who had completed my Mindful Activism or Community Service Studies Internship Capstone courses. Each course featured significant community engagement, asset-based development, and mindfulness components. Interviews were conducted by Zoom well after completion of each course. Interviews were audio recorded as well as transcribed and coded independently by a third party (Ravitch, et al, 2019). I surveyed fourteen students from the Capstone Internship courses of 2021 and 2022; two students from the "Mindful Activism" course (taught prior to the pandemic); and scanned 24 student papers from the past 4 years for related commentary.

Research Questions and Data Analysis: What, So what, Now what?

Did mindfulness affect your learning skills/style, and, if so, how? *38 students answered in the affirmative.* *Virtually all students reported that mindfulness had helped them significantly with study skills and reflection. Two of the class cohorts I interviewed had been enrolled during the pandemic.*
Did mindfulness help you with focus, time management, or stress? 34 students answered in the affirmative. *Two of the class cohorts I surveyed had been enrolled during the pandemic and students and community partners found them especially stressful. One student said, "I felt like I was in a 'black box' in the pandemic, and mindfulness in our course was a way out of that." Students generally became aware of the benefits of focus, prioritizing, not procrastinating but taking breaks, and of paying attention more mindfully in class, including online when they turned off other devices.*

Did mindfulness affect your internship work in the community, and, if so, how? *31 students answered in the affirmative.* *The study revealed that students have learned from and utilized the rich resource of the mindful approach with the organizations where they were engaged, "tending the world" with this tool to make social change. Mindfulness exercises and engagement were clearly helpful in coping with projects undertaken with colleagues and community partners only on Zoom.*
Did mindfulness affect your relationships with classmates? *21 students answered in the affirmative.* As one student said, "*as Community Service Studies Minors, we came into this capstone class already knowing one another. So it didn't affect me much either way."* *Seventeen students said that they grew closer as a group and that mindfulness aided their group work. Of their own accord they gained a larger understanding of their communities' and the world's issues and created a cohort, or as Buddhists would name it, a "sangha," with whom to do it. "We were called to start with an open mind, listened deeply, and began to* recognize their own assets as a group as well as those of the community to call upon in working for social change," one student shared.
Did you see any connection between asset-based community development and mindfulness? *18 students answered in the affirmative.* *Students from 2020-2022 were more likely to answer this question in the affirmative, since I have addressed it and applied more in later iterations of the courses. Those who did suggested that "mindfulness and ABCD helped us see possibilities in the face of challenges in the bigger picture."*

How did you come to consider and understand "Tend the world, I tend myself; tend myself I tend the world?"

The study revealed that students have learned from and utilized the rich resource of the mindful approach with the organizations where they were engaged, "tending the world" with this tool to make social change.

For example, a student who had worked at a food pantry for three years reported that it was "challenging because of emotions," saying that she had "paused" mindfully when a patron screamed because she had been denied food at the pantry "and we all felt our vulnerability. I learned," she said, "to respond rather than react and to let go of things I had really brooded about before. I gave grace versus pushing through." She shared this challenging situation in class, without using names, of course, and her classmates encouraged her to pursue the situation at her site, i.e., to tend the world, for the client's sake, for the staff's sake—and for her own. Her professional colleagues at the pantry had been supportive of her work in general but there was no systematic training on how to cope with the difficult emotions that might arise for a service learner or intern. "Our class is where I learned that" she said. "I discerned many assets at my site, but basic needs for such coping were not being met." As a result of her deep listening, this student broached with her colleagues the creation of a training program for interns, which she, a Human Resources major, later helped to create.

Have you practiced some type of mindfulness post-class?

8 students answered in the affirmative.

A challenge of the study is that I teach almost only seniors, and I did not predict the study for those who were graduating. But those I was able to reach 2 years or out reported some kind of practice, whether it be as simple as mindful eating, or using Headspace Meditation, or volunteering to teach mindfulness in the schools. All graduates with whom I talked tried to be mindful in their daily living.

Is there anything you would like to add?

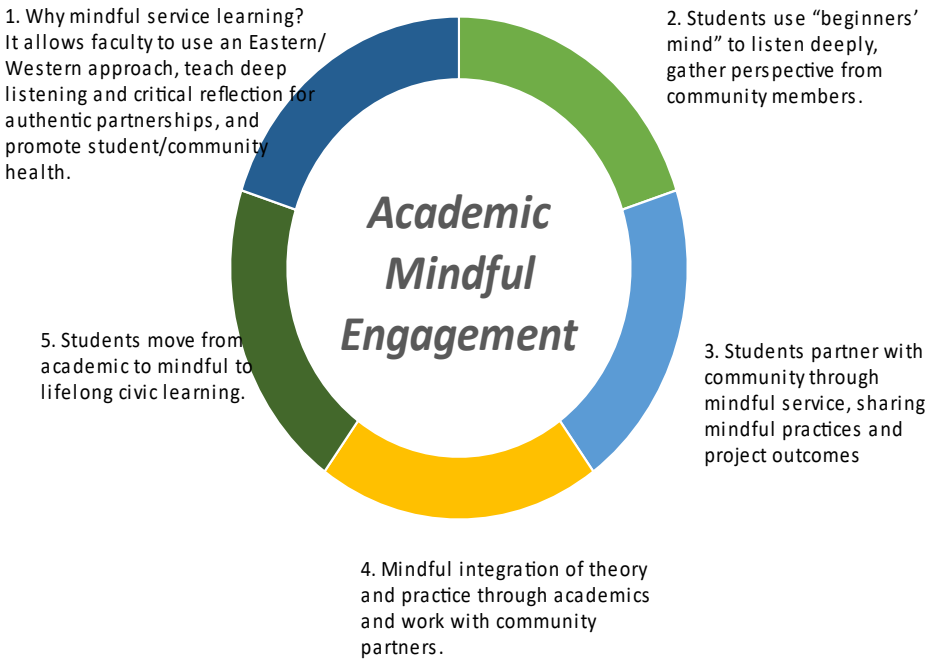
"*Mindful service-learning helps you know what you are good at (your "gifts"). That's the first thing folks from the community ask of volunteers—beyond their resume. And it's great if you can answer that mindfully. Then you can really work with them."*

On the best days, given all the complications of their lives, during their work together with their community partners and with one another students came to feel gratitude and joy in their work. In my interviews they celebrated their engaged education and attested to the lasting impact of their work in the community, their class bond, and their own self-image.

Rooted in Buddhism and with many secular applications in psychology and education, mindfulness can be taught and practiced in the classroom and, through structured exercises and the cultivated habit of paying careful attention in daily life, in the community beyond (Davidson, 2012), making it relevant to the challenging task of any service-learning endeavor as well as pedagogical approaches in general. It is a high impact practice that can help to boost engagement for men as women and the confidence of first-generation and students with mental health issues, thereby offering faculty significant teaching opportunities.

Community-based Service-learning Course Strategy

As the diagram demonstrates, my courses feature preparation for service through “beginner’s mind” and deep listening to both oneself (positionality) and to community members, thereby helping to establish the connection between “tending the self” and “tending the world.”They sometimes feature asset-mapping in conjunction with the community. Lelong learning is furthered. Academic content, ABCD instruction, and preparing to partner through mindful practices are all shared in parallel. And students seem to retain this process orientation, as my study shows.



Mindful pedagogy can result in deep reflection, healthier students, more compassionate partnerships with the community, and fostering the common good.

Student Testimony From Study:
I had heard about ABCD through classes, but our consideration of mindfulness made me much more intentional about stepping into a physical or mental space in the community. It also made me think more about what "stepping out" (leaving) when I was done would be like, and there was no easy answer to that.

Another way to represent Mindful Service-learning is through the Bohdi Tree image. Common in Buddhist practice the tree represents the blend of Western and Eastern approaches, which better approximates the liberatory approach espoused by Freire and contemporary scholars (Mitchell, etc.)

Conclusion

Mindful Service-learning can be secular or spiritual in nature and adapted to all disciplines (Barbezat; Pink, et al; Kesckes, et al). It is important to be respectful of the "tending" practice in relation to our community work and to tend cooperatively *with*, rather than in a patronizing way *for* the community. "Tend" is a word that my courses interrogate from both a Western and an Eastern perspective emphasizing a positionality and systems analysis and the goal of working together. The full concept—"Tend Yourself, You Tend the World; *Tend the World, You Tend Yourself*,

suggests a balance that students easily grasp no matter what their personal circumstances, the challenging issues we are considering, or the community members with whom they work. While not "saving the world," a stance which service advocates at their most ardent can promote, I have found that students and community members can tend their corners of the world in ways which tilt toward social justice. For example, one of my interviewed students worked with "Repair the World" on issues of Jewish rights while another developed curriculum for a Mecca youth group; others worked for food justice, STEM activities, and making ESL resources available digitally for community members from his home community center.

The time is right for an Eastern/Western blend in a mindful, global blend of tending the world and the self" for both women and men. As Santiago-Ortiz writes, "with the ever-present neo liberalization of higher education, there is a need to envision pedagogies that disrupt complicity with the neoliberal and settler colonia project in education." (Santiago-Ortiz…Kesckes, 2022; Loy, 2018; Steinfeld, 2019; Barbezat and Bush, 2014). And as a Director of Faculty Development I believe that many faculty members, students, and community partners could benefit from the mindful approach as a personal form of reflection or self-care, or as a pedagogical practice. We have assets and we need to further develop them through, as ABCD Steward of the ABCD Institute says, "working in the same spaces" or "the world." (Thompson, DePaul Faculty Community Institute, June 2023). John McKnight, one of the founders of the ABCD approach, called it "falling in love with the community;" we can also be enlightened by the current work of Buddhist activists like Kamilah Majied who proclaims that "fierce compassion when acted on becomes a skill, a response-ability, and an ability to respond instead of reacting." (Majied, 2024).

Challenges relate to the perceived time this approach may take away from "content delivery" and a hesitation on the part of faculty and administrators who might view such a mix as too innovative. But we must recognize that reflection and reflexivity are essential for responsible and ethical practice, on the part of the university as well as students and community partners. When we can bring mindful awareness to our work we can incorporate it as an asset for all.

Student Testimony from Study:
Mindful service-learning helps you know what you are good at (your "gifts"). That's the first thing folks from the community ask of volunteers—beyond their resume. And it's great if you can answer that mindfully. Then you can really work with them.

A Comprehensive Institutional Mindful Model

Given widespread interest in mindfulness and the potential for Mindful Service-learning, the ideal context for fostering mindful engagement on campus and in the community might be:

- The college or university takes a mindful approach to health and engagement in general, perhaps through a Mindfulness Center, examples of which exist (paralleling the earlier development of community engagement centers);

- Faculty partner mindfully with specific community partners with the assistance of the community-based service-learning center;
- Faculty teach students through orientation, reflection, mindfulness/critical analysis (community partners often help);
- Students build relationships with community and vice versa through beginner's mind deep listening and an asset orientation;
- Students, community partners, faculty, and university integrate theory and practice;
- Social change for students, community members, and faculty occurs in the same social spaces toward similar ends;
- Mindful skills and compassion are sustained; and, eventually,
- A global network for mindful engagement and contemplative practice is created.

Student Testimony From Study:

A garden won't grow on its own; it takes everyone; and in turn it will nurture everyone. I am a better person in the community/earth; climate change is very important to me for ex. The world gives us fruit, beauty, what we need to live. The community is better; we need to be authentic people in exchange.

Themes Emerging as Most Salient--Responses from Student Participants

- Theme 1. Mindfulness helps students with study skills and stress. Most salient, reflects the literature. Complements service-learning through general stress, especially in the time of the post-pandemic.
- Theme 2. Mindfulness helped students to prepare for service-learning.
- Theme 3. Mindfulness helped students to build relations with peers and community partners.
- Theme 4. Mindfulness and ABCD helped students to see possibilities in the face of challenges in the bigger picture.

Student Testimony From Study:

San Miguel assets a grounding pt.—we started there, especially with the 8th graders! Mindfulness a way to connect the dots to ABCD in the community and to come together ourselves. I took "Mindful Activism" because I was really interested in the blend. I was going through difficult times personally and mindfulness helped me accept things as they were and not be overwhelmed. I was also able to focus on the children at San Miguel.

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