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From the Editor…

Shannon O. Brooks

It is a pleasure to introduce the spring issue of the *Journal of Higher Education Outreach and Engagement* (*JHEOE*). Articles selected for publication typically address broader institutional issues in higher education connected to scholarship that advances theory and practice related to *all forms* of outreach and engagement between higher education institutions and communities. As a result of this broad lens, the collection of articles in this issue represents a spectrum of engaged scholarship and community engagement approaches, and the many ways this work has matured and become part of regular institutional discourse. In these pages, authors examine ways service-learning and community engagement are tied to ongoing questions and issues of higher education policy, praxis, quality, and social concerns. As further examples of this broad scope, some of these topics include the challenges of scaling service-learning in large courses, assessing critical service-learning approaches, recognizing engaged research in the tenure and promotion process, and ways community engagement has expanded globally.

The Research Articles in this issue of *JHEOE*, foreground questions and topics ranging from studies addressing gaps in service-learning course design and implementation to a study that provides new approaches to mentoring in the sciences. "The Struggle Animates the Learning" leads off this section with Suiter et al.'s qualitative study conducted over five semesters in a community-engaged applied evaluation course. In this course, students applied their formal knowledge of evaluation practices and honed their evaluation skills through a community-engaged project. This study assessed students' experiences and perceptions of the impact of experiential learning, community partnerships, and interdisciplinary collaboration on their professional development as evaluators. Authors cite the value of ambiguity in community-based projects as a challenge and asset to student learning and development, and reveal practical applications for teaching evaluation skills using a community-engaged approach.

An ongoing question with implications for many higher education institutions is how to implement service-learning through large enrollment courses and the many attendant challenges of scaling up. Scheffelaar et al., tackled this concern through a qualitative multiple case study of three large-scale university courses with enrollments of over 100 students at the Vrije Universiteit Amsterdam. Large enrollment service-learning courses present not only logistical challenges, but also issues of adequate supervision and concerns about the quality of the service-learning experience for students and community partners. Based on findings from this study, the authors present strategies for overcoming these challenges and enumerate many benefits for incorporating service-learning in large courses. For example, not only do large courses allow for more students to experience service-learning, but also community partners interviewed for this study revealed that the sheer number of students working on projects resulted in a benefit to their organizations because of the large amount of work that could be completed.

Another frequent challenge for community engaged institutions is town-gown relationships and the perceptions of "the city" by college students who may have limited exposure and understanding of the surrounding community. In a multimethod study, Hannibal and Galli Robertson conducted pre- and postsurvey and interviews aimed at understanding college students' attitudes and perceptions toward the surrounding city after participation in a 3 day community engagement immersion program at the University of Dayton. REAL Dayton (which stands for "Reach Out, Encounter Dayton, Act with Others, Lead Together") takes place during fall break and has been offered since 2010 with approximately 30-50 participants in each cohort. Students learn about the city of Dayton by serving at nonprofits and reflect upon their roles as community leaders. Results demonstrate an increase in positive

perceptions of the surrounding city as well as impact on the students' civic mindedness and interest in continuing to engage with community issues in the future. This study provides a structure for designing and assessing similar community immersion programs along with suggestions for future studies, which could include research on measuring the perceptions of community members and organizations involved in these partnerships.

Shileche et al., shift the focus of research on student learning in study abroad programs to the impact of these programs on host communities, and present strategies for successful partnerships. This article examines a study abroad project created by the University of Prince Edward Island in partnership with Farmers Helping Farmers, a Canadian nonprofit, as well as a group of Kenyan universities and organizations in Eastern Kenya. The purpose of this examination of a multiyear (2015–2018) study abroad program was determining the impact of research-based interventions on the emotional and social empowerment and increased civic engagement of a group of 20 Kenyan women farmers in comparison to a control group of 20 farmers not engaged with the project. In this unique program, university students were engaged in community education and research related to dairy, horticulture, and human nutrition projects with members of the Naari community. Results outlined strategies that can be employed by others seeking to develop an effective study abroad program with a research-based intervention focus.

Finally, Klein and Bell's research focused on a science mentoring program called STEM OUT, which paired graduate-level science students and high school–aged youth. Using reflective data from youth focus groups and mentor interviews, this study analyzed participant data from two iterations of the program, and outlined a mentoring structure designed to promote the concept of relational equity (DiGiacomo & Gutiérrez, 2016), where expertise is distributed across mentors and mentees and relationship building is prioritized. Findings indicate that designing science mentoring programs to position all participants as having expertise that can be shared, and prioritizing the development of positive relationships in pursuit of relational equity may help broaden participation in science, particularly from marginalized youth or youth who are disengaged from science. This study presents a novel approach to mentoring in not only the sciences, but for many forms of youth engagement.

The Projects with Promise section features early to midpoint scholarship of community-engaged projects, or projects with promising potential for demonstrating impact or addressing gaps in the engagement literature. In particular, most of the articles in this section feature studies of a range of experiential learning approaches and how they may be implemented to support and sustain positive community partnerships and student learning. First up, Light et al.'s article "The Impact on College Students of Service-Learning in After-School Programs" is a mixed methods study gauging the impact of participation in an Honors Afterschool Club on college students' learning and perceived self-efficacy, awareness of diversity and inequality, and career development. In this program, service-learning was embedded in a non-credit bearing course. As such, this research outlines a potential model for creating service-learning opportunities that are course-based but do not pass along additional costs to students, while meeting the need for engagement in afterschool programming—a common concern for many schools looking for positive student partnerships. Similarly, Schwartz and Shreya et al., investigated an ongoing volunteer-based program developed by undergraduate students at The Ohio State University over a decade ago to address social determinants of health in the surrounding community of Columbus, Ohio through weekly screenings with partner organizations. The authors provide a summary of how to set up and maintain a similar program, as well as discuss findings related to the impact of ENCompass on program alumni and community members in comparison to at-large community health data. Adding another dimension to student engagement and learning through experiential learning, Daniel and Riley investigated ways to promote equitable partnerships and student development through a study of a donor-funded internship program focused on reproductive rights and health at Tulane University's Newcomb Institute. The authors assess students' experiences related to career goals and professional development as well as understanding of social justice issues. Survey tools for interns, site supervisors, and alumni are presented and discussed. This study provides a model for

implementation of experiential learning for other universities, examines issues in program development, presents assessment data from multiple stakeholder perspectives, and provides advice for fundraising and donor relations for programs focused on critical social issues.

The Projects with Promise section wraps up with a reminder that 3 years from the onset of the COVID-19 pandemic, we are still learning about its effects across the globe and ways universities and communities mobilized and partnered. Ramirez recounts the outreach efforts of The University of Asia and the Pacific with the Aetas, Indigenous people who are the earliest known inhabitants of the Philippines. This is a remarkable account of the ways in which the personal and professional lives of community-engaged faculty and practitioners became deeply intertwined during this global public health crisis, and the extraordinary work that resulted. In addition, Ramirez presents a look at community engagement approaches from the Global South, providing a welcome and instructive model for university-community outreach.

Reflective Essays are meant to be thought provoking examinations of current issues related to university-community engagement that are anchored in the literature. The purpose of Weaver et al.'s essay is to build upon Mitchell's (2008) tenets of critical service-learning (CSL)—authentic relationship, social change orientation, and power relations—and consider more concrete strategies for how CSL is assessed. To this end, authors employed collaborative inquiry methodology through focus groups of scholar-practitioners. Through these formal discussions with seasoned community-engaged scholar-practitioners, the authors posed an important question—how do we measure outcomes and impacts of critical service-learning? The authors expand our understanding of CSL's implementation, utility, and impact and the inherent difficulties in developing a standard assessment practice that is not centered around student outcomes as in more traditional service-learning approaches.

This issue culminates with a Dissertation Overview, a journal section dedicated to publishing summaries of recent dissertations addressing a wide range of research questions related to outreach and community engagement. Wendling's (2022) multisite single case study dissertation of five R1 institutions who achieved the Carnegie Community Engagement Classification furthers our understanding of how engaged research is rewarded and evaluated in the tenure and promotion process. In this study, Wendling investigates how school- and department-level promotion and tenure committees evaluate engaged research and associated processes for conducting engaged research; evaluate research products of tenure track faculty; and examines ways institutions attract, retain, and reward the work of engaged faculty.

A special thanks to our associate editors, managing editors, and contributing reviewers for their work in developing this issue of *JHEOE*. A reminder that the journal is actively soliciting new reviewers to support the peer review process and extends an ongoing invitation to fill out the form on the journal website or email the journal directly with interest. In addition, we thank our authors who have shared their work and experiences with us, outlined new directions for continued research, and enriched our thought and practice with their scholarship. We hope you will be sufficiently inspired by the scholarship in these pages to consider contributing a manuscript to the journal.

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The Struggle Animates the Learning: Exploring Student Experiences with a Community-Engaged, Project-Based Course on Evaluation

Sarah V. Suiter, Kathryn Y. Morgan, and Amie Thurber

Abstract

For instructors engaged in teaching evaluation, bridging the gap between the content of formal educational experiences and what we want future evaluators to be able to do in practice remains a challenge. Studying the format and quality of university courses focused on program evaluation is one mechanism through which we might begin to narrow this gap. This article describes a community-engaged, project-based evaluation course that was taught during five semesters, and uses qualitative data to explore student experiences within the course along three dimensions: experiential education, interdisciplinary collaboration, and community partnerships. In particular, we highlight the productive yet uncomfortable role that challenge and ambiguity play in animating evaluation learning. We suggest implications for teaching evaluation based on our findings.

Keywords: teaching evaluation, community-engaged learning, project-based learning, graduate student development

Scriven (1991) described evaluation as a transdiscipline, noting that it is a discipline that serves and intersects with many others, as well as one that spans research and practice. This means, among other things, that evaluators are prepared in a variety of disciplinary programs and professional trajectories (LaVelle & Donaldson, 2015), leading to a diverse educational profile for professional evaluators. As a result, there exist some differences of opinion about the core knowledge and skills required for evaluators, and the best ways to deliver them to aspiring professionals (Christie et al., 2014). In general, however, scholars note the importance of hard skills (e.g., research design, instrument creating, data analysis) *and* soft skills (e.g., relationship building, communication, team management) in evaluation training (King et al., 2001; Russ-Eft et al., 2008). Despite this emphasis, researchers repeatedly find gaps between what evaluators are trained to do and what they must do in practice, especially related to soft skills (Dewey et al., 2008; Galport & Azzam, 2017). For example, in a survey of evaluation job-seekers, Dewey et al. (2008) asked respondents to rate their perceived ability in a list of evaluation competencies, and also asked which of the competencies had been taught in their degree programs. Aside from writing syntax (7%), the fewest respondents reported that they had been taught "relating to clients or stakeholders" (22%), "project and/or team management" (21%), or "project planning" (28%). At the same time, evaluation employers rated these as some of the most important competencies among people they hire, and rated relating to clients or stakeholders and project and/or team management as two of the areas in which they perceive the biggest gap between the needs of the field of evaluation and educational and/or practical experiences of potential evaluators (Dewey et al., 2008). Findings from a more recent survey of professional evaluators suggest this need persists: Respondents indicated that interpersonal competence and reflective practice

were the two domains within which evaluators are most in need of additional training (Galport & Azzam, 2017). Although the gap between the content of formal education and the expectations of practice likely exists in all professions, it is nevertheless worthwhile to consider the ways in which evaluation programs, courses, and professional development activities can better align evaluator preparation with the necessities of the field.

Scholars in the field of teaching evaluation note four primary modalities through which evaluation knowledge is typically developed: university programs, professional development workshops, webinars, and on-site training opportunities (LaVelle & Donaldson, 2015). In a survey of American Evaluation Association members, respondents who reported taking evaluation-specific courses had done so in a professional development workshop format (Christie et al., 2014). Many practicing evaluators report having taken only one evaluation-specific course (Christie et al., 2014), and most evaluation programs in the United States report having only two or three evaluation-specific courses (LaVelle & Donaldson, 2010). Nevertheless, LaVelle and Donaldson (2015) argued that "preservice education of evaluators is integral to quality evaluation practice as well as socialization into the evaluation profession" (p. 40). One way to meet this need is by integrating evaluation training into the professional education of students preparing to work in service-related fields (e.g., education, nonprofit management, public health; Bakken et al., 2014; Davis, 2006). Although a natural outgrowth of these observations is to recommend more robust academic programs devoted to evaluation (and the authors agree), an equally important strategy is to create robust opportunities for applied, project-based learning through community-engaged evaluation courses. In this approach to teaching evaluation, students apply their in-class learning to help meet the evaluation needs of a community partner, thus gaining knowledge and experience in both the hard and soft skills of evaluation (Bakken et al., 2014; Davis, 2006; Gredler & Johnson, 2001; Suiter et al., 2016).

Applied evaluation courses are an example of publicly engaged instruction (Doberneck et al., 2010); there are expected readings, assignments, and synchronous sessions for students, accompanied by community-engaged work by students, which may include developing an evaluation tool, a comprehensive evaluation plan, and/or completing analysis of evaluation data and disseminating results. The literature suggests some variation in how applied evaluation courses are structured: Some courses engage all students with a single community partner (Bakken et al., 2014); in other courses students are grouped in teams to support the needs of different community organizations (Suiter et al., 2016). Courses also differ on the extent to which the community partner participates, ranging from staff attending a single course session (Davis, 2006) to participating in the entirety of the course (Suiter et al., 2016).

Applied evaluation courses can serve as a critical form of professional socialization, particularly at the graduate level. O'Meara (2008) noted, "During the process of socialization, a person takes on characteristics, values, and attitudes, as well as knowledge and skills, that contribute to a new professional self" (p. 29). This socialization process is nurtured over the course of graduate education. As outlined by Weidman et al. (2001) and summarized below, graduate students entering professional programs generally progress through a four-stage developmental process. The anticipatory stage includes the application and admission process; students often enter with an idealized set of expectations for their future practice and are novices in the field. In the formal stage, students engage in coursework to receive the formal introduction to the knowledge and skills needed in the field, and move from novice to apprentice, beginning to apply their learning under the guidance of instructors. As graduate students progress into the informal stage, they deepen their knowledge acquisition and learn more about the expected behaviors and practices of their field. In this stage, learning often occurs through immersive experiences with peers and faculty, though increasingly outside formal instructional interactions. Professional students begin to shift from seeing themselves as a student to an emerging sense of self as a professional. As students successfully matriculate through graduate training, they enter the personal stage, wherein they internalize a new professional identity, synthesize learning and practice experiences, and deepen engagement in their professional community.

Pedagogically, applied evaluation courses help students bridge the formal and informal stages of their development. This

type of instruction provides some structural elements of the formal stage (such as course readings and periods of instruction) while introducing conditions of the informal stage, principally a focus on applied, project-based learning. Importantly, applied evaluation courses require students to engage with layers of complexity and difficulty that mirror the work of professional evaluators. Learning through difficulty is in fact a principal strength of community-engaged learning. As noted by Warner (2020), "As they engage in the community, students interact with unfamiliar people, settings, and tasks that generate a level of 'disequilibrium' and anxiety that stimulates deep learning" (p. 436). For students in applied evaluation settings, this disequilibrium often results from a fixed time span, limited instructor-derived requirements, and complex group dynamics (Dewey et al., 2008; Trevisan, 2004).

Furthermore, by drawing on real-world scenarios and applications, applied evaluation courses align with best practices in adult education, which emphasize a focus on collaboration, self-directed learning, and integration of past knowledge and new skills (Bakken et al., 2014; Johnson, 2017; Suiter et al., 2020). Reflecting on the value of applied evaluation experiences for graduate students, Gredler and Johnson (2001) concluded, "Perhaps most important is the nurturing of emerging professionalism. This benefit can only occur, we believe, through participation in an evaluation with real-world client concerns and time pressures, but that also provides faculty guidance and support" (p. 103). The bridging of application of skills and instructional support, such as occurs in applied evaluation courses, thus appears to be a pedagogically strong way to meet the need for more robust preservice education and socialization of evaluators.

The growing body of case descriptions of applied evaluation courses is invaluable to instructors seeking assistance in course design (Bakken et al., 2014; Davis, 2006; Gredler & Johnson, 2001; Suiter et al., 2016). However, less is known about student experiences within these courses. What aspects of these courses do students attribute to facilitating or detracting from their learning? Given that applied evaluation courses bridge formal and informal stages of graduate student development, what balance of structured and self-directed activities best serves the student's learning process? How do students experience the disequilibrium of applying their learning in real time, real life scenarios (Warner, 2020), and are there ways instructors can better scaffold their development through that process? This study begins to answer these questions through an analysis of 5 years of student evaluations from an applied evaluation course, as well as critical reflections from course instructors.

Course Description

The course is taught as one of the core skills courses available to students in a community development master's program. The goal of the program is to prepare students for management- and leadership-level positions in local government and nonprofit organizations that work to effect change at the community level. In any given semester, roughly a third of the students in the evaluation course are enrolled in the community development program; the other students come from across the university and represent other master's and doctoral programs such as public health, international education, organizational leadership, child studies, and economic development. The diversity of perspectives, experiences, career goals, and research methods knowledge and preparation that students bring to the course is one of the greatest strengths of the course as well as being one of the aspects of the course that is most difficult to channel and manage. A shared interest among students, however, is interest in gaining skills and knowledge that are relevant to real-world problems, and are developed through real-world engagement. This course was developed to attend to those interests, as well as to provide a resource for the many local organizations that had identified program evaluation needs, but no budget or access to an evaluator to meet them. Thus, the overarching goals of the course are twofold: (1) developing evaluation knowledge, skills, and capacity in students who will (likely) eventually work in public service organizations and (2) developing evaluation knowledge and skills in local organizations that are interested in building their evaluation capacity.

Each semester, the lead author sends an email invitation to local community-based organizations through personal contacts and electronic mailing lists inviting organizations to apply to participate in the evaluation course for the upcoming semester. Applicants are asked to describe their or-

ganization's mission, describe their program evaluation need, indicate the person in the organization who will attend classes, and confirm that that person will be able to attend all courses of the semester. The lead author then selects five to seven organizations per semester to participate (the number of organizations is dictated by the number of students enrolled in the course at the time). Once organizations are selected, the students who will be taking the course are then invited to rank the organizations with which they would most like to work, and the instructor matches students with organizations to form project groups. Each project group consists of three to five students and one community partner. All students and community partners participate in weekly synchronous class sessions, where time is divided between instructor-led lecture and large-group discussion, followed by time for applied work in project-based teams. The instructor circulates and consults with all teams, and provides one in-depth consultation session to all teams toward the end of the term. The groups work together throughout the semester to develop an evaluation plan and accompanying tools (e.g., sampling plan, data collection tools and timelines, data management tools and/or strategies) that the community organization can implement after the course is over. The course has been taught using this format five times over the course of 5 years. During this time, the instructor has made some changes to assigned readings and updated lectures to provide updated examples and references; however, the core content, approach, and assignments have remained the same. The same lead instructor has taught the course each time, twice with a graduate student TA and three times without one.

A more thorough description of the course, as well as findings from a small qualitative study conducted with students and community participants the first semester the course was taught, can be found elsewhere (Suiter et al., 2016). Likewise, the outcomes of the course related to evaluation capacity-building in the participating community-based organizations are forthcoming (Suiter et al., 2020). The purpose of this article is to examine students' perceptions of their own learning and perspectives on the course.

Methods

This course was taught in Fall 2014, Spring 2016, Spring 2018, Fall 2018, and Spring 2019. Data for this study were collected using the course evaluations that students complete at the end of each semester. Methodologically, course evaluations are acknowledged as a rich source for gaining insight regarding student experiences within a course, what they are learning, and how a course might be improved (Benton & Ryalls, 2016; Medina et al., 2019). In addition to course evaluation data, administrative data about students (e.g., number of students per semester, students' degree programs) were used to inform richer descriptions of the study participants.

Study Participants

Students who participated in the program evaluation course came from 11 different programs across the university. The course is designed and offered as a master's level course, and so the vast majority of students, 109 (94%), were master's students, and seven (6%) students were doctoral students. The course enrollment target is 20 for each semester, and course enrollment was relatively stable over time (25, 22, 19, 27, 25). Due to the anonymity of course evaluations, there is no way to know if there were trends in responses based on a student's program, year in school, or other demographic factors. Response rates for course evaluations ranged from 52% to 68% in any given semester, which is consistent with the university's average.

Data Collection

At the end of each semester, students are invited to complete course evaluations that contain a standard battery of quantitative and qualitative items. The evaluations are typically completed sometime within the last 2 weeks of class, are anonymous, and are released to the instructor of the course after all grades for the semester have been submitted. The university sends the link to complete course evaluations to students via their university email; however, the instructor informs students during class time that the course evaluations are coming, and encourages students to submit course evaluations. The instructor informs students that she reads and heeds course evaluations, both to improve her own teaching practice (Boysen, 2016), and to understand students' experiences with the course and how it might be improved, expanded, or replicated (Medina et al., 2019). We were

able to access course evaluation data from all five semesters of the course. During the 2017 school year, the university changed its course evaluation system and adopted slightly different question prompts, which had implications for our coding strategy. In Fall 2014 and Spring 2016, students were prompted to describe the weakest feature of the course, suggestions for improvement of the course, and suggestions for the instructor to improve their teaching style. In Spring 2018, Fall 2018, and Spring 2019, students were asked about the elements of the course that most contributed to their learning, improvements to the course they would recommend, and were given a space to include any additional comments about the course. Quantitative assessments of the course were available only after the 2017 change (i.e., for the Fall 2018, Spring 2018, and Spring 2019 semesters). The quantitative assessments of the course are summarized in the Findings section, but for the purposes of this study, we focused most of our analysis on the qualitative items, as they provide a richer source of data in terms of what students did and did not think was beneficial about the course, or what could be improved. Because course evaluations are submitted anonymously, use of these data for the purposes of this article was granted exempt status by the Vanderbilt Institutional Review Board.

Analysis

The first author compiled all available deidentified copies of course evaluations and shared them with the second author over a secure university server. The second author conducted a thematic analysis of the data (Braun & Clarke, 2012) by drawing on the course evaluation prompts to develop initial thematic domains. We then analyzed the data in NVivo (Version 12) to generate an iterative codebook by applying inductive codes to the data. The second author then discussed the inductive codes with the first author, who served as a critical friend (Kember et al., 1997). Specifically, the first author served as a sounding board for the second author's suggested coding scheme: listening, suggesting alternative explanations, and helping focus the analysis. For example, the analysis initially included suggestions from a few students who said they would have liked to implement an evaluation in the course rather than design one. Although this is an important consideration for course design and offerings more generally, it tells us less about the students' experiences within the course and was thus omitted as a code. After this discussion, the codebook was revised and organized into overall themes that fell within the domains constructed by the course evaluation prompts: course strengths and course suggestions. We organized codes within our thematic frame, with particular attention to the pedagogical links between many of the course strengths and weaknesses. This round of coding revealed three pedagogical and instructional practices from the curriculum that were present in both the course strengths and course suggestions domains: experiential education, interdisciplinary collaboration, and community partnerships. The second author then coded each instructional practice to capture students' self-reported affective responses to each central theme. Instances in which an instructional practice supported students' learning were coded as positive, and instances in which a practice hindered learning were coded as negative. This round of coding also revealed several nuanced responses in which students described struggling with a particular instructional practice while understanding the value of that practice to support their learning. These instances were coded separately. In reporting quotations in our findings below, we indicate the semester from which the data originated to demonstrate the reliance on multiple participants. Because the evaluations are anonymous, it is not possible to attribute the data to a particular student or student attributes, which is often done when reporting qualitative research. Instead, we report the respondent number and semester date by each quote (e.g., Respondent 5, Spring 2016) to demonstrate our efforts to include as many student voices as possible when reporting the data.

The authors' distinct relationships to the course reflexively sparked our interest in this inquiry and informed our investigation. As described by Etherington (2004), researcher reflexivity is "the capacity of the researcher to acknowledge how their own experiences and contexts (which might be fluid and changing) inform the process and outcomes of inquiry" (p. 19). The first author of this article was the course instructor, the second author was a student in the course, and the third author was the graduate teaching assistant for the course, who has since completed her degree and replicated this course at another university. These varied roles provided different entry points

into the focus of this study: understanding how challenge and ambiguity function in the context of evaluation learning.

Findings

Student assessments of the course were generally positive (Table 1), indicating that course content and assignments aligned with the course goals, and that the course helped students appreciate the significance of program evaluation as an academic and professional field. Perhaps most importantly for the purposes of this study, 91% of students across all years indicated that the course helped them make connections between the context of the course and broader personal and professional goals.

Results from our qualitative analysis of course evaluation responses demonstrate the strengths and limitations of engaging graduate students and community partners in an applied, interdisciplinary program evaluation course. In what follows, we outline participants' perceptions of their learning experiences in this course. Interestingly, the three instructional and pedagogical approaches that students found most central to their learning—experiential education, interdisciplinary collaboration, and community partnerships—are the same learning contexts that students found most difficult to navigate. Table 2 outlines the frequency with which the 81 students in our sample mentioned experiential learning, interdisciplinary collaboration, and community partnerships in their course evaluations, along with their affective response to each theme. "Overall" codes indicate that the topic was mentioned at all (positively, negatively, or both) by students in the qualitative portion of the course evaluations. "Positive" codes indicate that the student identified that particular theme as supportive of their learning, and "negative" codes indicate that the student identified the theme as something that caused discomfort or frustration. "Both" codes indicate instances in which the student offered, within the same comment, more nuanced interpretations of how these

Table 1. Response Rates and Select Quantitative Items From Course Evaluations 2014–2019

Course evaluation domain	Fall 2014	Spring 2016	Spring 2018	Fall 2018	Spring 2019	All years
Number of students enrolled in course	25	21	27	19	25	117
Course evaluation response rate	75%	85%	52%	68%	64%	69%
% responding "Agree" or "Strongly Agree" to the following prompts:[1]						
This course helped me appreciate the significance of the subject matter.	Not included in course evaluations		86%	92%	94%	91%
The components of this course, such as activities, assessments, and assignments, were consistent with the course goals.	Not included in course evaluations		100%	92%	100%	98%
This course helped me consider connections between course material and other areas of my personal, academic, or professional life.	Not included in course evaluations		93%	92%	88%	91%
% responding "Very Good" or "Excellent" to the following prompt:[2]						
Overall, the course was:	Not included in course evaluations		78%	69%	81%	77%

Note. [1] Response options included Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree.
[2] Response options included Poor, Fair, Good, Very Good, Excellent.

Table 2. Frequency of Assigned Coding Across Themes

Theme	Assigned coding	Frequency % of all responses	Frequency % within theme
Experiential education	Overall	48%	100%
	Positive	30%	63%
	Negative	14%	29%
	Both	4%	11%
Interdisciplinary collaboration	Overall	41%	100%
	Positive	17%	42%
	Negative	17%	42%
	Both	6%	16%
Community partnerships	Overall	68%	100%
	Positive	46%	67%
	Negative	15%	22%
	Both	7%	11%

practices served to complicate *and* enhance their learning in the course.

Experiential Education

Many students noted that the experiential nature of the course had important implications for their learning. They noted the importance of "being able to practice the skills we learned about" (Respondent 1, Spring 2019), "complete work that [was] in line with program evaluation" (Respondent 3, Fall 2018), and "apply the skills we were learning" (Respondent 3, Spring 2016) in grasping the course concepts. Much of the applied nature of the course was rooted in generating a multistep program evaluation plan that groups constructed with their community partner over the course of the semester. This project served an instructional purpose through offering students scaffolded practice in developing technical evaluation skills and resulted in a comprehensive evaluation plan that could be implemented by the community partner. One student reflected on how this project shaped her group's learning by noting that it "helped [us] review course materials and understand what concepts are most important and applicable" (Respondent 3, Spring 2019). This was particularly salient for students who expressed an interest in continuing to work with nonprofits to carry out the evaluations that they had designed, as the course served as a catalyst for meaningful partnership development.

Despite a consensus among students that this experiential approach to evaluator training was unique and generative, students often admitted missing the "organization and structure" (Respondent 2, Fall 2018) of traditional graduate classes. As they were in an applied, community-based course, students were tasked with responsibly addressing a range of difficult practical problems while gaining basic technical competencies. As students learned that evaluators are often tasked with navigating complex institutional structures, defining and measuring change, and balancing methodological rigor with organizational capacity, they were met with many of the same real-word challenges and tasked with "critically applying new skills as they were being taught" (Respondent 2, Fall 2014). The approach to evaluation training leveraged in this course included several factors that were challenging to students, including a fixed time span, limited instructor-derived requirements, and complex group dynamics.

In their course evaluations, some students offered suggestions to mitigate the ambiguity inherent in this learning experience. Suggestions referenced the pace of the

course, noting that they "move very quickly through the semester," which made it difficult to "dig deep" into the course concepts (Respondent 1, Spring 2018). Some asked for a more hands-on pedagogical approach from the instructor, as they missed the uniform "course design and guidance on the deliverables" (Respondent 11, Spring 2019) that are offered in traditional coursework. One student suggested scaling back the experiential nature of the class in order to facilitate time for concept mastery before groups applied their learning to their evaluation plan through having future participants "learn the necessary skills/tools during the first few weeks and get practice applying with scenarios, [and] after receiving the basic skills then allowing clients to come in and apply with more feedback and oversight from [the] instructor" (Respondent 6, Spring 2019). Similarly, one student shared a belief that the pacing negatively impacted their progress in the course:

> Towards the end of the course, it felt a bit rushed to develop a data management and analysis plan. It was also difficult to develop qualitative and quantitative evaluation instruments in one course period. Having more time to work on these sections would help in more thoroughly understanding the material. (Respondent 10, Spring 2018)

Other students shared the sentiment that the course felt "rushed" but attributed this feeling to their own practitioner identity development and the learning curve they were faced with in the beginning of the course. They offered process-oriented critiques of their own evaluation practice, noting that they would have benefited from "starting to think earlier about how all of the pieces for the final project will fit together, having our one-on-one group meetings with [the instructor] much closer to the final project date so we can ask for help" (Respondent 4, Fall 2018). Overall, within these critiques of the complexities of experiential learning, students demonstrated a nuanced understanding of what is and is not possible within a single program evaluation training course, as "the nature of program evaluation makes it difficult to cover all the bases in one semester" (Respondent 5, Spring 2016).

Interdisciplinary Collaboration

Disciplinary and programmatic diversity in the course was an often-cited contributor to students' perceived growth. Many students noted that they benefited from working with others from across the university to create an evaluation plan that would benefit their community partner. Students appreciated having a portion of each 3-hour class period devoted exclusively to carrying out group work with their community partner present, noting that "allowance of class time made the work load more manageable" (Respondent 5, Spring 2019) and gave groups space to "actively consider the topic in relation to the [partnering] programs" (Respondent 10, Spring 2016), as content covered in each class session was immediately applied to the community-based organization being evaluated. For example, when the topic of logic modeling was introduced in class, students spent their group time in "collaboration with our organization's representatives" (Respondent 13, Fall 2018) to translate insights about their organization into a visual model of how that group functions to achieve their goals. Many students commented on the value of bringing multiple perspectives to bear to support their community partner. One student described the richness of their collective experience in this way:

> The group setting of the class is very helpful to learning. Though we are situated within the larger class, it is extremely helpful to work on assignments and work through things that may have been misunderstood or perspectives that may not have been considered. (Respondent 3, Spring 2019)

This opportunity to bring a range of perspectives into an evaluation plan speaks to a push in the field to promote interpersonal skills and competencies within evaluation training, as employers increasingly seek out candidates with a commitment to and confidence in collaboration.

Despite the demonstrated benefits of interdisciplinary learning, course evaluations revealed a range of tensions that arose within groups. Much of the intragroup conflict was rooted in role clarity and varying levels of experience among group members. Interestingly, students with more and less evaluation experience both spoke to this tension as a barrier to their development.

For example, one novice evaluator shared that they felt "dragged through certain things by more knowledgeable students in [their] group" (Respondent 12, Spring 2018). In their course evaluation, they described the perceived implications of being a relative novice in the group on their development as an evaluation practitioner:

> I feel like I could participate in a program evaluation moving forward, but am not sure if I could successfully lead one in an organization because there were tasks that were given to people who were already highly skilled in certain areas, rather than allowing for growth of other members in our group due to time constraints. I still feel like what I learned was a huge asset to my skills, but wonder if this could be addressed on the front-end by the instructor when groups begin developing group norms the first week. (Respondent 12, Spring 2018)

This student struggled to apply skills they were developing in the course, allowing more practiced group members to take the lead at the expense of their own experiential education. Given that this was an introductory course, some professional students with previous evaluation and research experience struggled to remain engaged in technical training instruction, noting frustration with members of their group "not understanding basic concepts (how to write, basic logic, research methods)" (Respondent 2, Spring 2018). One student described their perception of the impact that working in a group with differing levels of experience had on quality of their final evaluation plan:

> It was always a struggle to wait for everyone to figure out the basic principles behind an assignment. We never got work done in class, and the outside work individuals did was sloppy. I am really embarrassed by our work. That being said, this has been a huge learning experience for me in terms of how I work with groups. This is my first time having a negative working experience, and I think having it will likely make me a better practitioner (and evaluator). (Respondent 2, Spring 2018)

Although students who shared their frustrations with their group members candidly in their course evaluations represent a small minority of course participants, their contributions illuminate an important instructional challenge inherent in group work in general, and interdisciplinary coursework in particular.

Community Partnerships

Across semesters, the aspect of the course that students most often cited as the primary contributor to their learning was the opportunity for close collaboration with community partners, as it "made the work [they] did feel more significant and relevant than work in other classes" (Respondent 8, Spring 2016). Creating a program evaluation effectively "turned classwork into real world work" (Respondent 6, Spring 2016) and offered students a space to enact an evaluator identity as they worked to deliver an actionable product to their community partner. Students adjusted their level of engagement in the project accordingly, noting that "doing an actual program evaluation for an actual community partner gave [them] a level of commitment and buy-in [they] might not otherwise have had for just a grade" (Respondent 10, Spring 2016).

Through this university-community partnership, students found that "having the community partners in the room was exceptionally helpful for building a collaborative relationship" (Respondent 7, Spring 2016). Having community partners present provided for constant member-checking of students' evaluation plans, as community partners could speak to their organizations' goals, values, and capacity. Students appreciated that by "working with local organizations to develop tools that will be useful to them" (Respondent 7, Spring 2018) both parties benefited, noting that the "course work [was] extremely practical and beneficial, not only for students but (from what I gathered) for the community partners as well" (Respondent 5, Spring 2016). Students viewed these partnerships as a way to build skills beyond those covered in the syllabus, including a deeper understanding of "nonprofit organizations and development thereof" (Respondent 8, Spring 2018). They also saw these partnerships as spaces for networking and career development through "build[ing] a strong relationship with our community partner, which has lent itself to future opportunities" (Respondent 5, Spring 2019).

Despite largely positive experiences between

groups and their community partners, a small subset of students reported barriers to success that stemmed from limitations of the community-based organization or the community partner. For example, a few students noted programmatic limitations that made it difficult to make a complete evaluation plan. Critiques of this nature were rooted in the perceived absence of an "existing, robust program to evaluate" (Respondent 4, Spring 2018). This variability extended to the readiness of the participating community partner, who was sent from the community-based organization to represent its evaluation needs and capacity. For example, a student observed that the relative level of readiness among partners contributed to "a lot of variation in the workload between groups—some community partners had clear goals and brought in materials and some were quite vague with no materials" (Respondent 10, Spring 2019). Additionally, one student shared that "relying on a community stakeholder for information and guidance was often difficult" (Respondent 10, Spring 2016), and another felt that their partner "was not very organized or prepared" (Respondent 7, Spring 2016). We noted one critique that addressed an important limitation in developing generative community partnerships: organizational power. Although organizations were asked to nominate staff in leadership positions to participate in the class, this was not always a possibility. In those instances, students sometimes questioned the ability of the community partner to guide the development of an evaluation plan that was aligned with organizational priorities, and thus likely to be implemented by organizational leadership. As one student noted, without "enough organizational authority to answer questions on what they were looking for" (Respondent 10, Spring 2019), it was difficult for community partners to communicate the organization's needs and goals to their team of evaluators.

Finally, as groups spend most of their time addressing the distinct needs of their community partner, several students described "feeling siloed in [their] group" (Respondent 3, Spring 2016) and desired more opportunities to "share across group projects during the semester" (Respondent 10, Fall 2018). One student shared the way that "limited interaction with students outside of [their] group" (Respondent 4, Spring 2016) impacted their ability to provide a high-quality evaluation plan to their community partner:

> Not having an opportunity to catch up with the other groups about their own program evaluation led to relatively minor weaknesses . . . it would be nice to hear about how [other groups are] navigating hurdles or coming up with great ideas. (Respondent 7, Spring 2016)

Although organizational siloing can provide direction and keep professionals focused on addressing one task well, students' course evaluations pointed to the ways that siloing and infrequent interaction among the different project teams may have inhibited creative problem-solving and innovation.

Discussion

We began this article discussing the importance of evaluation training opportunities that combine the hard and soft skills of evaluation (Dewey et al., 2008; Galport & Azzam, 2017; King et al., 2001; Russ-Eft et al., 2008) and engage students across a range of disciplines (Bakken et al., 2014; Davis, 2006). This course provides one such opportunity, and we used students' course evaluation data to investigate their experiences, as well as the short-term effects of the course on their learning and professional development. The course encouraged students to straddle the formal and informal stages of professional development (Weidman et al., 2001), and—as noted in scholarship on experiential learning in graduate education—emerging professionalism produced discomfort along with feelings of accomplishment and success (O'Meara, 2008). Part of what makes real-world scenarios so generative for teaching and learning is their complexity, which results in a tension between giving students what they want (e.g., order, sense of control, linear progression) and what may ultimately help better prepare them for practice (e.g., ambiguity, trial and error, immersive practice; Warner, 2020). This course supports evaluation knowledge and skill building among graduate students with diverse professional interests while supporting evaluation capacity in local community-based organizations. The course functions as both a traditional course and a practice space. Although many markers of the traditional classroom remain (e.g., course texts, summative assessments), the inclusion of community partners required students to enact an evaluator identity and

create a work product with real-world implications. In this hybrid space, there was an expectation that learning would involve struggle and would at times be uncomfortable and messy. Ultimately, students found that learning is often animated by this difficulty.

Although the ambiguity that students noted in their course evaluations could be mitigated by additional scaffolding associated with the traditional classroom, we believe that scaling back the experiential and emergent nature of the course would disrupt students' ability to enact a learner identity and an evaluator identity iteratively as the course progresses. Additionally, we maintain that the tension students describe regarding their own developing expertise and finite resources is salient in real-world evaluation practice, and is therefore generative for students of evaluation to experience within instructional settings.

Many of the ambiguities students detailed in their course evaluations are consistent with authentic learning and the development of an evaluation practitioner identity (Brown, 1985). As students gained creative confidence, they experienced a shift in their perception of learning in the course. For example, some students suggested a standardized, instructor-driven team-building process early in the course to ensure that all students are able to "lead [an evaluation] in an organization" (Respondent 12, Spring 2018). However, these same students' evaluations reflect that they ultimately understood the course model to provide an important cross-training opportunity that allowed students to engage with experienced others in structured practice as a modality for socialization (LaVelle & Donaldson, 2010). In this way, the course offered a unique evaluator socialization opportunity and had real implications for practice, which ultimately shifted students' orientation to the work.

Limitations

An important limitation of this study derives from the fact that course evaluation data is collected at the end of the semester, immediately after students have participated in the evaluation class. Consequently, we were not able to test for things such as the durability of the hard and soft skills students learned in the course, or if students made sense of the experience differently after having entered the workplace. Although tracking students after graduation is difficult, subsequent studies could contact students once they are 1 or 2 years out of their respective programs to investigate such questions as whether they use evaluation in their current job, what contributions they believe the course made to their evaluation practice, and whether their perspectives on the nature of the course—especially aspects of the course that students found challenging—had changed over time.

An additional limitation comes from the response rates to the course evaluations. Although they were on par with university averages and represent acceptable response rates in general for survey research, it is nevertheless true that 31% of students who took the course did not provide feedback. We therefore lack the perspectives of those students, who might or might not have had similar experiences and opinions regarding the course. Finally, there is a question of whether students are prepared, immediately following a course, to assess its value (Deslauriers et al., 2019). Certainly, the advantages and disadvantages of various content and forms of learning may emerge or become visible to students only long after the course is complete (Boud & Falchikov, 2006; Deslauriers et al., 2019). Despite this potential limitation, we trust students' ability to assess their learning and experiences, and regard them as an essential source of information in evaluating the pedagogical value of the course (Benton & Ryalls, 2016; Medina et al., 2019).

Conclusion and Implications for Teaching Evaluation

In this study, we used student course evaluation data to assess student experiences with an applied program evaluation course and further the scholarship of teaching evaluation, especially teaching evaluation through community-engaged and project-based learning formats. In our own teaching practice, we also plan to use student course evaluation data to inform improvements in the course. We share these implications for our own practice as an entry point into suggesting implications for teaching evaluation more generally.

First, we believe that forecasting the tension that students might experience, as well as providing more transparency about why and how the course is designed, could help students understand the structure and activities of the course. For example, telling students

from the beginning of the course that the necessary ambiguity of real-world practice was likely to produce some anxiety and/or discomfort, and that educational research as well as our data show that such discomfort can be productive, might help to lessen the anxiety students feel. Second, the feedback on group process has made us realize that guiding students in establishing good group process and norms at the beginning of the course—and continuing to check in with students about it throughout the course—is an essential aspect of facilitating group learning. We are exploring literature on the design of interdisciplinary teams in order to ensure we are providing optimal conditions for group functioning (Choi & Pak, 2007). Third, student feedback as well as our own reflections on the fitness of various community partners has given us a better sense of the types of community partners who are best positioned to contribute to and benefit from this course. Specifically, the best community partners are those who can send organizational leaders with enough power to guide and implement an evaluation, those with a clearly articulated program evaluation need, and those who are able to explain the work of their organization in a straightforward manner.

This study allows us to better understand student experiences and perspectives on participation in a community-engaged, project-based evaluation course. The qualitative research strategy allowed us to observe and relay the complicated and sometimes contradictory nature of student experiences—specifically that the best and worst parts of the course were often the same things. Importantly, these "contradictions" were not only experienced between students (meaning, some students liked aspects of the course that others did not), but also experienced within individual students throughout the course of the class. Ultimately, given just enough support and scaffolding, students' struggles animate their learning.

Author Note

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Conflict of Interest

We have no conflict of interest to disclose.

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A Multiple Case Study of Implementing Community Service-Learning in Large-Scale Higher Education Courses

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Abstract

Community service-learning (CSL) is implemented mainly in small-scale classes. To date, little is known about how large-scale CSL courses could best be designed. This study seeks to identify benefits and potential strategies for designing large-scale CSL courses. A qualitative multiple case study was performed of three large-scale university courses (> 100 students) at Vrije Universiteit Amsterdam. Based on three core concepts of CSL, *reflection*, *reciprocal learning*, and *transformational learning experiences* were used as sensitizing topics in the thematic analysis. Implementing CSL in large-scale courses showed multiple benefits, such as the amount of work that could be completed and the potential to reduce students' individual workload. At the same time, realizing CSL in large-scale courses offered some challenges. This article presents nine hands-on strategies to implement CSL in large-scale courses.

Keywords: community service-learning, college/university courses, class size, large classes, higher education

Community service-learning (CSL) is increasingly widespread in higher education. Bringle and Hatcher (1995) defined CSL as

> a course-based, credit-bearing educational experience in which students (a) participate in mutually identified and organized service activities that benefit the community, and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of personal values and civic responsibility. (p. 112)

CSL provides various benefits to students and faculty as well as the community (Salam et al., 2019). For instance, CSL can improve academic outcomes for students (Warren, 2012), and the experiential learning environment offers students the opportunity to develop valuable skills and competencies such as communication and listening skills, leadership skills, and social responsibility (Salam et al., 2019; Steinberg et al., 2011). For academic staff, CSL provides a way to increase collaboration with social partners (Salam et al., 2017), which can be beneficial for both teaching and research activities. By implementing CSL, teachers can strengthen the practical relevance of the academic curriculum and improve general teaching practices (Lasen et al., 2015; Phillips et al., 2013). An additional advantage of CSL for society is that students and academic staff can use their expertise to address complex social challenges and work in close collaboration with social partners toward sustainable solutions (Rutti et al., 2016). It has also been argued that CSL could be an effective means for developing, maintaining, or enhancing the ties between higher educational institutions and the local community (Roman, 2015).

In Europe, exponential growth of CSL has appeared in recent years (Sotelino-Losada et al., 2021). Due to cost efficiency and an increase in the number of students in higher education, courses in higher education have been designed to accommodate large numbers of students (Mulryan-Kyne, 2010). For higher education, lectures remain a dominant form of teaching, as any given course may include several hundred students (Lund Dean & Wright, 2017). As the success of CSL is largely dependent on direct (face-to-face) interaction between students and community partners and members (Lloyd et al., 2017; Pillard Reynolds, 2014), as well as reflective learning, CSL is often implemented in small-scale courses. Consequently, most of the current literature on service-learning is primarily based on small class sizes (Copeland, 2017). According to Volkema (2010), it might be difficult to meet the conditions for CSL and maintain project oversight in large-scale courses.

Two recent studies provide some insight into the effects of implementing CSL in large-scale university courses. Copeland's (2017) study showed that CSL in larger classes significantly contributes to a more positive attitude of students toward the community and that students regarded their own roles in the community more positively. Another study, focusing on a large-scale environmental science course, reported that, notwithstanding the large group size, CSL has significant positive impacts on students' worldview, environmentally responsible behavior, and learning outcomes (Cawthorn et al., 2011). Incorporating CSL into large classes was, according to these studies, well worth the effort, although the literature includes little mention of the design elements of these courses. As no studies have focused on the underlying mechanisms and strategies for implementing large-scale CSL courses, how such courses can best be designed and implemented is as yet underreported.

The growing body of literature internationally available on experiential learning in large-scale courses reports on several challenges and barriers for implementing CSL in large-scale courses: increased preparation time (Agogué & Robinson, 2021; Mantai & Huber, 2021), planning and coordination difficulties (Agogué & Robinson, 2021; Mantai & Huber, 2021; Trinh et al., 2021), free-riding behavior among students (Lyons & Buckley, 2021), difficulty in forming relationships with students (Trinh et al., 2021), lack of connection between the teacher and students and between the community partner and students (Mantai & Huber, 2021), diminished informal exchange among students in large classes (Trinh et al., 2021), and a clear distinction between good and poor-functioning students (Mantai & Huber, 2021). At the same time, the advantages and potential are also evident: In large-scale courses more students are able to work on a service-learning activity simultaneously (Agogué & Robinson, 2021), a greater diversity of student ideas and experiences is provided (Hilliard, 2021), and opportunities for teamwork among students and learning from each other are increased (Mantai & Huber, 2021; Hilliard, 2021). The unanswered question remains, then: What strategies and design elements can be used to effectively tackle these challenges and realize the best quality and education experience of students?

This article aims to present insight into the benefits and potential strategies for the successful implementation of CSL in large-scale university courses in order to ultimately maximize positive outcomes for course coordinators and teachers, students, and the community. In addition, our study seeks to contribute to conceptualizations of CSL within the context of large class settings. To this end, we conducted a qualitative multiple case study by analyzing and evaluating three large-scale university courses at the Vrije Universiteit Amsterdam (VU Amsterdam) in the Netherlands. The study is expected to contribute to knowledge about higher education that aims to have a social impact, while simultaneously yielding tangible strategies for teachers who wish to apply CSL in their large-scale courses.

Theoretical Background

Based on learning theories relevant to the field of CSL (Dewey, 1938; Kolb, 1984; Mezirow, 1991, 2000; Schön, 1987; Sigmon, 1979), three core concepts can be identified as important characteristics of CSL (Collopy et al., 2020): *reflection* (Kolb, 1984), *reciprocal learning* (Sigmon, 1979), and *transformational learning* (Mezirow 1991, 2000).

The main learning process in CSL uses *reflection* to *learn through experience*, which has foundations in Dewey's (1938) philosophy on experience and education and Kolb's experiential learning theory (1984). Dewey

explained that experiences can be educational when they occur in interaction with the social environment and are building upon previous experiences in a way that promotes growth and development. Dewey also stated that the learning process can be enhanced through inquiry and reflective thinking, which are considered relevant areas to the CSL context (Dewey, 1938; Giles & Eyler, 1994; Saltmarsh, 1996). Building on Dewey's work, Kolb (1984) defined experiential learning as a four-stage learning cycle: starting with a concrete experience, after which observation and reflection on this experience take place, followed by the formation and conceptualization of new or revised ideas, and lastly, active experimentation with these new concepts resulting in new experiences. So challenging, continuous, context-appropriate reflection turns experience into a learning experience (Eyler, 2009). Despite the popularity of this framework (also in the context of CSL), Kolb's work has also been criticized for omitting or simplifying the influence of social and contextual aspects on the learning process, as well as overlooking nonreflective forms of learning (Fenwick, 2000; Yorks & Kasl, 2002). Reflection is broadly defined as a key process of CSL and is, in either written or verbal form, included in courses, in individual or group assignments, and on diverse levels of depth (Tijsma et al., 2020).

According to Sigmon (1979), CSL is premised on *reciprocal learning*, which is achieved when there is a healthy balance between service (for the community) and learning (of the students). This balance can be reflected both in the goals of the activity and in determining the primary beneficiary. Sigmon developed a typology to describe this balance, which is helpful to define what CSL is and what it is not. For instance, when the primary focus is on a service benefiting the community, the activity can be considered *volunteering*, but when the primary goal is student learning, the activity can be defined as an *internship*. Within CSL, the primary purpose is to establish a win-win situation, in which both the community partner and the student benefit and learn. Mutual identification and organization of service activities help to achieve reciprocal learning (Sigmon, 1979). Reciprocal learning experiences begin with common or complementary goals that require intergroup contact, cooperation, and mutual interdependence. Each group perceives that they need the other to be successful (Collopy et al., 2020). Lloyd et al. (2017) added that understanding the specific benefits of reciprocal learning depends on a range of factors, including the precise context, the timeframe, the scale, and the viewer's interpretive stance.

In addition to these two learning models, a third development that is associated with CSL is the *transformational learning theory* (Mezirow, 1991, 2000). This theory details how "critical learning experiences" might lead to learning and behavioral change. A critical learning experience or disorienting dilemma causes dissonance, which prompts the reevaluation or even adjustment of assumptions and habits previously taken for granted. This theory suggests that CSL activities should aim to trigger a certain level of dissonance in order to maximize the learning process (Kiely, 2005). Both Mezirow and Dewey emphasized that the nature of the activity is of paramount importance, and that learning does not just happen with any activity. The activity needs to be an opportunity to apply academic knowledge and provide a critical learning experience in which students can learn. By situating students beyond their comfort zones, transformational learning experiences lead students to question their identities and knowledge as they are confronted with alternative ideas and perspectives (Jakubowski & McIntosh, 2018).

In the analysis of this multiple case study, these three main concepts of CSL were used as sensitizing concepts. In a normative sense, when these three concepts overlap, successful CSL emerges.

Methods

Design

In order to identify benefits and strategies for the implementation of successful CSL in large-scale university courses, we employed a qualitative multiple case study. Data for this study consisted of face-to-face semistructured interviews (individual and group) with students, course coordinators, teachers, and community partners and relevant course documentation (e.g., course guides, assignments, course schedules, and online learning environments). Data were collected at the VU Amsterdam during the academic year 2018–2019.

Definition of Large-Scale Courses

The size of large-scale courses is defined differently in the literature, from 100 stu-

dents (Lyons & Buckley, 2021) to 80 to 100 specifically for tutorials (Mantai & Huber, 2021), toward more than 50 (Agogué & Robinson, 2021). A distinction is made between tutorials and lectures (Mantai & Huber, 2021) and between undergraduate and graduate courses (Lyons & Buckley, 2021). As described in Lund Dean and Wright (2017): "There is no agreement in the literature about the point at which a class becomes 'large'" (p. 653), and the definition of "large" appears to be often contextual—for example, characterized by the difficulty of using some teaching techniques or sustaining one-to-one contact with all students (Hilliard, 2021). Number alone is often not the deciding factor in defining large-scale classes; rather, it is the combination of learning activities and the facilities and resources available (Mantai & Huber, 2021). A large-scale course might be any class where the number of students poses challenges in the delivery of quality and equal learning opportunities to all students (Lyons & Buckley, 2021). Based on these scientific considerations as well as on the average group sizes at our faculty/university, a demarcation was chosen of large-scale courses in higher education of 100 students or more.

Study Participants and Case Description

Three university courses in which more than 100 students participated were purposefully selected: a first-year Bachelor of Science course (BSc1 course; *n* = 233, 6 ECTS, duration: 4 weeks), a second-year Bachelor of Science course (BSc2 course; *n* = 107, 6 ECTS, duration: 8 weeks), and a Master of Science course (MSc Course; *n* = 137, 6 ECTS, duration: 8 weeks). The two BSc courses included in this study were (re) designed to include a CSL component in the academic year 2018–2019 as part of A Broader Mind, a university-wide program at the VU Amsterdam to stimulate the reciprocal interaction between students and the community. The MSc course had already existed for more than 10 years. Course descriptions are provided in Appendix A and course details in Table 1. The data comprised 10 focus groups (FG) and nine interviews with community partners, teachers and course coordinators, and students. In total, 52 students, 16 teachers and course coordinators, and 11 community partners were interviewed. The participants did not have any prior experience with CSL. An overview of the data is given in Table 2.

Research Procedures and Instruments

Toward the end of the courses, the course coordinators and teachers, students, and community partners from all large-group courses were approached via email for a focus group or face-to-face interview on the CSL-related experiences with the course. Questions focused on the design of the course, the teaching process, the CSL products, the interaction with and satisfaction of community partners, and the "broader" context. The focus of the different elements differed depending on the stakeholder groups. For instance, the interviews with community partners focused more on the CSL products and the interaction with the university and the students and less on the design of the course and the teaching process. Subsequently, individual interviews were conducted with the course coordinators to gain in-depth insight and information on the CSL design and implementation lessons, specifically related to the large number of students involved. An additional topic list was drafted for these interviews. The first part of this topic list for course coordinators focused on the design of the course, and the second part included questions about the realization of the course (see Appendix B).

Data Analysis

The interviews were audio recorded and transcribed verbatim. Thematic analysis was used to identify, analyze, and report patterns (themes) within our qualitative data (Boyatzis, 1998; Braun & Clarke, 2006). In our coding procedures, a stepwise analytic process was followed as suggested by Braun and Clarke, starting from familiarizing coders with the data, to generalizing preliminary codes, sorting these into themes and reviewing these, labeling themes and describing them. Although the analysis was primarily data-driven, the researchers also used the three core concepts for successful CSL (reflection, transformational learning, and reciprocal learning) as sensitizing topics.

At the start of the data analysis, three researchers (AS, NL, CP) read two transcripts to familiarize themselves with the data and to identify preliminary codes. Thereafter, one researcher (AS) coded the remaining interviews using the software program Atlas. New codes were created when new themes emerged from the data. To increase interresearcher reliability, five additional

Table 1. Course Characteristics of the Three Courses

Characteristic	**BSc1 course**	**BSc2 course**	**MSc course**
Total number of students	233	107	137
Total number of subgroups	12	4	11
Workgroup size	35–40	25–30	12–13
Course duration	4 weeks full time	8 weeks part time	8 weeks part time
Project team size	4–5	4	12–13
Number of community partners	3	2	10
Number of (sub)themes	7	5	11
Number of teachers	5	2	10
Study year	**BSc1: compulsory**	**BSc2: compulsory**	**MSc: compulsory**
Number of ECTs	6	6	6
Weight of CSL aspect in total grade and components	60% of total grade: 40% report 20% knowledge clip	50% of total grade: 40% report 5% presentation 5% peer assessment	60% of total grade: 40% report 10% presentation 10% individual performance
Number of years with a CSL element	First year	First year	More than 10 years
Number of face-to-face contact moments with community partner	2	2	2
CSL activity	Literature analysis and development of knowledge clip on a specific topic that is a current social health problem (e.g., drug use in the workplace).	Collecting data via a structured interview and writing an advisory report for community partner on health-related needs of community members.	Writing an advisory report on how to address a complex social problem, via analysis of the complex problems and integration of knowledge of diverse stakeholders with different views and perspectives on addressing this complex social problem.

Table 2. Overview of the Data Collected

Data collected	BSc1 course	BSc2 course	MSc course
Focus groups (*n*)	3 students (1) 6 teachers (1)	4 students (1) 3 community partners and 3 teachers (1)	37 students (4) 2 teachers and 3 community partners (1) 8 students and 1 community partner (1)
Interviews	1 community partner 1 course coordinator	2 teachers 1 course coordinator	3 community partners 1 course coordinator
Other materials	Reflection assignment Course documents	Summary report of observations Course documents	Summary report of observations Course documents
Total	**52 students** **16 teachers/coordinators** **11 community partners**		

transcripts were coded by at least three researchers (AS, NB, NL, CP) and discussed in face-to-face meetings at different points. The main findings and results were discussed and, when there were different interpretations of the data, consensus was reached through discussion. Two researchers (NB and MZ) had a dual role in this project, acting as a sounding board for the teachers of the BSc1 and BSc2 courses who had concerns and questions before, during, and after the course, as well as conducting the evaluation. The other authors were not involved in the design of the three courses studied.

Ethics

The study complied with the national Code of Ethics for Research in the Social and Behavioural Sciences Involving Human Participants (Vaste Commissie Wetenschap en Ethiek, 2016). All participants were informed verbally about the study before the start of the interview, including the purpose and procedures, confidentiality of the interviews, the voluntary nature of participation, and the opportunity to withdraw at any time. Participants gave both written and verbal informed consent.

Results

First, the general benefits and some challenges of CSL in large courses are described from the perspective of students, teachers, and community partners. Second, based on our data, hands-on strategies are described to realize each of the three predefined core concepts for CSL (see overview in Table 3).

Benefits and Challenges of CSL in Large Courses

Three benefits of implementing CSL in large-scale courses were identified. The first main benefit is that more students are exposed to practice-based learning in large-scale CSL courses. More specifically, the BSc1 and BSc2 courses enabled students to become acquainted with CSL. For most students this was their first encounter with CSL. Respondents assumed that students who are exposed to this type of education early in their academic experience may opt for a community-oriented focus throughout their further academic career.

> Students show so much curiosity, they are going to discover and find out what is already known. . . . They are also willing to invest a lot to find an answer. (Community partner, MSc course)

The second benefit, which came up in the interviews with community partners, is related to the volume of data that could be generated, the large number of actions that could be executed, and the breadth of the topic, because of the large group capacity. For instance, having multiple groups of stu-

dents working on the same topic resulted in a broad analysis of the topic and various subquestions addressed.

A third (related) benefit was that the greater capacity could reduce the individual workload, which could be divided among a large number of students. For instance, the students in the BSc2 course conducted one or two interviews in pairs; together, each workgroup of 25 students conducted between 12 and 15 interviews, which allowed students to obtain a more in-depth focus on a single interview. Together, the students were able to interview a range of persons, benefiting the community partner.

Realizing CSL in large-scale courses also presented some challenges. A first challenge concerns the logistical complexity. A second challenge relates to the need to arrange adequate supervisory support by teachers to achieve transformational learning and support reflection. A third challenge that arose from the data concerned the ideal that personalized learning requires every student to have an equal opportunity to experience transformational learning. For large classes, it was more difficult to guarantee the same exposure, support, and learning opportunities for each student.

In the three courses, these challenges were tackled by several strategies. A total of nine strategies identified (summarized in Table 3) show multiple ways in which teachers effectively dealt with these challenges. All strategies are described in depth in the remaining part of this section.

Reciprocal Learning in Large CSL Courses

One of the core concepts of CSL is to aim for a win-win outcome by facilitating social interactions and knowledge exchange between a community and students. To ensure that both parties receive optimal gain from the collaboration in a large class setting, three strategies were identified: (1) the alignment prior to the start of CSL projects, (2) the student-partner ratio, and (3) the number of contact moments.

Strategy 1: Alignment Prior to the Start of CSL Projects

All course coordinators stressed the relevance of agreeing and aligning the CSL projects with the community partners prior to the start of the course. Doing so enabled community partners and coordinators to codesign project ideas together, and to discuss the division of roles, which creates the necessary conditions for reciprocity in a large group setting.

> [Course coordinator] explained to me what they expect from us in terms of time investment, and how often we would meet, and what kind of products we could expect from students, and in what ways we would provide feedback. . . . We discussed this nicely on time in advance, what contact moments there would be and what the students would get out of it and what the expected time investment would be of us, and; if it was more than expected we should indicate that. So, the expectations were clear like time investment and product

Table 3. Overview of Community Service-Learning Elements and Strategies

CSL element	Strategy
Reciprocal learning	1. Alignment prior to the start of the CSL project 2. Student–community partner ratio 3. Number of contact moments
Transformational learning experiences	4. Availability and support of a teacher 5. Reduced variation within CSL student groups 6. Reduced variation between CSL student groups
Reflection	7. Facilitating peer feedback 8. Fixed reflection moments with the community partner 9. Facilitating individual reflection

> to deliver, that was really nice. (Community partner, BSc1 course)

Especially with a large number of students involved in a relatively short timeframe (4–8 weeks), it was important to align the assignments beforehand to prepare the CSL projects well. This preparation was focused on managing expectations surrounding the final product for all parties involved, adjusting the level of difficulty of the assignments to overall course learning objectives, and taking account of the students' level of prior knowledge and experiences. All three courses included learning objectives explicitly referring to the CSL project and in line with the level of the students, including "the execution of a societally relevant group project based on a problem shared by the community partner" (BSc1), "the presentation of results to an external community partner" (BSc2), and "applying scientific knowledge to formulate solutions to societal problems and making recommendations specific for the target group" (MSc).

The amount of preparation needed with community partners differed depending on the course. In the MSc course, there was a less structured and frequent preparation with the community partners and the coordinator. Students, in the role of consultants, undertook a qualitative study for the community partners, and the alignment was mainly the task and responsibility of the students themselves. This task was also one of the learning objectives of the course. Furthermore, the course coordinator had been running the course for several years, which also helped reduce preparation time, as there was already a well-defined course design in place. Conversely, the CSL projects within the BSc1 and BSc2 courses were being run for the first time, and thus more meetings were necessary to define the initial scope of the project. The course coordinator of the BSc2 course mentioned that they started 3 months in advance and had regular meetings with the community partner. The BSc1 course started planning and meeting with the community partner 1 month in advance. Both BSc1 and BSc2 provided specific guidelines to the students for the assignment (also in line with their prior knowledge and experience), which they agreed beforehand with the community partners.

Strategy 2: Student–Community Partner Ratio

For reciprocity, the findings show that achieving a balanced ratio between students, community partners, field sites, and subprojects was deemed important. The ratio between students and community partners varied substantially across the different courses. In the evaluation interviews and focus groups of the BSc1 course, students, teachers, and community partners reported dissatisfaction with the student–community partner ratio, as the large number of students for each community partner reduced the possibility of more personal interaction. The teachers of the BSc1 course concluded that more community partners were needed for this large group of students next year.

The BSc2 course had "only" two community partners, yet the students could visit multiple field sites (eight in total), so students had opportunities for individual contact with residents, and therefore they did not experience the need for more community partners, as occurred in the BSc1 course. The evaluation of the BSc2 course also showed the advantage of including enough different sites to reduce the chance of overburdening potential respondents.

Working with more community partners or field sites was seen as a way to increase possibilities for individual contact between students and the community partner. At the same time, working with multiple community partners could increase the logistical arrangements for the coordinators and teachers to initiate and align the CSL projects.

Strategy 3: Number of Contact Moments

Besides achieving a balanced ratio between students and community partners, scheduling enough contact moments between community (partner) and students came up as a strategy for realizing reciprocity. For all students, face-to-face contact with the community partner and community members enhanced the sense that this was a "real" case assignment rather than a fictional assignment. For community partners, personal contact with the students helped to clarify the focus of the CSL assignment and better align the project with the community needs. This arrangement was beneficial for both the students—they have a better understanding of the context of the community and their needs—and for the community partner, as the product will be

better aligned to their needs and preferences. Therefore, scheduling sufficient personal contact moments between the community partner and students helped in realizing reciprocal learning as the mutual benefit was established through these personal contacts. In large groups, such personal contact could be achieved in a plenary setting in the classroom, for instance by the community partner visiting during a lecture or working group. In general, personal contact between students and a community partner could take place at three points: at the start of the CSL project, during the CSL project, and at the end of the CSL project.

At the start of each of the CSL projects, a first meeting was planned between the students and the community partner to introduce the organization and scope of the assignment. This first contact allowed students to build rapport with the community partner, ask specific questions, and introduce themselves to the community partner and vice versa. First meetings were facilitated in various ways. In general, we saw that meetings between community partners and larger groups of students benefited from a more structured approach. In the BSc1 course, two out of three community partners had a very structured initial meeting in a lecture hall with a large group of students in which every group of students (n = 79 and n = 118) was allowed to ask two questions. This way, all groups of students were actively involved and had an equal opportunity to pose a question. The third community partner had the opportunity to meet a smaller group of students (n = 36) in an interactive workshop. The setup of this interactive small-scale meeting was experienced as more personal and allowed the students to develop a rapport and gain more insight into the needs of the community partner.

During the CSL project, across the three courses, there appeared to be minimal direct contact between students and the community partners. Students in the MSc course and the BSc2 course had more frequent contact with community members representing diverse stakeholders during the interviews they conducted, which allowed the students to gain further insight into the community context and needs (and thus contribute to reciprocity). However, course coordinators believed it could be beneficial for reciprocity if additional intermediate contact with the partner were to occur in the future, by students themselves or by the teacher on behalf of the students. During this moment, students have the opportunity to ask additional questions and to check whether the direction they are heading is still in line with the community partner's needs (and vice versa). Moreover, extra contact reinforced for the students that they are contributing to a real case rather than just working on an assignment. Depending on the content and time available, the interaction could occur in face-to-face meetings, by phone, or by email.

All three courses included a presentation of the findings to the community partners at the end of the CSL projects. Personal contact between the community partner and the students was experienced as being essential for the completion of CSL projects, as it was perceived as a means for reciprocal and transformational learning.

Transformational Learning Experiences

As transformational learning experiences are supposed to be key for the development of students' skills and competencies in CSL, it is relevant to distinguish what facilitates these experiences in large groups. To achieve transformational learning, it is important that every student have an equal chance to experience it. We found that for large classes, it was more difficult to guarantee the same exposure, support, and learning opportunities for each student due to team size and class size. Besides reflection (see the Reflection section), this outcome is related to the roles of the students *within* a group: As students might divide certain roles within their team, some might not be able to practice and enhance certain skills that are formulated as course objectives. It is also related to managing the differences *between* groups: When different groups work with different community partners, it is more difficult to regulate the type and amount of exposure the students have in various community sites. Three strategies were identified to help enhance transformational learning experiences in CSL courses provided to large groups of students: (1) the availability and support of a teacher; (2) reducing variation within groups; and (3) reducing variation between CSL project teams.

Strategy 4: Availability and Support of a Teacher

To give enough support and guidance to

students, the role of teachers was seen as essential to enable students to benefit from the potential of CSL activities. For large-scale CSL courses, planning intermediate support in class was likely to take considerable time and effort on the part of the teacher. To optimize communication and facilitate the interaction between students and teachers, large groups of students were divided into subgroups and project teams. In all three courses, the students were divided into smaller subgroups (BSc1 n = 40, BSc2 n = 30, MSc n = 13) and then into project teams (BSc1 n = 5, BSc2 n = 4, MSc n = 13; see also Table 1). For both teachers and community partners, it was more manageable to work with a smaller group of students and thus generate transformational learning experiences.

Moreover, students in all three courses initially found it difficult to deal with the lack of clearly defined boundaries in the assignments, and the (relatively high) level of responsibility that was required of them compared to fictional-based assignments. This happened both at BSc and MSc level, as for most students working in a CSL context was new. The BSc2 course teacher explained that a number of students had the tendency to ask a lot of questions at first and to seek clarity.

> I did notice that students responded differently. Some students liked that and took a leading role and showed initiative, but I think there are also students who indicated that they were a little surprised that it wasn't all worked out in detail, and that it was not completely written step by step on paper. (Teacher, BSc2 course)

For BSc students (BSc1 and BSc2 course), teachers were primarily encouraging and supportive, without directly giving away any answers. For example, in the BSc1 course students seemed to believe that when they could not find a lot of relevant studies, their findings would not be really useful for the community partner. In reality, the converse was the case, as the lack of literature was also a valuable finding for the partners. Teachers played an important role in changing the students' views by underscoring the relevance of the findings of the literature search regardless of how much literature was available. In this way the teachers facilitated learning by doing, to enhance the transformational learning experiences. In the MSc course, the teacher "coached" the students in drafting the advisory report, and encouraged students to discuss the collaboration process in the teams by themselves. The MSc students were in charge of planning and undertaking the research activities, and the teacher offered support only when students explicitly asked. The greater level of responsibility expected of the MSc students relates to the scaffolding phase in the master's program, of which this is the second course in the scaffolding process.

Strategy 5: Reducing Variation Within Groups

A well-known pitfall of teamwork in general is an unequal distribution of the work among all group members, resulting in some students having a more substantial learning experience than others, and more passive students benefiting from others' doing the bulk of the work. As a student from the BSc1 course indicated:

> I found it difficult to work together in a fairly large group. In the end you always have one or two people who do a lot more than the rest, which unfortunately was also the case this time. (Student, BSc1 course)

A strategy for dealing with these differences within a group was to make the group take shared responsibility for the project. In the BSc2 course this meant that the final presentations by the large subgroups of students (n = 30) were replaced by poster presentations by the small project teams of students (n = 4; see Table 1). The course coordinator expected to increase the possibilities for transformational learning experiences for individual students in their presentations.

Even in the smaller subgroups, it was hard for teachers to monitor the progress made by individual students. Teachers and coordinators of the BSc2 course recommended establishing certain control mechanisms during data collection for individual students to ascertain that all students are involved as required, such as using a list of attendance at community sites, handing in each interview transcript individually, and letting students record and hand in audio files of structured interviews conducted. Furthermore, the input of students and

discussion among them on role division was essential. The coordinators of the MSc and BSc2 courses underlined the role of the teachers in facilitating the discussion about the role division among students. The teachers should create an open atmosphere within the project team, to enable the students to provide feedback on each other's role in the project and prevent students from taking advantage of others' work or, conversely, not being aware in the course of the collaboration that they are not performing well. As a last resort, teachers could intervene when required. In this way, team collaboration as part of the scaffolding process became an increasingly shared responsibility of the students themselves.

Strategy 6: Reducing Variation Between Groups

Besides the division of roles within a group of students, there might also be differences between groups—due, for instance, to different community partners or different topics—posing a barrier to students' learning opportunities when they are assigned to a certain group. In CSL, the ultimate goal is to allow every student to experience transformational learning regardless of the specific group to which they are assigned. One solution to reducing differences between student teams is to standardize the number of contact moments between the students and the community partners and community members in a CSL course. Another solution concerns the use of uniform interactive methods throughout the number of teachers involved in the course; furthermore, alignment across different lecturers is likely to encourage similarities in the exercises and the way of teaching. Alignment between the different teachers is likely to reduce variation in transformational learning opportunities.

> The working groups were very similar. And the teachers themselves have always had mutual consultations about how things went and how they should deal with issues. (Coordinator, BSc2 course)

Reflection

Students reflected on the CSL project both in class and in their small team with peers. Making use of reflection in meetings of smaller subgroups created opportunities for teachers to support students in their learning process. The role of the teacher in all three courses was primarily to stimulate reflection on individual progress, methods used, and group collaboration. All three courses had in-class discussion of these questions, among others: Why did you do what you did? Was this the right approach? What affected you or what made a significant impression? How is the project going? What activities need to be done next? What did you learn during CSL? Some students felt pressure in performing CSL, as it had to result in "real" products for practice. Since the CSL project increased in difficulty from the BSc1 to the MSc course, this pressure increased and was therefore more or less similar in all three courses. Dealing with this pressure was also a topic for reflection, as were the ethical issues related to undertaking "real" empirical research for a community partner.

To enable reflection at a more individual level despite the large group size, course coordinators looked for ways to let students reflect on their individual performance and experiences in the interaction with other actors in their direct environment. Three strategies were identified to facilitate reflection in CSL courses: (1) facilitating peer feedback, (2) fixed reflection moments with community partners, and (3) facilitating individual reflection.

Strategy 7: Facilitating Peer Feedback

Working in groups during CSL projects can be an added advantage in the learning process, because as students learn to collaborate, they can experiment with different roles in a team and give each other feedback on their progress. Peer feedback was a central strategy for all three courses to stimulate reflection among students about each other's role. In providing and receiving feedback, students also gained insight into their own strengths and areas for improvement related, for instance, to group collaboration. The usefulness and the need for peer feedback was exemplified by one coordinator:

> As a teacher you cannot be everywhere. You are only there during that one hour, during the meeting. But that does not mean that you know how the person worked in the collaboration process. I think only the peers can judge about that. (Coordinator, MSc course)

In the MSc and BSc2 courses, peers graded the individual performance of their team members. For the MSc course, it was expected that students were able to reflect on the group collaboration and give each other honest feedback for the peer assessment. However, to guarantee that students would get a fair grade with regard to their performance, the teacher was finally responsible for the grade. This prevented students from being insufficiently or excessively critical when grading each other. Students of the BSc1 course provided feedback digitally on the assignment of their peers, and according to the BSc1 students in the focus group, they found this instructive, as they learned to read the document critically and also reflected on their own assignment in this way. However, the same students also stressed that they did not always know whether the feedback they received from their peers was accurate.

> If peers give feedback on needed adjustments, then you have to look at it self-critically to see if you really agree. In my peer feedback they advised leaving something out of the report and it really made me doubt whether it should be in the report. (Student, BSc1 course)

In line with this difficulty, the course coordinator of the BSc1 course also stressed that besides peer feedback, help and feedback from teachers remained essential in this respect.

Strategy 8: Fixed Reflection Moments With Community Partners

Besides reflection among students, reflection could also take place with the community partner. In the three courses, explicit face-to-face reflection with community partners was included at the end of the course in the final presentations. External community partners were invited to the final presentations and invited to respond to the project findings: How do they recognize the findings? What is surprising? What are they aiming to do with the findings? The community partners also provided feedback in their interactions with students to enable them to become more aware in relation to sensitive or stigmatizing phrases and formulations for the communities involved, including how to achieve a more nuanced view. This feedback was expected to increase a reflective attitude among students. For instance, in the BSc2 course, the coordinator observed that students learned a lot from the insights of the community partners during the presentations. In the MSc course, some subgroups also had intermediate contact with the community partner. By means of email or phone calls they were able to ask additional questions, and the community partner more informally could reflect on the process and preliminary findings. For the two BSc courses, no intermediate reflection took place. For large-scale CSL courses, planning intermediate reflection moments between students and the community partner is likely to entail considerably more time and effort, but might help with the alignment of the project with the needs of the community partner. This pragmatic challenge might be the main reason that intermediate reflection moments were not (yet) implemented. According to the course coordinators, the manner and frequency of community partners' structural and explicit involvement in face-to-face reflection during project implementation could be improved for all three courses. The coordinator of the BSc2 course therefore indicated that, for the following year, she had decided to include an additional planned reflection moment with the community partner on the interpretation of the collected data directly after the data collection. For the MSc course, a more interactive and in-depth reflection on the process was suggested to facilitate reflection from a more integrated perspective.

> Ideally, I think that they should just sit down together after that presentation; community partner, the team and the teacher. That is the easiest. To simply put them all together and discuss everything: how did it [the CSL project] go? (Coordinator, MSc course)

Strategy 9: Facilitating Individual Reflection

Besides in-class reflection and reflection with community partners, reflection also took place individually. The BSc1 course included individual reflection forms that students completed online, which the teachers and coordinators evaluated positively, including an "incomplete sentences" format about expectations, what they liked and had difficulties with, what surprised them and what they had wanted to handle differently in the future. The aim of the online reflection was to stimulate students

to think about the learning elements of the course: what students experienced during the course. Online reflection was easily feasible in a large group setting, and it fits well with the personal nature of reflection on CSL experiences.

> We did not want to discuss it plenary in class, as it is really individual. . . . You can easily use it for a few hundred students, the online form is available. (Coordinator, BSc1 course)

Discussion

The purpose of the current study was to gain insight into the benefits and potential strategies for successful implementation of CSL in large-scale (*n* > 100) courses in higher education, in order to ultimately maximize positive outcomes for course coordinators and teachers, students, and the community. Building on the scant literature on CSL in large groups of students demonstrating positive outcomes for students (Cawthorn et al., 2011; Copeland, 2017), the current study identified ways in which three large-scale courses specifically supported reciprocal learning, reflection, and transformational learning experiences. Reflecting on these findings, important insights will be discussed concerning the theoretical concepts used in this study and the benefits versus costs of working in large groups.

Reciprocal Learning, Reflection, and Transformational Learning Experiences

One common overall strategy appeared from the data: managing the large group size by dividing large numbers into subgroups, and including enough community partners to allow for personal interactions between students and community partners and as guidance for students. Although the first strategy is a more general approach to teaching large groups (Lund Dean & Wright, 2017; Mulryan-Kyne, 2010), the second strategy is unique to CSL education and seems particularly relevant for facilitating reciprocal learning and transformational learning experiences. Of the three main elements of CSL, reciprocal learning seems to be theoretically the most distinctive element for engaged learning in general, and CSL specifically. Reciprocal learning could therefore also be interpreted as the most vital element to guarantee in CSL courses for large groups of students. The three strategies in this study provide direct suggestions to ensure reciprocal learning for large-scale CSL courses. Since all nine identified strategies are interrelated, the other strategies will also contribute in a more indirect way to reciprocal learning.

As transformational learning experiences could be best achieved when students take on more responsibilities and learn by doing, a larger group size is not necessarily incompatible with creating fruitful learning conditions. At the same time, large groups often have a negative impact on the quantity and quality of contact between students and teachers, which limits opportunities for addressing specific student needs in the learning process (Lund Dean & Wright, 2017). The facilitating role of teachers in working group discussions is a key aspect for reaching in-depth reflection and increasing the active involvement of all students in the learning process. Therefore, combining lectures for the large total group and splitting the total group of students into separate classes seems a workable way to balance both quantity and quality in CSL (Lynch & Pappas, 2017). With smaller class sizes, teachers can relate to students as individuals and understand their individual needs and questions (Mulryan-Kyne, 2010), leading to more personal reflection and possibilities to achieve transformational learning experiences for a large group.

In the three courses included in this multiple case study, several distinctions can be observed in relation to the students' prior experiences, year of study, and course objectives. In the MSc course, students were expected to be more capable of independently developing and aligning their CSL project with a community partner, compared to students in the first- and second-year BSc courses (Zweekhorst et al., 2015). Depending on the students' prior experiences and year of study, the CSL assignment can best be designed around the students' level of competence and the course objectives and thereby contribute to scaffolding. Students with no prior CSL experience need more assistance to get started; experienced students can engage, align, and perform their CSL project with community partners more independently. The amount of support provided by the teacher, the degree of structure in the CSL assignment, and the advance preparations by the teacher and community partner are likely to differ substantially between study years (Tijsma et al., 2020).

Based on Kolb's (1984) four-stage learning cycle, reflection or experiential learning starts with a concrete experience and is strongly related to the construct of transformational learning experiences. In the interactions with students and community partners, reflection on concrete experiences is expected to occur (as described by the two strategies), leading to the formation of new or revised ideas. In a large class, it can be cumbersome to provide learning opportunities that enable students to explore the complex relationship between knowledge, thinking, reflection, and action. Stimulating reflection in class between students and teachers who provide support for guided learning has been recognized as a promising strategy to facilitate experiential learning in large groups of students (Cooner, 2010). Previous studies also indicate the promise of online tools and blended learning (Cooner, 2010; Oliver, 2007), which might enable more contact during teamwork and reflection with community partners. The need to take the level of scaffolding into account and specifically design the level of complexity of the reflection assignment and the amount of guidance by lecturers seems to be relevant in this regard.

Costs and Benefits of Large Groups

A relevant final question with regard to implementing CSL in courses for large groups of students is whether the benefits outweigh the costs. A number of studies suggest that CSL is time-consuming and increases teacher workload, which is considered a significant barrier to implementing CSL (Agogué & Robinson, 2021; Banerjee & Hausafus, 2007; Mantai & Huber, 2021; Trinh et al., 2021; Vogel et al., 2010). The current study showed that large groups pose additional logistical challenges for the course coordinators—and community partners—resulting in extra time commitments. However, the respondents also illustrated a variety of advantages and outcomes of CSL in large groups, which they believed were worth their effort. For a more structural implementation of CSL, working together with community partners for a period spanning several years reduced the annual effort required for course coordinators. In addition, the proposed strategies can help coordinators to make CSL in courses for large groups most effective and thus cost-efficient. The current study shows that CSL in courses with large group sizes is possible, and when key elements of CSL—reflection, reciprocal learning, and transformational learning experiences—are taken into account in the design, a good balance in the learning environment is warranted.

Strengths and Limitations

One strength of the article is that the data comprised the perspectives of students, coordinators and teachers, and community partners. Individual interviews with the course coordinators were conducted to gain in-depth information on the design and implementation lessons related to the large number of students involved. What makes the findings of the study unique for CSL is the combination of the three elements: reflection, reciprocal learning, and transformational learning experiences.

The three courses varied to a large extent, including the number of years in which CSL was implemented in the course, the level of experience with CSL among the teachers and coordinators involved, and the students' study year. One common characteristic of all three courses was the research-oriented focus of the CSL projects. The impact of the variation on the credibility of the findings is deemed limited, as the aim of this study was not to describe the courses as blueprints, but rather to derive useful lessons and strategies from the different courses. One limitation concerns the selection of the cases, as all three courses selected were taught at the same Dutch university and therefore in the same context. Compared to other settings in which CSL is already widely implemented, such as the United States, there might be differences in the level of institutionalization of CSL, as the approach is quite new in the Netherlands. It might be therefore useful to further explore this topic in a different context to establish whether the same strategies and benefits emerge.

Another direction for future research is to study group didactics for large groups within the CSL context. The current study was primarily focused on the benefits and strategies related to the number of students involved in the courses. Specific teaching methods and pedagogic approaches are needed to fit the group size (Mulryan-Kyne, 2010). Future research might study in greater depth what group didactics are specifically suitable for large groups of students in CSL courses.

Conclusions

To create basic conditions for CSL, this study

reports on nine strategies that could be used to tackle challenges related to courses with large group sizes (defined here as > 100 students). The findings show that successful realization of CSL in large-scale courses can be facilitated by taking account of the relevant conditions required for reflection, reciprocal learning, and transformational learning experiences. The combination of strategies and reciprocal learning especially are unique to CSL courses. This study contributes to the knowledge gap identified in the literature and practice on how to deal with a large class size. The strategies are deemed useful for course coordinators who are willing to develop and implement CSL for large-scale courses.

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Appendix A. Case Description of the Three Courses

BSc1 course

The 4-week BSc1 course is a compulsory course for first-year Health and Life Sciences students at the VU Amsterdam.

Course content: The aim of the course is to familiarize students with health behavior (theories), determinants, and indicators of (public) health, as well as health disparities among different target populations, and for students to translate academic findings in knowledge to the target group. This course combines theoretical lectures with a CSL assignment.

Type of community partner: Three community partners are involved, namely municipality, municipal, and national health service organization.

CSL assignment: In a team of four to five students, students conduct a structured analysis on the basis of literature on a complex social problem related to health and behavior and produce a knowledge clip on indicators of the specific health problem for the community partner. Each group addresses a different (sub) question posed by one of three commissioning community partners focused on topics covering a current social health problem (e.g., substance use at work, obesity). At the start of the CSL project, a meeting is scheduled between the community partner and the students, in which the students are allowed to ask questions. The course has a total of 233 students. One community partner was linked with 118 students, another with 79 students, and the third with 36 students.

BSc2 course

The 8-week BSc2 course is compulsory for second-year Health Sciences students at the VU Amsterdam.

Course content: The aim of the course is to offer students insights into the process of aging and the issues that arise from this, such as independence issues in care. On completing the course, students are able to identify different age-related diseases and (health) issues as well as the complex interplay between them.

Type of community partner: Two community partners are involved, namely foundation and housing corporations.

CSL assignment: For each work group a quantitative study is conducted for one of the two community partners, with the goal of identifying an older adult's needs for health and residential support. The study is performed by administering structured interviews at two residences for older adults. The interview questionnaire is designed by teachers and the community partners before the course and covers the following themes: quality of life, social aging, cognitive or emotional aging, physical or functional aging, and care use. At the start of the course, the community partners are invited into the class to explain the assignment and to answer questions. The students work together in a team of four to analyze one of the subthemes of the questionnaire and write a report for the community partner. On completion, the projects are presented at a symposium to community partners and other students. In total, 107 students are participating in the course.

MSc course

The 8-week MSc course is compulsory for first-year Management Policy Analysis and Entrepreneurship in the Health and Life Sciences MSc students at the VU Amsterdam. The MSc program aims to prepare students for conducting interdisciplinary research and applies a scaffolding process toward inquiry-based learning (Zweekhorst et al., 2015). This course, the second course in the scaffolding process, is a structured inquiry course, which means that students are provided with the research question, the methodology, and the context, but have to conduct the project themselves.

Course content: The course aims to train students in providing policy advice for a complex social issue on the basis of interdisciplinary research, and comprises a theoretical and a practical component. In the theoretical part, students are acquainted with theoretical concepts and models about policy. During the practical part, students deepen their analytical skills with respect to the critical assessment of a complex social question, develop their data-collection skills, learn to integrate scientific and nonscientific knowledge, to translate research findings into policy recommendations, and to write a policy advisory report. Throughout the course, attention is paid to group work and collaboration.

Type of community partner: 10 community partners are involved, including civil society organizations and municipalities.

CSL assignment: The practical part of the course forms the CSL assignment. Student teams write a policy advisory report for an external community partner. The projects focus on addressing complex social issues and concern topics such as loneliness, alcohol-related issues, and e-health inequality. At the start of the study, students interview a community partner to set out the questions, and then interview approximately 12 stakeholders with different views. At the end of the course, students present their main results and recommendations to the community partner and write a policy advisory report. In total the course has 137 students. Every group of 12 students is linked to one commissioning party.

Appendix B. Topic Lists

Topic List Tailored to Course Coordinators
1. What is a large group according to you? How do you define a large group (number, sub-groups, etc.)?
Design
2. What issues did you take into account in the design of the course with regard to community service-learning in a large group? 3. In what ways did you adjust your course including the community service-learning to the large group size? 4. Did you have any other considerations with regard to the large group size related to: • Assignment • Class size (specific didactics/methods etc.) • Team size • Reflection • Support provided during classes for collaboration/reflection • Communication with commissioner/community partner • Reciprocity principle • Achieving critical learning experiences • Level of experience of students • Output 5. Was the group size a consideration in your decision whether or not to implement CSL in the course?
Realization
6. What issues arose during the course due to the large group size? Think of: • Assignment • Class size (specific didactics/methods etc.) • Team size • Reflection • Support provided during classes for collaboration/reflection • Communication with commissioner/community partner • Reciprocity principle • Achieving critical learning experiences • Level of experience of students • Output 7. What strategies/solutions did you come up with? 8. Were there advantages related to the large group size? 9. What lessons did arise for future CSL courses for larger groups of students? 10. Do you have a good practice you want to describe?

Continued on next page

Appendix B. Continued

Topic List Tailored to Students

- Did you engage in a CSL activity before? (experience)
- What were your personal learning goals?
- What were the learning goals of the class?
- Did you know about the learning goals/needs of the community partner?
- Did you know about the needs of the community members?
- What did you expect from the CSL course?

INPUT—How should it be done?

- What motivated you to join this project?
- How was this CSL activity expected to contribute to problem at hand?
- What is your role in this?
- Did you feel prepared to perform the work required of you?
  If not, what would have made you feel more prepared?
- What problems do you think might arise when conducting a community focused project?
  Were you prepared to handle ethical problems?
- Was there enough time, support?
- Support from teachers? Supervisors? Peers?

PROCESS—Is it being done?

- What did you find the most rewarding in this experience? What factors contributed to this success?
- What did you find the most challenging? How did you overcome these obstacles? If you couldn't, why?
- Describe your interactions with the community partner. How did you experience the collaboration?
  Describe your interactions with the community members. How did you experience the collaboration?
  - Were they accessible?
  - How often and how did you meet?
- Did you reflect during the project/course?
  How did it take place (Probe: with coach, group, individually, journal)?
  How often? Was it structured? What was the purpose? Was this sufficient? Was it helpful? Why?
- How did it feel to work with the group's size? Why?
- Which ethical dilemmas did you encounter during the activities?

PRODUCT—Did the project succeed?

- What did you learn about the community through this experience?
- What did you learn in the community that connected to the content of the course? How was that connection made?
- What did you learn about yourself as a result of your experiences with the project?
  Did you become aware of biases or fears?
  What did this teach you about your interaction with people different than yourself?
- How did this project contribute to the societal problem at hand?
- How was the project returned to the community (partner)?
- How did knowledge transference/valorization occur?

Continued on next page

Appendix B. Continued

Topic List Tailored to Community Partners
CONTEXT—What needs to be done?
• What community do you represent? • What was your motivation to start to collaborate on this project? • What were your expectations?
INPUT—How should it be done?
• How were you involved? Design/advise/consultation/interviewee/collaboration/co-creation • How did you experience the support for your participation organized by your organization and the university? • To what extent was the set-up of the project aligned with your needs? • What was your investment in this project?
PROCESS—Is it being done?
• How did you experience your involvement in this project? At what moments were you involved? Was this satisfactory? • How was the project organized? What went well, what could be better? • How did you experience the project? • What obstacles or barriers did you encounter during the CSL activity? How were they managed? • When were you or any other community members involved in the project? (agenda setting/design/consultation/end product/presentation etc.) • Do you feel that your suggestions/needs are taken into account in the project? • Can you describe the relationship and/or contact between you and the community members?
PRODUCT—Did the project succeed?
• How would you describe the benefits/interesting outcomes/insights for you/your community of this project? • How did this project contribute to the social problem in question? • All in all, do you feel that the outcomes of the project outweigh your investment? • What would you do differently next time? What should the university/community partner do differently next time? • Were your needs/the needs of the community represented in the project? • Were your expectations met? If not: why? • What is interesting in terms of follow-up project? What are follow-up questions? What should we do next? • How to make more impact on the community next time? • How were the results given back to you? Was this sufficient? • What will we see remaining of this project in six months?

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"When I'm at School, I'm More Than Just a Student…the City Is My City": Assessing College Student Outcomes in a Community Engagement Immersion Program

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Abstract

Community-engaged learning opportunities are increasingly prevalent in higher education. In addition to positive personal growth and learning outcomes, these opportunities allow students to learn about the community surrounding their campus and formulate their own understandings of social responsibility and citizenship. These connections can be especially powerful for students at colleges and universities located in or near urban areas. This study assesses the impact of REAL Dayton, a community engagement immersion program at a midsized Catholic and Marianist university, on students' attitudes toward and perceptions of their city through pre/post surveys and interviews. The program encourages students to build their knowledge of the city and create sustained relationships with the broader community. This research enhances understandings of the effects and outcomes of community engagement programs for students. Findings demonstrate the impact of community engagement on student knowledge about their city and student perceptions of their own roles as community members.

Keywords: community engagement, community-engaged learning, higher education, program evaluation

Institutions of higher education are implementing various opportunities for students to participate in community engagement, civic engagement, and service-learning. These programs, broadly referred to as community-engaged learning (CEL), have become increasingly common in recent decades (Hellman et al., 2006; Warren, 2012). Community engagement has well-documented benefits for students, faculty, colleges and universities, and local communities (Bandy, 2021). This study focuses on outcomes at the student level, assessing how participation in a community engagement immersion program influenced college students' attitudes toward and perceptions of the surrounding city. Findings demonstrate the benefits of a community engagement program in terms of how students understand the broader community and how they view themselves within it, as well as their likelihood of participation in future community engagement.

Literature Review

Synergy between learning and service allows colleges and universities to respond to the needs of both students and the community; increased community engagement has become a widespread goal for universities, as it provides professional and personal development opportunities for students at the same time that it can lead to a mutually beneficial relationship between the university and the local community (Bierly et al., 2005). As CEL becomes increasingly institutionalized, some universities are moving toward becoming what Furco (2010) called

"engaged campuses." These campuses are characterized by the authenticity and genuineness in which community engagement is applied to research, teaching, and the service mission of institutions. This authenticity is apparent in the reasons campuses create community engagement programs as well as the values and norms that underpin the operations behind a campus–community relationship (Furco, 2010). Because most campuses have specific goals and desired outcomes for community engagement programs, it is important to assess program outcomes in a variety of ways.

The promotion of sustained civic engagement is a primary goal of CEL programs. Musil (2009) defined civic engagement as "acting on a heightened sense of responsibility to one's communities that encompasses the notions of global citizenship and interdependence, participation in building civil society, and empowering individuals as agents of positive social change to promote social justice locally and globally" (p. 59). This definition reflects the idea of active participation stemming from personal values and a civic responsibility to serve and improve society. Civic engagement and community involvement are distinct from one another in that civic engagement is a division of community involvement and is explained through location and process, meaning that it is not only *in* the community, but *with* it (Bringle et al., 2007). Based on this distinction, civic engagement creates mutually beneficial relationships that highlight participatory, collective, and democratic processes.

Institutions of higher education are making efforts to implement programs that will enable students to become more civically minded. Bringle and Steinberg (2010) defined civic-mindedness as "a person's inclination or disposition to be knowledgeable of and involved in the community, and to have a commitment to act upon a sense of responsibility as a member of that community" (p. 429). Civic-mindedness is reflected through a person's disposition toward the community and other people in the community. As students become civically minded, they develop a greater sense of responsibility to their community, and that leads to increased civic engagement. It is becoming more common for universities to emphasize civically minded and socially responsible objectives for their students (Barnhardt, 2015). For example, university mission statements often include aspects that connect to "service" by illustrating the institution's efforts to instill civic values in its students (Morphew & Hartley, 2006). Universities provide various opportunities for students to develop civic-mindedness through curricular and extracurricular activities, such as service-learning courses, internships, political participation, and serving as a volunteer (Bringle & Steinberg, 2010).

Community engagement enables students to understand how they can become civically minded and acknowledge their social responsibility to work on social justice issues. Educators can support students as agents of social change by encouraging them to think more critically about societal issues and can empower students to become problem solvers by helping them determine the most effective way to address social problems (Jacoby, 2017). Jacoby emphasized how crucial it is for educators to engage with "students as they seek to understand and change the systems and structures that perpetuate injustice and oppression, both on campus and in the broader society" (p. 6). For example, Clark-Taylor (2017) found that the incorporation of feminist thought into a community engagement program served as a catalyst in participants' development of critical consciousness and social justice self-efficacy. Clark-Taylor detailed how feminism can increase people's understanding of systemic issues and help people realize that they are autonomous and, through collective action, societal and institutional change is possible.

College students who engage in community service have the opportunity to create change in their communities. At the same time, these service experiences create change for students in terms of their vocational choices and life skills. In Fogle et al.'s 2017 study of undergraduate students' experiences in community-engaged learning, many students reported that they could use the skills they had learned through service in the workplace in the future. Additionally, students in the study described the positive impact of breaking out of the "bubble" of campus life. By expanding their experiences and perspectives beyond the confines of their campuses, students developed new understandings of themselves and their communities.

Assessing the Outcomes of Community Engagement Programs

In addition to exploring the conceptual framework of community engagement, scholars have examined the outcomes of community engagement programs and their effects on college students. For students, the benefits of community engagement are especially evident in the areas of student development, civic engagement, and knowledge of the local community (Bandy, 2021). In terms of student development, Beatty et al. (2016) found that cocurricular service-learning programs can have a positive impact on student development by increasing personal growth and personal effectiveness. They measured "the extent to which participants perceive they have grown personally because of their volunteer experience in the last year" (personal growth) and "the extent to which participants perceived they had an impact through their volunteer community service" (personal effectiveness) by comparing surveys of undergraduate students who participated in an alternative spring break program to a control group (pp. 99–100). Service-learning participants reported significantly higher personal growth and personal effectiveness from the pre- to postsurvey, whereas there was no significant difference for the nonparticipants.

Opportunities to engage with community agencies through service-learning can lead to increased awareness of social justice, social identities, and the importance of dismantling stereotypes. Manning-Ouellette and Hemer (2019) measured changes in awareness among 95 students from an introductory service-learning leadership course by analyzing students' work from reflection journals and papers and administering the Civic Attitudes and Skills Questionnaire (CASQ) to measure civic learning outcomes. Qualitative analysis showed that students were cultivating interpersonal skills, building leadership capacity, and developing social justice perspectives through participation in the course. Results from the CASQ survey showed a statistically significant difference in four scales from the pre and posttest survey used to measure student change: interpersonal problem-solving, political awareness, leadership skills, and diversity attitudes.

Beyond academic and personal development, researchers have also measured the effect of CEL on student civic engagement and civic-mindedness. Knapp et al. (2010) conducted a pretest–posttest quasi experiment with students from 52 service-learning courses to analyze the impact of service-learning on college students' commitment to future civic engagement, self-efficacy, and social empowerment. They found a small but insignificant increase in civic engagement and no significant changes to students' self-efficacy. However, they also found that students who felt empowered and volunteered for longer periods of time were more likely to engage in their communities after the program. These findings speak to the importance of students' experiences and sense of agency and social empowerment within community engagement programs. Knowledge about the surrounding community is another important factor in students' ongoing civic engagement. Li and Hanson (2016) found that students' social relations and knowledge about the broader community surrounding their campus predicted increased feelings of place attachment, which then predicted higher levels of involvement in community service. Importantly, students' involvement in the community service activity contributed to how much they knew about the school area and their social relations.

Increased civic-mindedness and diversity awareness are also relevant in the context of career development. Otto and Dunens (2021) compared community partners' descriptions of CEL participants' behaviors to preferred skills for hiring in positions for new college graduates. They found that "student learning outcomes from CEL are closely aligned with the soft skills that employers most desire," most notably effective communication, critical thinking, ethical judgment, collaboration, leadership, and practical application of knowledge (p. 47). Meaningful participation in CEL can also influence students' career pathways following graduation (Mitchell & Rost-Banik, 2019).

It is important to note that student development outcomes differ based on students' social locations and identities. For example, Pelco et al. (2014) found that service-learning impacts student growth differently among first-generation and non-first-generation college students and that this growth was mediated by gender. Non-first-generation male students from minority and low-income backgrounds stated the least amount of growth from service-learning, whereas first-generation male students

from minority and low-income backgrounds stated the most growth. Female participants described notable levels of growth regardless of their generational, racial, or financial standing. CEL should be accessible, meaningful, and effective for students from a variety of backgrounds. Given that females are more likely to participate in community engagement (Schatteman, 2014) and this study found that females, in general, reported significant growth, it is important to consider how these programs can better serve male participants.

The majority of existing literature that focuses on the outcomes of college and university community engagement programs explores individual outcomes such as how these programs affect a student's personal growth and development. Aside from the personal impact of community engagement on students, it is equally important to understand how the experience of engaging with local communities shapes the students' attitudes toward and perceptions of those communities. Students at engaged campuses are more likely to be civically minded and more engaged, are knowledgeable of the surrounding community (including its challenges and assets), have a desire to continue to engage, and make efforts to establish stronger relations between the university and the local community.

REAL Dayton Case Study

The data for this study are drawn from surveys and interviews with participants in the 2019 cohort of REAL Dayton, a community engagement immersion program that takes place for 3 days each fall at the University of Dayton (UD). UD is a medium-sized, private, Catholic university in Dayton, Ohio. Rooted in the Marianist tradition, the university aims to educate the whole person by connecting learning and scholarship with leadership and service (University of Dayton, 2020b). The Catholic Volunteer Network named UD a 2020 Top School for Service, noting the University's Center for Social Concern (CSC), an office under Campus Ministry, as one of 25 top service-learning offices nationwide (University of Dayton News, 2020). The CSC focuses on justice education and service-learning and offers many opportunities for students to participate in reflective service, service-learning, and education and advocacy for justice (University of Dayton, 2020a). As UD prides itself on its strong sense of community on campus, it is also increasing its efforts to get students off campus and encourage them to explore the greater Dayton community by helping to bridge the gap between campus and the city.

Like many predominantly White universities, the demographics of UD differ significantly from the surrounding neighborhoods and city. The university heralded the student body of the 2021 incoming class as the "most diverse" in the institution's history (University of Dayton, 2021b): 71% of students were White, 6% were Black or African American, 6% were Latinx/Chicanx/Hispanic, and 11% were nonresident international students. Two percent were Asian, less than 1% American Indian or Alaska Native and Native Hawaiian or other Pacific Islander, 3% two or more races, 1% undisclosed race/ethnicity, and less than 1% international from outside the United States (University of Dayton, 2021a). The city of Dayton has an established history of racial and socioeconomic divisions. This racial and economic divide is visible through the split between the West and East sides of the city, which are divided by the Miami River. Data from American Community Survey 5-year estimates for 2016–2020 indicate that median household income near UD in the four surrounding U.S. Census blocks within the city of Dayton ranges from $33,235 to $49,118. Also notable is the proximity of the affluent city of Oakwood, for which the median household income was $109,205 to $161,230. In comparison, the median household income of the West Dayton Census block nearest to the university was $26,845 (U.S. Census Bureau, 2022). These socioeconomic disparities intersect with and exacerbate racial segregation in the city. The racial makeup near UD is predominantly White (ranging from 76.0% to 93.5% White between 2016 and 2020 depending on the neighborhood). Directly across the river in West Dayton, the vast majority of residents (around 90%) are African American or Black (U.S. Census Bureau, 2022). Although UD students frequent businesses and restaurants in the city blocks near campus, few venture beyond the bubble of campus life. In addition to working across racial and socioeconomic divides, CEL programs at the university must bridge gaps between the lived experiences of students and community members.

REAL Dayton (which stands for "Reach Out, Encounter Dayton, Act with Others, Lead

Together") has been offered to undergraduate and graduate UD students each year since 2010 during the university's fall break. The program is student led with the support of the Center for Social Concern; there are typically two or three student codirectors, about a dozen other student leaders, and between 30 and 50 student participants. During this 3-day immersive program, students form relationships with fellow students and community members; learn about the city's challenges, assets, history, neighborhoods, local businesses, and organizations; serve at local nonprofits; and reflect on their roles as community leaders (University of Dayton Center for Social Concern, 2020). Each day, participants learn about and serve at numerous local organizations such as the YWCA, an urban farm, a food bank, a clothing and household goods charity, and a school mentoring program. The program also contains a schedule of events and learning opportunities, including visits with community members in different neighborhoods in the city; a panel of local leaders discussing their work in the community and its impact on the city; a tour of the city on a city bus to learn about local places and history; visits to city parks, restaurants, and small businesses; and shared meals in local community members' homes. Each day of the program includes personal and group reflection activities that provide students the space to reflect on their experience and what it means to them. Overall, the program addresses humans' desire for connectedness by promoting engagement between students and the broader community in order to build a stronger community between the two.

Methods

This study employs a multimethod approach, using both surveys and interviews to assess the impact of REAL Dayton on students and, in general, the effect of community engagement on students' perceptions of the city of Dayton. Participants in the 2019 cohort completed a presurvey prior to the immersion and a postsurvey after the program was complete. Comparisons of the data from the pre- and postsurveys reveal the impact, or lack thereof, of the program on students. Additionally, interviews with participants in the months following the program provided a deeper level of insight into the goals of an engaged campus and the outcomes of community engagement programs: civic engagement/civic-mindedness, students' knowledge of the city, future engagement, and bridging the university–city gap.

The lead author was a codirector for REAL Dayton and present during the immersion experience, allowing distribution of surveys at the beginning and end of the program as well as ongoing communication with participants who indicated they were willing to participate in follow-up interviews. All survey and interview data were anonymized after collection, and we use pseudonyms when referring to or quoting participants. This research was reviewed by the University IRB and approved as exempt: 45 CFR 46.104(d)(2).

Survey Design and Sample

The survey was designed in stages. First, the lead author solicited input from the REAL Dayton leadership team to create appropriate questions for the surveys that would effectively measure the impact of the program. Additional questions, building on previous research on the outcomes of community engagement, were added in multiple areas: previous levels of community engagement and interaction with Daytonians, participants' perceptions of the city, how participants understand connectivity between UD and the city of Dayton, their knowledge of the city, and their likelihood of future engagement. The pre- and postsurveys included identical sets of questions allowing for comparison of participant responses before and after the program. In addition, the presurvey included demographics questions and asked participants about previous community engagement. The postsurvey included additional questions asking participants to reflect on the most valuable aspect of the program and their likelihood of future engagement.

Initial surveys were distributed via Qualtrics (an online survey platform) to all participants in the 2019 cohort of REAL Dayton following a program orientation meeting. After learning about the study and completing an electronic consent, all 28 participants completed the presurvey before the immersion program began. Following the conclusion of the program, all participants received a link to the postsurvey via email. After several reminder emails, a total of 25 participants completed the postsurvey. After all surveys were collected, anonymized surveys were matched in a spreadsheet and analyzed using IBM's SPSS software.

Table 1 shows the demographics of the 2019 REAL Dayton student cohort (n = 28). Nearly 40% of participants were sophomores, one quarter were seniors, and 14% were fifth-year students. Only 11% of participants were juniors, 7% were freshmen, and 3% graduate students. Although research has shown that females are more likely to participate in community engagement (Schatteman, 2014), there was fairly equal representation of female and male participants (54% and 46% respectively). In terms of race and ethnicity, more than three quarters of participants were White (79%), which reflects the university's student body being predominantly White (University of Dayton, 2021a).

In-Depth Postprogram Interviews

Follow-up interviews provide more in-depth, qualitative data to better understand what meaning students attached to their community engagement experience. Interviewing the participants after REAL Dayton allowed for more detailed insights into how the program encompasses the goals of an engaged campus as well as the outcomes of community engagement programs: civic engagement/civic-mindedness, students' knowledge of the city, future engagement, and bridging the university–city gap. The interview questions asked participants to share their attitudes and feelings toward the program and the city of Dayton. Of the 11 participants who indicated that they were interested in being interviewed, a total of nine agreed to participate. Interviews were conducted over a 10-day period and were recorded digitally and transcribed.

Transcripts were analyzed using QDA Miner qualitative analysis software. The coding process began with an inductive approach to identify emergent themes. These codes were further refined in a second round of analysis. The interview data presented in this study provide an additional level of

Table 1. Survey Sample Demographics

	Frequency	Percent
Respondent Year at University		
Freshman	2	7.1
Sophomore	11	39.3
Junior	3	10.7
Senior	7	25.0
5th year	4	14.3
Other	1	3.6
Total	*28*	*100.0*
Respondent Gender		
Male	13	46.4
Female	15	53.6
Total	*28*	*100.0*
Respondent Race/Ethnicity		
Asian	2	7.1
Black/African American	2	7.1
White	22	78.6
Multiple Races/Ethnicities	2	7.2
Total	*28*	*100.0*

Note. N = 28.

detail about the effectiveness and outcomes of the REAL Dayton program, using quotes from participants as examples. All quotes are reported as originally stated by participants (with minor editing to remove repeated words or filler words such as "um" and "like"). All names are pseudonyms to protect participants' anonymity.

Survey Results

The goal of this study was to examine how community engagement within the city of Dayton shapes students' attitudes toward and perceptions of the city. Surveys included questions about program participants' demographics, their prior community engagement, and their likelihood of future engagement. Additionally, participants answered identical questions to test for changes in their responses from pre- to postsurvey regarding their perceptions of Dayton, how they characterize the connection between UD and Dayton, their knowledge of Dayton, and their comfort interacting with community members.

Prior Community Engagement and Program Information

It is important to measure students' previous community engagement, as their attitudes toward and perceptions of the city could vary depending on how much time they have spent interacting with the city and its people. Most of the students had never participated in REAL Dayton before (89%). Three participants (11%) had taken part in the program at least once in a previous year (see Table 2). When asked about their prior community engagement in the city beyond the REAL Dayton program, 39% of respondents reported that they had been involved in one to three community engagement projects/programs in Dayton before, which reflected the greatest number of participants. Following this, 29% of participants had never been involved in a community engagement project/program, 21% had participated in four to seven community engagement projects/programs, and 11% had participated in seven or more. About 70% of students had participated in some form of prior community engagement, a number consistent with the findings of previous research (Fogle et al., 2017; Schatteman, 2014). In terms of interaction with community members in Dayton, 14% reported that they had never interacted with community members in Dayton, half of respondents said they had interacted with

Table 2. Prior Community Engagement and Program Information

	Frequency	Percent
Prior Participation in REAL Dayton Program		
Yes	3	10.7
No	25	89.3
Total	*28*	*100.0*
Prior Community Engagement in Dayton		
0 Events	8	28.6
1–3 Events	11	39.3
4–7 Events	6	21.4
7+ Events	3	10.7
Total	*28*	*100.0*
Prior Interaction with Dayton Community		
0 Interactions	4	14.3
1–3 Interactions	14	50.0
4–7 Interactions	4	14.3
7+ Interactions	6	21.4
Total	*28*	*100.0*

people outside their campus community one to three times, and the remaining quarter reported at least four interactions. Table 2 illustrates students' previous participation in the program and their prior community engagement and interactions with the Dayton community.

Program Outcomes

This study uses paired sample t-tests, also known as dependent tests, to test whether the means of two paired measurements, in this case pretest and posttest scores from the REAL Dayton program, are significantly different. These tests measure whether the program created meaningful changes in participants' perceptions of Dayton's safety, Dayton's livability, whether community members are actively working to address the city's challenges, the connectivity between UD and Dayton, knowledge of Dayton, and comfort interacting with the community.

Results show that REAL Dayton created meaningful changes in three of the five measures of perception of the city: general livability ($p < .05$), addressing challenges ($p < .01$), and willingness to live in Dayton in the future ($p < .01$). Table 3 provides an overview of these results. There was a significant increase in the number of respondents who agreed with the statement "I feel like Dayton is a good place to live" after the program ($M = 4.32$, $SD = .476$) compared to before the program ($M = 4.00$, $SD = .577$), $t(24) = -2.138$, $p = 0.43$. The results from the pretest ($M = 4.12$, $SD = .666$) and posttest ($M = 4.64$, $SD = .860$) for "I feel like there are people in the Dayton community actively working to address the city's challenges" reveal a significant increase, $t(24) = -3.161$, $p = .004$. In regard to the statement "In the future, I would live in the city of Dayton," a paired sample t-test showed a statistically significant increase in participants stating that they would live in the city of Dayton from pretest ($M = 3.12$, $SD = .833$) to posttest ($M = 3.64$, $SD = .907$), $t(24) = -3.161$, $p = .004$. However, participant responses for measures of perceived safety and university service opportunities did not show statistical significance.

Pre- and postsurveys also measured student perceptions of the connectedness between the university and the city of Dayton. Table 4 shows the results of paired sample t-tests for these questions. Results showed that there was no significant difference in participants' responses from pretest to posttest for either measure (connection between the university and city and ideal level of connection).

The last two paired questions tested differences in participants' perceptions of their knowledge about the city of Dayton and their comfort interacting with the Dayton community. Table 5 presents the results from these questions. Contrary to the expectation that participation in the immersion program would lead to an increase in students' perceptions of their own knowledge about the city, we found the opposite. Responses to "How much do you think you know about the city of Dayton?" showed an overall decrease in the number of participants who felt they knew "a good amount" or "quite a lot" after the program ($M = 1.96$, $SD = .539$) compared to before the program ($M = 2.76$, $SD = .831$), $t(25) = 6.928$, $p = .000$. This result suggests that students were more reflexive about their knowledge of the city after participating in the program and that they had a better sense of how much they did not know. This topic is explored more fully in the interview results below.

Table 3. Perceptions of City

	Difference in Means	*t*	*df*	Sig (2-tailed)
Pair 1. Dayton safety	−.200	−1.309	24	.203
Pair 2. Dayton livability general	−.320	−2.138	24	.043
Pair 3. UD service opportunities in Dayton	.080	.440	24	.664
Pair 4. Dayton community addresses challenges	−.520	−2.161	24	.004
Pair 5. Dayton livability personal	−.520	−3.161	24	.004

Table 4. Connectivity Between University and City

	Difference in Means	*t*	*df*	Sig (2-tailed)
Pair 1. Perceived UD/Dayton connectivity current	−.080	−.359	24	.723
Pair 2. Perceived UD/Dayton connectivity ideal	−.120	−.721	24	.478

Table 5. City Knowledge and Community Interactions

	Difference in Means	*t*	*df*	Sig (2-tailed)
Pair 1. Knowledge of Dayton	.800	6.928	24	.000
Pair 2. Comfort interacting with Dayton community	−.240	−1.445	24	.161

There was not a significant difference in the means of participants' responses about how comfortable they felt interacting with members of the Dayton community from pretest ($MD = 4.60$, $SD = .816$) to posttest ($MD = 4.84$, $SD = .624$, $p = .161$).

Likelihood of Future Engagement

Following completion of the program, participants were asked about the degree to which they agreed or disagreed with the statement "In the future, I am likely to engage in the city of Dayton." More than half of the respondents (60%) stated that they strongly agreed with the statement, implying that their likelihood of future engagement in Dayton is very high. The other 40% of respondents said they agreed with the statement. In other words, every student who participated in REAL Dayton felt that they were likely to engage in the city of Dayton again. The percentage of participants who said they would engage in cities where they lived in the future was the same. Table 6 displays these frequencies.

Interview Results

Following the completion of REAL Dayton in fall 2019, nine participants completed follow-up interviews. These interviews enabled students to share more about their experiences on REAL Dayton and provide a deeper understanding of how community engagement shapes their perceptions of Dayton. Furthermore, the interviews offer insight into how students make sense of their community engagement experiences

Table 6. Future Engagement

	Frequency	Percent
Likelihood of future engagement in Dayton		
Agree	10	40.0
Strongly agree	15	60.0
Total	*25*	*100.0*
Likelihood of engagement in future city		
Agree	10	40.0
Strongly agree	15	60.0
Total	*25*	*100.0*

and what meaning they attribute to them moving forward. The sections that follow are based on the goals of an engaged campus and general outcomes that typically have been assessed in previous research measuring the effectiveness of community engagement programs for college students: civic engagement and civic-mindedness, knowledge of the surrounding community, continued/future engagement, and bridging the gap between the city and university.

Civic Engagement and Civic-Mindedness

When asked about what it means to be an active citizen in their community, interview participants discussed six central themes: awareness, involvement, civic engagement, making a difference, supporting local businesses, and making connections within the community. Almost all the students who participated in an interview articulated that involvement within the community is a major component of being an active citizen. Rachel, a senior and first-time participant of REAL Dayton, detailed her understanding of active citizenship:

> Being aware of the issues that are going on in your community and knowing what those are and knowing what kind of people those are affecting and maybe what role you can take to help or at least even just being an active listener and understanding the problems.

This student's response encompassed the importance of awareness, involvement, and making connections in one's community in order to be an active citizen. A few other smaller themes that emerged were civic engagement in the form of political participation and "voting with your dollar," making a difference in the community by helping others, and supporting local businesses.

Another theme that came up was being aware of what is going on in one's community, particularly knowing what challenges the community is facing. Rachel talked about the value of getting to know the people in one's community: "Taking the time to know the people around you and understanding that your neighborhood extends just outside of the people you live next to. That is your whole entire city, your area." Rachel's response shows the power in taking pride and ownership of one's city and forming connections with those in it. Chloe, a sophomore and second-time participant, talked about the importance of developing a deeper, unbiased understanding of the surrounding community in terms of her own role as an active citizen:

> I think becoming a citizen of where you are living at that point in time, no matter how long it's going to be, even if it's not permanent [is important] . . . also, not listening to stereotypes . . . because the things that are said about Dayton could honestly be said about so many cities and they're really polarized because of the city and the reputation that it has had in the past . . . it's important to keep that in mind and no matter where you are, going in with an unbiased perspective.

Chloe's reflection demonstrates the importance of students exploring the city of Dayton while they attend UD. Furthermore, Chloe explained how REAL Dayton and her community engagement in the city of Dayton throughout college have given her a better understanding of how she can be an active citizen in whatever communities she lives in:

> It showed me that social engagement is more than just volunteering because it's easy to think of it as just that. It showed me how well-rounded civic engagement actually is and how it means literally being an active member of your community. It showed me all the opportunities that are available . . . it gave me the tools and then I can take those tools wherever I end up.

Knowledge of City's Challenges and Assets

As detailed above, one outcome of community engagement programs that is often assessed is students' knowledge of the local community, which is related to their desire to be civically minded (Bringle & Steinberg, 2010). Additionally, becoming more familiar with a city, particularly increased awareness and understanding of the city's challenges and assets, allows students to think more deeply about social justice (Jacoby, 2017). Survey results from this study showed that REAL Dayton participants reported overall lower perceived knowledge after the program, reflecting a better sense of how much they had to learn about their city. This is not to say that students did not learn about

their city during the immersion experience, but rather that the community engagement program encouraged students to be more reflexive about what they thought they knew and what they did not know. To explore this topic, interview participants were asked to share their thoughts on the biggest challenge they saw facing the city of Dayton.

More than half of the participants talked about Dayton being a food desert or food insecurity; other challenges that students mentioned were a lack of quality jobs, drug addiction, poverty, and social disparity; all these were challenges mentioned in the surveys. Rachel touched on Dayton's challenges with food access, but noted that the city faces other interconnected challenges:

> I definitely think the food desert is a big one, but I think the even bigger issue is red lining and that there is a lot of poverty in Dayton. And I think a lot of struggles stem from that and you can definitely see the different divides of the suburbs of Dayton. And then as you get closer to the city center or just even in the communities or even from community to community, there's definitely a lot of disparity.

Interview participants were also asked if they thought people in the community were addressing the challenges they spoke about. Almost all the participants felt that the community is trying to address the challenges. Two students who felt that community members are making efforts to address these challenges also pointed out that these issues are systemic, particularly when talking about the food insecurity in Dayton. Chloe discussed the transportation issues that people encounter when trying to get to a grocery store and how many people on the West side of Dayton do not have grocery stores near them, saying, "People are addressing it, but it's really hard to address a problem that's facing an entire city." Hannah, a sophomore and first-time participant, said, "I think it is being addressed. I just think it's such a systematic [*sic*] problem that it's going to take a lot to address it." Although both these students recognized that the community is working to address challenges that the city is facing, they realized that there are deep-rooted social justice issues underlying these challenges that also need to be confronted.

When asked about the assets of the city, interviewees talked about the people in the city as being Dayton's greatest asset, and more than half talked about the strength and resiliency of the community members. For example, Grace, a senior and first-time participant, talked about the resiliency of the city and its people following multiple tragedies during the summer of 2019 (including destructive tornados and a mass shooting at a downtown bar):

> I've always really admired Dayton's resiliency and I think this past summer has really shown that. . . . One of my professors actually brought up the Dayton shooting and was talking about how most big cities or medium size, when they experience something detrimental or harmful, they tend to turn on each other . . . but the quickness to do the Dayton Strong [campaign] and the idea behind . . . [and] how quick everybody was there for each other . . . it didn't matter what side of whatever event you fell on, everybody was there for each other.

Grace's reflection emphasizes that the people are what make the city of Dayton what it is, and because of the people, Dayton has been able to bounce back from the tragedies and become even stronger as a community. Other assets mentioned by participants were its size, geographic location of the city, its recent growth, and its history of innovation.

Students' experiences of engagement with the city also helped them to counteract negative perceptions and stereotypes about the city and develop an understanding of the importance of learning through experience. Caleb, a senior and first-time participant, said that through REAL Dayton he gained a "sense of empathy knowing how people perceive things, you have to go and see it for yourself in order to know if their perception was correct. The way people stereotyped the city of Dayton was in no way correct." Hannah shared how she has developed a greater admiration for Dayton now that she has spent more time in the city by saying, "I learned that there's more than just what is at the surface. There's a deeper history and I feel like the misconception of Dayton is that it's just kind of trashy, but there's so much more than that." Because these students were able to see the city for them-

selves and spend time in it, they broke down preconceived notions and stereotypes of the city; these students started to think critically about how stereotypes are perpetuated and what impact their perpetuation has on a city's image. Gaining this understanding is crucial for students as they develop their own sense of their roles in breaking stereotypes and working for social justice.

Continued and Future Engagement

Another outcome of community engagement examined in previous research is its impact on college students' commitment to future engagement. To explore this outcome for REAL Dayton participants, interviewees were asked about their understanding of their own roles in the city of Dayton as UD students. Participants mentioned the importance of getting off campus, doing service in the city, breaking out of the "UD bubble," cultivating responsibility for taking care of the city, and seeing themselves as Daytonians rather than just college students.

Almost all interviewees said that getting off campus was one way they can take part in the city as a UD student, especially in terms of participating in service opportunities in the city. Moreover, the majority of interview participants said that they want to take part in more service opportunities as a way of contributing to the city of Dayton, especially through the organizations they learned about during the program. Other common themes among participants were encouraging other students to get off campus more, using positive language when talking about Dayton, and the idea that Dayton is a small enough city that there is room for impact and growth. Chloe explained that she could make an impact on the city and its relationship with the university by

> spreading the word about different things and having positive talk about the city and just walking the walk, if I'm going to talk the talk. I'm going to say, "Hey, let's get downtown, let's actually go." . . . When people do talk about [Dayton] in a negative way . . . you have to shut that kind of stuff down. I feel like one person or a few people standing up for the city can have an impact.

Chloe demonstrated how she can play a role in getting students off campus and helping break down the negative stereotypes about Dayton.

When asked to reflect on how what they learned during REAL Dayton is applicable to future engagement and where they live in the future, every student talked about how they want to get involved and invest in whatever community they end up in. Hannah shared how she wants to apply what she learned on REAL Dayton to the communities where she lives in the future: "Taking the time to go out and explore the city and get to learn about it and become more invested in it. Not just live in a place but learn about a place and put my roots down more. Maybe not be afraid to put myself out there in the community." Caleb was struck by the sense of community in a specific Dayton neighborhood:

> I'm definitely going to be a lot more involved in my community that I live in in the future just because seeing all the people in St. Anne's Hill and how they all help one another, how they are all just so close as if they're one big family. That was really nice and makes me want to live in a community that's going to be just like that.

REAL Dayton gave Caleb the opportunity to become familiar with the Dayton neighborhoods and the people living in them, and now he has an idea of what kind of neighborhood he wants to live in in the future. Caleb can take what he saw in St. Anne's Hill and bring that same sense of community wherever he lives.

Bridging the University–City Gap

Another positive outcome of community engagement can be improved university–community relations. While discussing the connections between the University of Dayton and the city of Dayton, many students talked about the opportunities the university provides to get off campus, especially the free bus service between campus and downtown. Several students described the relationship between UD and Dayton as a mutual partnership. Hannah explained: "I see them connected as they both kind of help each other. The city of Dayton has a lot to offer to the University as well as the University has a lot to offer to Dayton." Hannah's understanding of the connectivity between the two depicts both the university and the city as being an asset to each other

and for each other. At the same time, a few students spoke about the "UD bubble," or the sense that campus is distinct and separate from the city. Ella, a senior and first-time participant, explained:

> Unfortunately I feel like campus is a little bit of a bubble. So, the University of Dayton exists within the city of Dayton. . . . But I see them connected and since the University's part of the city of Dayton, you have to realize that the people that you live with in college are part of your community but then the people who live in Dayton as a whole are also a part of your community.

Ella's response shows how community is really emphasized at UD, but often that community remains on campus; however, through her participation in REAL Dayton she came to recognize that community expands beyond campus into the city.

Although interviewees acknowledged that the university provides opportunities for students to get off campus, many also felt that the university could do more. Some students articulated that the Center for Social Concern and some academic departments do a better job than others at providing opportunities and would like to see the university expand these opportunities so that more students are aware of them. Hannah said: "I feel like a lot of people don't understand how much Dayton has to offer. So, the University could make that more broadly known. I think that would improve a lot of the disconnect."

Interview participants were also asked about who they think is responsible for improving the connection between the university and the city of Dayton. Most students explained how it is the university's responsibility to inform students of opportunities in the city, especially first-year students who come in knowing very little about Dayton. At the same time, they emphasized the importance of students taking initiative and their willingness to accept these opportunities. Grace reflected on this idea of a collaborative effort between the University and students:

> Personally as a student, I feel like I have a lot of responsibility in bridging that because somebody can feed me all the information or give me all the accessibility but if I don't choose to take it up, then I'm not going to go anywhere. So, I think as a student body we have a very big responsibility. I also think the University has a responsibility to give us access and the ability to cross that barrier . . . I think it's a joint effort . . . I think we need to work together to do it.

Through her response, Grace shared that it is important for the university to give students opportunities and the means to get off campus, but as a student, she has a responsibility to bridge the gap between UD and Dayton by being open to these engagement opportunities. A senior and first-time participant, Anthony, shared similar thoughts on how students and faculty both have a responsibility in improving the connection between UD and Dayton:

> I think it's more the students and the faculty, faculty providing the opportunities and letting first year students know about what opportunities there are. Also, that goes for students to students who have been in the city for a while and kind of know what it's all about. They can provide information to younger students who aren't really familiar with the city too much and kind of build that bridge. So, I think the responsibility lies more on the students, and the faculty getting students off campus to go out and explore.

Anthony recognized that students who have engaged in the city can have a positive impact on other students by encouraging them to do the same and sharing their experiences in the city. Both Grace's and Anthony's responses demonstrate the need for the university community as a whole to work together to improve their connection with the city.

Discussion and Conclusion

At many colleges and universities, there is a strong sense of community on campus while a gap remains between the institution and the surrounding city. Many students remain on campus in their own bubble and do not engage with the city and its people. It is important for students to get off campus and get to know the surrounding city so that they see themselves as

members of and contributors to the greater community, not just students on campus. Institutions of higher education are increasingly focused on creating opportunities for their students to participate in community engagement (Hellman et al., 2006; Warren, 2012). Community engagement opportunities like the immersion program that is the focus of this study help students to form connections with the Dayton community to bridge this gap by learning about and building connections with the broader community and its people.

The purpose of this study was to assess the outcomes of REAL Dayton, an immersive community engagement program at the University of Dayton, from the perspective of student participants using a multimethod approach of pre- and postprogram surveys and in-depth interviews. Existing literature on the effects and outcomes of community engagement programs on students examines how these programs affect a student's personal growth and development (Beatty et al., 2016; Pelco et al., 2014). This study fills a gap in this research by exploring how community engagement within the city where a student's university is located shapes students' attitudes toward and perceptions of the city. Results of analysis of pre- and postsurvey data show a significant increase in agreement with three measures of positive perceptions of the city of Dayton: program participants indicated higher levels of agreement regarding Dayton being a good place to live, personal interest in living in the city of Dayton in the future, and perceptions of the Dayton community actively working to address the city's challenges. There was not a significant difference in students' responses from pre- to postprogram surveys in regard to whether they felt that Dayton is a safe place or that UD gives students opportunities to get involved with service in Dayton. Moreover, there was no significant difference in participants' responses regarding the connectivity between UD and Dayton (both current and ideal) or their comfort interacting with the Dayton community after completing the program. During the interviews, participants described generally positive experiences on REAL Dayton as they emphasized the knowledge they gained about Dayton, their admiration for the city, and the applicability of their experiences to future engagement.

Following the program there was a significant increase in participant agreement with the statement "I feel like there are people in the Dayton community actively working to address the city's challenges." This result reflects one of the program goals, which is "act with others by serving at several non-profits working to address the challenges in our city" (University of Dayton Center for Social Concern, 2020). There was also a statistically significant change in how knowledgeable students felt about Dayton from pre- to postsurvey, but not in the expected direction: Rather than reporting increased knowledge when asked how much they knew about the city (as predicted by previous research, such as Li and Hanson's 2016 study), students indicated that they felt less knowledgeable (rather than more) after participating in the program. We propose that this result reflects an increase in students' awareness of how much they *did not know* about the city and a more reflexive understanding of their need to learn more. When students want to gain more knowledge of the city, they may feel more comfortable exploring it. Whether this knowledge is about the city's neighborhoods, local organizations and businesses, community challenges and assets, or other aspects of the city, this knowledge enables students to act as more informed members of their communities (Jacoby, 2017).

Previous research indicates that students who felt empowered from civic engagement and volunteered for longer periods of time were more likely to continue future engagement (Knapp et al., 2010). Students who participated in REAL Dayton (a 3-day immersion program) reported that they were likely to continue to engage in the city of Dayton and other communities in the future. Specifically, research that has examined the likelihood of current and future engagement among college students has found that students' social relations and their knowledge about the location of their school predicted increased feelings of place attachment; attachment to place predicted more involvement in community service (Li & Hanson, 2016). The findings presented here contribute to this literature, showing that participants' perceptions of livability (both general and personal) increased after the program. These perceptions could be due to the participants' interactions with the Dayton community and their learning experiences during the program. The amount students participate in community service has an impact on their knowledge of the school area and their social relations

(Li & Hanson, 2016). Although this study did not test for a relationship between place attachment and likelihood of future engagement, the study showed significant increases in participants' feelings about Dayton being a good place to live as well as a likelihood of future engagement.

When asked about how they think their gifts and talents can make a positive impact on the city of Dayton, interview participants described how their personal characteristics and interest in participating in service at local organizations and nonprofits can make an impact on the city. These reflections demonstrate the ways that students developed soft skills that will carry over to future community engagement and career pathways through their participation in the program (Otto & Dunens, 2021). REAL Dayton allowed participants to see where their gifts and passions fit into the city. Similar to the students in Fogle et al.'s (2017) study, participants from REAL Dayton expressed the importance of getting off campus and engaging in the city, actively working to close the city–campus gap. Throughout the interviews, students shared that they have a responsibility to encourage their fellow students to get off campus and a desire to keep breaking the "UD bubble" and strengthen campus–community connections.

Survey and interview participants also demonstrated how they became more aware of the challenges that the city of Dayton is facing. Participants were able to see how community members are working to address these challenges through their leadership and involvement in various initiatives and organizations. These findings align with Jacoby's (2017) claim that educators can support students as agents of social change. She detailed the importance of encouraging students to think critically about societal issues and empowering them to take their awareness of problems a step further by becoming problem solvers. In the interviews, some participants noted how the challenges that Dayton is facing are challenges that other cities are encountering and that many of these issues are systemic and interconnected. In line with Manning-Ouellette and Hemer's (2019) findings that CEL participation increases students' social justice perspectives and political and diversity awareness, it is evident that REAL Dayton helps students think more critically about the issues of the greater Dayton community and introduces them to ways that the community is addressing them and what role these students can play. This awareness reflects the development of a holistic view of civic engagement that is embedded within and in collaboration with the local community (Bringle et al., 2007).

It is important to note that this study was only an assessment of one community engagement program, so it is not generalizable to community-engaged learning at UD or beyond. In regard to the demographics of participants, the gender of participants showed almost equal representation (males 46% and females 54%), which is significant because previous research has found that females are more likely to participate in community engagement (Schatteman, 2014). The racial demographics of the sample are representative of a predominantly White institution, limiting the generalizability of the results: of the participants, 78% were White, which aligns with the general student body at UD. The other 22% of participants were slightly more racially representative than the student body. An additional limitation of this study is that REAL Dayton is an intensive 3-day community engagement program rather than a long-term community engagement program. The effects may vary based on the length of time and frequency that students participate in community engagement. There were 28 participants on REAL Dayton 2019, so the sample size was relatively small. Future studies including a larger sample size of students participating in a community engagement program could be more generalizable.

To understand fully the outcomes of this program, it would be necessary to conduct a longitudinal study to follow intentions for future engagement and how those intentions are realized after students graduate. One important component that the program tries to help participants understand is that what they learn during REAL Dayton about community engagement is applicable to anywhere they go. The program empowers students to take what they have learned about active citizenship and being a good neighbor with them beyond UD in whatever communities they live in. Building on this current study and exploring REAL Dayton's long-term impact on participants after they graduate would contribute to the literature on how community engagement affects the likelihood of future engagement and what such engagement looks like. Additionally, conducting a study with a leadership team

of REAL Dayton could be another way to build on this current study. REAL Dayton is a student-led program, and the leadership team participates in a 10-week minicourse about servant leadership as they prepare to lead their peers through the program. This type of study would allow for a better understanding of the implementation and facilitation of community engagement programs at the university level.

Future research on the outcomes of CEL should include perceptions of community members and organizations in addition to students. Given that CEL is conceptualized as creating a mutually beneficial relationship between university campuses and cities, it is important to ask community members how they feel the university can and does engage with the community. Taking into consideration the gaps between UD and the broader Dayton community, including socioeconomic and racial differences, a community-driven perspective could provide insight into how the community views student engagement and whether it is actually beneficial to the community. Furthermore, obtaining such a perspective would give community members an opportunity to share recommendations on how to improve student community engagement and civic education. As Brisbin and Hunter (2003) suggested, studying the perceptions of community members and organizations would give the university a better idea of how they can bridge the gap between the university and the city and provide engagement opportunities to students in a way that will be mutually beneficial to the community as well.

Higher education sets a foundation for civic action, and the extent to which institutions value and encourage community engagement for their students plays a critical role. Such support must go beyond the inclusion of civically minded objectives in institutions' mission statements (Furco, 2010). In order to help students become civically minded—or driven to be knowledgeable, active, and responsible within their communities (Bringle & Steinberg, 2010)—community engagement opportunities need to be offered and publicized to students. Following participation in REAL Dayton, all interviewees expressed that active citizenship has to do with being aware of what is going on in their community, getting involved, and forming connections with others. Furthermore, many interviewees talked about taking pride and ownership in where they live. These findings show the benefits of students becoming civically minded while in college so that when they enter the world beyond their campuses, they not only carry with them an understanding of what it means to be an active citizen, but an enduring desire to act and engage in their communities.

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The Impact of Experiential Learning Overseas on Kenyan Women Farmers

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Abstract

A multipartner agricultural and nutrition project was implemented in Kenya between 2015 and 2018. This study examined the impact of the international learning and research project on the emotional and civic engagement status of 43 Kenyan women farmers receiving agricultural and nutrition interventions, comparing this group to a control group. Some project women experienced higher emotional worthlessness in the short term but less worry in the long term in comparison to the control group women. Project women also had higher overall civic engagement levels after the 3-year project compared to the control group women. Our results demonstrate that experiential learning has advantages and disadvantages for overseas communities. For community benefits, research and learning projects should be a partnership with community members.

Keywords: civic engagement, emotional well-being, experiential learning abroad, postintervention evaluation, smallholder farmers

International students are individuals who study outside their own countries (Forum on Education Abroad, 2020). Research has shown studying abroad to be an effective tool in developing students' abilities to live and work in a diverse society (McLeod et al., 2015). Types of study abroad program (SAP) include field study, integrated university study, and travel tour. Most SAPs are short term, running 8 weeks or less (Institute of International Education [IIE], 2011) with many using service-learning as a primary pedagogical approach (Hovey & Weinberg, 2009). Service-learning enables student learning through community engagement and has been thought to extend benefits beyond the academic group into the host community (Bringle & Hatcher, 2011; Fisher & Grettenberger, 2015). Students are connected to host country service agencies and are engaged in tasks that allow them to operate in the real world where they apply learned theory to practice (Ash & Clayton, 2009).

Despite increasing emphasis on study abroad partnerships between faculty, students, and host communities for effective learning (Bringle & Hatcher, 2011), research has primarily focused on the traveling students (Engberg & Jourian, 2015; Jackson, 2015; Jacobone & Moro, 2015; McLeod et al., 2015). In comparison, very little literature examines the impact of SAP on host communities (Cruz & Giles, 2000; Wood et al., 2011; Tiessen & Herron, 2012), and even fewer studies investigate the use of research-based models for SAP (e.g., McMillan & Stanton, 2014). It is paramount to shift perspectives toward assessing the impact of research-based learning abroad on both traveling students and host communities to provide stakeholders with insights to create culturally acceptable and mutually benefiting collaborations.

Literature Review

Trends in Study Abroad Programs

Programs that facilitate international learning experiences for students are on the increase in the Global North and include internships, field research, service-learning, and volunteer placements (MacDonald & Tiessen, 2018). In Canada, over 95% of postsecondary institutions provide study abroad opportunities (AUCC, 2014). Moreover, a higher percentage of these programs are encouraging and offering learning opportunities in the Global South (Tiessen, Roy, et al., 2018). The IIE reported that the number of American students seeking learning experiences in Africa and Asia had increased by 18% and 17% respectively in a span of 20 years, from 1988 to 2008. Most SAPs are service based and last 8 or fewer weeks (IIE, 2011). Service-learning involves learning through community engagement and reflections linking classroom knowledge to real-world experiences (Bringle & Hatcher, 2011). Two reasons for increased use of service-learning in international education are that (1) it enhances the effectiveness of short-term programs and (2) it extends benefits beyond the academic group into the community in which it occurs (Bringle & Hatcher, 2011; Fisher & Grettenberger, 2015). International learning programs are facilitated by existing strategic partnerships between providers of international education and service agencies. Service agencies assist with entry, placement, and engagement of students in host communities (Bringle & Hatcher, 2011). Noting the scarcity of research-based SAP models (e.g., McMillan & Stanton, 2014), we endeavored to contribute toward this section of the field.

Study Abroad Program Outcomes

Studies on the impact of international education have dwelled more on the traveling students than other partners (Engberg & Jourian, 2015; McLeod et al., 2015). Findings of high levels of emotional well-being/empowerment, such as satisfaction with life and increased confidence, have been reported among experiential learning abroad students (Engberg & Jourian, 2015). Likewise, high levels of emotional distress/disempowerment (e.g., anxiety) among the same groups of students have been noted by Poulakis et al. (2017). Furthermore, international education experiences have been shown to correlate positively with students' civic awareness and engagement (Rui, 2013). This engagement can take the form of participation in local and international communities, for example, through volunteerism, social entrepreneurship, and social activism (Paige et al., 2009). These findings may be explained by students gaining intercultural competence and awareness through knowledge exchange (McLeod & Wainwright, 2009).

Studies of the impacts on partner organizations and communities are less frequent (Fisher & Grettenberger, 2015; Maakrun, 2016). Assessment tools, such as the Global Perspective Inventory, the Global Awareness Profile, and the Cross-cultural Adaptability Inventory, are designed to collect data on students and faculty (West, 2015). However, the type of questions, the level of thinking required, and the language used within these instruments are not always applicable to host communities. For example, to measure the impact of their global health service-learning program on a group of Mexican traditional birth attendants, American students created a pilot assessment tool that was more suitable for their context (Friedman et al., 2016). Although this and other studies (e.g., Lau et al., 2021; Tibbetts & Leeper, 2016; Tiessen & Heron, 2012) have tried to highlight effects of international learning and volunteer programs on host community members and organizations, few have assessed changes in emotional and civic engagement status of participating community members. One study involving university students and a community organization in Chicago reported an increase in voter registration for host community members (d'Arlach et al., 2009); however, this study did not involve international students. Although Hernandez and Rerrie (2018) found that the experience of hosting international students helped Nicaraguan women participants to improve their self-esteem, they did not measure any civic engagement changes. Given these shortcomings, we sought to document the emotional and civic engagement levels of Kenyan women farmers involved in a Kenyan-Canadian research-based learning project.

Our study addressed the challenge of measuring community outcomes in an international education project with multiple community partnerships. Researchers from a Kenyan university and a Canadian university reviewed research questions to ensure

they met both scientific and cultural standards. Additionally, pretesting allowed the host community members to fine-tune the questionnaire to their satisfaction, thereby modifying the validated tool for applicability to the host community. We conceptualized that study abroad programs that are mutually collaborative can be empowering to members of the host community. For example, colearning deepens student and community member encounters; while residents deliver crucial indigenous knowledge, they also learn new and valuable information (Friedman et al., 2016; Tibbetts & Leeper, 2016). Adding new ideas, skills, and materials to existing knowledge and lived experiences can enhance the confidence and capacity of host community members to deal with existing and new challenges.

International Experiential Learning: Opportunities and Challenges

Actions of individuals and nations in one part of the world are now potentially influencing people on other continents, affecting conditions such as war, immigration, and poverty (Bringle & Hatcher, 2011). Studying abroad is said to develop global competency: attitudes, knowledge, and skills that enable one to deal with emerging and challenging societal problems at home and abroad. Due to this anticipation, universities and colleges are making international education a priority (Jackson, 2015). Nonetheless, concerns remain around how SAPs are designed and implemented, as well as their actual impacts. For example, in her analysis, Grantham (2018) concluded that a majority of SAPs run by Canadian universities contribute little to long-lasting global social change, possibly because SAPs mostly serve as a marketing tool to increase student enrollment and revenue rather than being designed with consideration for the actual experience.

Ethically, international learning experiences should endeavor to create mutual and sustainable benefits. To meet such a standard, leaders need to bring stakeholders on board to agree on the purpose and expectations of such programs (Karim-Haji et al., 2016). Tiessen, Lough, & Cheung, 2018 noted that partner organizations and communities in the Global South are normally excluded from deciding which students from the Global North can fit and meaningfully contribute to their missions. These researchers further suggest that such power imbalances may promote damaging notions of imperialism for Northerners and salvation for Southerners.

Our project was keen to avoid portraying such unfavorable ideas by emphasizing the vital role that host partner organizations and community members play in transforming their society. Our learning and development research project sought to add value to existing socioeconomic initiatives in the Naari community. For example, Naari Dairy Farmers Co-operative Society provides livelihood opportunities to about 500 small-scale dairy farmers through the sale of their milk. We provided field-based training on health and management of cattle to increase milk production among Naari farmers. Likewise, two locally organized groups were part of the project. Kenyan women use such groups to access resources such as micro-credit loans to improve their livelihoods; for example, women save money and take out loans when group savings have accumulated. Moreover, these groups provide a chance for women to socially interact and support each other emotionally. We leveraged these organized women's spaces to improve family nutrition through kitchen gardening activities. Trainings were conducted jointly by Kenyan and Canadian veterinary/agrochemist/nutrition professionals and students. Having Kenyan professionals and students in the project ensured that technical knowledge and skills were relevant to the local context and culture and able to remain within the community for the long run.

Finally, a rather common challenge of experiential learning abroad has to do with scarcity of resources. Limited resources in the form of time and money mean that some students do not participate or opt for short-term foreign study experiences while denying host communities meaningful and sustainable benefits (Grantham, 2018).

Canadian Queen Elizabeth II Diamond Jubilee Scholarship Program

The Queen Elizabeth II Diamond Jubilee Scholarship (QES) program mobilizes young global leaders for positive community change through international education (https://queenelizabethscholars.ca). QES funded a multipartner, multidisciplinary study abroad project that was developed at the University of Prince Edward Island (UPEI) in collaboration with a Canadian nonprofit organization, Farmers Helping Farmers (FHF), that works in Kenya. The

project also involved five Kenyan partners: Kenyatta University, University of Nairobi, Naari Dairy Farmers Co-operative Society (ND), and two women's groups located in the ND area of Eastern Kenya. Over the course of 4 years (2015–2018), the project sought to improve and sustain smallholder family nutrition and horticultural and dairy farming in Eastern Kenya through practical evidence-based best practices.

The UPEI QES project coordinated efforts of Canadian undergraduate and Kenyan graduate students across three disciplines (veterinary medicine, human nutrition, and education) to implement integrated field-based training techniques and research projects. After completing one academic year at UPEI, Kenyan graduate students spent 18 months (doctoral) and 3 months (master's) in the Naari community engaged in training and research focused on how and why to prepare healthy meals and how to feed, breed, and provide comfort for cows. Canadian undergraduate students were in Kenya for 90-day internships and worked with Kenyan graduate students to educate farmers and collect data. Students assessed the impact of training and interventions on cow nutrition, reproduction, and comfort; human food security and diet diversity; and nutrition knowledge, attitudes, and practices. In addition, two students assessed the use of traditional face-to-face training compared to integrated face-to-face and cell phone training methods for improving human nutrition and cattle management.

Purpose

The purpose of this article was to investigate the impact of a research-based learning project on selected women farmers in Naari, Eastern Kenya. We hypothesized that the project would contribute to the emotional empowerment and increased civic engagement levels of participating farmers. This study sought to answer the following question: What is the impact of a research-based learning project on the emotional and civic engagement status of selected farmer members of one of the two women's groups and Naari Dairy Farmers Cooperative Society compared with a control group of farmers not directly engaged with the same project?

The study conceptualized emotional status as the level of feelings reported to be encountered by people in various aspects of life (Diener & Ryan, 2009). Civic engagement is defined as the participation of individuals in community matters and measured in terms of low, medium, and high levels (Putnam, 2000).

Methods

Participants and Sampling

There were 30 and 100 members in the selected women's group and the ND, respectively, who were involved in QES project interventions. The women's group farmers were involved in a horticulture and human nutrition intervention, and the ND farmers were involved in a dairy cattle management intervention. Random sampling was used to select 20 female participants from each of the women's group and ND sampling frames. A control group of 20 women was drawn randomly from a group of 300 farmers from the ND who were not involved in other parts of the research project and met the eligibility criteria for the study, namely: (1) farming was their primary source of income and (2) their farms had three or fewer milking cows. Three leaders from the women's group were also purposively included in the study to assist with examining the role of leadership in women empowerment, as was illustrated by Mehta and Sharma (2014).

Measurement Tools

Two measurement tools were used for emotional assessments. The Growth Empowerment Measure (GEM; Haswell et al., 2010) is a validated tool that was designed to measure the processes and outcomes of social and emotional empowerment among the Indigenous Australian population. Within the GEM, the Emotional Empowerment Scale (EES14) explores how people feel about themselves most of the time (mostly positive attributes). The GEM encompasses 14 dimensions of emotional well-being: knowledgeable, skillful, body strength, happy, having opportunities, valued, voice or ability to express self, belonging, hopeful, shame, caring, worried about current life, fear of future, and feeling angry. These dimensions are measured on a five-point scale; a score of 1 represents negative responses, and a score of 5 represents positive responses.

The Kessler Distress Scale (K6; Kessler & Mroczek, 1992) is used to measure an individual's emotional distress/disempowerment (negative attributes). The six questions on the Kessler scale ask how often

the respondent was feeling sad, nervous, restless, hopeless, everything was an effort (struggling), and worthless. K6 uses a Likert scale with responses of *none of the time*, *a little of the time*, *some of the time*, *most of the time*, and *all of the time* for measurement.

For our purposes, the EES14 and K6 questions were both incorporated into our assessments since they were measuring somewhat similar attributes (e.g., sad versus happy), but with a different focus. We also wanted to ask questions related to attributes during the last month (potentially reflecting cumulative benefits currently felt from the 3 years of the project) versus during the last 3 years (potentially reflecting their overall situation during the entire duration of the project). Therefore, participants were asked to recall their emotional status over the last one month (K6) and the last 3 years (EES14) of the project. The questions were translated into the native Kiswahili and Kimeru languages in order that participants would comprehend the questions (both languages were used in this part of Kenya). Questions were reduced to key sentences and words to minimize confusion with the translation. For example, the questions asked how often the respondents were feeling each of the attributes since that wording was felt to be easier to understand than the EES14 wording. Likert responses, specifically *never*, *slightly*, *somewhat*, *moderately*, and *extremely*, were used with both the EES14 and K6 questions for consistency.

The Civic Engagement Tool was developed by the study researchers and was based on questions from three other studies. Ketter et al. (2002) and Putnam (2000) conducted surveys to capture citizen engagement in America using some of the following indicators: service volunteering, fund raising for nonprofit organizations, voting, contacting elected leaders and the media, protesting, participation in voluntary associations (e.g., school), working for political parties, attending public meetings, and signing petitions. Ombaka (2013) measured civic engagement in a Kenyan context by collecting data on membership and involvement of Kenyan university students in voluntary associations. Based on the above civic engagement measures, our study assessed current participation in the community compared to 3 years ago (before the project started), regarding the following specific factors: overall civic engagement (e.g., how involved they are in various volunteer sectors in Naari), community meeting attendance, speaking in community meetings, volunteerism in public schools, volunteerism in public health programs, participation in Naari Dairy Farmers Co-operative Society, engagement in leadership roles, money donations to charity events/organizations, fund raising for charity events, and voting in national elections. Possible responses to the questions included "never," "less than 3 years ago," "same as 3 years ago," and "more than 3 years ago." Finally, demographic questions on age, education, marital status, income, income control, and group membership were included in the survey questionnaire to understand the study population and to ensure that these factors were considered in the results.

Authors from a Kenyan university and a Canadian university reviewed the research questions to ensure they met both scientific and cultural standards. Additionally, pretesting allowed the host community members to fine-tune the questionnaire to their satisfaction, thereby modifying the validated tool for applicability to the host community.

Data Collection Procedure

The study was approved by UPEI's Research Ethics Board. After the study was explained to potential participants, their written consent was obtained to voluntarily take part in the research. Data collection was carried out between May and July 2017 in Naari, Meru County, Kenya. Data were collected using an open-ended survey questionnaire, which was administered to each of the 63 selected women. A female translator accompanied the researcher to participants' homes for the interviews. The translator was chosen based on her knowledge of the native Kimeru language and Naari location, and her excellent familiarity with research group participants. Survey questions were delivered orally in Kiswahili, the national language, or Kimeru, the native language, and responses were recorded by the researcher on the print copy of the questionnaire.

Data Analysis

The modifications to the EES14 and K6 questions for translation and coherence within our population would challenge the validity of the GEM tool, making problematic the combined analyses as a coherent scale as performed in other research (Haswell et al., 2010; Kinchin et al., 2015). As a result, the EES14 and K6 variables were analyzed as individual items of emotional status. Survey

data were entered into Epidata software in duplicate and compared for inconsistencies. The final corrected copy of the data was imported to Statistical Analysis System (SAS) and STATA for analysis. SAS was used to compute the descriptive statistics, including averages and standard deviations for continuous variables, and frequencies and proportions for categorical variables.

During the descriptive and inferential statistical analysis, groups and categories of variables were sometimes collapsed in a systematic manner and based on intuitive plausibility. This collapsing was performed to assist with the description of the results and to increase the power to detect significant differences between groups. STATA was used to perform inferential statistics and modeling. For inferential statistics, a chi-squared test was used to find significant associations between categorical predictors and categorical outcome variables. When cell numbers were fewer than five, Fisher's Exact Tests were used, as recommended (Freeman & Campbell, 2011). A p-value < .05 was used to establish significant differences or associations. For the emotional status and civic engagement outcome variables with statistically significant differences between groups, forward stepwise multivariable logistic regressions were conducted to determine whether demographic factors might be partly or completely responsible for the observed relationships between the outcome variables and the factors of interest (i.e., acting as confounders).

Results

Demographic Status of Participants

Out of the 63 participants surveyed, 38% were between the ages of 46 and 55 years (Table 1). Many of the participants (52%) had completed a primary level education; however, few participants had attained postsecondary education. Many participants in the study (44%) were earning at or below 5,000 Kenyan shillings (KES) or $62 Canadian per month. Out of the 52 participants who were selling milk within the Naari locality, 42% had a lot of control over the income they generated. Over three quarters of all participants (87%) belonged to more than one community group. There were no significant differences (p-value > .2) in participant demographics between groups.

Levels of Emotional Distress (K6) Over the Last One Month

A good number of participants were not at all feeling nervous (48%), restless (40%), hopeless (56%), or worthless (57%). Only 25% and 22% never felt sad or struggling, respectively, with nearly a third of participants (29%) feeling somewhat, moderately, or extremely sad. Over a third (35%) of participants felt they had somewhat, moderate, or extreme struggles with life.

Level of worthlessness as a distressful emotion was statistically significantly different between the combined intervention group (nutrition and dairy groups) and the control group when data were collapsed in the following ways. The dairy and nutrition groups were collapsed together because participants in these groups received project interventions. Participants who indicated feeling slightly, somewhat, moderately, or extremely worthless in the last month were combined and compared to those who reported "never feeling worthless." A significantly higher proportion of participants in the combined intervention group (81%) were feeling slightly, somewhat, moderately, or extremely worthless in the last one month compared to participants in the control group (19%; p = .05).

In the multivariable logistic regression model for factors associated with feeling worthless, membership in community groups was a confounder of group status, and "marginally" associated with feelings of worthlessness (p = .09). Participants who belonged to two or more community groups had 4.5 times higher odds of feeling slightly, somewhat, moderately, or extremely worthless in the last one month compared to those who were in a single community group. No other demographic variables were significant in the final model. Therefore, after controlling for membership in community groups, the nutrition group remained significantly associated (odds ratio = 3.1) with feelings of worthlessness in the last month, and this result was not a function of community group memberships or differences in the demographics examined. There was no significant interaction between the group variable and membership in community groups. Pseudo R^2 for this model was .094, indicating 9.4% of variation was explained by the model variables. All other variables on the K6 emotional distress scale (in the last 1 month) were not significantly different between study groups, and therefore

Table 1. Demographics and Socioeconomic Status of Participants

Demographic variables	Groups			
	Nutrition (n=23) *N* (%)	Dairy (n=20) *N* (%)	Control (n=20) *N* (%)	Total Population (n=63) *N* (%)
Age				
< 25 years	0	0	0	0
26 – 35 years	1 (4%)	2 (10%)	1 (5%)	4 (6%)
36 – 45 years	7 (31%)	4 (20%)	6 (30%)	17 (27%)
46 – 55 years	9 (39%)	6 (30%)	9 (45%)	24 (38%)
> 55 years	6 (26%)	8 (40%)	4 (20%)	18 (29%)
Education				
None	3 (13%)	1 (5%)	1 (5%)	5 (8%)
Primary	14 (61%)	10 (50%)	9 (45%)	33 (52%)
Secondary	6 (26%)	7 (35%)	7 (35%)	20 (31%)
College	0	1 (5%)	2 (10%)	3 (5%)
University	0	1 (5%)	1 (5%)	2 (3%)
Monthly income (KES)				
≤ 5000	16 (70%)	6 (30%)	6 (30%)	28 (44%)
6000 – 10,000	4 (18%)	6 (30%)	7 (35%)	17 (27%)
11,000 – 15,000	1 (4%)	4 (20%)	2 (10%)	7 (11%)
16,000 – 20,000	1 (4%)	2 (10%)	3 (15%)	6 (10%)
≥ 21,000	1 (4%)	2 (10%)	2 (10%)	5 (8%)
Control of dairy income				
A lot	7 (58%)	9 (45%)	6 (30%)	22 (42%)
Quite a bit	2 (17%)	7 (35%)	6 (30%)	15 (29%)
A little	1 (8%)	3 (15%)	6 (30%)	10 (19%)
None	2 (17%)	1 (5%)	2 (10%)	5 (10%)
Group membership				
Study group and other community groups in Naari	19 (83%)	18 (90%)	18 (90%)	55 (87%)
Only study group	4 (17%)	2 (10%)	2 (10%)	8 (13%)

Note. $^{*}p \leq .05$; $^{**}p \leq .01$; $^{***}p \leq .001$

no multivariable regression analyses were conducted on them.

Levels of Emotional Empowerment Over the Last 3 Years

In the last 3 years, over 75% of women participants felt moderately or extremely hopeful. Two thirds of the participants felt "never able" to deal with anger. Many participants felt at least somewhat knowledgeable (72%), valued (90%), caring (83%), skilled (72%), body strength (61%), happy (92%), belonging (85%), and having opportunities (71%). However, a quarter of the participants were feeling completely unable to voice their opinion. Over half of participants had moderate to extreme levels of worry with their current life (57%) and fear of the future (75%).

Feelings of worry showed a statistically

significant ($p < .05$) difference among study groups when data were collapsed into a combined intervention group (combining nutrition and dairy groups) and compared to the control group. Also, for this association, participants who indicated feeling no worry or slightly worried were combined, and those who indicated feeling somewhat, moderately, or extremely worried over the last 3 years were combined as well. Participants in the combined intervention group were significantly less likely to have felt somewhat, moderately, or extremely worried most of the time in the last 3 years (53%) compared to the control group (85%; $p = .02$). The multivariable logistic regression analysis revealed no other variables associated with the outcome of "worry," confirming that age, education, monthly income, control of income, and membership in community groups did not account for observed differences in this worry outcome between the combined intervention group and control group.

All other variables on the emotional empowerment scale (in the last 3 years) were not significantly different between study groups, and therefore no multivariable regression analyses were conducted on them.

Current Civic Engagement Levels Versus 3 Years Ago

From a descriptive perspective, the overall civic engagement increased over the last 3 years (2017 vs. 2014) for nearly two thirds of women participants in the Naari community. However, there were variations in how participants engaged within specific aspects of the community life. A high proportion of participants (62%) were donating money more often in 2017 than they did in 2014. Volunteering in fund raising events increased over the 3 years (33% volunteered more often compared to 14% volunteering less often), as did volunteering in school programs (27% volunteered more often compared to 10% volunteering less often). Voting slightly improved (14% voted more often in 2017 than 2014, with the rest being the same), but participation in community meetings largely remained the same. A majority of participants (87%) did not speak their opinions in community meetings, and no participants were involved in planning and reviewing public health programs.

For inferential statistical analyses, data for the nutrition group and dairy group were collapsed into a combined intervention group versus the control group, and participants who indicated engaging "less than" or "same as" 3 years ago were combined and compared with those indicating engagement "more than" 3 years ago. A higher proportion of participants in the combined intervention group were more civically engaged overall than 3 years ago compared with the control group ($p < .05$).

In the multivariable logistic regression model for factors associated with overall civic engagement (Table 2), group affiliation (combined intervention group vs. control group), age (<36 years, 36–55 years, and >55 years), and control of dairy income (high vs. low) were found to remain significantly associated in the final model. The odds of young participants (less than 36 years of age) and middle-aged participants (36 to 55 years of age) engaging in the community more often compared to 3 years ago were higher than the odds for older participants (over 55 years of age). Although there appeared to be a substantial difference in the odds ratios (*OR*) for participants <36 years old (*OR* = 33) and 36 to 55 years old (*OR* = 11), their wide confidence intervals (3.57–308.99 and 1.65–78.07) from the small sample size indicated no statistically significant difference between these two age groups with respect to overall civic engagement. The final model also shows that participants with lower control of dairy income had higher odds of engaging more often in the community compared to 3 years ago versus participants with high control of dairy income. Income levels, education levels, and membership in community groups were not significantly associated with overall civic engagement. Therefore, participants in the combined intervention group had higher odds of more overall civic engagement than 3 years ago compared to those in the control group, and this result was not a function of income control or differences in the demographics examined. There were no significant interactions between the group variable and age or income control. Pseudo R^2 for this model was .315, indicating 31.5% of variation was explained by the model variables.

Discussion and Conclusions

The QES study abroad project engaged university students in community education and research. The dairy, horticulture, and human nutrition projects involved practical livelihood-based management interventions

Table 2. Final Logistic Regression Model

Variable	Odds ratio	P-value	95% CI
Combine intervention group	12.13	0.005	2.10–70.14
Age			
Age 1 (<36 yrs.)	33.23	0.002	3.57–308.99
Age 2 (36-55 yrs.)	11.36	0.013	1.65–78.07
Age 3 (>55 yrs.)	Reference	Reference	Reference
Low-income control	5.41	0.041	1.07–27.37

Note. Regression model for current overall civic engagement compared to 3 years ago, as reported by 63 Kenyan women in a combined intervention group (n=43) versus the control group (n=20) in 2017.

with members of the Naari community with positive findings, such as (1) reduced food insecurity and improved nutrition knowledge, attitudes, and diet diversity and (2) improved dairy nutrition, reproduction, and cow comfort (Kathambi et al., 2019; Makau, 2019; Muraya, 2019; Muthee, 2018; Wanjohi, 2018). Looking beyond direct impacts, we found that these research projects appeared to have positive and negative effects on the emotional and civic engagement levels of participating Kenyan women farmers in the long and short term.

The literature on service-learning yielded some studies that assessed impacts on host communities but without looking at indirect outcomes such as emotional and civic engagement (Doughty, 2020; Keneisha, 2014; Lau et al., 2021). Although two other studies were found to have incorporated some elements of personal well-being and community engagement, these outcomes were being measured among participating ISL students and not host community members (Chan et al., 2021; Vučković et al., 2021).

Our search did not yield studies reporting the impact of international research-based learning projects on community members specifically regarding emotional and civic engagement areas. As a result, we are left to compare results with a local service-based learning project that paired university students and Latino immigrants in Chicago (d'Arlach et al., 2009). Their findings show that in the beginning, some Latino immigrants seemed to feel ridiculed by some students due to their marginalized status; however, toward the end of the project, Latino community members felt more trusting of students. Also, during the program, Latino community members felt worthy of having something to teach students. Finally, more Latino community participants registered to vote due to increased awareness and problem-solving techniques. Our findings parallel those of d'Arlach et al. in that Kenyan participants experienced higher levels of emotional distress, specifically feeling more worthless in the short term (last month), whereas the same participants experienced emotional empowerment, particularly feeling less worried in the long term (over 3 years), when compared to the control group. Furthermore, project participants were found to have increased their overall civic engagement levels over the 3-year project timeline and when compared to the control group. We speculate that the inability to implement some of the QES project training could have increased our participants' feelings of worthlessness in the short term. Also, it is possible that with the training, women were recognizing or remembering that their lack of education may be contributing to their challenges in life, which could also be contributing to feelings of worthlessness in the short term. However, in the long run, when participants found ways to apply the training in their own personal situation, their participation in the interventions may have helped them improve their livelihoods, reducing their levels of worry.

Regarding civic engagement status, we think that the QES project might have provided participants with opportunities to deepen their understanding of social issues and options for improvement, causing an increase in their community engagement. An important discovery of ours is that the emotional and civic engagement results in our study seemed to be highly influenced by the sociocultural status of participating women. This finding disagrees with d'Arlach et al.

(2009), who attributed feelings of emotional distress experienced by Latino immigrants to participating non-Latino university students. Our data and some field observations showed that women participants welcomed partnership with students; they were happy to learn from students, and equally happy to teach them about their culture, their indigenous knowledge and lived experiences. In addition, our QES project was designed to promote mutual interactions and benefits between students and host community members.

One strategy enhancing success in our project was to partner with community groups with a history of prior partnership, leading to an environment of existing rapport and trust. In 2014, FHF started collaborating with Naari Dairy Farmers Co-operative Society and the two women's groups to improve their members' family income through agricultural education and resources. FHF and UPEI's Atlantic Veterinary College have developed a dairy health management handbook that provides important information to smallholder dairy farmers in Naari. Similarly, FHF has a horticulture handbook that provides additional guidance for sustainable vegetable growing. The study farmers were very receptive to this new information and expressed their willingness to learn more about horticulture and management of cattle and human nutrition, leading to the successful proposal that funded this QES project.

A second successful strategy was to have Kenyan and Canadian students work together. With Kenyans taking the lead in the field on the implementation, the research projects appeared to be more culturally sensitive and suitable, an approach that Tiessen, Lough, & Cheung, 2018 have recommended. Also, we found our cross-cultural student research team to be effective in saving time needed for research projects. In the period that Kenyan students undertook their courses at UPEI, they interacted with selected QES Canadian undergraduate students and oriented them on the community in Meru, Kenya. This intercultural learning reduced the need for preparatory courses, as was the case in the South African research project run by Stanford University where students took a spring seminar course to prepare and learn about Cape Town community organizations before their research (McMillan & Stanton, 2014). We noted that the nutrition and veterinary students involved in our program were well matched to the needs of this agricultural community.

It is paramount for program administrators to have a thorough understanding of host community systems, including cultural, social, economic, and political systems, so that they can tailor the experiential learning and research to the community to benefit both students and the local members. Also, our work shows that for study abroad programs to be truly community-based, the relationship between the program administrators and the host community should be a partnership to allow the fair sharing of resources and responsibility for a successful program. For instance, the QES project worked with Naari community organizations and resource persons (e.g., veterinary doctors, nutritionists, agrochemists, and translators) who contributed their knowledge, time, and material for the success of the project. This study is breaking ground in highlighting what happens to community members, particularly women, when they get involved in research-based study abroad projects, and we recommend further study.

Limitations and Future Research

Several factors will limit the generalizability of results from this study. The small sample size of this study limited its representativeness and the use of certain statistical procedures; consequently, results need to be interpreted with caution. Translation of the survey questionnaire between three different languages could potentially have resulted in less clear and valid responses. However, efforts were made to ensure that accurate translations and back-translations were made, utilizing a local translator and a data entry person with the local language of Kimeru as their first language.

Modifying the GEM assessment tools for our study population and purposes meant that we were not able to use similar data analysis processes as those performed by the developers of the GEM tools, limiting the ability to make direct comparisons between studies. We did add our emotional status scores for each of the participants in each group, and these participant scores were compared by group in a linear regression to determine whether significant differences existed between groups, which is similar to how the GEM data have been analyzed (Kinchin et al., 2015). No significant differences were found between groups. We also similarly

tabulated scores for the Civic Engagement Tool, and again no significant differences were found between groups.

We note that the emotional empowerment questions were answered retrospectively (over the 3-year project training), which could have posed recall challenges for participants. Therefore, the study responses with a 3-year time frame should be interpreted with some caution. Ideally, the same questions would be asked at the start and end of the 3 years, and then compared; however, that was not possible for this study for logistical reasons.

Findings from this study lead to several suggestions on future research. First, subsequent investigations should be conducted with a larger sample size to make conclusions more internally and externally valid. Second, a similar study with male respondents should be conducted to enable comparisons with the female participants' practices and attitudes in this study. Investigations of community impacts should be carried out on other projects that promote learning and research abroad to corroborate the results from this study, as should testing of other study theoretical frameworks and assumptions in an entirely different environment. Lastly, researchers could consider a purely qualitative research project to explore the impact of study abroad programs on community groups.

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Distributing Expertise and Building Relationships: Designing for Relational Equity in Youth–Scientist Mentoring Interactions

Elaine R. Klein and Philip Bell

Abstract

Science mentoring programs are powerful opportunities for youth to develop conceptual knowledge, undertake authentic practices, and have impacts on their science-related identity work. Here, we use design-based research to understand how a university–community partnership expanded upon traditional mentoring structures to facilitate *relational equity* (DiGiacomo & Gutiérrez, 2016) through distributing expertise and building relationships between participants. We analyzed qualitative data from 2 years of the STEM OUT mentoring program to develop claims about the elements of program design that led to distributed expertise and building relationships. Key findings include the need to design structures that position all participants as having expertise, highlight relationship-building as integral for youth–scientist interactions, and facilitate equitable power dynamics. Our findings are articulated as design principles for other youth–scientist mentoring programs, with the goal of broadening participation in the sciences by redefining not only who participates, but also what counts as science.

Keywords: science, mentor, design-based research, equity, sociocultural

Opportunities for youth and scientists to interact through university–community partnerships are powerful ways for youth to develop conceptual knowledge and undertake scientific practices (Linn et al., 1996; Pea, 1993; Sadler et al., 2010). Working with scientists to collect or analyze data enables students to "participate directly in ongoing practices of a [scientific] community," in contrast to the often abstract activities of science classrooms (Barab & Hay, 2001, p. 75).

Studies of youth–scientist interactions highlight the social aspects of learning science, foregrounding the processes of disciplinary identification for students (e.g., Van Horne & Bell, 2017). Using a social practice framing (Holland & Lave, 2009; Lee, 2017), we characterize these processes as youths' "science-related identity work," in recognition of the complicated and contextual nature of identit(ies) as young people navigate who they are in relation to science (Calabrese Barton et al., 2013). Youths' science-related identity work is integral for their continued interest and engagement (Bell et al., 2009; Bell, Tzou, et al., 2012) and contributes to broadening participation in the sciences (e.g., Aschbacher et al., 2010). However, the emphasis on bringing youth into science is limited by minimizing youths' expertise and reinforcing hierarchical power dynamics (Rahm, 2007; Woods-Townsend et al., 2016).

Here, we focus on two limits of traditional mentoring interactions:

1. A one-way transmission model of expertise does not recognize youths' knowledge or interests (e.g., Warren et al., 2001). Surfacing these can make youths' encounters with scientists consequential for science-related identity work (Carlone et al., 2015; Tzou & Bell, 2012). Additionally, recognizing how expertise is distributed among partici-

pants fosters mutual learning (Brown et al., 1993), such that sharing ideas is prioritized over scientists' knowledge (Klein, 2016).

2. Relationship-building is often overlooked in youth–scientist interactions. Interactions that extend beyond scientific content can help participants connect across their lifewide experiences (Banks et al., 2007). Scientists can learn from youth about how scientific concepts are relevant to their lives, enabling the scientists to improve their communication skills (Fitzallen & Brown, 2016; Hinko & Finkelstein, 2012). As scientists share who they are, youth develop an expansive sense of what it means to be a scientist (Rahm, 2007; Stromholt & Bell, 2017; Woods-Townsend et al., 2016). Although preparing youth for future scientific trajectories is one possible outcome, a broadened sense of who undertakes science can empower youth for their own aims (Basu & Calabrese Barton, 2007). Rahm (2007) framed this prospect with an essential question for designers of scientist–youth partnerships:

   > What would it take for youth to come to see science as a source of inspiration, as something intriguing and valuable, and as a world including them as active agents and legitimate members irrespective of who they are or who they want to become? (p. 517)

By designing for scientists and youth to share expertise and build relationships, university–community partnerships can broaden participation by shifting who gets to participate *and* expanding what counts as science. Although there is evidence for the integral role of relationship-building in science learning (Bell, Tzou, et al., 2012; Lemke, 2001), more empirical accounts are needed in science learning contexts, especially when bringing youth and scientists together. Here, we address this gap in the literature by taking a design perspective. We focus on a science mentoring program called STEM OUT, which brought together graduate-level scientists and high school-aged youth. This study follows the program across two enactment cycles, with analysis of interactive and reflective data from participants to support overarching claims and design conjectures.

Literature Review

Learning Environments Are Organized Through Discourse

This study is grounded in the idea that students' learning processes and outcomes are intertwined with their sociocultural environment (e.g., Lave, 1996; Lemke, 2001; Nasir et al., 2006; Vygotsky, 1978). Pathways to developing expertise are determined by opportunities for an individual to demonstrate and be recognized as having expertise, with implications for who one can be in a learning environment (i.e., their identity as a learner; Bell, Tzou, et al., 2012; Lee, 2017; Wortham, 2008). Therefore, there are opportunities and limitations on what a person can learn and their learning identity, based on the social organization of that context (Brickhouse, 2001; O'Connor & Allen, 2010).

Discourse is one way to understand these opportunities and limitations. Every interaction between individuals impacts how and if participants can demonstrate their expertise (Brown et al., 1993). Talk also illuminates how a context is structured, by participants and through tools and activities (Tabak & Baumgartner, 2004). In this study, patterns in scientists' and youths' discourse and participant structures ("the roles, rights, and responsibilities regarding who can say what, to whom, and when"; Lehrer & Palincsar, 2004, p. 389) were used to characterize opportunities for youth, and how they changed as the program was modified to promote certain kinds of interaction.

Science Learning Involves Social Positioning

Historically, the sciences have been exclusionary disciplines, with specific types of expertise and discourse privileged over others (reviewed in Carlone, 2004). Calabrese Barton and Yang (2000) described how teaching in science classrooms often presents "a fact-oriented science which appears decontextualized, objective, rational, and mechanistic" (p. 875), prioritizing "scientific concepts over scientific contexts—those stories which shape concepts and give them deeper, complicated, and connected meanings" (p. 876). By situating scientific knowledge as acultural and exclusive of other ways of understanding the world, science learning experiences have the potential to marginalize other forms of

expertise (Bang et al., 2012; Brickhouse, 2001; Lemke, 2001), which can impact youths' *positioning* in science learning environments (Carlone et al., 2014). Davies and Harré (1990) described social positioning as an ongoing, contextual process:

> An individual emerges through the processes of social interaction, not as a relatively fixed end product but as one who is constituted and reconstituted through the various discursive practices in which they participate. Accordingly, who one is [is] always an open question with a shifting answer depending upon the positions made available within one's own and others' discursive practices and within those practices, the stories through which we make sense of our own and others' lives. (p. 46)

Positioning determines how youth orient to scientific expertise and are recognized by others (Bell, Tzou, et al., 2012; Brown & Spang, 2008; Carlone & Johnson, 2007). Positioning changes over time and across contexts, depending on who is present and how interaction is structured (Calabrese Barton et al., 2013; Carlone et al., 2014; Wortham, 2006). For example, youth may orient differently toward science in classrooms versus at home (Bell, Bricker, et al., 2012; Bricker & Bell, 2013). Informal learning environments have the potential to expand what counts as scientific (Bell et al., 2009; National Research Council, 2015). Although science classes can include similar structures (Rosebery et al., 2010; Van Horne & Bell, 2017), informal learning environments that position youth as successful in science involve (1) eliciting and valuing youths' ideas, (2) offering opportunities for youth to connect between scientific ideas and everyday experiences, and (3) situating science as embedded in socially relevant pursuits (National Research Council, 2015).

Here, we focus on youths' positioning and how interactions with scientists and peers provided or constrained opportunities to showcase their expertise. We use *participant structures* to analyze how conversational moves have implications for participants' social positioning and power (Cornelius & Herrenkohl, 2004; Goodwin & Heritage, 1990).

Mentoring Structures to Disrupt Traditional Models of Expertise

Mentoring programs can be designed to disrupt hierarchical relations between adult and youth participants. For example, mentors who undertook reflective practices developed more symmetrical power dynamics in youth interactions, or what DiGiacomo and Gutiérrez (2016) termed "relational equity." By doing so, participants' positioning differed from traditional adult–youth configurations (Kafai et al., 2008).

Nontraditional mentoring arrangements foster stronger relationships, which benefits youth (Rhodes & DuBois, 2008). A respected adult mentor can connect youth to a broader network (Barron et al., 2014; Ching et al., 2016), especially when collaborating toward a goal (Chávez & Soep, 2005; Halpern, 2005; Heath, 2012). Mentoring relationships are particularly salient for students who are marginalized from school (Ching et al., 2015). In this study, we sought out mentoring structures that supported relationship-building, and we studied how relationships related to patterns of talk and positioning.

Foregrounding Youth Expertise

Experiences in which youth interact with scientists enable them to succeed in the sciences (Rahm, 2007; Woods-Townsend et al., 2016). However, scientist–youth partnerships often reflect a cognitive apprenticeship model (Collins et al., 1991), in which scientists are positioned as experts and youth as novices (Rahm et al., 2003). Although these types of experiences can be valuable (e.g., Barab & Hay, 2001; Sadler et al., 2010; Thiry et al., 2011), interactions that foreground youths' expertise provide opportunities to develop relational equity and complicate power dynamics. Rahm (2007) prompted youth to interview scientists, to "learn about science as a system of social practices and about the 'human element'" of doing science (p. 540). Interviewing scientists expanded youths' notions of science. Notably, the discursive and youth-led experience "erased status differences between youth and scientists temporarily. . . . No one voice was privileged over another" (p. 542). Mentoring programs' emphasis on relationships provides a context to expand upon these findings, especially if structured nontraditionally.

Science mentoring programs that bring together young people at various stages can

also be beneficial. Tenenbaum et al. (2014) described a "near peer" mentoring program in which undergraduate students were guided by university faculty in working with youth on a structured research experience. Mentors learned more about themselves as scientists by working with students, with youth characterizing their mentors as "guides for learning" (p. 382). Undertaking peer or near-peer science mentoring allows young scientists to highlight and leverage their developing expertise, as they are encouraged to integrate their personal interests with scientific research, teaching, and mentoring (Tenenbaum et al., 2014).

This exemplifies a social practice approach to science mentoring (Penuel, 2016) by "foregrounding persons and practices' mutual constitution . . . [rather than a] focus on how persons apprentice to practices that are positioned as stable and decontextualized" (p. 92). Participants relate between practices across both everyday and professional pursuits. Making these connections can bring youth and scientists into a broadened image of what counts as scientific practices (Rouse, 1996), impacting their future "scopes of possibility" in the sciences and beyond (Bell, Tzou, et al., 2012, p. 277).

Designing for Relational Equity

Designing mentoring programs as partnerships is a crucial way to counteract deficit models of youth that undergird traditional mentoring configurations (DiGiacomo & Gutiérrez, 2016; Kafai et al., 2008). Direct interactions between scientists and youth have the potential to reposition youths' orientations toward science and shift scientists' orientation to K-12 education (Tanner, 2000; Woods-Townsend et al., 2016). Additionally, accounting for the experiences of all participants is crucial to equitable engagement and outcomes (Falloon, 2013; Miranda & Hermann, 2010; Sadler et al., 2016; Wormstead et al., 2002). Accordingly, a design-based research framework (Cobb et al., 2003; Design-Based Research Collective, 2003) enabled us to simultaneously focus on the unfolding dynamics of the program and map the design features that contributed to those dynamics. Specifically, we focused on how expertise was distributed and relationships were built within mentoring groups. Further, through an iterative, collaborative design process, we aimed to complicate the one-way expertise transmission and privileging of scientific content that are prevalent in scientist–youth programs, by emphasizing opportunities for youth to signify their expertise and all participants to develop relationships.

Research Question

We investigated the following question in this study: What design features promoted participation structures to support relational equity between scientists and youth as they interacted in a science mentoring program?

Methods

Research Context

The STEM OUT program was a design-based research project that went through two school-year design and implementation cycles. The AAAS STEM Volunteer Program provided funding for this collaboration between a large urban university in the western United States and a small public school. University scientists—mainly graduate students, representing a range of scientific fields (Table 1)—met for an hour every other week with two to three high school students at Regional Technology Academy (a pseudonym; RTA). RTA aimed to empower students from underrepresented backgrounds in STEM, as reflected in the school's demographics (Table 2) and problem-based learning instructional approach.

Mentors supported youths' research projects: Seniors carried out year-long community engagement projects; non-seniors participated in a science and engineering fair. Mentors varied in their previous youth experience, with all having at least some experience (Table 1). Through an orientation session before each school year, mentors learned more about RTA and science education, discussed issues related to science and minoritized communities, and shared ideas about mentoring.

Tracing Outcomes to Design Through Conjecture Maps

We employed conjecture maps (Sandoval, 2013) to assess whether the outcomes for which we designed STEM OUT were supported by participants' observable interactions, reflections, and artifacts. Sandoval defined conjecture maps as "a means of specifying theoretically salient features of

Table 1. STEM OUT Mentor Demographic Data

Program Year(s)	Pseudonym	Status & field	Age	Gender	Race/ethnicity	Previous experiences working with youth
1	Amy Schumer	5th year PhD, chemistry	28	Female	White	Tutor, international high school teacher, GTA
1	John Watson	2nd year PhD, microbiology	26	Male	White	Children's hospital volunteer, camp counselor, rowing coach
1	Len Chui	2nd year MSc, quantitative ecology	24	Male	Chinese	Tutor
1	Mike Davidson	Graduated, AB economics/chemistry	28	Male	White	Chess coach, SAT teacher
1	Pita Costanza	2nd year PhD, chemistry	23	Female	White	Science fairs & festivals, GTA
1	Sasha Fierce	Postbaccalaureate research fellow, microbiology	24	Female	Hispanic	Tutoring, peer mentor
1, 2	A.J. Princeton	3rd year PhD, chemistry	25	N/A	White	Science fairs & festivals, GTA
1, 2	Dave Keuning	2nd year PhD, chemistry	24	Male	White	Boy Scouts, GTA
1, 2	Percival Dittmeyer	1st year PhD, biology	23	Male	White	International youth outreach, tutor, GTA
1, 2	Denard Robinson	4th year PhD, microbiology	25	Male	White/Latino	Science fairs & festivals
2	Claire Tanner	2nd year PhD, biological oceanography	31	Female	White	High school science student teacher, science tutor, GTA
2	Evan Kennedy	2nd year PhD, electrical engineering	33	Male	White	Middle school mentor on physics outreach project
2	Leah Klomsky	Postdoctoral scholar, neuroscience	29	Female	White	Camp counselor, science museum volunteer
2	Lennis Carmacho	3rd year PhD, chemical engineering	27	Female	Hispanic (PR)	Mentor to undergraduate research assistants, summer camp tutor
2	Maya Ayman	Postbaccalaureate research fellow, microbiology	22	Female	Middle Eastern	Tutor, undergraduate teaching assistant

Note. All data (including pseudonyms) were self-identified by participants. GTA = graduate teaching assistant.

Table 2. Regional Technology Academy Student Demographic Data, 2016

Demographic	Percentage
Gender	
Male	51
Female	49
Total	100
Race/ethnicity	
White	31
Hispanic	22
Black	18
Asian	15
Other (Pacific Islander, Native, multiracial)	14
Total	100
Other*	
Free/reduced-price meals	51
Special education	8
Graduate on time	95

* Percentages do not total 100 due to distinct categorization.

a learning environment design and mapping out how they are predicted to work together to produce desired outcomes." (p. 19) To help avoid bias and ensure validity of our design findings, the design conjectures were created in collaboration with colleagues outside the STEM OUT program, and the mediating processes and outcomes were reviewed by STEM OUT participants. We then used Year 1 findings to inform the design of Year 2. We also created retrospective conjecture maps to trace what emerged through participants' mentoring interactions as a result of the constructs of distributed expertise and building relationships (See Figure 1 comprised of 1a, 1b, 1c). This process helped to produce the broader design principles presented in the conclusions section.

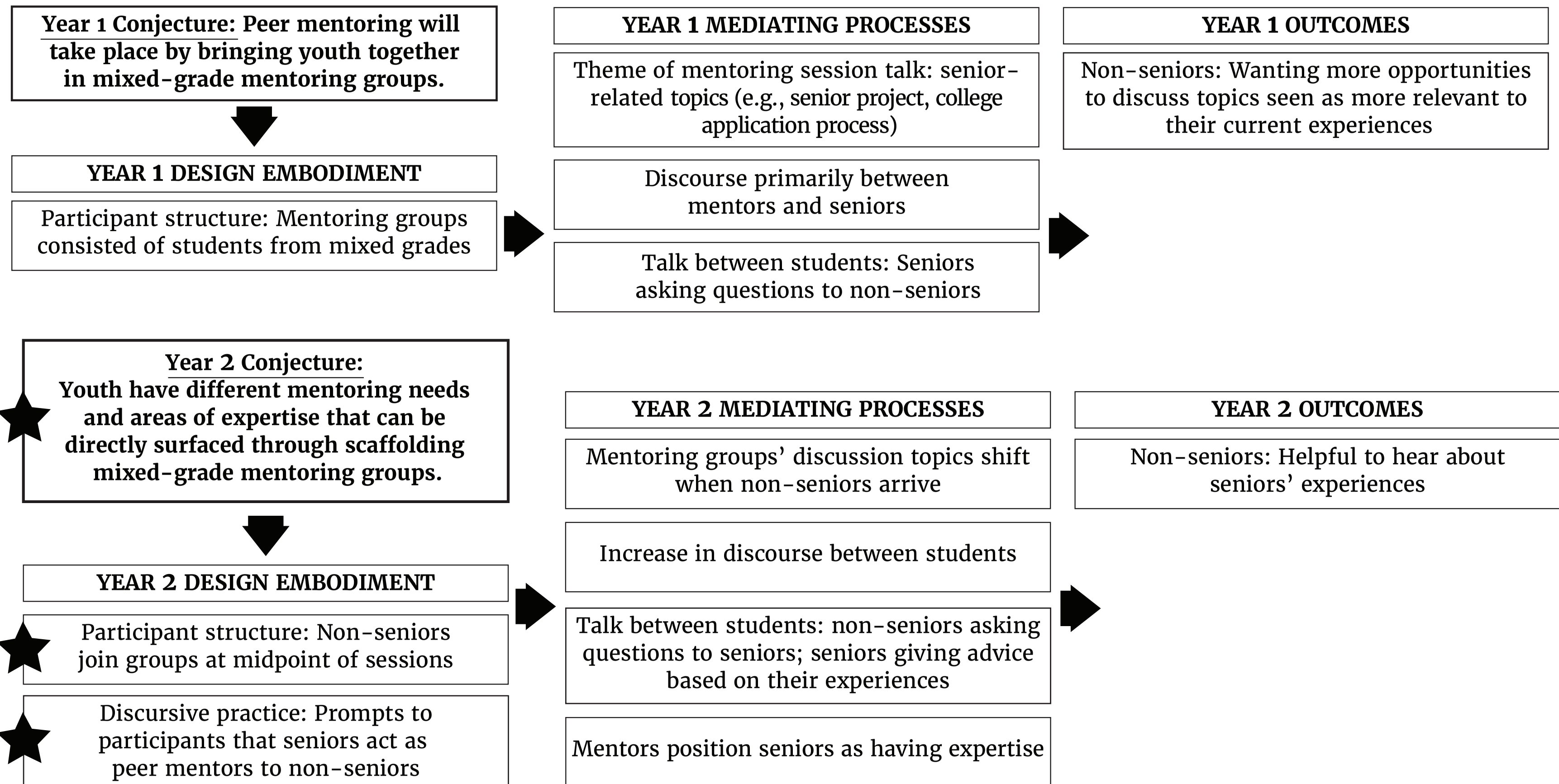
Data Collection, Sampling, and Unit of Analysis

Data comes from mentoring sessions between 15 mentors and 53 students (Table 3). We received IRB approval from the University of Washington Human Subjects Division, Application #48220. The first author (ERK) took ethnographic field notes (Emerson et al., 2011) on mentoring interactions and mentors' talk during car rides between the university and RTA. We conducted youth focus groups at the end of each school year; students were also surveyed in the middle of Year 1 and given an expanded pre/post survey in Year 2. ERK interviewed mentors at the end of each school year. Mentoring sessions, car rides, focus groups, and interviews were recorded using audio or video. Student focus groups and mentor interviews took place in person, involved semistructured protocols, and followed best practices for conducting group and individual interviews (Patton, 2002, pp. 339–427).

The reflective data (youth focus groups and mentor interviews; 20.5 total hours of recorded data) were transcribed to understand participants' experiences. To understand broad themes across the program and changes that took place within and between the two design cycles, we sampled across the interaction data (recorded mentoring sessions), selecting two sessions (one early, one late) from each mentor in each year. Each hour-long session was content logged (Derry et al., 2010), tracking the content and

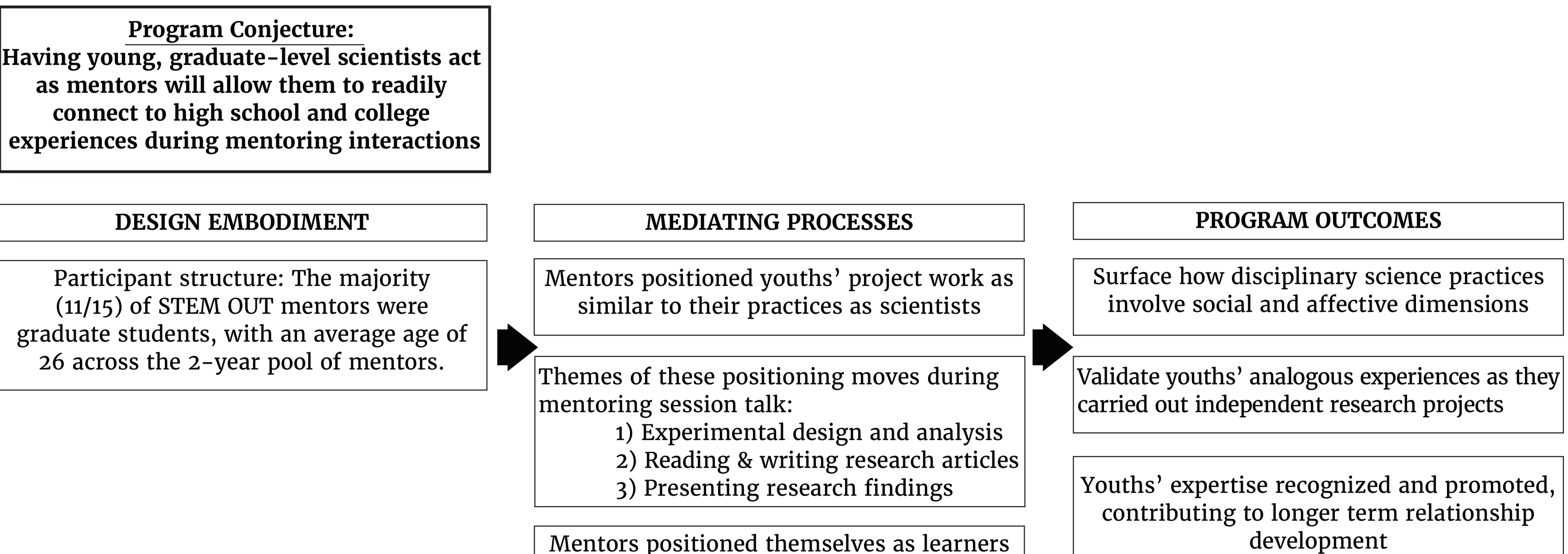
Figure 1. Conjecture Maps Highlighting Design Elements and Outcomes Across the Duration of the STEM OUT Program

Figure 1a.



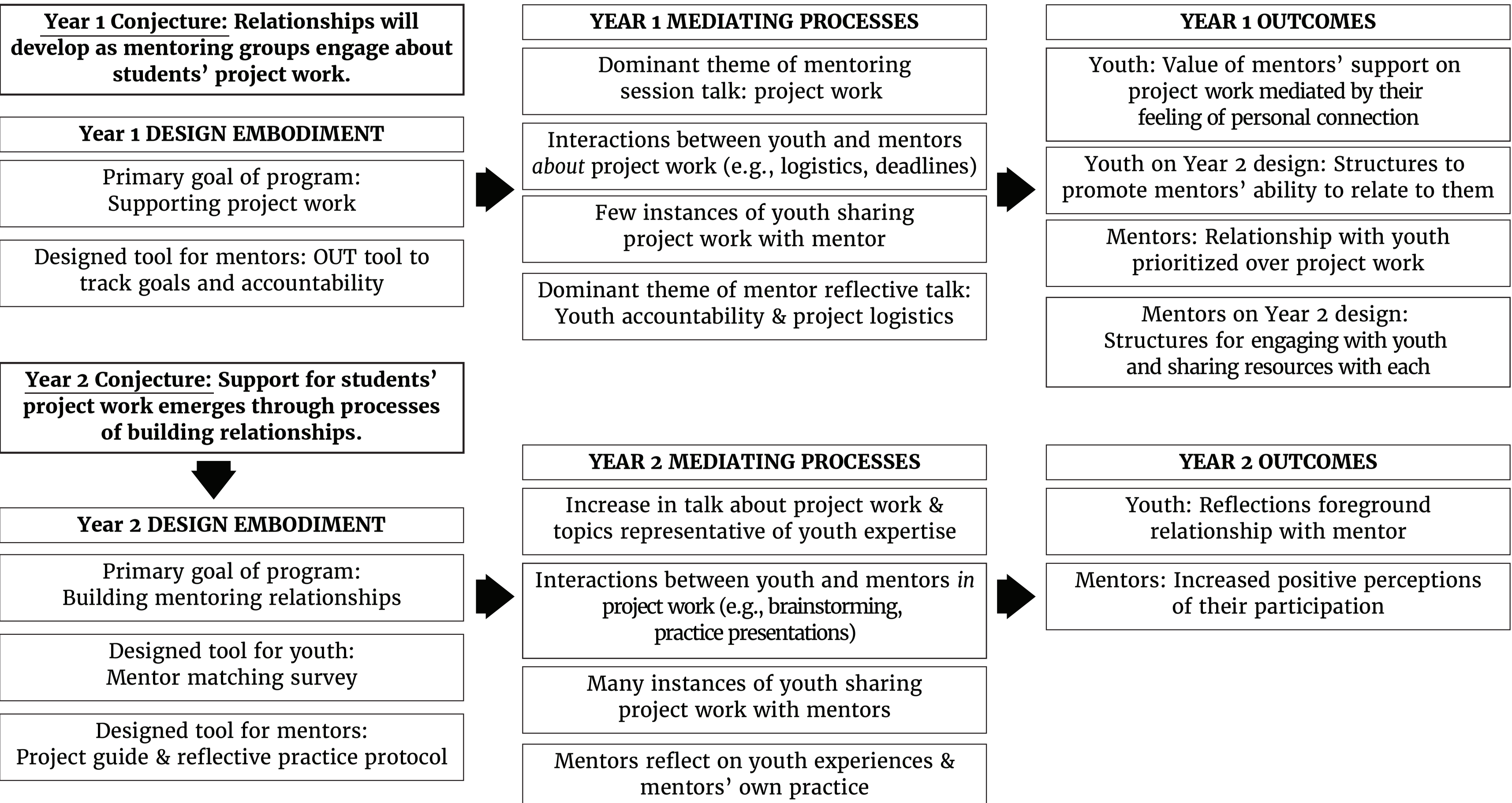
Note. Figures 1a and 1b relate to distributed expertise; Figure 1c relates to building relationships. Stars indicate pivots in the Year 2 program design, based on findings from Year 1.

Figure 1b.



Note. Figures 1a and 1b relate to distributed expertise; Figure 1c relates to building relationships. Stars indicate pivots in the Year 2 program design, based on findings from Year 1.

Figure 1c.



Note. Figures 1a and 1b relate to distributed expertise; Figure 1c relates to building relationships. Stars indicate pivots in the Year 2 program design, based on findings from Year 1.

direction of conversational turns (38 total hours of recorded data). We compared the logs with field notes to ensure that they were representative of a group's mentoring interactions (Erickson, 1986).

This study is concerned with how relational equity developed between youth and mentoring scientists, by analyzing participation structures during their interactions and how the design of STEM OUT impacted outcomes. Therefore, the unit of analysis is each year of the program, with a focus on the connections between themes of mentoring talk, participants' reflections, and the program design.

Coding and Analysis

All data sources listed in Table 3 were coded for the analysis. The content logs of mentoring sessions were coded using Dedoose v.8.0.33 and discourse analysis tools (Gee, 2011). For each conversational turn, we coded the direction (e.g., "student to mentor" or "non-senior to senior student"), type of talk (e.g., "brainstorming," "asking questions"; see Table 4), topic (e.g., "student's project work"; see Table 5), and source of expertise (mentor, youth, or mutual; Table 5). In addition to these emergent codes, we employed theoretical constructs of interest as parent codes, with emergent themes identified as subcodes. For example, we attended to how mentors' conversational moves positioned youth or themselves (Harré et al., 2009), but the data directed us to the ways that they were positioned, such as "youth as expert" or "mentor as learner." We also coded when participants used designed elements of the program, such as tools or activity structures. Coding themes foregrounded conversational aspects such as who is afforded opportunities to speak, how the framing of questions denotes the speaker's expectation of the respondent's expertise, and how designed elements enabled or constrained participants' talk. We open-coded themes found across participants' reflective data, to triangulate their experiences with the mentoring sessions.

Qualitative analysis of these themes, in conjunction with the conjecture maps and descriptive statistics of mentoring groups' discourse (Heath & Street, 2008), allowed us to make claims that (1) highlight how mentoring interactions created or constrained opportunities for distributed expertise and building relationships and (2) connect findings to the designed structures of STEM OUT (Blomberg et al., 1993). We wrote memos to triangulate between data sources, seeking connections or disjunctions between design features, participants' interactions, and re-

Table 3. Data Collected and Analyzed for This Study

Aspect of program	Participants (*N*)	Data used in analysis
Mentoring sessions	Mentors (15) & Youth (53)	38 hours audio/video Observational field notes from 25 sessions Mentors' notes & artifacts from 25 sessions Emails between mentors & youth
Car ride reflections	Mentors (15)	25 hours audio from 25 session days
Semistructured focus groups	Youth (44)	3 hours audio/video Posters with anonymous student responses (Year 1)
Midyear survey (Year 1)	Youth (12)	Open-ended (6 items) and rating (13 items) response data from 12 students
Pre/post survey (Year 2)	Youth (34)	Open-ended (9 items) and rating (17 items) response data from 14 students (pre-survey); 20 students (post-survey)
Semistructured post-interviews	Mentors (13)	17.5 hours audio/video

Table 4. Coding Categories, Codes, and Representative Subcodes Used for Analysis

Code	Definition	Example from session content logs/field notes
Talk during mentoring sessions: *Talking about project work*		
Checking in on progress	Focused questioning on what students have done to advance their project work.	Dave flips back through his notes and asks Parv (senior) about his project goal from two weeks ago. Parv says that he got permission from the school's tech manager, and just needs to get confirmation from teachers.
Giving assignments	Setting tasks for youth to complete before next session.	Lennis to students: "And for you [to Tiffany, senior], if you have a deadline, you need to get advice or suggestions or comments, send to me. I'm going to try to send you some of the things that I find. I was looking today on the Ecuador thing, it was hard, so I think it was good you changed your question."
Giving information	Providing details to youth on a relevant or interesting topic.	Claire talks with a senior about hearing back from colleges about financial aid packages. She explains EFC, expected family contribution, and how universities calculate it.
Offer to give feedback	Offering to review youths' work at another time or via email.	Sasha talks with Ben (senior) about deadlines for college applications. She asks about submitting before break, asks if he needs help, she could look over application if he wants. He said already got feedback on essay, she says if he wants other feedback, she can help with that, just email her.
Setting goals	Eliciting goals from youth for next session.	Percival asks students about their goals for two weeks, clarifies assignment for project proposal. Percival reviews timeline with students, since they will only have one more meeting before December break.
Talk during mentoring sessions: *Talking "in" project work*		
Brainstorming	Collaboratively generating ideas based on youths' interests.	Claire talks about iPhone screen as example of engineering project for non-senior. She asks him what features he thinks the iPhone 10 would have and "how would it look, how would people interact with it?"
Eliciting feedback or advice from youth	Prompting youth to give feedback or advice on each other's work and ideas.	Evan asks non-senior to scoot around to look at Andrew's slides, and adds "what makes sense to you?"
Giving feedback	Directly reviewing youths' work during session.	Maya looks back and forth between what she drew and Ellis's computer. She suggests, not sure if you'll be able to do all of this one graph, you can make it separate graphs if you need to. He plugs in his data to show her how it will look.
Joint work	Mentors & youth engaging together in youths' work.	John (senior) asks Leah about how to cite sources. Leah explains that it's been a while since she's done APA formatting, but explains how she would cite. John opens a file on his computer which they are both turned toward, and asks, "Like this?"

Table continued on next page

Table 4. Continued

Code	Definition	Example from session content logs/field notes
Practice presentation	Youth presenting their project or other related work during session.	Ellis (senior) tells Maya, “Mine is Pichakucha, you know what that is?” Maya replies, no. Ellis explains format and says that he is still practicing, doesn’t have it down yet. He starts his presentation by introducing himself and explaining how his project on the YMCA connects to his career goals to work in recreation and community service.
Talk during mentoring sessions: *General mentoring*		
Asking questions	General inquiries between participants.	Billie (senior) asks Len what were major obstacles he had to go through to get where he is today. Mike to seniors: “Sounds like things are coming together. Anything else you want to talk about? Last time, you said you had an outline to look at?”
Empathizing with youth	Sharing how mentors relate to a situation or feeling that mentees are having.	A.J.: “I know how hard it is to do work when you don’t have energy to anything. Do you have strategies to overcome that?”
Encouraging youth	Providing positive support.	Evan responds to the non-senior about the water-driven turbine for his STEM Expo project: “You guys are going to rock it. You’re already maxing out the generator! What else are you going to add to it?”
Giving advice	Offering tips or guidance.	Tiffany (senior) asks John what to minor in during college if she’s interested in medical school. John talks about double majors, they talk about difference between premed as a designation rather than major. John advises her to pick a major that she is interested in, if biology is what she really likes, pick that.
Providing resources	Connecting youth with people, media, or texts, based on youths’ interests or project work.	Denard describes the resource list on various colleges that he put together for students—GPA, cost, SAT/ACT scores, telling them that he will “give this to you at the end.”
Sharing own/others’ experiences	Recounting experiences that mentors perceive as related to what youth are experiencing.	Pita tells students that she took a big step in her career on Tuesday by passing her second-year exam. She explains the process of presenting work and coming up with a proposal for a committee. “And it’s horrible, but I passed, all the stress in my life is gone.”
Talk during mentoring sessions: *Mentor positioning move*		
Youth as expert	Mentor promotes or foregrounds youth expertise.	Mark (senior) tells Pita that she needs to update her computer processor, update the RAM. Pita asks, “Can they just take something out or do I need to get a whole new computer?” Mark: “Do you know what kind of motherboard you have?” Pita laughs: “I’ve never seen it!”

Table continued on next page

Table 4. Continued

Code	Definition	Example from session content logs/field notes
Mentor as learner	Mentor directly references their learning process or lack of knowledge about a topic.	Leah to John: "I don't know much about engineering, I'm learning a lot [from your literature review]." Miles (senior) discusses being worried that biodiesel project won't work, but "aiming for failure." Go with it, learn from it.
Youth's work as similar to graduate students' work	Mentor connects issues that students are encountering in their project work to their own experiences as scientists.	A.J. responds how "most of science is failing a lot until something works. That's what science is." "I've gotten really comfortable with failure, most of the time I'm just failing, so learning how to write that up in a useful way for other people, here's what didn't work and why, is an important skill, saying 'this didn't work, and here's why.'"
Use of designed element		
OUT Tool (Year 1)	Mentor using OUT Tool with youth during session or referencing during reflection.	Amy reviews dates for prom and graduation. Amy says it seems like Jesus is on track, reviews status of students' grades, takes notes.
Mentor matching survey (Year 2)	Mentor referencing survey from youth during reflection.	Lennis's "main concern" for the first day were the non-senior students and how she can help them, but that the survey was helpful—now she knew that she could help students to find a project topic. (10/29/15 field note)
Reflective practice protocol (Year 2)	Mentor using protocol during reflection.	Good reflection from Percival on drive back on interacting w/ senior (G). One of reflective practice questions resonated—surprised him. They went through survey that G had written, Percival giving him feedback. G said he would cut that question. Percival pushing him to not just cut, but think about how why he is asking that. (2/3/16 field note)

Table 5. Comparison of Ten Most Common Mentoring Discussion Topics Between Program Years

Year	Source of expertise	Topic	Number of talk turns	Percentage of total year dataset
Year 1	Youth	Project work	126	12.7
	Mentor	College—general	81	8.2
	Mutual	Hobbies	81	8.2
	Mutual	Family	59	6.0
	Youth	High school—general	53	5.4
	Youth	High school—systems & culture	50	5.1
	Mentor	College entry—logistics	49	5.0
	Youth	High school—schoolwork	46	4.7
	Mentor	College experience—academic	45	4.6
	Mentor	Science	41	4.1
	Varied	All other topics	358	36.1
Year 2	Youth	Project work	190	25.4
	Youth	High school—general	93	12.4
	Mentor	College—general	59	7.9
	Youth	High school—systems & culture	48	6.4
	Mutual	Family	38	5.1
	Youth	High school—schoolwork	34	4.5
	Mentor	College entry—logistics	30	4.0
	Mutual	Travel	26	3.5
	Mutual	Mental health/stress/feelings	23	3.1
	Mutual	Pop culture	21	2.8
	Varied	All other topics	187	25.0

Note. Total number of talk turns (Year 1) = 989; Total number of talk turns (Year 2) = 749

flective data (Strauss & Corbin, 1990, pp. 197–223). The memos led to increasingly higher level claims as we abstracted from the data (Erickson, 1986; Miles et al., 2013). In keeping with methods for ensuring validity of findings (Erickson, 1986), we worked with colleagues to check that claims were representative of the dataset and grounded in sound interpretation. We also searched for disconfirming evidence, and we note below when counterexamples were present in the data—which provided a rich area for subsequent theorizing (Erickson, 1986).

Findings

Below, we describe the iterative process of designing for relational equity in the STEM OUT program, along the dimensions of distributed expertise and building relationships. For each of these aspects, we describe the initial design at the outset of Year 1, followed by the outcomes from the interactive and reflective data. We then detail how Year 1 findings informed the design of Year 2, and the subsequent changes in discourse, participant structures, and reflections.

Through a design-based research approach to modify the programmatic components by closely attending to participants' experiences, STEM OUT was responsive to youth and mentors, which impacted the resulting discourse. In terms of distributed expertise, the amount of talk between youth increased, and the amount of discussion focused on youths' expertise increased in Year 2. When the program shifted to highlight developing social relationships in Year 2, the amount of talk about youths' projects increased. The relationships between design, mediating processes, and outcomes are illustrated in conjecture maps (Figure 1); conceptual connections and design principles are detailed in the Discussion section.

Distributed Expertise Surfacing in the Mentoring Program

STEM OUT mentoring groups were structured to disrupt a traditional apprenticeship model of expertise and facilitate relational equity between youth, their peers, and adults. Below, we describe how youth were afforded opportunities to signify their expertise and the outcomes of doing so over the 2 years of the program (Figure 1a). We highlight how these opportunities emerged through two specific pathways related to social positioning: (1) youth were positioned as mentors to their peers and (2) mentors positioned students' project work as similar to their own research as graduate-level scientists.

Year 1 Design: Collaborative Design Leading to Structures for Peer Mentoring

Peer mentoring was an integral component of STEM OUT. Mentoring groups consisted of one scientist, two high school seniors (such that the program included the school's entire senior class of 20 students), and one to two non-senior students.

Year 1 Outcomes: Mixed-Grade Groups Did Not Facilitate Peer Mentoring

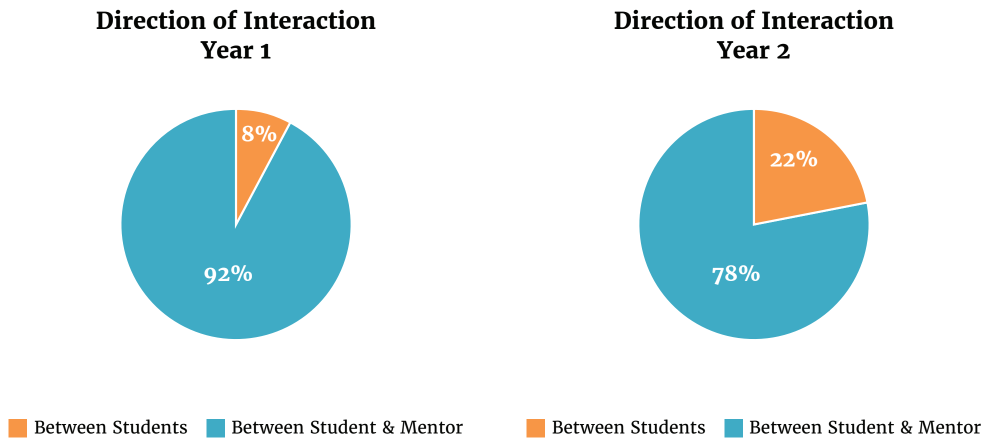
Over the course of the year, students expressed ambivalence about having mixed-grade mentoring groups. Non-seniors reflected that it was generally helpful to hear about the year-long senior research project and applying to colleges. However, some non-senior students felt that sessions were dominated by these senior-related topics and that they were not getting relevant support. Coded talk data from Year 1 supported the non-seniors' claims; this data showed that college was a dominant topic of conversation (17.8% of the dataset; Table 5). Although conversations about college may have been useful for ninth and 10th grade students as they approached their senior year, they may not have placed a high value on these discussions.

Analysis of the interaction data from Year 1 also showed that the intention to foster peer mentoring through mixed-grade mentoring groups was not borne out. Despite a few mentors' occasional attempts to directly position seniors as mentors to the younger students (three instances in the data corpus), talk between students was rare (Figure 2). When dialogue did occur between students, it was initiated by seniors. For example, during an early session, Billie, a senior in Len's group, asked a ninth-grader about his project work and prompted him to share his life goals, ultimately leading to broader engagement by the younger student.

Year 2 Design: Rearranging Social Arrangements

These findings led to two design decisions for Year 2 to encourage peer mentoring (see Figure 1a conjecture map): (1) having the non-seniors join their mentoring groups

Figure 2. Direction of Interactions During Years 1 and 2 of the STEM OUT Program



halfway through the session, so that seniors and mentors could first discuss their independent project work and college-related topics and (2) directly positioning the seniors as peer mentors to the non-seniors.

Year 2 Outcomes: Shifting Patterns in Discourse and Youth Positioning

Year 2 showed a pattern of increased discussion between students, in comparison to Year 1 (Figure 2). Additionally, rather than questions being directed only from seniors to non-seniors, there was an increase in non-seniors asking seniors questions, generally around school systems and senior projects. Both in response to younger students' questions and of their own accord, seniors also gave advice to the non-seniors, drawing from their own experiences at RTA. For example, in an early session, Jaden, a junior in Evan's mentoring group, was trying to decide whether he wanted to pursue a career path in engineering or psychology. He told the group, "I'm leaning more towards psychology now, because I like breaking down how things work, but I think it'd be cooler to figure out how people work." One of the seniors, Andrew, responded by encouraging Jaden to find out more about psychology by sitting in on a college-level class. He drew from his understanding of the opportunities available to RTA students, which was beyond the scope of the scientist mentors.

As seniors took these kinds of opportunities to listen to younger students and share their expertise, there was also a trend of mentors changing how they positioned students. In multiple instances, the graduate students specifically positioned the seniors as mentors, which did not occur during Year 1. As an illustration of this move, Percival, a mentor who participated in both years of STEM OUT, elicited advice from seniors for the sophomore student:

> So I have a question for the two seniors. Was there anything when you were a sophomore that you wish you had known or done differently now that you guys are getting ready to graduate? Anything you felt like that would have been good to think about coming into this last month and a half, two months?

This led to a generative conversation in which the seniors shared about managing coursework and building relationships with teachers to support college recommendation letters.

The emphasis on peer mentoring interactions in Year 2 resulted in changes in students' reflections. Non-seniors reflected how it was helpful to hear from seniors about "what to expect in senior year and being able to bounce ideas off them" and "hearing the other seniors talk about their senior projects and what it's like to be a senior."

Both Years: Youths' Work as Similar to Graduate Students' Work

The design decision to recruit graduate student scientists as mentors led to another

route for distributed expertise within mentoring groups: across both years of STEM OUT, mentors positioned youths' project work as similar to their work as scientists and graduate students. Mentors identified connections in three categories of practices:

1. Undertaking experimental design and analysis of results;
2. Reading and writing research articles;
3. Presenting research findings to a broader audience.

The first two categories helped scientists to surface the underlying practices involved in the day-to-day activities of being a scientist, including how scientific work involves failure. In response to Billie asking her mentor, Len, about major obstacles he navigated as a scientist, he shared about the emotional impact that failure in research can have: "You can fail really hard and like things just won't go your way. . . . It's sometimes okay to get something you're not expecting. When you're doing scientific research, you don't go in already knowing the answer, that's not interesting." Len went on to share an experience when his research did not go as planned, and advised students that "you shouldn't be discouraged by failure. It's a natural part of the research process."

The third category, in which participants bonded about the stress of presentations, was the most common across the dataset. This topic especially arose in sessions at the end of the year, as seniors brought up anxieties around the culminating public presentation for their projects. Mentors shared their own experiences feeling anxious about presenting on their work, reassuring students that they were not alone in those worries. For example, in Year 2, Scarlet discussed her concerns about sounding confident during her senior project presentation. Her mentor, A.J., commiserated and told Scarlet about tactics that they had found useful when presenting, like "power posing" and "finding an ally in the room." Beyond giving advice, however, A.J. leveraged a growth mindset approach (Dweck, 1999), emphasizing that although Scarlet's anxiety about presenting might not go away, it would get easier with practice:

> Scarlet: Well, I've always not liked presenting, that's just the kind of person that I am, but I know I have to get over that eventually.
>
> A.J.: Yeah well, I think "get over it" is always, we treat it like it's a binary. Either you're fine with presenting in front of people or you're not. I think the trick is to know and recognize that this is a thing that you will need in your life and that it's hard for you, and that's fine. And you'll collect tools that will make it easier for you. I don't think you're ever just going to get over it. If you're like me, you will always have stress about presenting in front of people. But just knowing that even though this is stressful, I can do it, is really useful knowledge. Because you're an outstanding sort of person.

Additionally, many mentors across both years of STEM OUT continually positioned themselves as learners and nonexperts. Although they often did so in reference to specific aspects of the RTA school culture and activities, mentors also shared with students when they did not know something about students' project work. For example, in an early session in Percival's group, Courtney, an 11th grader, described her project to develop an app that would improve systems for matching people released from incarceration to supportive housing. Percival asked questions to understand more about the details, and then declared to both Courtney and Tony, a senior, "That's cool. I don't know if someone thought I was really good at app development, but you guys are both developing apps, and I know nothing about it. But, hey, I'll take it!" [he and students laugh]. Over the next year, Percival continued to position himself as a learner by asking questions, but simultaneously supported youth by giving advice on nontechnical aspects and connecting them to people with app development expertise. Being honest about the limits of his expertise did not inhibit, and even contributed to, the development of relationships with youth (e.g., Bransford, 2007). Indeed, Courtney and Tony continued to meet informally with Percival after graduating, demonstrating how relational equity in mentoring groups was instrumental to building lasting social relationships, a theme that will be expanded upon in the next section.

Building Social Relationships to Sustain Engagement and Collaboration

In addition to distributed expertise, promoting relationship-building between mentors and students was integral to STEM OUT. The findings below show that when developing social relationships was emphasized as a leading focus, there was an increase in mentoring groups' sustained engagement and collaboration on students' project work (Figure 1b).

Year 1 Design: Focus on Project Work by Scaffolding Interactions

In the first iteration of STEM OUT, building relationships was situated as a secondary aim, with mentors primarily positioned as supporting students' project work. For example, the focal tool provided to mentors in Year 1 was the OUT Tool, intended to scaffold mentors' interactions by recording "Ovations, Updates, and To-do's" from each group member for the next session. Mentors were encouraged, but not required, to use the tool.

Year 1 Outcomes: Shallow Engagement About Project Work

Over their 13–15 hours together, mentors and youth discussed other topics and ideas, but, in line with the program's initial framing, participants mainly focused on students' project work. It was the dominant topic during mentoring sessions (12.7% of the dataset; Table 5). Talk about projects often took the form of mentors asking questions, one theme of which involved probing on details of project design.

Project logistics were another common theme of questions in Year 1 mentoring sessions, with mentors asking about project deadlines, or trying to unpack the specifics of what students needed to do for a particular part of the project (Figure 3). The below exchange between Sasha and one of the seniors in her group represents this theme:

> Sasha: So, goals for two weeks from now?
>
> Ben: Two weeks from now, I'm probably going to have my source analysis and literature review done for ten sources.
>
> Sasha: And ten sources?
>
> Ben: Yeah, ten sources—that's what we . . . [trails off]
>
> Sasha: Okay. Will they be due that week or the week before?
>
> Ben: Anywhere around that week, I don't think there's a specific deadline, but we're doing one a day, so we should be done by that time.

Mentors' discussions in the car rides between the university and RTA also reflected their concern about project logistics, with student accountability and deadlines comprising a dominant theme. Mentors tried to discern the deadlines for students' project work, occasionally tempering their inquiries with concerns about building relationships. For example, Percival discussed wanting to balance "being supportive, but also, [students] need to get this done."

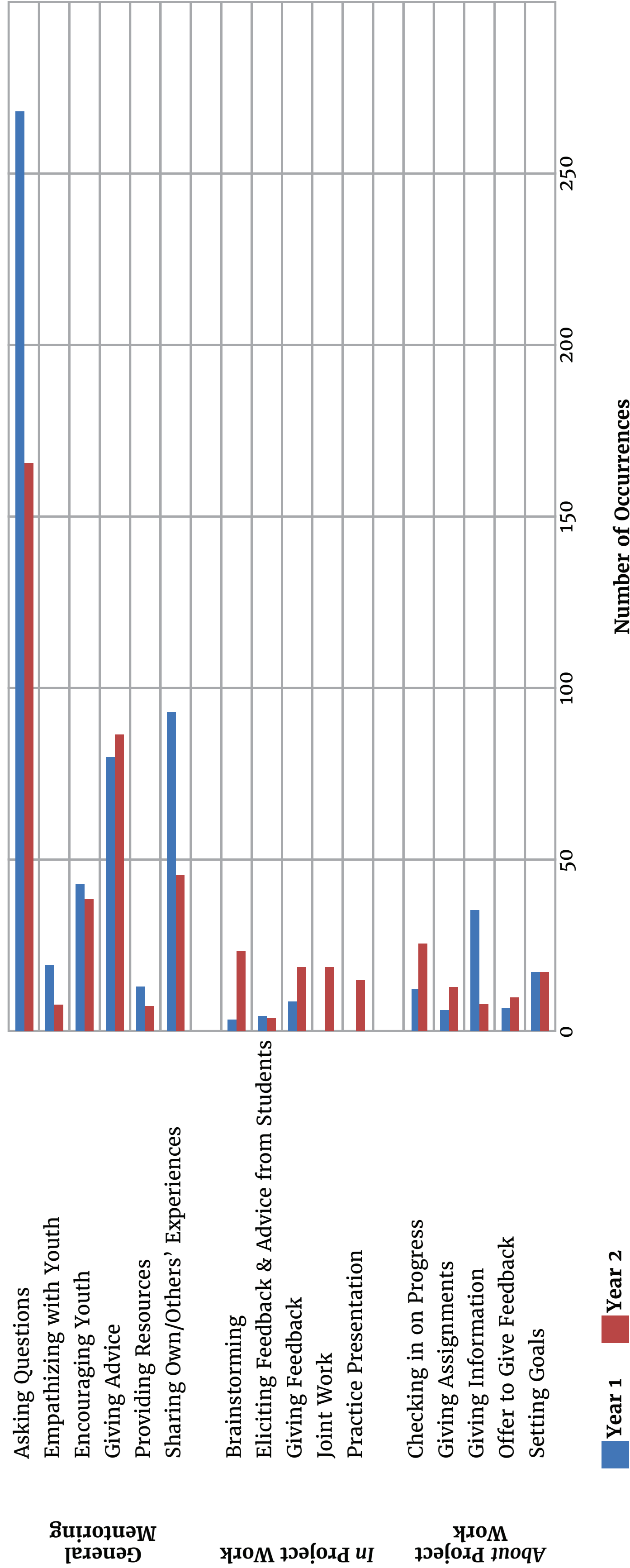
This tension between accountability and building relationships was further exemplified by the use of the OUT Tool. In Year 1, only two mentors routinely utilized the OUT Tool during their sessions, citing its utility for helping youth set goals, but also keeping track of what students had been up to since the previous session. The mentors who did not use the OUT Tool were mindful of not wanting to be another adult in students' lives reminding them what to do. One mentor, Mike, characterized this approach as being an "ally" and not wanting to be "super prescriptive."

Overall, the above quotes and excerpts from mentoring interactions are representative of the discussions between mentors and youth on students' project work in Year 1. Participants talked *about* projects on a surface level, but did not deeply engage *in* project work together, such as collaborative brainstorming, mentors giving feedback on writing, or youth practicing presentations of their work.

A counterexample to this claim demonstrates how being *in* project work together was mediated by the mentor–youth relationship (Rhodes & DuBois, 2008). In two exchanges in the Year 1 dataset, a mentor directly interacted with a student's project work. In the following interaction, Mia, a senior, told Amy that she needed to "take more control of her project" and then initiated sharing her research proposal:

> Mia: Can you check it, actually?
>
> Amy: Yeah yeah yeah. I'd love to. Are you able to print it or do you want me to do it—

Figure 3. Types of Talk Between Mentors and Youth During Mentoring Sessions in Years 1 and 2 of the STEM OUT Program



> Mia: [opening her laptop] Whatever's better for you.
>
> Amy: Okay. Also, you can send it to me by email. Because that way I can spend a little more time looking over it. Because it usually takes me a while to go through something. And then, you should also tell me, I remember last time we met you were like, "Be mean, be brutal!"
>
> Mia: Yeah.
>
> Amy: But on this side of things, are you still thinking that?
>
> Mia: Yeah. (Amy: Ah!) I need to get my shit together!
>
> [They laugh together.]

Mia and Amy's established relationship informed Mia's decision to share her proposal. Amy then gave detailed feedback on Mia's proposal.

Feedback from Year 1 participants provided further evidence of the importance of relationships as a foundation for deeper engagement about project work. Focus groups revealed how students' favorite aspects were getting to know their mentor and talking about topics outside their projects. Youth participants reported that mentors were somewhat helpful with projects, but, as evidenced by Mia and Amy's exchange, this perception was mediated by their personal connection. One senior framed it as "If you like the mentor, can be beneficial for senior project. Otherwise, cool to talk about what they do on campus, but can only go so far." Students' ideas for Year 2 focused on the ability of a mentor to relate to them, which further supports how the mentoring relationship was integral to engagement.

In their postprogram interviews, many mentors discussed how developing rapport with youth led to more productive interactions about their projects. For example, A.J. reflected on prioritizing developing a connection with Miles, a senior who was behind on his project:

> I was just really wary of putting too much pressure on him, so I backed off of the senior projects a lot, not wanting to only focus on him for that and then just kind of trying to throw out where I'd be useful. And so it was pretty early on that I was just like, "Mmmm, this is I think not what I need to be here for."

Rather than compromise their mentoring relationship, A.J. decided to support Miles's project work by sending him articles he requested and spending their in-person time talking about shared experiences. Finally, mentors' feedback for Year 2 centered on wanting more structures to support building relationships with youth and for learning from each other.

Year 2 Design: Foregrounding Mentoring Relationships Through Multiple Tools

As a result of the cumulative findings from Year 1, building relationships was highlighted as one of the primary goals for Year 2 of STEM OUT. Relationship-building occurred in part during the mentor orientation workshop and when introducing the program to RTA students, as returning participants shared their experiences and favorite aspects of the program. Four mentors participated in both years, and the 12 youth participants who had been nonseniors in Year 1 participated again, working with the same mentor when possible. Returning participants had the advantage of building upon their previous established dynamics; however, all returning mentors worked with at least one student who was new to the program, such that all Year 2 mentoring groups involved building new relationships.

To intentionally support relationship-building activities, we designed three new tools:

1. Youth survey used to elicit their project interests and match with mentors' expertise;
2. Project guide for mentors, including a timeline and project assessment rubrics;
3. Reflective practice protocol to frame mentors' debriefs during the car rides between RTA and the university.

The reflective practice tool was intended to scaffold mentors' focus during their sessions, similar to supporting novice teachers in developing the ability to "notice" through reflection (Luehmann, 2007; van Es & Sherin, 2002). In response to mentors' desires to learn from each other, the protocol was designed for dialogue between two to three mentors. It emphasized understanding more about youth participants' experiences by asking questions such as "What

did you learn about students' experiences at school, home, or in their communities?"; "How did you relate to students?"; and "What were students interested in today?" Although the OUT Tool was also available in Year 2, it was offered as part of this suite of supports.

Year 2 Outcomes: Collaborative Engagement in the Project Work

Across Year 2 mentoring groups, participants used the tools to undertake diverse ways to get to know each other. These processes of building relationships led to sustained engagement around youths' projects and discussions that drew on youths' expertise, with both youth and adult participants reporting increased feelings of success compared to Year 1.

In early sessions, interactions were informed by mentors' initial understandings about youth from their pre-surveys. For example, a senior new to A.J.'s Year 2 group identified himself as a "quiet person" on his survey, which then framed A.J.'s less talkative approach during their sessions. As the year progressed, specific practices of relationship-building varied between groups, depending on the dynamics of participants. For example, after Leah's first session, she noted that her interactions with the three boys in her group were more one-on-one rather than whole-group discussion. At the following session, she decided to foster a group dynamic by having each person talk about "something that brings you joy." Over time, it became a ritualized norm for the group that the youth began to prompt themselves, which led to extended conversations about superhero movies and TV shows, topics that Leah and the youth participants discovered they were all deeply passionate about.

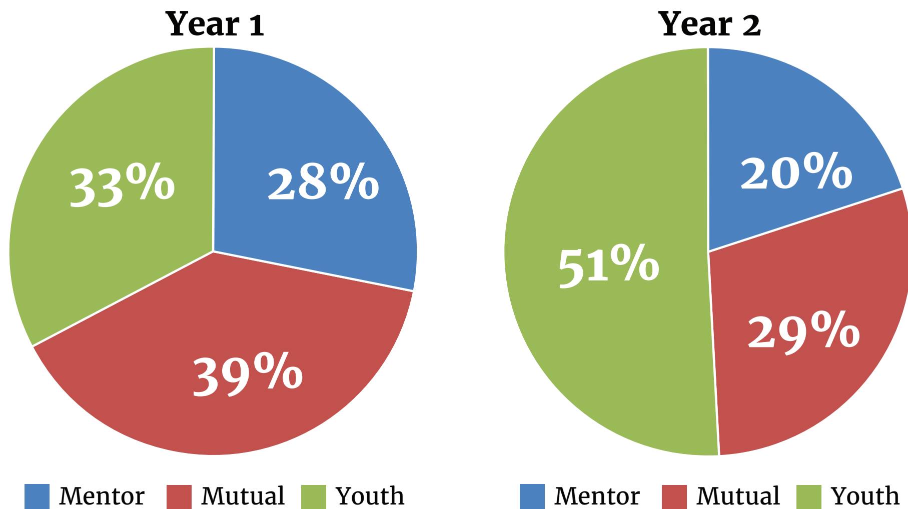
However, Year 2 mentoring interactions were not only centered on shared experiences and getting to know each other: In comparison to the Year 1 data corpus, there was ultimately more talk about students' project work (126 instances in Year 1, 190 instances in Year 2; Table 5). Further, these conversations generally differed qualitatively from talk about projects in Year 1 (Figure 3). For example, there were fewer interactions about project logistics and deadlines, due to providing the project timeline to the mentors. In an early session, Leah used the provided rubric for the senior project literature review to mediate her feedback and structure conversation with students on their project work, leading eventually to this constructive exchange with John about the purpose of a literature review:

> John: I've connected everything, but I don't have my citations built out.
>
> Leah: Yes, and we need to like more rigorously build arguments instead of just describing them as well.
>
> John: That's what I was told a literature review was, instead of arguments or that kind of ordeal, you review all of the literature and add it all into one.
>
> Leah: Right. But you want to—in my experience, the idea of a literature review is you want to be able to walk away from that with a sense of where, where the field is currently and where the open questions are.
>
> John: Oh, okay.
>
> Leah: So you can do, you're relying heavily on other people's ideas but you also want . . . you want to have [your] own spin on it, because you want that to be able, you want to use your literature review to back up, to convince people that the questions that you're interested in answering are interesting. So the way that you show that is by saying like, "This is what everyone else has done and this is what we know, but here is the hole that I'm looking at."

The conversation continued, with John asking questions and opening files on his computer for them to review together. As they did so, John declared that he had "a much better understanding of this now."

Beyond this representative example, there were multiple other instances of joint work between mentors and youth in the Year 2 data corpus, as well as increased numbers of interactions involving brainstorming and giving feedback compared to Year 1 (Figure 3). There were also 14 occurrences of students giving practice presentations, which did not occur in the Year 1 data. For example, in Maya's group, the seniors presented talks on the connections between their senior project topic and their chosen career path. These kinds of talk activities demonstrated how, in Year 2, fostering relationships enabled mentoring groups to

Figure 4. Sources of Expertise for All Topics Discussed During Years 1 and 2 of STEM OUT Mentoring Sessions



more substantially engage in youths' project work together.

Besides project work, the topics discussed in mentoring groups in Year 2 in comparison to Year 1 were more representative of expertise held by youth (e.g., high school, RTA systems and culture) or mutually between youth and mentors (e.g., hobbies, family, holiday plans), rather than solely mentors' expertise (e.g., college, graduate student experience, science). This change is evident from Table 5, which shows the most common topics in mentoring discussions across both years; Figure 4 shows the sources of expertise for all discussion topics more broadly across the data set. Notably, half of the topics discussed in Year 2 were grounded in youths' expertise, as opposed to one third of topics in Year 1. Intentionally emphasizing developing relationships and structuring groups to facilitate peer mentoring (as described in the previous section) enabled participants to feel comfortable sharing on a range of topics that went beyond mentors' areas of expertise.

Finally, the reflective practice protocol designed to prompt mentors' attending to student experience impacted their interactions with each other. For example, in Year 2, mentors talked significantly more about youth engagement (47 occurrences) in the car rides after mentoring sessions, in comparison to Year 1 (15 occurrences). Mentors discussed finding out more about youths' interests ("Leah said that they both watch the same anime—'they started speaking anime, and I could no longer follow what was happening!'"—10/29/15 field note) and patterns of participation in their groups ("A.J. also talked about how there are some silences in the group before the non-senior gets there, A.J. is working on just being comfortable in those silences."—11/18/15 field note), as well as supporting students' progress in their project work ("Claire discussed the non-senior in her group and how he is still looking for a project topic and the challenges of trying to help him do that. Hard to sink in to things he might be interested in."—1/6/16 field note). These latter two examples also show how the protocol influenced mentors' consideration of their practice, leading them to reflect on their role while interacting with students during sessions, rather than on what youth could do differently.

Overall, reflections from the Year 2 mentors on their participation in the program were more positive than those of the Year 1 mentors. In contrast to themes in mentor post-interviews about student accountability and attendance in Year 1, mentors shared what they had learned about students and the

connections that they made through building relationships. Denard, who participated in both years of STEM OUT, illustrates this shift. Rather than concentrating on specific tasks that youth did (or did not) accomplish outside their mentoring sessions, Denard shared how, in Year 2, he "knew there was going to be a lot of stuff that I couldn't do but there'd be some things that I could help them out with." He learned more about what the seniors in his group wanted and needed support for around applying for college and attempted to meet them where they were rather than setting his own goals for their success.

A main theme of youth participants' reflections from Year 2 also foregrounded the relationships they had built with their mentors. Eleanor, a non-senior, described how she would take forward "the advice and fun conversations I had with my mentor," whereas Kim, who discussed her immigration status with her mentor, shared how she felt "that I'm not alone" on her post-survey. Additionally, in contrast to wanting more opportunities to build rapport with mentors after Year 1, students' feedback described wanting more time to meet with mentors. This shift signifies how youth participants in Year 2 were more satisfied with the mentoring dynamics and relationships that they had developed.

Discussion

This study was concerned with how a science mentoring program could be structured to promote relational equity between scientist and youth participants, and, further, how to articulate those structures as broader recommendations to inform the design of other scientist–youth partnership programs. The Findings section addresses the first question, detailing how distributing expertise and prioritizing relationship-building fostered less hierarchal relations. Through documenting the iterative changes to the STEM OUT program design, we portrayed how designed features contributed to these outcomes. Below, we situate these features in the broader conceptual framework, then describe principles of design that can be adapted for any setting for scientist–youth interactions, even those of short-term duration. Finally, we address the broader implications of designing for relational equity between scientists and youth, in terms of expanding what counts as participation in the scientific fields.

Distributed Expertise and Building Relationships as Connected and Dialogic Processes

When mentoring groups were structured to promote expertise as distributed among all participants and relationship-building as a focal enterprise, we found that mentors and youth engaged more deeply on youths' research projects and shifted from mentors' external monitoring of youths' project work to an internal collaborative dynamic. We characterize these changes as being *in* students' projects together rather than shallow engagement via talking *about* their work. The findings suggest that emphasizing the dimensions of mutual expertise and social relationships facilitated their collaboration, rather than conversely assuming that participants' focus on project-related activities will facilitate distributed expertise and relationship development.

Although situating distributed expertise and building relationships as two distinct dimensions served this analysis by disentangling the many processes that were occurring simultaneously, it is important to remember that they are directly linked, as illustrated by the following claims. As mentors and youth got to know each other, their developing relationship facilitated positioning moves that resulted in expertise being distributed more equitably among group members, as they discussed topics that encompassed youths' or mutually held expertise, rather than mentors' areas of expertise (Figure 4). Similarly, when mentors reflected on how it felt to "fail" at designing an experiment or commiserated about the anxieties involved in public presentations, they validated students' analogous experiences as they carried out an independent research project. Relationship-building, in turn, directly contributed to and built on expertise being distributed within mentoring groups, by mentors discussing what they had in common with youth, or students' interests outside school, rather than privileging scientific content knowledge or their own experiences.

Mentoring to Highlight Social Practices as Authentic Scientific Practices

Participants in the STEM OUT program did not undertake "authentic" scientific practices together in the sense usually considered in the literature on scientist–youth interactions (e.g., engaging in scientist-led disciplinary activities in a lab or field setting;

Barab & Hay, 2001). However, discussing the social and affective dimensions of being a scientist illuminated how "authentic" scientific practices are conjoined with social processes. Rahm et al. (2003) described how an expansive notion of "authentic science" should be "best understood as grounded in the relations and negotiations among the worlds of teachers, students, and scientists as they collaborate in ecologically valid contexts" (p. 751). Authentic scientific practice, then, can be repositioned during scientist–youth interactions to encompass the many layers of coordinated social practices, navigating identity work, collaborative sensemaking, and evidence-based dissent, that take place in research contexts (Bang et al., 2012; Brickhouse, 2001; Latour & Woolgar, 1986; Nasir et al., 2006; Rouse, 1996). By doing so through sharing their own research and connecting with scientists as people in mentoring partnerships, youth begin to develop an understanding of how science and engineering *in practice* are rooted in social interactions and community work (National Research Council, 2012; Penuel, 2016).

Specifically, the ways that mentors positioned students' work as similar to what they were doing in their own research helped youth participants to visualize how "doing science" involves a complex suite of social practices, rather than just "knowing science" as a settled set of facts presented in science classrooms (Collins & Shapin, 1986; Latour, 1987). Additionally, making connections between their mutual endeavors positioned youth as undertaking the disciplinary practices of scientists, legitimating students' multifaceted tensions, struggles, and successes. If supported over time, these kinds of positioning moves could lead to more enduring identity work in the sciences (e.g., Bell, Tzou, et al., 2012), as youth come to recognize and identify with expansive ideas about what counts as "doing science."

The relationships that youth developed with scientists also played a vital role in these potential processes of envisionment. Themes from students' reflective data demonstrate how they connected what they learned from their mentors about the social practices involved in being a scientist to their own possible futures (e.g., Stromholt & Bell, 2017; Van Horne & Bell, 2017). An example came from a Year 1 senior, Felicity, who shared interests with her mentor in "geeky" activities such as cosplay and ComicCon. After her participation, Felicity reflected how these interactions with Pita, a chemist, prompted her to reconsider her focus in college:

> It kind of opened my eyes, cuz now I want to do engineering, chemistry, and physics, like not all of them together, but just try to see which one fits. Because seeing her passion for chemistry was like, I want that passion for my learning and so I kinda wanted that in everything.

Although it is beyond the scope of this study to ascertain the impacts of STEM OUT participation as youth moved into college, getting to know a scientist through a mentoring relationship began to reframe their perceptions of future pathways.

More broadly, the analysis of STEM OUT mentoring interactions illuminated how the social practices that contributed to distributed expertise and building relationships also enabled key affordances for learning in informal environments (Barron & Bell, 2015; Nasir, 2012). By developing relationships that were not solely rooted in scientific expertise, youth chose to share their work with mentors, such that the scientists could give feedback and make connections to how the students' research process was similar to their own. These perceptions, in turn, allowed youth to develop a sense of science as a social process that they were already undertaking. Finally, the positioning of seniors as mentors to younger students emphasized their expertise and multiple roles that they could take on, as opposed to being solely learners, as often occurs during adult–youth interactions (DiGiacomo & Gutiérrez, 2016).

Conclusion: Designing to Counter Deficit Perspectives of Youth

Beyond creating a context for youth and scientists to develop relational equity and learn from each other as they interacted, this study sought to understand the specific contextual features that enabled them to do so. Hierarchical power relations can be much more easily reified in scientist–youth mentoring programs that "are built on an inherent knowledge differential between the mentor and mentee and thus often assume inadvertently a deficit perspective" (Kafai et al., 2008, p. 202). By incorporating structures to prompt participants' reflections and interactions that countered this "inherent knowledge differential," the STEM

OUT program's activities demonstrated how design can disrupt these asymmetrical relations, and, as discussed below, contribute to broadening participation in STEM.

Limitations and Future Research

Limitations of this study mainly come from its focus on one instantiation of scientist–youth interactions. In line with the principles of design-based research, the iterative approach to designing STEM OUT was grounded in specific sociocultural constructs and broader research findings that informed the initial and subsequent designs. However, a fruitful direction for future research will employ these ideas in the design of other settings.

Similarly, it will be vital to test out the proposed design recommendations that follow this section for fostering relational equity between scientists and youth. Many scientist–youth programs are more limited in duration than STEM OUT, with perhaps only a single synchronous interaction or an intensive weeklong research experience. Although it may be challenging to understand outcomes that relate to distributing expertise and building relationships after a short-term interaction, designers of scientist–youth partnership programs should consider ways to adapt the principles of design proposed here for their local contexts and nature of participation for scientists and youth.

Finally, this study's findings are limited to the duration of the STEM OUT program. Opportunities to check in with participants over time would enable us to make stronger claims related to the durability of the outcomes, and to make claims regarding identity shifts that may have occurred for both youth and adults. Future research in this direction could be performed via a follow-up study to track participants across longer timescales and broader contexts as they moved on from high school and graduate school, respectively.

Recommendations for Scientist–Youth Program Design

Below are recommendations that follow from this study's findings, with accompanying suggestions for implementation in contexts involving scientist–youth interactions. In line with the design-based research framework used here, these recommendations are framed as design principles (e.g., Edelson, 2002).

Design Principle 1: Develop Structures to Position All Participants as Having Expertise

The findings from this study build on previous research on the power of eliciting and invoking youths' expertise in science learning contexts (Bell, Bricker, et al., 2012; Bell, Tzou, et al., 2012; Stromholt & Bell, 2017; Van Horne & Bell, 2017). Designing for distributed expertise in other settings will depend on the specifics of the localized context and activities through which youth and scientists are coming together. Some examples include eliciting youths' interests or connections to the activities at hand, or intentionally designing activities such that youth can develop and share expertise as they interact (such as a jigsaw structure).

Additionally, the STEM OUT mentors' status as early-career scientists may have enabled them to find parallels between students' research and their own, given their positioning as developing experts. Therefore, creating structures to elicit and distribute expertise when working with youth may be even more salient for scientists further along in their careers, who may be accustomed to being positioned as experts.

Design Principle 2: Promote Developing Rapport as an Integral Activity

As demonstrated by the Year 2 redesign of STEM OUT, ensuring that participants recognize the value of developing relationships and the social dimensions involved in scientist–youth interactions can result in increased engagement. Although relationship-building will vary for a short-term rather than a prolonged mentoring experience, one starting place is an introductory "ice breaker" activity to mutually share about who participants are beyond being a scientist or student. Adult participants can then connect to outside interests and identities over the duration of the program. Another way to facilitate relationship-building is for scientists to connect back to their experiences and interests when they were the age of the students, which may or may not be related to science or school. Similarly, scientists should be prepared to share with youth about the repertoire of ways that they see science as relevant to their lives, either currently or at younger ages. Finally, program designers can orient scientists to youths' school or community (especially if the program is in the scien-

tists' context).

Design Principle 3: Design Tools to Scaffold Participant Structures for Relational Equity

Attending to *how* participants will interact is a key finding that follows from this study. As demonstrated by the evolving set of tools to scaffold participation structures in STEM OUT, encouraging collaboration between youth and scientists can be straightforward—for example, mentoring groups were prompted to talk about non-seniors' interests and expertise. For experiences involving collaborative scientific work, fostering relational equity between adult and youth participants could entail pausing to discuss what they are doing and make sense of what it means. For scientists working with groups of students, attending to who is talking and how much is important. A think-pair-share strategy may work well to encourage discourse between youth in large groups. Finally, building structures to elicit, share, and follow up on students' ideas is crucial to fostering relational equity.

Implications for Broadening STEM Participation on Multiple Dimensions

STEM OUT mentors' demographic backgrounds (Table 1) demonstrated a higher degree of gender and racial/ethnic diversity relative to PhD students in STEM fields across the United States (National Science Foundation, 2016). As found in another study on scientists and youth from underrepresented backgrounds collaborating in an informal science learning environment, mentors "embodied the notion that individuals [from diverse backgrounds] can successfully complete such degrees" (Polman & Miller, 2010, p. 912). Such experiences can be incredibly valuable for youth from minoritized demographic backgrounds, especially when mentors and students also discuss issues of underrepresentation in the STEM fields (Hazari et al., 2013), which occurred on multiple occasions during STEM OUT mentoring sessions.

Reports on broadening participation often emphasize shifting *who* studies and works in the sciences, in order to better represent the demographic diversity of the United States (Gibbs & Marsteller, 2016; National Science Foundation, 2008). Although such a shift is a vital goal, youth–scientist partnership programs provide opportunities to redefine *what counts* as science (e.g., McDermott & Webber, 1998; Stevens, 2013). Interactions between youth and scientists have the potential to reorganize broader cultural frames for all participants: for example, challenging stereotypes of who gets to be a scientist, but also unpacking what it means to be a scientist (Rahm, 2007; Woods-Townsend et al., 2016). In STEM OUT, the ways that youth were positioned as having expertise and getting to know mentors as full people enabled this second aspect of broadening participation. As described above, youth had the opportunity to understand science as a multidimensional suite of social practices that connected to a variety of life experiences, not just being in the lab or field. "Doing science," then, involved passions and struggles and family experiences, similar to what the youth encountered in their project work, which leveraged their interests and ideas and transcended the limited repertoire of disciplinary practices often presented in science classrooms or other types of scientist–youth interactions. For scientists, having opportunities to recognize the parallels between their research and youths' science learning can broaden their own sense of what counts as scientific practice, and shift their orientation to K-12 education and youth engagement. For example, through interacting with youth, scientists can become aware of their limitations in communicating about their experiences as a scientist (Woods-Townsend et al., 2016), or recognize how they can learn from youth, disrupting hierarchical notions of novice/expert and teacher/learner dynamics (DiGiacomo & Gutiérrez, 2016; Kafai et al., 2008).

The outcomes of this study also demonstrate how acknowledging the emotional and affective experiences involved in undertaking scientific practices and incorporating these aspects into science learning experiences can have powerful outcomes for youth (e.g., Carlone et al., 2016). Recognizing this potential can have implications for youth that may be marginalized or uninterested in the vision of sciences as presented in classrooms, by broadening their perspectives on what counts as science. Lemke (2001) framed the implications for students' science identities as needing to understand the "affective response of students to our teaching, and on what exactly is happening as so many students get put off by our approach to science at just the age when they begin to consolidate their adult identities" (p. 300). The design-based research approach employed here helped to elucidate

"what exactly is happening" in a particular scientist–youth mentoring program, by surfacing the contextual features that promoted relational equity and informed students' broader conceptions of the sciences. Beyond the implications for youth to pursue science, being positioned as already engaged in scientific activities is crucial to young people's ability to leverage disciplinary knowledge and practices in pursuit of their own valued aims and futures (Basu & Calabrese Barton, 2007; O'Connor & Allen, 2010). This study contributes one example of how to move closer to this goal through fostering relational equity between scientists and youth; through intentional design, other opportunities for scientist–youth interactions can similarly have lasting impacts for all participants.

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The Impact on College Students of Service-Learning in After-School Programs

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Abstract

In the United States, the dearth of quality expanded learning opportunities (ELO), such as afterschool and summer programs, has long been recognized as a national concern (DeKanter et al., 2000). The COVID-19 pandemic exacerbated this problem, as expanded learning opportunities of all kinds became increasingly limited in spring 2020 (Carver & Doohen, 2021). This research evaluated a new service-learning project, Honors Afterschool Clubs, which allows college students to fill ELO needs by creating and leading afterschool clubs for high-needs, low-income youth. By analyzing college student pre- and postexperience surveys, semistructured interviews, and focus groups, the authors evaluated the perceived impacts of this project on college students and their learning. Our preliminary results suggest that in addition to providing an essential service to the community, families, and youth, college participants who lead afterschool clubs perceive an improvement in their self-efficacy, interpersonal skills, and career confidence.

Keywords: expanded learning, afterschool, service-learning, community engagement

High-quality schools are essential for student learning, growth, and success, but learning does not stop at the end of the formal school day. The last few decades have witnessed the emergence and growth of expanded learning opportunities (ELOs) like afterschool and summer programs in K-12 settings, which have been shown to positively affect youth interpersonal and social skills, behavior, and academic performance (Durlak & Weissberg, 2010; Vandell et al., 2007. Despite the positive outcomes of afterschool and summer programs on youth development, not all students are able to receive the benefits that these programs provide. In fact, nearly 25 million children in the United States are not enrolled in an afterschool program, even though they would attend if given the chance (Afterschool Alliance, 2021). Part of the reason for the disconnect lies in the lack of well-trained staff and intentional programming that are required for a high-quality afterschool program (Little et al., 2008).

Cost is also a factor, especially for low-income families; in 2011, high-income families were spending nearly $8,000 more a year on ELOs than low-income families (Cline, 2018; Duncan & Murnane, 2011). Unfortunately, growing inequality among American families has translated into additional resources for children from high-income families both before and after the school day, thus exacerbating the achievement gaps between children from high-income and low-income households (Reardon, 2011).

While ELO programs are looking for resources and people to provide more services to K-12 youth, especially for low-income and rural individuals, postsecondary institutions like the University of Nebraska–Lincoln (UNL) are seeking ways for their students to participate in out-of-classroom, experiential learning opportunities. In 2021,

UNL initiated a process that will make experiential learning a requirement for all undergraduate students because of its transformative impact on college students and their academic success. Experiential learning includes a variety of high-impact practices, such as service-learning and community-based learning, which are recognized as practices that promote college student engagement, personal growth, and skill development (Kuh, 2008).

The Nebraska Honors Program at UNL serves high-achieving students from all colleges on campus, and like other honors programs at public, land-grant universities, it highlights community engagement and service-learning as core elements. Starting in fall 2018, these overlapping imperatives fueled the idea and creation of Honors Afterschool Clubs in Lincoln and eventually greater Nebraska, hosted by the Nebraska Honors Program. Forging partnerships with Beyond School Bells (BSB), a program of the Nebraska Children and Families Foundation that serves as Nebraska's statewide ELO Network, and Lincoln's Community Learning Centers (CLCs), a citywide network of partners that work on ELO opportunities, the Nebraska Honors Program encourages its high-ability college students to create and implement hands-on curricula for expanded learning opportunities in local K-12 schools.

Honors Afterschool Clubs were created to respond to a specific and growing community need, while also enriching the academic experience for undergraduate student service-learning and reflection. In line with the Carnegie definition of community engagement, these hands-on service-learning projects allow undergraduate students numerous chances to create curricula for, teach, and manage K-12 youth in collaboration with community partners for mutually beneficial exchange of knowledge and resources (New England Resource Center for Higher Education, 2018). This article provides information on the rationale for this service-learning project. It then explains Honors Afterschool Clubs and how they are structured. After detailing our research design, it provides our preliminary findings based on data we collected during the fall 2021 semester from August to December. Our overarching research question is "How does this service-learning initiative in the afterschool space impact college students and their learning?" Given the anecdotal feedback the Nebraska Honors Program received from students who had participated in Honors Afterschool Clubs previously, we anticipated that this service-learning project would positively impact certain skills, such as communication and problem-solving; improve students' understanding of the community; and increase their awareness of equity and diversity.

Service-Learning and the Benefits to College Students

The concept of service-learning comes from the pioneer writing and research of John Dewey (1938/1997), who long ago advocated for quality educational experiences that promote continuity for growth and interactions with both objective and internal conditions. Kezar and Rhoads (2001) described Dewey's philosophy of continuity as "based on a belief that people, as holistic beings, learn best by engaging mind, body, spirit, experience, and knowledge" (p. 162). In higher education, these ideas take shape in the teaching and learning methodology known as service-learning. Often used as part of a credit-bearing course, service-learning aims to facilitate transformational learning through an experience that serves the community and the individual's reflection on providing that service. As Jacoby (1996) noted, the two key components that differentiate service-learning from community service and volunteer programs are reflection (intentionally structured for learning about important societal issues) and reciprocity (mutual benefits for the server and the people being served, which in turn fosters a greater sense of community). From the perspective of the Nebraska Honors Program, reflecting on the experience and their impact in the community is important for Honors students' growth and development.

From its emergence in an institutional educational setting in the 1960s until today, research on service-learning consistently points out the academic (Astin et al., 2000), social (Simons & Cleary, 2006), and professional (Lim, 2018) benefits to college students who participate in service-learning. A meta-analysis by Celio et al. (2011) found that students at all educational levels (elementary through professional school) who participate in service-learning show gains in five primary areas: attitudes toward self, attitudes toward school and learning, civic engagement, social skills, and academic

performance. A subsequent meta-analysis study by Yorio and Ye (2012) on college students found that service-learning improved students' understanding of social issues, personal insight (defined as an individual's perception of self), and cognitive development.

Simons and Cleary's (2006) research similarly demonstrated the academic gains for college students participating in service-learning, finding that these students scored higher on exams and had overall higher grade point averages (GPAs) than nonparticipating students. In his review of service-learning literature since 1980, Brandenburger (2013) delineated five areas of personal development that were positively impacted by service-learning: agency and identity; perspective transformation and ways of knowing; moral development and spirituality; sociopolitical attitudes, citizenship, and leadership; and career development and well-being.

More recent studies have focused on the discipline-specific pedagogy used by college students in afterschool program activities and its impact on the college students' teaching skills and desire to pursue a career in teaching (Cartwright, 2012; Fogarty & Lardy, 2019). One study that analyzed the outcomes of college students who facilitate an afterschool service-learning program focused on physical activity found that the college students were more likely to consider working with children professionally and learned how fun, creativity, and patience can be employed to work effectively with youth (Carson & Domangue, 2010). Another study that focused on preservice teachers working in an afterschool program found salient themes of students' increased diversity awareness, relationship-building, and flexibility through analysis of reflective student journals (Jozwik et al., 2017).

Studies that analyzed a STEM afterschool program in Omaha, Nebraska found that college student mentors developed confidence, communication skills, and the recognition of the impact on their own education through experiences in the program (Cutucache et al., 2016; Nelson et al., 2017). Based on this research in afterschool programs and the feedback we received from students who participated in leading afterschool clubs from 2018 until 2021, we anticipated similar gains for Honors students facilitating Honors Afterschool Clubs.

The Need for Quality Afterschool Programs

Although the idea of afterschool programs started in the late 19th century, the current structure of afterschool programs is shaped by various social, cultural, and economic factors. Consequently, programs making up the afterschool landscape vary widely in terms of scope, emphasis, sponsorship, and target audience; they span intramural sports to 4-H clubs and church-sponsored activities, to programs focused on academic enrichment, remediation, and tutoring. The formalization of primary education, the passage of laws regarding child labor, and the need for safe spaces for kids were all early drivers of the need for programs both before and after the school day. In the 1970s, as middle-class women increasingly joined the workforce and American families transitioned from single- to double-earner households, afterschool programs experienced considerable growth (Halpern, 2002). What are now referred to as "out-of-school learning" and "expanded learning" programs grew substantially in the 1990s because of state and federal funding, specifically the federal 21st Century Community Learning Center grant program (Finn-Stevenson, 2014). This federal program provides funds for the creation of community learning centers (CLCs) and networks that offer academic enrichment opportunities during nonschool hours for children, particularly students who attend high-poverty and low-performing schools (U.S. Department of Education, 2018).

For federal and state grant programs, expanded learning opportunities (ELOs), such as afterschool programs, have the potential to be the great equalizer in American education. Given that students who are not able to participate in afterschool programs are likely to go home to an empty house with no adults or supervision, afterschool programs can provide a way for learning to continue after the school day ends, as well as a safe and enriching environment. Thus, ELOs constitute an important, albeit grossly underutilized, society-wide educational resource. An abundance of research on afterschool programs focuses on the benefits to the youth in these programs. Throughout this body of work, findings are consistent and clear about the role, value, and impact of ELO programs (Weiss, 2005). In brief, afterschool and summer programs are a powerful vehicle for promoting academic,

social, and emotional development (Miller, 2003).

Compelling research has also shown that regular participation in high-quality, intentional out-of-school programs has a dramatic impact on improving youth attitudes and behaviors, especially for low-income children (Durlak et al., 2010; Tannenbaum & Brown-Welty, 2006). Although the presence of afterschool programs has been shown to produce positive outcomes in students, researchers are increasingly documenting the widening gap between the ELOs available to youth from different socioeconomic backgrounds. Putnam (2015), for example, demonstrated how family income translates into different learning experiences for children. Specifically focusing on participation in extracurricular activities, Putnam showed a deep decline in low-income youths' participation in ELOs over the past several decades, while wealthy classmates' participation rates in these activities stayed at the same high level. Other research supports these trends, with wealthier parents now spending around seven times as much on enrichment activities as their children's low-income classmates benefit from—a dramatic increase from three decades earlier (Reardon, 2011).

This gulf in access is troubling, because it suggests that decades-long efforts to promote educational equity may be undermined by differing levels of access to ELOs. Other research indicates that regular participation in high-quality before- and afterschool learning and enriching summer school programs helps low-income students catch up academically with their more affluent peers (Reardon, 2011). These programs, characterized by strong school–community partnerships, can also help high-performing students stay engaged in school activities. Although numerous studies tout the benefits of participating in service-learning in various contexts, surprisingly little research looks at the impact on college students engaged in ELOs as a specific form of service-learning.

Community Need in Lincoln, Nebraska

With support from Lincoln Public Schools, the mayor's office, and the Lincoln Community Foundation, referred to collectively as the interlocal, the city created the Lincoln Community Learning Center (CLC) initiative to provide a broad range of expanded learning opportunities that support youth, families, and neighborhoods. A medium-size Midwestern city, Lincoln has a population of just under 300,000, with almost 14% of its inhabitants living in poverty (U.S. Census Bureau, n.d.). As of 2022, Lincoln's CLC initiative served 29 public schools, partnering with 10 local agencies to serve more than 6,500 students in an array of afterschool and summer enrichment opportunities (Lincoln Community Learning Centers, 2022). Lincoln CLCs have had funding, resources, and administrative staff to oversee programming; however, their growing network of schools, many of which are Title I schools serving at-risk youth living in poverty, lacks a reliable supply of staff to support K-12 youth during the school year and throughout the summer. Nebraska, in fact, reflects a national trend, with numerous unfilled positions in the afterschool space, particularly within science, technology, engineering, and mathematics (STEM; Cutucache et al., 2016; Yamashiro, 2022).

The Nebraska Honors Program is based at the University of Nebraska–Lincoln (UNL), a land-grant institution committed to teaching, research, and extension. As a land-grant institution, it values community engagement and collaboration with community partners. Given local staffing needs in the CLCs, alongside the Honors Program's interest in promoting service-learning and community engagement, in the fall of 2018 the Nebraska Honors Program partnered with BSB and Lincoln's CLCs to create college-powered afterschool programs. This multifaceted partnership supplements afterschool programming, specifically for low-income, high-needs elementary, middle, and high schools, with reliable, energetic Honors students who create and lead hands-on, interactive Honors Afterschool Clubs.

Honors Afterschool Clubs: Objectives and Structure

The Nebraska Honors Program at UNL has more than 2,000 undergraduate students, constituting about 10% of the total undergraduate enrollment of UNL, with nearly all the 150 majors on campus represented. When the Nebraska Honors Program began working in the afterschool space, it initially functioned as a matchmaker, providing information on Lincoln's CLCs and their needs to the program's high-achieving, purpose-driven undergraduate students,

who were eager for real-world experiences and professional development opportunities. In fall 2018 the program's role was limited to connecting students to CLCs as a mechanism for high-ability students to have meaningful, transformational experiences; however, the Nebraska Honors Program and UNL invested in expanding their involvement in ELOs, providing training and additional support to the college students who worked in afterschool programs.

In the last 3 years, and despite the ongoing effects of COVID-19, the Honors Afterschool Club initiative has developed and grown, from simply an opportunity for students interested in working with youth, to an integral pillar of the Nebraska Honors Program and its effort to prepare students professionally through opportunities to engage with the community. For the Nebraska Honors Program, this initiative genuinely prepares college students for an uncertain, globalized world through engagement that is not highly curated by the university and allows for meaningful community service with diverse populations.

In its current form, one full-time staff member coordinates with community partners, while a graduate student facilitates training and provides ongoing support to college students. This service-learning project supported more than 150 college students in developing engaging Honors Afterschool Clubs from January 2021 to December 2021. During that period, the Nebraska Honors Program's responsibilities increased to ensure a quality experience for college student club leaders, K-12 student participants, and our community partners. Honors Program staff now recruits, matches, and provides basic training for UNL Honors college students. It also offers ongoing support for college students to develop and implement creative, engaging, and educational clubs for Lincoln's CLCs.

For this service-learning project to be transformative in a student's education requires more than just developing and leading a club; it also requires regular opportunities to reflect on what they have done, sharing their experiences to help create knowledge and learning (Christian et al., 2021). In fall 2021, with community partnerships established with 19 Lincoln CLCs located at Title I schools, the Nebraska Honors Program started to collect data on the effects of this project to begin assessing the impact of creating and leading Honors Afterschool Clubs on college students (Lincoln Public Schools, n.d.).

Honors Afterschool Clubs have several objectives. First, the clubs seek to address an established community need by encouraging and supporting reliable, energetic Honors college students to create fun, educational activities for youth. Second, because it is well established that one of the best ways to learn is to teach, college students deepen and extend their own learning. Third, this work-based learning project allows students the opportunity to develop professional and interpersonal skills. Fourth, the interaction of students with the local schools and community partners helps students better understand the local Lincoln community and cultivates a professional network for college students that might someday lead to employment or career opportunities.

Given the potential of this service-learning project to positively impact Honors students and their learning, the Nebraska Honors Program created a zero-credit, tuition-free course (UHON 201H) for students who participate in this service-learning project, either during the academic semester or the summer. This new course was first offered in the fall 2021 term to provide students with ongoing training, support, and opportunities for oral and written reflection. The Honors Afterschool Clubs class is one of several options aimed at community involvement, service-learning, and professional skill development for students enrolled in UHON 201H, which is now a requirement for all Nebraska Honors students.

The creation of Honors Afterschool Clubs is a dynamic and synergistic process between CLCs and the Nebraska Honors Program. The Nebraska Honors Program is responsible for advertising the opportunity to students, brainstorming early idea development, and collecting information from both CLCs and students to make an initial match with each site based on needs and availability. In Lincoln, the CLCs hire Honors Afterschool Club students at a minimum of $10 per hour, though the average wage is $13 per hour. Throughout the semester, students are supported through the UHON 201H course in their development of activities and classroom management techniques by Honors staff. The Nebraska Honors Program has a coordinator who, as part of their position, manages staffing issues with the CLC staff, acting as an intermediary, if necessary, while also modeling professionalism

for students who sometimes face various challenges and conflicts.

Honors Afterschool Clubs are diverse in every respect. Since the primary goal is serving the community, CLC school community coordinators and community partners provide thematic preferences for both afterschool and summer clubs. At the same time, Honors students can pitch an idea for the topic of a club, based on their major or passion. This process aligns with the goal of recruiting energetic, dependable staffing for each academic term. During the school year, Honors Afterschool Clubs last between 50 and 60 minutes and usually meet once a week. Depending on the school, the clubs run for a minimum of 8 weeks and a maximum of 12 weeks. During fall 2021, college students participating in Honors Afterschool Clubs coled clubs once or twice a week for about an hour, for a total time commitment of 36 hours. This included the preparation of lessons and materials (approximately 1 hour a week), writing eight reflections for their zero-credit course (30–60 minutes per reflection), and working at school sites (approximately 1 hour per week).

Before the clubs begin for a given term, the Nebraska Honors Program, in collaboration with Lincoln CLCs and BSB, provides students with 3 hours of training. During the COVID-19 pandemic, training sessions were prerecorded for students to complete online. The training is divided into three general topics: a brief introduction and orientation to the afterschool space, explaining the benefits of their involvement to the youth and the community; lesson planning; and behavior management. Since most college students have not been exposed to curriculum development, our trainers who are former public-school teachers and now administrators for the CLCs provide students with tools and examples to create lesson plans for their Honors Afterschool Clubs. Students learn to create age-appropriate, engaging, and interactive curricula, which complement and amplify what K-12 students learn during the school day (Lincoln Community Learning Centers, 2022). Finally, college students learn tips and tricks for behavioral and classroom management. Facing a classroom of children for the first time can be intimidating. Honors Afterschool Club training seeks to alleviate students' apprehensions by providing club leaders with the tools, techniques, and resources to feel safe and prepared to lead the clubs. In addition to the training provided by the Nebraska Honors Program, local CLCs provide training on school policies, available resources, and connections, explaining what is expected of Honors students during their interactions with youth. The college students are organized in pairs to encourage collaboration and cooperation, and to provide additional stability and capacity for the club.

Honors Afterschool Clubs diverge somewhat from what higher education has traditionally considered service-learning. Instead of following the traditional pedagogical practice of embedding a service-learning project in a three-credit course as part of an undergraduate curriculum, students leading Afterschool Clubs register for the zero-credit class (UHON 201H). Since this zero-credit-hour course is free, and students are paid for their efforts, it incentivizes their involvement. Students earlier had indicated that they were more likely to participate in a service-learning project if it was free and not tied to a three-credit course. As Keen and Hall (2009) contended, cocurricular, non-course-based programs that contain reflection activities are as much service-learning related as those that are course based, with the students obtaining similar benefits. By creating, leading, and implementing afterschool learning activities, in collaboration with community partners and input, Honors Afterschool Clubs are reimagining service-learning to respond more effectively and easily to community need (Anderson et al., 2019; Bringle, 2017; Kezar & Rhoads, 2001).

Methods and Data Collection

To understand the impact of this unique service-learning project on college students, we used a mixed-methods approach that included surveys, semistructured interviews, and focus groups, as well as content analysis of student discussion board responses (Celio et al., 2011). Afterschool club research emphasizes the importance of reflective practice through utilizing open-ended questions (Nelson et al., 2018). Questions used for this approach were developed based on similar research designs, demonstrated outcomes for afterschool learning, conversations with previous student participants, and learning goals identified during our teacher training. Utilizing mixed methods, we were able to draw from multiple qualitative reflective practices as well as an additional quantitative Likert scale. Triangulation of these dif-

ferent methods by three different researchers allowed us to identify commonalities and to code themes of student perceptions of their learning. The study was reviewed by the Institutional Review Board (IRB) at the University of Nebraska–Lincoln and determined not to fall under the requirements for human subjects research (45 CFR 46.102). Data for this project was collected from August to December 2021, during UNL's fall semester. The 34 students who participated in Honors Afterschool Clubs were asked to participate in all information-gathering exercises and to complete consent forms. Students who completed the pre- and post-surveys were entered into a drawing for a $100 gift card as an incentive. The pre- and postexperience surveys included 27 and 29 questions, respectively, related to student demographics, afterschool training, student perceptions, and self-evaluation of certain skills. Open-ended questions were included to allow for additional feedback (see surveys in Appendix A and Appendix B).

In their coteaching pairs, students also participated in two 30-minute online interviews with the course instructor, who was a graduate student, or an Honors staff member. The first interview took place during the first quarter of the semester to elicit student feedback, troubleshoot problems, and offer support. The second interview took place during the last quarter of the semester, asking students to reflect on what they learned and talk about the skills they believed they developed (see interview questions in Appendix C). Interview questions were used to identify other ways involvement in Honors Afterschool Clubs might impact students personally or academically. Interviews were intentionally informal to allow students to put experiences and learning into their own words. The interviews were recorded by the interviewer, who reviewed notes and content to identify themes.

Students also participated in one small focus group of four to six students halfway through the semester (see focus group questions in Appendix D). The goal of the focus groups was to create a space for students who were leading Honors Afterschool Clubs to share their experiences and hear about what others were doing, to encourage and facilitate students to think more broadly and deeply about their experiences. Finally, students submitted three written reflections (see prompts in Appendixes E, F, and G). The prompts encouraged students to consider their learning and skill development through their experiences creating and implementing Honors Afterschool Clubs with youth. Table 1 summarizes the methods used to assess student experiences.

Findings

In this section, we examine *whether* and *how* creating, leading, and implementing afterschool activities for Nebraska youth impacted Honors college students. Our Likert scale questions from course surveys were compared to assess differences in perceived skills before and after the Honors Afterschool Club experience. Frequencies and percentages of differences in student skill perceptions can be seen in Table 2. With a sample size of 36 individuals pre- and postexperience, we compared only the 31 students who filled out both the pre- and post-surveys for the frequencies in Table 2. Interestingly, the quantitative comparison of skills gained suggested that 86% of students perceived that their skills in communication, problem-solving, relationship building, collaboration, and organization stayed the same throughout the experience; 43% of the students responded that their skills decreased over the course of the semester, and only 11% indicated that their skills improved.

Although students' evaluation of their perceived skills was mixed in surveys, their responses to interviews, focus groups, and in other assignments indicated that students gained a lot from this experience. The differences in the quantitative and qualitative findings can be explained in a few ways. One reason may be that at the beginning of the experience, students overestimated their skills. This reasoning falls in line with results from a National Association of Colleges and Employers (NACE) survey that found differences between student- and employer-perceived proficiencies in areas of professionalism and work ethic, oral and written communication, and critical thinking and problem solving, with students estimating their proficiencies at least 20 percentage points higher than employers in each area (NACE, 2018). Alternatively, students may have felt they did not improve these skills during the experience, or the experience itself may have provided them with more of a reality check in terms of these skills and their abilities.

Table 1. Assessment Methods of Student Experiences

Assessment	Purpose	Timing
Preexperience survey	This survey encourages students to reflect on training and what they expect to gain and learn. It includes questions that allow students to put expectations into their own words.	At the initial training and before any activities begin.
Focus groups	Focus groups are used to gain an in-depth understanding of the cocreation of meaning between participants (Morgan & Hoffman, 2018). Focus groups also allow students to hear about the experiences of others and build on the comments of others.	Halfway through the experience (50% of the program completed) and at the end of the experience.
Postexperience survey	This survey encourages students to reflect on what they learned and any surprises they encountered. It includes questions that allow students to put expectations into their own words.	During the postexperience celebration and after all activities were completed (100% of the program completed).
Semistructured interviews	Semistructured interviews are an effective method for collecting qualitative, open-ended data (Merriam & Tisdell, 2016). The interviews explore participants' thoughts, feelings, and beliefs about a particular topic, and allow for delving into personal and sometimes sensitive issues.	Students were interviewed twice (when 25% and 75% of the program was completed) during the experience to capture as much reflection as possible.
Content analysis/ reflection essays	Throughout the experience, students also provided written reflections to eight prompts. These prompts were created intentionally to encourage students to think about what they learned, skills they gained, their influence in the community, how being a role model affected them, and how this experience affects children and community.	Prompts and written responses took place during the experience (at the 10%, 25%, and 75% marks of the program completion).

Table 2. Differences in Student Skill Perceptions Between Pre- and Postexperience Surveys

	Preexperience survey		Postexperience survey		Change in percentage points	
	Strongly agree	Agree	Strongly agree	Agree	Strongly agree	Agree
I am good at communication.	42%	58%	35%	65%	Down 7	Up 7
I am good at problem solving.	53%	47%	52%	48%	Down 1	Up 1
I am good at building and maintaining interpersonal relationships.	56%	42%	52%[b]	39%[b]	Down 4	Down 3
I am good at collaborating and working well with others.	53%	47%	52%	48%	Down 1	Up 1
I am good at organizing and organization.	50%[a]	36%[a]	52%[c]	32%[c]	Up 2	Down 4

Note. [a] 14% marked "Neither disagree nor agree."
[b] 3% marked "Neither disagree nor agree."
[c] 6% marked "Neither disagree nor agree," and 10% marked "Disagree."

The survey results are, in fact, quite different from the student responses and feedback we received during the interviews and focus groups, in which students talked at length about the skills they gained from this experience. Their written reflections, moreover, indicated that students felt they had improved different skills and learned a great deal about the community, equity, and themselves. Our open-ended questions, as well as interviews and focus groups, also provided richer and more wide-ranging insights into student learning and their unique experiences with this service-learning project. The written and oral feedback we received was coded independently by three of the authors, with frequent terms, phrases, and ideas highlighted. Evaluators then performed a second round of axial coding to relate students' feedback to overarching themes we identified at the beginning, and related to our expectations of academic, social, and emotional development (Merriam & Tisdell, 2016). Themes from these independent reviews were then compared as a measure of interrelator reliability. Different and complementary methods allowed us to triangulate salient themes (Patton, 2015) and learning outcomes related to education, careers, and skill development, as well as the impact on individuals' mental health and knowledge of the community. We grouped our findings from these different methods into six themes: (a) general learning, (b) skill development, (c) career confidence, (d) mental health, (e) awareness of diversity and inequity, and (f) overcoming challenges.

General Learning

About 75% of the Honors students who participated in this research were not planning to become K-12 teachers. Given this fact, the prevalence of Honors students talking about how much they learned about the practice of teaching, preparing lessons, and working with students is not surprising. As one student wrote,

> The orientation and training were very helpful in preparing me for the Afterschool Club. One reason was that it taught us about management and how to manage behavioral issues. We have utilized structure and consistency in our club, which we learned was helpful to manage a classroom. It was also very helpful in creating our lesson plans, such as blocking out time for each activity.

This comment reflects what many students said about the training session organized by the Nebraska Honors Program, with students indicating that they learned how to create a lesson plan, how to adapt lesson plans, and the importance of learning about classroom management—specifically, what to expect in the classroom and strategies to respond to student behavior. These teaching skills, we contend, constitute transferable skills (e.g., organization, problem-solving, time management, adaptability, and the ability to work under pressure) that will help students in future professional and academic settings.

Students also regularly mentioned that they learned how demanding and satisfying it was to work with children, as well as how much fun it was to be part of the community through the Honors Afterschool Clubs. One student wrote, "It was a challenge to keep all [club students] engaged and acknowledge everyone's backgrounds and interests, but with consistent boundaries and incentives, the club was fun for everyone." Many of the students (around 70%) acknowledged how proud they were to be part of Lincoln's Community Learning Centers and this community endeavor, with several students offering explanations for why afterschool clubs are important for the community and should continue being an option for Honors students. As one student put it,

> What is important to keep in mind during this experience is that you are in this position because you care—for your student[s], your subject, and for your own personal growth. Hands-on experiences like this are hard to come by and while it is ideal to have everything go according to the plan, learning to roll with the punches is just as valuable a skill.

Skill Development

One of the strongest themes to emerge from our qualitative data was the development of personal and interpersonal skills, specifically patience and adaptability. Although students regularly mentioned developing and improving communication, presentation, and problem-solving skills, they were even more likely to elaborate on how much they learned from working with children. They

cited frequently how much patience and persistence were required to be facilitators of their clubs. The most represented comment from interviews with Honors students was that "working with children demanded more than they expected." As one student acknowledged, "Above all, I learned how to be patient. Working with these kids was an exercise in taking deep breaths and remaining calm in the face of chaos."

Several students also indicated that because of this experience, they feel more confident working with kids, specifically understanding kids' emotions. Moreover, because of their Honors Afterschool Club, the Honors students felt they had more empathy for others and possessed a greater capacity to adapt to new and changing situations. In part, the experience made college students more aware of the challenges that some children faced in school or the home, which manifested in behavioral issues in the Honors Afterschool Club. One Honors student commented:

> It was important for my partner and me to recognize that their behaviors do not stem from disrespect, but from the desire to channel emotions, although not in a constructive way. We have become aware of how the actions of students reflect their emotions, rather than assuming that they mean to cause us difficulty.

For some of the Honors students, fluctuations in the number of children attending their club each week required flexibility and adaptability to adjust activities and resources on the fly. Most students indicated that the experience had also helped improve their communication skills as they managed time and children's behaviors in their clubs. In surveys, students also listed critical thinking, creativity, problem solving, collaboration, interpersonal skills, adaptability, and flexibility as the most important skills they gained. In the interviews, students explained how they were aware of improvements in their communication skills, which in turn helped them in their classes at UNL. Students also discussed feeling more confident with public speaking and taking an active role in subsequent group work assignments because of their leadership in the afterschool space.

Mental Health

Almost every Honors student indicated that working with children is challenging; most also pointed out that the experience was fun. Honors students discovered that leading clubs helped improve their own mood and mental health. Since students had to be flexible and adapt to new situations, many students indicated that this whole experience made them less worried and anxious about their future, in part because they had to be in the moment to respond to children's immediate needs. In different reflective assignments, around 95% of students noted that even when first club meetings were stressful, the experience helped their mental health. Having something to do that is fun and different from their daily studying allowed club leaders to create an escape from their university bubble, giving them an excuse to be excited about a different activity they enjoyed. One student viewed it as "a good break." Another student wrote,

> There were some days when we were dealing with so many behavior issues that I walked away from the club feeling defeated, because it felt like our youth learned nothing. However, providing a place for youth to have fun, learn, and de-stress after class was extremely rewarding for me.

The uplifting nature of the experience was a dramatic change from the relative pressures of university education. Not only that, but many students agreed that this program also helped them develop personally. Having the opportunity to do something fun away from the university, at least one hour a week, was reported to be beneficial for their mental health. One of the most powerful aspects of this program is that college students can implement their own ideas into the club curriculum and be a role model to youth on how learning transfers outside the classroom. In many cases, club leaders realized and noted they were proud they could present to youth on topics that were unique and different from the general curriculum, which in turn inspired the college students and reaffirmed their own interest in these topics. One student illustrated this point by writing:

> Leading the club allows me to have fun and remember how much I love sciences and why I decided to study [science] for my degree. Dealing

> with the difficult science courses at the university and attending lectures had made me lose interest in the science field but seeing how fun it can be for children has reminded me why I chose what I chose.

At the most basic level, Honors students noted the importance of fun for the club's success. Relatedly, club leaders realized that a fun environment makes it easier for children to learn new things, be interested in topics, and ask more questions. Honors students also acknowledged that their own mental health and behavior was important for providing a space for better learning and helping the youth have a positive club experience.

Awareness of Diversity and Inequality

Since our Honors students were working at Title I, low-income, high-need public schools in Lincoln, we anticipated that this experience would have some impact on their awareness of diversity. In our preexperience survey, Honors students did indicate that they thought their involvement in clubs would impact their views on diversity and inequality. However, their answers were broad and vague. In post-surveys, students gave specific examples of the diversity and inequity issues they encountered in their clubs. Being "exposed to kids from diverse backgrounds" was the most mentioned comment related to the topic of diversity, including racial, ethnic, and socioeconomic demographics. Several college students mentioned how surprised they were by the diversity in their schools. One pair of leaders, who were from Lincoln, noted how different their own elementary school experience was from the population they were serving in their club. One student wrote:

> The community is very diverse and kids within the same small school experience a lot of different things, so it made me realize to be more conscientious of others' experiences and backgrounds before forming an opinion.

In several interviews, students expressed how interesting it was to observe that the youth in these programs did not seem to notice diversity. "In our case," a student said, "I don't think diversity affects them [youth] in any way. That is their reality and so it is not something important for them. They all play together and seem to treat each other the same way." Another Honors teaching pair mentioned how their students were surprisingly quite knowledgeable about places and cultures around the world.

Quite a few of the Honors students noted the differences in socioeconomic status they saw through their club experience. One club pair, teaching a geography club, commented on how kids in their club were very unfamiliar with various locations in the United States, because their families could not afford to travel. Conversely, another Honors student stated that "hearing about [youths'] home lives increased [the college students'] awareness of how socioeconomic status could impact home life and the student's success in school." Other students commented that their club experience exposed them to gaps in the education system, which, in turn, made them realize the importance of correcting inequalities in education for the future. Many of the college students remarked that they heard from youth that they were "the only college student" they had ever met. Many of the youth participants were also quite interested in college and the students' lives.

Career Confidence

For most students, facilitating an Honors Afterschool Club was the first time they worked with children in a formal setting. Some students had experience with babysitting or being summer camp counselors, but leading activities as an educator was quite new, and it impacted how some students thought about their future careers. According to our data, students participating in Honors Afterschool Clubs who were already majoring in disciplines that involved children (e.g., education) were reassured of their future careers. However, for the Honors students majoring in STEM fields, the club experience did not seem to have a direct or obvious impact on their future career goals, though some students did acknowledge their increased confidence in their postgraduate career goals and the importance of this exposure. An environmental studies major put it this way: "This was very helpful in getting me out of the world of technical jargon and everyone having the same interests, and it got me a very real-world experience working on the environment."

Students pursuing premedicine or prehealth fields expressed different answers to the question of how the Honors

Afterschool Clubs impacted their career goals. Although most students stated that they were not likely to change their future plans, one student said that, because of the club experience, he started thinking about becoming a pediatrician as he realized that he could communicate well with children and make them understand difficult topics. Additionally, even if the Honors students had not previously been considering working with children, they still found the experience valuable for improving their communication skills. As one student said, "Learning how to explain concepts about health and the human body in a way that children can understand will be very helpful if I ever work with kids in a healthcare setting."

Overcoming Challenges

Facilitation of Honors Afterschool Clubs was not without challenges. In online discussion boards, Honors students regularly recounted the challenges they faced, mostly related to behavioral issues and classroom management. For most students, the skills and tools learned in the training sessions provided by the university at the beginning of the program were useful for most situations. However, children have unique needs, and Honors students regularly remarked on the various techniques they used to manage youth and how they learned from the experience. Facilitating Afterschool Clubs in pairs helped them address challenges quickly, allowing one student to continue with the lesson plan while the other would leave the class with a child or separate a child from the group to take care of physical or emotional needs.

Although most clubs have a fixed schedule, location, and group of children, some Honors students had to adapt to having different students, new locations, or adjusted schedules. Students discussed how they had to learn to adapt their expectations, lesson plans, or sometimes even their activities to make them a better fit for the children in their classroom. College students sometimes revealed that they were, in fact, proud of themselves for addressing ongoing challenges while keeping in mind the goal of the Honors Afterschool Clubs. As one student poignantly wrote, "[The children] are worthy of all the attention they receive, and they are capable of achieving great things." Despite the challenges Honors students faced in leading their clubs, they stated that they enjoyed their afterschool club experience. Almost all of them indicated they wanted to participate in an Honors Afterschool Club in the future.

Limitations of the Study

Although this research points to some of the positive outcomes for college students creating and facilitating afterschool clubs, this study has important limitations. First, the number of Honors students participating in this study was small, and the research relied on unique partnerships between UNL and local organizations in Lincoln, Nebraska. Thus, the results might not be generalizable to other students or service-learning in different afterschool spaces. The Nebraska Honors Program's partnerships and close working relationships with Lincoln's CLC programs, school community coordinators, and BSB may be difficult to replicate elsewhere. These trusting relationships provide the Honors Afterschool Clubs with the access, training, and support that other afterschool initiatives of this kind might lack. Similar collaborations between higher education institutions and local afterschool clubs will, thus, depend on close, trusting, and open relationships.

Despite the close coordination and collaboration between the Nebraska Honors Program and community sites, challenges remained, because of the high number of stakeholders and the complex administration of staffing, funding, and training necessary. As the survey data indicated, some students had difficulties establishing a schedule with afterschool sites. Other challenges included miscommunication, unclear expectations, and classroom and behavior management issues. A frequent issue college students mentioned was the high turnover rate of staff in the local schools and in the afterschool programs. We know that COVID played a role in the staff shortages for on-site school coordinators, and we hope this issue is addressed in the future.

Conclusion and Lessons Learned

Previous research established that college students working in afterschool programs learned, among other things, the power of fun, creativity, and patience when working with youth (Carson & Domangue, 2019). Others noted that working with youth can increase students' awareness of diversity, relationship building, and flexibility (Jozwik et al., 2017). Our exploratory re-

search suggests that Honors Afterschool Clubs, as a service-learning project, provide college students with many of these benefits. However, the differences between our students' quantitative and qualitative responses stand in contrast to the more dramatic self-reported growth expressed by college students in a comparable ELO experience hosted at the University of Nebraska–Omaha, which found positive significant college student development gains across qualitative and quantitative measures in organization, content knowledge, preparedness, and engagement (Cutucache et al., 2016). In the future, the Likert scale of our student survey could be expanded from the 5-point scale that we used to delve further into quantitative differences. Our research is nonetheless important, because much of what is written about service-learning suggests that the benefits might accrue only when these activities are part of a credit-bearing college course. An important takeaway from our research is that our model, which provides students with limited training and ongoing support through a non-credit-bearing college course, suggests that we could and should reimagine service-learning to provide this opportunity at no extra cost to students through a non-credit-bearing course. Put differently, this research indicates that colleges can respond to community needs without a lot of additional costs while providing students with important educational benefits.

Student feedback has been essential to sustaining and growing Honors Afterschool Clubs. In seeking feedback on program design, some students indicated that the amount of training provided did not prepare them adequately for the many challenges they faced. However, in the post-survey and in interviews, other students stated that they felt they had had enough training, because "you just had to experience the club to really understand and value it." Moreover, both schools and the CLCs provide extra training that is specific to their sites; thus, we are likely to provide additional training as needed for students. Awareness regarding various sources of training is also important. Many educators suggest that students need a great deal of training before they engage in service-learning and work with the community; however, since such training requires both time and money, many students do not engage in service-learning, and thus community needs are not met. Our research and experiences suggest that an additional college course and extensive training are not essential for college student learning.

In addition to learning the ways in which participation in the Honors Afterschool Clubs impacted college students, this research project also gave us the opportunity to critically analyze some administrative issues that impact the coordination and effectiveness of the clubs. For example, we discovered that the enrollment in the zero-credit class should be managed *after* students are matched to a school site, as the placement timeline and the university semester enrollment timeline do not always align perfectly. This change allows the Honors students and the CLC organizations flexibility to respond to staffing changes and needs without negatively impacting a student's transcript (i.e., dropping a class) if the site placement falls through. Additionally, based on the needs of the CLC school community coordinators, we adjusted the minimum number of weeks from 10–12 weeks to 8–10 weeks to account for the CLC programs that run on a quarter or trimester.

Collaboration between the Nebraska Honors Program and the CLCs did have to work through ongoing communication challenges. For example, we realized that email is not the best form of communication for school community coordinators since they are frequently away from their computer, working with students. Instead, we found that using a combination of phone calls and emails, as well as communicating with the school staff overseeing collaboration with the CLCs, works best. The Nebraska Honors Program also realized how important it was to develop paperwork that was easy for college students to fill out and to collect this as quickly as possible, because working in public schools requires a significant amount of paperwork and security checks. Creating online forms and a straightforward process ensured that Honors Afterschool Clubs started on time and necessary paperwork did not prevent college students or K-12 youth from engaging in the clubs. Developing easy processes also simplified work for Honors staff since they did not have to manage individual emails from students while they were creating a database of requirements for area schools and programs that will be helpful for coordination of Honors Afterschool Clubs in future semesters.

The future holds many possibilities to improve both Honors Afterschool Clubs and college students' experiences. In terms of

research, we will continue gathering data from college students on their experiences and perceived learning. We also would like to know more about the impact of having college students work in the afterschool space from the perspectives of the community learning center staff. Additionally, we wonder if members of the community and parents are aware of anything different related to kids' experiences in clubs run by college students. We are also interested in knowing if Honors Afterschool Clubs are responding sufficiently and appropriately in addressing ELO disparities within our community, and how their facilitation can be improved. Although it is difficult to research and to know with much precision, we are, naturally, interested in the overall impact on K-12 participants in the Honors Afterschool Clubs. Further research on this unique program, especially interviews and focus groups with K-12 students and their parents, can hopefully provide answers to these questions.

This study did not gather data on the program's impact on the community or the effects on youth, but ongoing conversations with community representatives from BSB, Lincoln's CLCs, and school community coordinators are encouraging and quite positive in terms of the impact of this program on Lincoln youth. Such feedback constitutes further evidence that Honors Afterschool Clubs are fulfilling an important community need, as they help compensate for the dearth of people who are able and willing to work in afterschool programs. For Jeff Cole, statewide network lead for Beyond School Bells, "The Honors Afterschool Club initiative is a great model for addressing the current staff crisis in the expanded learning space. This is an example of how everyone wins—the community, youth, and college students."

Indeed, this probe provides us with valuable information for our community partners, the Nebraska Honors Program, and UNL as we move forward. Because of the academic, social, and emotional benefits to college students from this service-learning experience, and our ability to provide an important community service, we plan to continue, if not expand, our program and offerings. Our findings, moreover, indicate that Honors Afterschool Clubs are a high-impact practice for college students, with the potential to influence students' skills, understanding of the community, and views on equity and diversity while also positively impacting their mental health. Importantly, this pilot demonstrates that higher education institutions not only can but should partner with community organizations and schools to address the growing demand for affordable, quality afterschool and summer programs to engage, excite, and inspire youth. Although much remains to do in tackling the growing educational disparities for K-12 students throughout the country, our hope and aim is that Honors Afterschool Clubs will continue to provide the quality ELOs that youth in our local community need and deserve.

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Appendix A. Preexperience Survey Questions

1. What did you LEARN from the orientation and training you received? Provide a few take-home points.
2. What QUESTIONS, if any, emerged after the training and orientation about the work you will be doing? Is there anything you wished you had learned/covered?
3. What CHALLENGES based on the training and orientation do you think you might face during your summer or afterschool activity ?
4. In what ways do you think you will LEARN and grow during your afterschool or summer work?
5. How do you think this experience will IMPACT your understanding of DIVERSITY and INEQUALITY?
6. How do you think this experience will IMPACT your EDUCATION or current major/minor, if at all?
7. How do you think this experience will impact CAREER interests and skills, if at all? Identify some professional skills you think might be impacted by this experience?
8. How do you think this experience will shape your knowledge of the COMMUNITY and the education system in Nebraska, if at all?
9. Self-assessment of skills (on a 5-point Likert scale of "strongly agree" to "strongly disagree"):
   - I am good at communication.
   - I am good at problem solving.
   - I am good at building and maintaining interpersonal relationships.
   - I am good at collaborating and working well with others.
   - I am good at organizing and organization.
10. Is there anything else about your experience that you would like to add?

Appendix B. Postexperience Survey Questions

1. In what ways were the orientation and training received were sufficient to prepare you for Honors Afterschool Clubs?
2. In what ways could the orientation and training received be improved?
3. What do you think that students engaging in afterschool clubs should know?
4. How would you describe the support you received from the Honors Program during the experience?
5. What additional support, if any, would you have appreciated?
6. What challenges did you face during your afterschool experience?
7. In what ways did you learn and grow during your afterschool work?
8. How did this experience impact your understanding of diversity and inequality?
9. How did this experience impact your education or current major/minor?
10. Identify some skills you learned through this experience.
11. How, if at all, did this experience impact your mood, mental health, or personal drive?
12. What has this experience taught you about the community and the education system in Nebraska?
13. Would you participate again in the afterschool space? If yes, why would you participate again in the future? If no, why would you not want to participate in the future?
14. Self-assessment of skills (on a 5-point Likert scale of "strongly agree" to "strongly disagree"):
    - I am good at communication.
    - I am good at problem solving.
    - I am good at building and maintaining interpersonal relationships.
    - I am good at collaborating and working well with others.
    - I am good at organizing and organization.

Appendix C. Interview Questions

Interview #1

1. What are you doing at your club? Where? How many kids do you have there?
2. Reflect on the "Communication Roadmap" essay. What type of communication are you using with students? What are some difficulties you are finding communicating with them?
3. Self-reflection: How do you think this experience is impacting you?
4. How is this experience affecting your career? Would you consider working with children in the future?
5. How is this experience affecting your skills? What are you learning that you are good at or that you need to work on?
6. How is this experience affecting your mental health? Is this experience and the course a burden for you or is it a safe space for your mental stability? Is this experience adding much anxiety and work to your schedule?
7. Impact on children: How do you think this experience can affect children? Do you feel like they are learning about the topic? How do you think this experience might impact their behavior or teamwork?
8. Impact on the community: How do you think the afterschool Club Program in general and your work in particular help/affect the community (parents, schoolteachers, school boards, community centers . . .)?

Interview #2

1. Reflection on the Club: How has the dynamic with the children and among them changed now that you are at the end of the program? How does time affect your relationships?
2. Self-reflection: What have you learned about yourself in this experience?
3. Self-reflection: What skills have you gained during the program?
4. Self-reflection: How does this program affect your mental health?
5. Self-reflection: Is this experience going to affect your career?
6. Reflection on schools and children: How do you think you being at the school affected the children?
7. How can the program be more beneficial for the community?

Appendix D. Small Focus Group Questions

Classification of questions: O = opening, T = transition, K = key, and E = ending

O: Tell me about your experience facilitating this educational program.

T: Tell me about some of the activities you organized/facilitated.

T: What do you think you are learning (about yourself, the community, broader issues: inequality)?

K: How do you think this experience impacted your understanding of diversity and inequality?

K: Do you think this experience will impact your education or current major/minor?

K: Identify some skills you think you have learned by this experience (problem-solving; communication; critical thinking; collaboration; etc.) and provide some examples.

K: What challenges did you face during your afterschool experience?

E: Do you have any ideas on how you think we could improve this experience for you (allowing you to learn more from this experience)?

Appendix E. Communication Roadmap

Please fill out this communication roadmap. This roadmap is intended to help you assess the quality of communication that you have with your club attendees throughout your Honors Experience:

1. Describe the different types of communication you are planning to use in this experience (verbal, written, slideshow) and how you are dividing those throughout the time in each club session.
2. What are the challenges in communicating with your club attendees?
3. What have you tried to face those challenges? Has it worked? Do you feel you can make it work but it needs a little more time?

Appendix F. Problem-Solving Discussion Board Post

Answer the following prompt in 500–600 words on the discussion board and respond thoughtfully to one other post on the discussion board.

1. Identify a problem you encountered during this experience that did not have a clear or immediate solution. How did you approach the problem? What solutions did you consider, and how did you ultimately choose to proceed? Would you do anything differently if you encountered this problem again?

When answering to the other person's post, think if there is anything they could have done differently or give any tip or comment on what to do if it happens again.

Appendix G. Advice Board Post

Answer the following prompt in a paragraph on the discussion board and respond thoughtfully to one other post.

1. What is the best advice you have received as an afterschool club leader? Identify the situation you were in and who gave you the advice.

When answering to other person's post, think about how useful that advice would have been in a situation you encountered.

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ENCompass: A Comprehensive Undergraduate Student-Led Model of Implementing a Social Needs Screening and Referral Program

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Abstract

Columbus, the largest city in Ohio, is an epicenter for several overlapping health disparities, including poverty, food insecurity, and infant mortality. A group of volunteer undergraduate students at The Ohio State University sought to reduce some of these disparities through the creation of ENCompass: Empowering Neighborhoods of Columbus. This student organization was developed around a dual mission to (1) address social determinants of health by screening and connecting clients with social resources and (2) cultivate interdisciplinary student leadership through immersive volunteer experiences. In its 9 years of implementation, ENCompass has developed ongoing partnerships with eight clinics and food pantries where, on a weekly basis, ENCompass volunteers conduct social needs screenings with interested clients. This article provides an in-depth description of the ENCompass program, the outcomes ENCompass has provided for the community and its student volunteers, and several lessons learned to offer guidance to those interested in developing similar programs.

Keywords: undergraduate students, social needs screening, social determinants of health, community impact, service-learning

The social determinants of health (SDOH) are "the conditions in which people are born, grow, live, work, and age" (World Health Organization, n.d., para. 1). Income level, physical environment, education, food security, social context, and race are some commonly recognized predictors for health outcomes, driving the social gradient in health (World Health Organization, n.d.). Evidence suggests that adverse SDOH are linked to a variety of diseases (Cockerham et al., 2017), which is why it is crucial that communities with poorer SDOH are equipped with adequate resources to improve health outcomes.

One intervention for addressing the SDOH is social needs screening with subsequent referrals conducted by health providers or designated patient navigators in health care settings. Social needs screenings ask patients to identify their potential unmet social resource needs, such as food, access to medication, transportation, and housing (Berkowitz et al., 2017). Several studies have shown the possible benefits of these social needs screenings. Screenings at pediatric primary care centers led to reduced family social resource needs and significant improvements in how parents reported their children's health 4 months after screening (Gottlieb et al., 2016). In a study that offered social needs screenings to mothers at community health clinics, researchers found that, after one year, screened mothers were more likely to be employed and have child care, and less likely to reside in a homeless

shelter (Garg et al., 2015). Moreover, patient attitudes toward social health screenings during health care visits are found to be overwhelmingly positive. Among patients surveyed about their perceptions of social needs screenings, 85% agreed that their health systems should ask about social needs (Rogers et al., 2020).

Although such screenings serve a crucial role in both individual and community health, providers often find these screenings time-intensive, hindering their implementation (Byhoff et al., 2019). Some community health centers may hire social workers or patient navigators to alleviate this issue, but not all centers have the capacity or means to support such programs. One solution, proposed by Rebecca Onie, the founder of Health Leads, in her TED Talk (Onie, 2012), could be the collaboration between clinics and hospitals with colleges and universities through the deployment of undergraduate volunteers, specifically individuals aspiring to careers in health care, social work, public health, and public policy. Undergraduate students often seek community service opportunities to develop their qualifications for their professional careers (Eley, 2003). Students who participate in community-based health activities have been found to value these experiences and be more inclined to further develop their skills in working with underserved populations (Mays et al., 2009; O'Toole et al., 1999; Ramsey et al., 2004; Weissman et al., 2001). Considering these factors, the development of a student organization that specializes in SDOH screenings in partnership with health care and community resource centers may be of interest to experts in both community health and student career development.

This article aims to describe the development and implementation of an undergraduate student-led organization to address SDOH in clients through a partnership between students at Ohio State and organizations within the Columbus, Ohio community. Ohio State is a public land-grant research university, whose main campus is housed within the city of Columbus, Ohio. With a 20.4% poverty rate (U.S. Census Bureau, n.d.), Columbus is an epicenter for several public health issues. According to the 2017 *Community Health Assessment*, 17.9% of households in Franklin County were food insecure (Columbus Public Health, 2017). More than one fourth of homeowners and nearly half of renters were cost-burdened by housing, using more than 30% of their income to pay for shelter (Community Health Needs Assessment Steering Committee, 2019). The intersectionality of these and other racial and socioeconomic disparities exacerbates public health issues within these communities, such as infant mortality and opioid misuse (Altekruse et al., 2020; Schramm, 2016). As of 2019, Franklin County had an infant mortality rate of about 1.7 times the Healthy People 2030 target (Community Health Needs Assessment Steering Committee, 2019; Healthy People 2030, n.d.-b) and an opioid overdose rate of about 2.2 times the Healthy People 2030 target (Healthy People 2030, n.d.-a; Ohio Department of Health, 2019).

Based on these factors, a group of Ohio State undergraduate students developed ENCompass: Empowering Neighborhoods of Columbus, with a goal to bridge the gap between medical and social care. These students established ENCompass's dual mission of (1) improving the health of individuals living in the community by screening and connecting them with resources that address SDOH while also (2) cultivating interdisciplinary student leadership through immersive volunteer experiences. In this article, we describe the process of establishing and sustaining ENCompass's mission and model, present ENCompass's community and volunteer findings, and share ideas for further improvement of the ENCompass program. Moreover, this article can serve as a resource for individuals from other universities interested in developing a student-led program to address SDOH in their communities.

Historical Perspective

The idea for ENCompass was first conceived in fall 2012 when a group of interdisciplinary undergraduate students enrolled in an introductory public health course and viewed the TED Talk by Rebecca Onie (2012), founder of Health Leads, titled "What If Our Healthcare System Kept Us Healthy?" Onie's idea of deploying undergraduate students to bridge medical and social care resonated with this group of students, and they began a series of discussions with the professor to determine the process to create and implement a similar program addressing SDOH and gaps in care locally.

In spring 2013, these same students enrolled in their professor's independent study course so that additional faculty, peer

mentors, and students could jointly explore models of Health Leads and subsequently cocreate, plan, and implement their vision. This course offered these students designated time to collaborate on the project and contribute ideas in a group setting. A community service project was piloted at a local free clinic, and key stakeholders helped to ensure the feasibility and sustainability of the project. Historical documents produced by these students stipulated that SDOH screenings in a clinical setting should at least address the following: (1) creation, maintenance, and updating of a community resource database; (2) completion of comprehensive follow-ups with clients; (3) protection of patient/client privacy; (4) integration of clinical and social services; and (5) emphasis on interdisciplinary collaboration.

During summer 2013, the students became an official Ohio State student organization, requiring them to finalize their mission (building student leadership through community impact) and the structure/rules of the organization's general body and student Executive Board. A Faculty Advisory Board composed of faculty from the Colleges of Public Health, Social Work, and Medicine along with community business professionals was also created to support the students in developing and sustaining the program. In fall 2013, the students recruited and trained other motivated interdisciplinary students (which expanded their volunteer base), developed partnerships with local health care centers/clinics and food pantries, sought program funding to support organizational infrastructure, and applied for Internal Review Board (IRB) human subjects approval to collect research output/outcome data.

Program Development

Implementation of ENCompass Mission

ENCompass volunteers meet with clients at local food pantries and health clinics to assess client-specific SDOH. After careful screening (see Appendix A for screening form), ENCompass volunteers provide a packet of information to clients for resources to meet their individual and family needs. Documented below are essential yearly components of this process, including volunteer recruitment and training, site recruitment and partnership, client SDOH screenings and documentation, and the overall organizational governance to sustain these efforts.

Volunteer Recruitment

At the beginning of both fall and spring semesters, approximately 25 new undergraduate students are selected by the Executive Board to join ENCompass, providing a foundation to maintain a broad volunteer base and to generate unique ideas to advance ENCompass's mission. Undergraduate students are deliberately chosen instead of graduate students due to the larger impact they can have on the program (via more years attending the institution and more flexible schedules) and the larger impact the program can have on them (via developing students' skill sets during a formative stage in their lives). Typically, volunteers are recruited by the Member Development and Recruitment Committee during the university's involvement fair as well as by email newsletters through various colleges/majors (typically among the social work- and health-related departments). To be selected, students are required to complete both a written application and an interview. The application and interview questions are intended to gauge students' interest in public health and community service as well as their expected level of commitment to the organization. Selected students then attend a volunteer orientation, complete volunteer training, shadow experienced volunteers, and attend weekly scheduled general body meetings.

Volunteer Training

ENCompass volunteers complete approximately 10 hours of training. Prior to their first shift, ENCompass volunteers complete a consultation training, hosted by the Executive Board, that educates students on the ENCompass mission and model. Since volunteers interface directly with clients and collect identifiable information, they are also required to undergo two CITI (Collaborative Institutional Training Initiative) trainings: (1) Social and Behavioral Training for Human Subjects Protection (CITI Program, n.d.-b) and (2) Responsible Conduct of Social and Behavioral Research (CITI Program, n.d.-a). Volunteers are asked to sign a digital nondisclosure conflict of interest form as mandated by the university for all student researchers. Finally, volunteers must shadow an experienced volunteer at least once at their assigned site to fully expose

them to their responsibilities and introduce them to staff at that particular site. Some volunteer sites additionally require volunteers to go through a more rigorous intake process, including collection of vaccine records, background checks, and electronic medical record training.

Volunteer Shifts

ENCompass volunteers provide consultations to interested clients at their designated sites. Each volunteer is responsible for serving their assigned weekly 2-hour shift and is typically scheduled to serve the same shift for the duration of an academic semester to fit with their class schedules. In addition to site consultations, volunteers are also expected to conduct phone follow-ups with all clients 2 weeks postconsultation.

A typical volunteer shift involves a multistep process to ensure that volunteers are respecting the clients as well as the community site's staff. First, volunteers check in with the supervisor on call at the site to let them know that ENCompass is present. Then, volunteers set up their workspace at their designated area at the site, which is typically in close proximity to where both clients and staff are located (e.g., a social work office, nurses' station, or near the waiting room, depending on the flow and set-up of the site). Once volunteers are situated, they begin offering consultations (as described in the Client-Based SDOH Screenings and Documentation section). Finally, at the end of each shift, volunteers document their shift attendance, provide deidentified information about their consultations, and detail any technical or logistical issues they may have encountered during the shift.

Scheduling and transportation logistics are paramount when determining volunteer shifts. The VP of Site Engagement requests that all volunteers provide their general weekly availability using WhenToHelp, an online volunteer scheduling platform, and uses this information to designate weekly shifts to volunteers. Several sites are not within walking distance from campus, nor can public transit be used to access these sites (the furthest site is 10 miles away). For these situations, the VP schedules at least one individual per shift who has access to a car. ENCompass tries to reserve funds to pay gas mileage for these shifts; however, this is not always possible.

Site Recruitment and Partnership

When assessing new sites, ENCompass investigates two alignment factors about the sites: (1) core mission and values and (2) interactive workflow with clients. At potential sites, ENCompass volunteers conduct a 1–2 month pilot (feasibility) study to understand the site's workflow, services provided, client interactions, and office/clinic space in order to develop a plan for incorporating ENCompass services in this flow. During this feasibility study, ENCompass volunteers begin providing consultations for clients to determine the optimal workflow with input from volunteers and the site's staff. Adequate feasibility indicates confidence that sufficient numbers of clients will continue to request and be connected to SDOH resources. ENCompass finalizes its partnership with the site by coordinating a weekly volunteer schedule and by obtaining site staff signatures on IRB-approved research documentation. The site will designate a specific coordinator, typically a social worker, who is familiar with the resource needs of the clients. This coordinator is the primary contact for all future ENCompass communication and serves as the liaison between ENCompass volunteers and the rest of the site staff to ensure that staff are aware of ENCompass's involvement in the site workflow.

Not all previously selected sites have been optimal locations for ENCompass's work. Encountering challenges with various community sites has offered ENCompass students valuable lessons regarding the importance of examining whether ENCompass could fit into each site's workflow and structure. For instance, one of ENCompass's first volunteer sites was an acute wound care clinic. In theory, this clinic would be a good fit since a majority of clients had considerable social resource needs and were often scheduled for routine care, allowing for ENCompass follow-ups to occur in person. However, ENCompass volunteers found that acute wound clinic patients were often in too much pain to complete full consultations. ENCompass later chose to pilot at a different nearby clinic that served a similar group of clients but addressed overall and long-term care. ENCompass's services meshed well with this clinic's mission and workflow, allowing this site to currently remain a volunteer site.

Client-Based SDOH Screenings and Documentation

ENCompass consultations (Figure 1) begin with a pitch (Figure 2) to clients at each site. The pitch is a brief description of available services ENCompass volunteers can connect clients with, followed by asking whether the client is interested in a consultation. Some organizations, such as food pantries, require that volunteers deliver the pitch to clients in the waiting area, whereas other organizations, such as clinics, allow volunteers to deliver the pitch to clients individually in their patient rooms.

At sites where the pitch is given to clients in a waiting area, clients are told where the ENCompass "workspace" is located at the site, so they have a choice to visit the workspace sometime during their visit (e.g., if they are at a food pantry, they can come before or after they receive their food). At sites where the pitch is given to individuals in their private patient rooms, these patients can let the ENCompass volunteer know whether they would like to proceed with a consultation. If they agree, the initial screening takes place in the patient room.

Information from interested clients is entered by an ENCompass volunteer into the Client Need Screening Form via FoodBank Manager software (however, future data collection and storage will use IRB-approved Qualtrics software for its increased ease of use and built-in data visualization capabilities). This form consists of contact information, current housing, employment, income, insurance status, and resource needs. Appendix A provides a full list of screening questions. Volunteers then return to their workspace to identify resources (using various resource databases such as 211, CAP4Kids, Aunt Bertha) for the client based upon the screening form. Key information about each resource is placed into a comprehensive resource packet called a "social prescription." Before the client leaves, the ENCompass volunteer gives them their resource packet and discusses the resources provided.

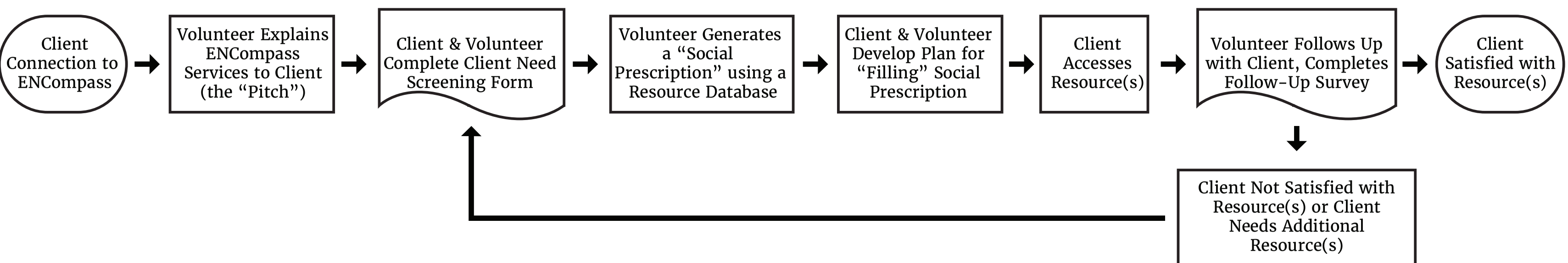
Two weeks after the initial consultation, the ENCompass volunteer follows up with each client served through email or Google Voice phone call or text, depending on the client-designated contact preference from the initial consultation. With the client, volunteers complete the ENCompass Follow-Up Survey, which inquires about which resources the client was able to utilize and which resources were helpful to the client. Appendix B provides a full list of follow-up questions. An additional follow-up consultation is scheduled if the volunteer provided the client any additional resource recommendations during the first follow-up consultation or upon client request.

Organizational Governance

Volunteers are required to attend weekly one-hour general body meetings in addition to their shifts. These meetings are organized and presided over by the ENCompass Executive Board (Figure 3). The first half of the meeting involves general announcements, and typically speakers representing various public health, social work, and health care agencies are invited to speak to members about their work and provide insight on different community health topics. Key public health issues facing Columbus residents such as infant mortality and opioid misuse are addressed.

The second half of the meeting involves engagement with ENCompass committees. The ENCompass program enables members to utilize their diverse backgrounds and interests to serve on one of six committees within ENCompass: Site Engagement, Research and Data Analytics, Information Technology, Public Relations and Advocacy, Membership Development and Recruitment, and Outreach. In committee meetings, members collaborate to expand ENCompass's outreach, raise funds, analyze data, and optimize volunteer workflow and service delivery in response to challenges and changing community need. Each committee is led by a vice-president (VP), who is elected by the general body annually and holds the position for a one-year term. The Executive Board comprises two co-presidents, the secretary, the treasurer, and all the VPs (see Figure 3 and Table 1 for further descriptions). The Executive Board meets regularly with a faculty advisor who has worked closely with the organization since it was established. This relationship has been pivotal to ENCompass's success due to the faculty advisor's knowledge of the public health field, understanding of Columbus's social issues, and ability to form connections between the organization and members of the university and Columbus communities. The faculty advisor serves as a liaison between the student Executive Board and the Faculty Advisory Board, who meet

Figure 1. ENCompass Consultation Model



Note. An oval represents a starting/ending point. A rectangle with a curved bottom represents that a form/survey is completed at this point.

Figure 2. ENCompass Pitch

"Hi, my name is [first name] and I am a volunteer with ENCompass, a student organization at The Ohio State University. ENCompass connects individuals with various services within the Columbus area, such as food pantries, affordable clothing stores, rent and utilities assistance, and more. We can also help connect you with vision and dental care services, or anything else you may need at this time. Our services are free and confidential, and should only take around 10–15 minutes. Does this sound like something you might be interested in?"

Figure 3. ENCompass Organizational Structure

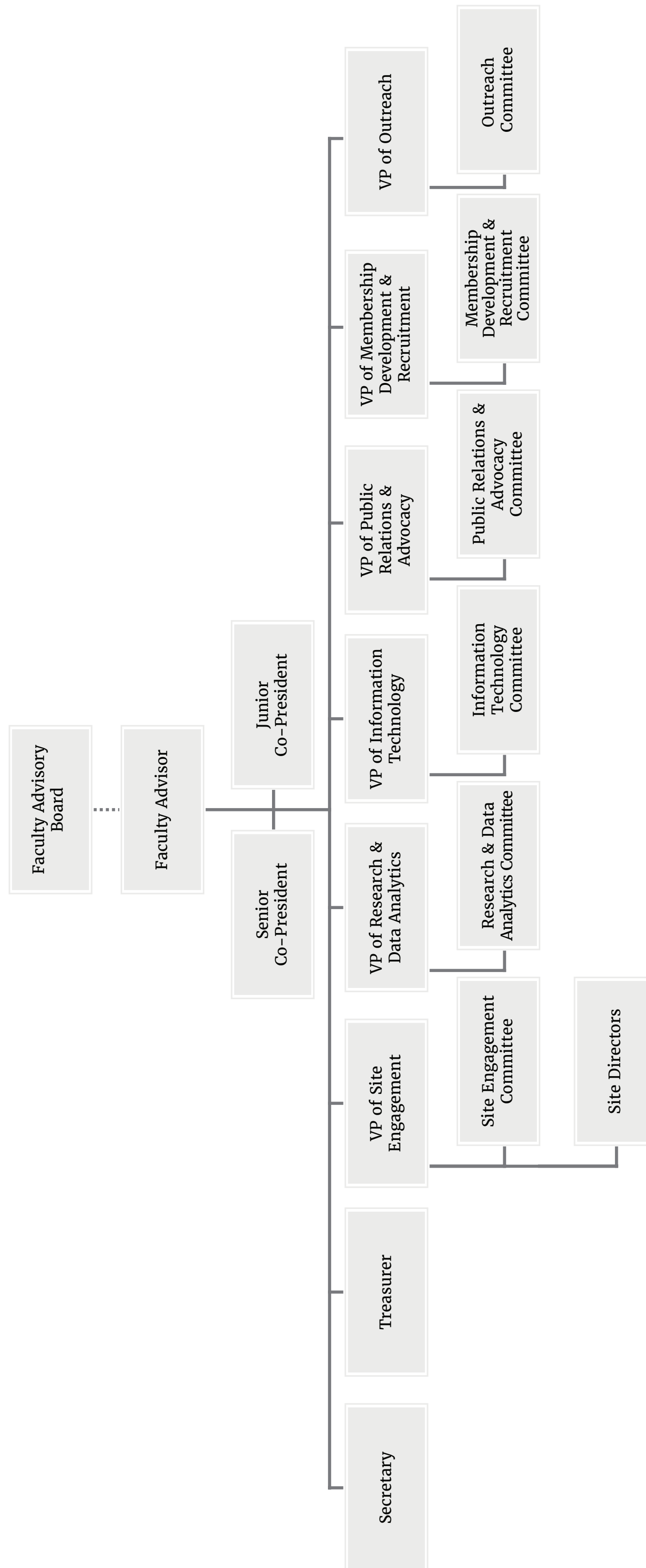


Table 1. Student Executive Board Positions and Leadership Responsibilities

Position	Leadership Responsibilities
Co-president (senior)	• Organizes and leads weekly Executive Board meetings. • Helps VPs set goals each semester; revisits and reevaluates goals each semester. • Facilitates transition of executive member positions each year. • Grows organization by meeting community members and lobbying expansion of organization locally. • Meets regularly with the faculty advisor for strategic planning. • Trains junior co-president to ensure continuity and a smooth transition.
Co-president (junior)	• Works with senior co-president to determine annual goals, develop and maintain community partnerships, and lead organization and executive teams through two consecutive school years. • Leads internal update presentations during weekly general body meetings. • Organizes quarterly meetings each year for the student Executive Board and the Faculty Advisory Board.
Treasurer	• Manages bank accounts, prepares and maintains annual budget, oversees auditing, prepares required financial reports, requests funding, and pays organization bills. • Works alongside the VP of outreach to apply for grants and funding and to coordinate fundraisers for both the organization and the community.
Secretary	• Manages organizational duties of ENCompass, including monitoring of attendance, taking minutes of all general body, executive, and advisory meetings, updating organization calendar, obtaining appropriate facilities for organization meetings and activities, and reminding all members of upcoming meetings and events.
VP of site engagement	• Oversees organizational matters relating to volunteering members and handles official correspondence of ENCompass with current and future volunteer sites. • Committee duties: Designates site directors at each volunteering site to help in the implementation of the ENCompass service model. • Site directors are responsible for preparing biannual site reports, detailing the effectiveness and utility of ENCompass volunteers at each site, and presenting findings to both the ENCompass Executive Board and the coordinators at each site.
VP of research & data analytics	• Oversees collection and analysis of volunteer consultation data. • Works closely with faculty advisors to ensure IRB approval and review. • Coordinates research training and develops research projects for the committee to focus on each year. • Committee duties: Works alongside the Site Engagement Committee to determine new areas of need and subsequently develop new volunteer sites in these areas. Analyzes client and consultation data and curates findings to coordinate presentations and publications to showcase ENCompass's efficacy and model.
VP of information technology	• Develops and improves the online tools used by ENCompass members, including the website and resource database. • Committee duties: Collaborates with Site Engagement Committee to refine the consultation process and manage technological barriers.

Table continued on next page

Table 1. Continued

Position	Leadership Responsibilities
VP of public relations & advocacy	• Manages the social media accounts and works alongside the VP of IT to develop the ENCompass website and online presence. • Committee duties: Markets ENCompass on online platforms for both recruitment and external representation. Develops online content to educate followers on national social justice issues and methods of advocacy and reform.
VP of membership development & recruitment	• Coordinates all recruitment efforts, new member orientation, training, and continued education throughout the year. • Committee duties: Invites speakers to general body meetings to expose members to multiple aspects of health, including topics surrounding social work, public health, and policy development. Designs activities for the general body to introduce members to new ideas and concepts within public health.
VP of outreach	• Plans and implements all fundraising events and community outreach activities. • Committee duties: Coordinates with donors and collaborates with community organizations to coordinate fundraisers for ENCompass and other community organizations. In past years, fundraising drives have included coat drives, infant essentials, and sanitary products.

Note. All members of the student Executive Board also serve as volunteers, whose responsibilities are detailed in the Client-Based SDOH Screenings and Documentation section.

quarterly to further develop new ideas and ensure that organizational operations are running smoothly.

Program Findings

Reflecting on ENCompass's dual mission to (1) address SDOH by screening and connecting clients with social resources and (2) cultivate interdisciplinary student leadership through immersive volunteer experiences, the ENCompass program has two main sets of findings: (1) community (sites versus clients) findings and (2) volunteer findings. Explanatory information is also included with these findings.

Community Findings

Sites

Since 2012, ENCompass has implemented programming throughout 13 community sites in Columbus. Eight of these partnerships have been maintained with weekly volunteers still serving each site. Six of the eight current sites are clinics (two adult free clinics serving ethnic minority groups, two pediatric care clinics serving low-income families, one adult primary care and mental health management clinic, and one obstetrics and gynecology clinic), and two of the eight current sites are food pantries. The five sites where ENCompass is no longer serving clients, either due to poor alignment found during the site's pilot feasibility study or later workflow changes that prevented continued ENCompass volunteering, include a medical student-run free clinic, a wound care clinic, two food pantries, and an evening financial literacy program. In addition, ENCompass volunteers attend pop-up events throughout the community, which have historically included events at local libraries and university-sponsored health screenings. ENCompass volunteers have also partnered with Ohio State's Kirwan Institute for the Study of Race and Ethnicity to create comprehensive resource maps of Columbus communities.

Strategies That Enhance ENCompass–Client Interactions

A variety of factors often influence client participation rate (PR) at each site, defined as the number of clients agreeing to participate in an ENCompass consultation divided by the number of clients who were approached. The ENCompass PR may also be thought of as a consent rate or take-up rate. Clinics typically have higher PRs than food pantries, likely due to the more organized structure of appointments at clinics. For example, at the two pediatric care clinics serving low-income families (PR = 39%, 40%), clients have an assigned time to meet with an ENCompass volunteer

before or after meeting with their physician. This structure, compared to the two food pantries where volunteers pitch to groups of clients in waiting rooms (PR = 11%, 12%), leads to increased client interaction. Additionally, at clinics, the providers may introduce ENCompass members to the client before the ENCompass volunteer enters the room. This brings greater legitimacy to the ENCompass volunteer and likely leads to better interaction and transfer of resources to the client. Although PRs are lower at food pantries, they invite a greater portion of the community, enabling volunteers to pitch to more clients overall. Finally, client perceptions play a role in willingness to complete a consultation (i.e., if the client is in a rush to retrieve food items/other services offered by the site).

When comparing types of clinics, free clinics often have higher PRs than primary care clinics. Free clinics have likely had more time to interact with the community and establish a reputation, yielding higher trust. For example, ENCompass's two adult free clinics serving ethnic minority groups (PR = 90%, 51%) have a stronger relationship with the communities they interact with most. Both clinics have physicians who speak Arabic or Spanish, attempting to connect to the Arabic and Latinx communities, respectively. Instead of needing an interpreter, these providers communicate directly with patients, leading patients to trust the clinic as a whole, including additional service providers such as ENCompass volunteers.

In February 2021, the research team developed and distributed an IRB-approved evaluation survey to the eight current community site partners to ask site staff for their feedback on the ENCompass program. The survey included three Likert-scale questions where respondents provided ratings about the ENCompass program on a scale of 1–5 (1 = *strongly disagree*, 5 = *strongly agree*; a higher score on each item reflects a more favorable response). Respondents answered all three questions favorably: (1) whether ENCompass has improved the site's quality of care ($\bar{x}$ = 4.5 ± 0.5), (2) whether ENCompass has integrated well into the site's workflow ($\bar{x}$ = 4.25 ± 0.43), and (3) whether the site would recommend ENCompass's services to other sites ($\bar{x}$ = 4.63 ± 0.48).

Clients

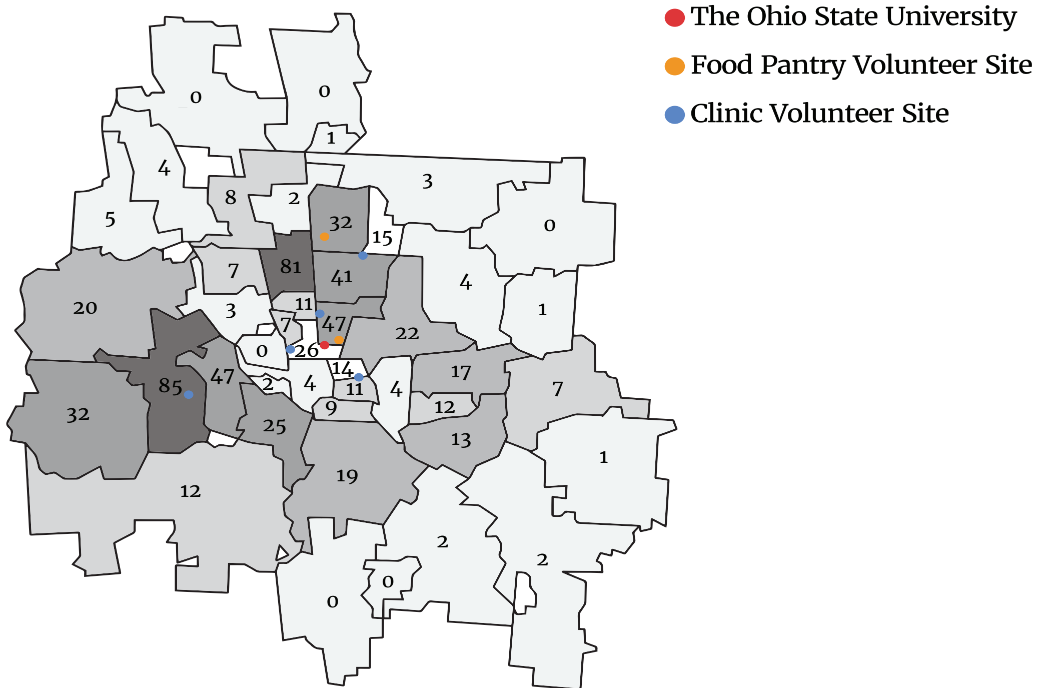
From 2015 to 2019, ENCompass volunteers completed 717 client consultations at the eight current sites and pop-up events. A majority of consultations (658, 92%) were with clients who reported to live in the Greater Columbus Area (Franklin County and small parts of the surrounding six counties). ENCompass volunteers have served clients who reported living in 39 (87%) of the 45 zip codes within the Greater Columbus Area (Figure 4). ENCompass clients tend to concentrate in the zip codes where the eight active community sites are located. ENCompass volunteers are able to reach Columbus's neediest neighborhoods, as is demonstrated by the 10 zip codes with the largest number of consultations being those with the highest number of emergency department visits (Community Health Needs Assessment Steering Committee, 2019) and those designated as high need by the Community Need Index (Dignity Health, n.d.; Roth & Barsi, 2005).

As noted in Table 2, during ENCompass's 717 consultations, volunteers have been able to connect clients with more than 2,411 resources. The top five most commonly requested resources among clients were food (301 requests, 42% of clients), dental care (241, 34%), utilities assistance (237, 33%), housing/rent assistance (229, 32%), and clothing (198, 28%). Additionally, many clients have requested resources outside the program's typical scope, such as prenatal care (11, 2%) and tobacco/substance use support (10, 1%). Table 2 shows alignment of requested resources with available county-level statistics.

Volunteer Findings

Since 2012, ENCompass has had approximately 261 volunteers. To better understand the impacts of the ENCompass program on its volunteers, the ENCompass Research and Data Analytics Committee distributed an IRB-approved survey to ENCompass alumni using previously stored contact information. The survey asked respondents to share information about their undergraduate major(s) and professional outcomes (Figures 5a and 5b) and provided a text entry form for alumni to share their experiences with the ENCompass program. Among the 130 volunteers who were contacted, 40% completed the survey. For the open-ended question, three independent researchers reviewed each response and assigned a binary code representing the presence of eight themes selected a priori based on the structure of the interview questions and

Figure 4. Volunteer Site Locations and Client Consultation Density



Note. This map was made using Tableau software. It shows the 45 zip codes of the Greater Columbus Area. The numbers in each zip code represent the number of client consultations that volunteers completed from 2015 to 2019, with corresponding darker shading indicating a greater number of client consultations completed with clients who reside in that zip code. Two clinic volunteer sites are housed in the same facility.

preexisting knowledge of volunteer experiences in the organization. The agreement between coders was excellent, here defined as Krippendorff's alphas ≥ 0.80.

Although survey data show that interdisciplinary recruitment is indeed present in the ENCompass program, a large majority of volunteers came from the Colleges of Public Health, Medicine, and Arts & Sciences. A large percentage of responding members pursued fields within health care, with most individuals going on to complete medical or public health graduate degrees.

In the open-ended responses for particular themes, almost every respondent provided positive commentary regarding their experiences with ENCompass (Table 3). More than 60% of respondents shared that ENCompass was formative in shaping their career direction, and 40% discussed the knowledge they gained about the SDOH. Other common themes that emerged included skills gained, inspiration to work with underserved communities, general positive comments about the program, and feedback/recommended improvements. Many participants with different career paths shared responses that covered multiple themes:

> ENCompass is the number one thing that has shaped my professional trajectory. Through ENCompass, I learned that I wanted to care for patients directly . . . while making systemic change at a community, public health, and policy level. I am passionate about caring for the underserved and ENCompass laid the foundation for my deep commitment to serve our neediest communities. Moreover, . . . I learned leadership skills that have allowed me to succeed in my future endeavors. I learned how to create a successful organizational structure, motivate/support my peers, create partnerships with other organizations, and so much more. Thanks

Table 2. Frequency of Client Requested Resources

Category	Resource	Frequency of request, *N* = 717	Alignment with Franklin County Statistics, 2019
Basic and supplemental health	Dental care	241 (34%)	30% of residents had not visited a dentist or dental clinic within the last year. 11% of adults age 19–64 and 5% of children age 3–18 could not access needed dental care.
	Eye care	184 (26%)	
	Family doctor	138 (19%)	
	Prescriptions	78 (11%)	
	Doctor for women's needs	67 (9%)	11% of pregnant residents had not had a health checkup in the past year.
	Mental health	55 (8%)	22% of adult residents had been told they have a form of depression.
	Insurance	44 (6%)	10% of residents did not have health insurance coverage.
Household needs	Food	301 (42%)	17% of residents were food insecure. 14% of households used food stamps. 54% of households using food stamps had children under the age of 18 present.
	Utilities assistance	237 (33%)	
	Housing/rent assistance	229 (32%)	32% of households had housing costs of at least 30% of their income.
	Clothing	198 (28%)	
	Furniture	129 (18%)	
	Transportation	73 (10%)	
	After school programs	68 (9%)	
Jobs and education	Job resources	113 (16%)	4% annual average unemployment rate.
	English classes	72 (10%)	13% of residents spoke a language other than English at home.
	GED classes	51 (7%)	10% of residents over age 25 had not graduated from high school.

Note. This table includes client resource requests from 2015 to 2019. Clients were able to request multiple resources that fit into multiple categories. Additional resources requested included child support/care (23, 3%), reading assistance (21, 3%), mammograms (15, 2%), translations (17, 2%), shelters (14, 2%), prenatal care (11, 2%), tobacco/substance abuse support (10, 1%), library programs (8, 1%), wound care supplies (7, 1%), and referral to Planned Parenthood (3, <1%). Franklin County statistics were gathered from the *Franklin County HealthMap2019* (Community Health Needs Assessment Steering Committee, 2019). Blank cells represent an absence of applicable data in *Franklin County HealthMap2019.*

to ENCompass, I am . . . committed to caring for the underserved both through compassionate patient care and through being a leader in public health/advocacy. (Note: This quote has been edited to maintain confidentiality.)

ENCompass was easily the best experience I had in undergrad. Changed my life and definitely prepared me for a career in social work.

I enjoyed my time with the program. I helped create and run the PR committee which helped me develop new and diverse skills and played a role in me later pursuing a career in design.

Lessons Learned and Future Steps

Integration and Outcomes of Dual Mission

The ENCompass program was developed to bring together a multidisciplinary cohort of students who share a passion for addressing health disparities and to provide opportunities for these students to make an impact on the public health of their community. Through weekly volunteering, students have been able to connect local community members to resources that support social needs. These engagements have allowed students to develop their interpersonal and professional skills while also thinking critically and creatively about how to best address person-specific social needs. Weekly meetings provide students an outlet to reflect and discuss their volunteer expe-

Figure 5a. Volunteer Majors

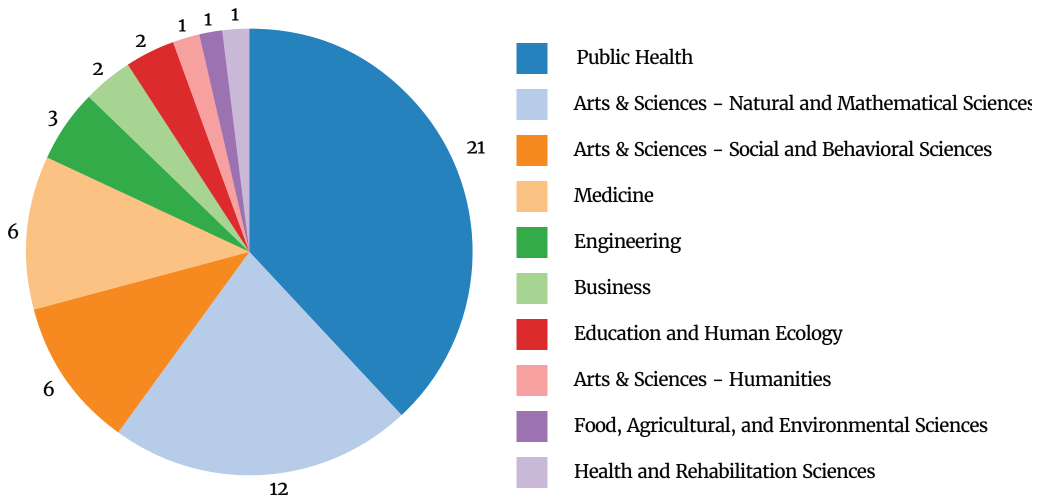


Figure 5b. Volunteer Career Paths

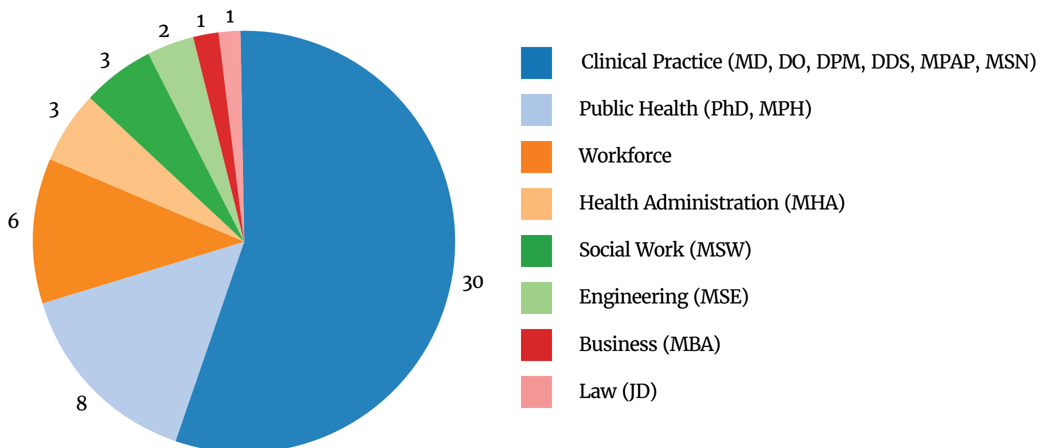


Table 3. ENCompass Volunteer Alumni Survey Themes

Theme	Definition	Frequency *N* = 40	Example
Career	ENCompass furthered career/education	23 (58%)	"ENCompass is the number one thing that has shaped my professional trajectory."
Knowledge	ENCompass provided public health or SDOH knowledge	16 (40%)	"ENCompass was the organization that introduced me to public health, a field I had never heard of until college."
Skills	ENCompass helped with skills (leadership, research, collaboration)	9 (23%)	"I learned leadership skills that have allowed me to succeed in my future endeavors."
Inspired orientation toward underserved	ENCompass inspired a career or experiences working with underserved populations	9 (23%)	"It [ENCompass] was the first time I realized I felt energized and inspired working one-on-one with people, especially those in a vulnerable part of their lives."
Organization growth	Proud to see the growth of ENCompass	7 (18%)	"I was one of the founding members . . . of the organization [and] I am so so happy to see that all the good work we started is only growing!"
Collaboration	ENCompass provided the opportunity to collaborate with peers and/or advisors	7 (18%)	"Loved my time connecting with like-minded students [on] campus and the feeling of making a difference in the community we served."
Other positive	Response did not fit other categories, but ENCompass had a positive impact	7 (18%)	"ENCompass was my favorite undergraduate organization and I was very fortunate to be part of the team."
Feedback	Response gave negative feedback or commentary on ENCompass	6 (15%)	"I volunteered but only met with one or two people after a few hours. When I did follow-up calls it was hard to check with people if they had received what they needed or not."
Other	Response did not align with any other categories	1 (3%)	"It was a fairly new program when I was a volunteer. I don't have much to share."

Note. Respondents were able to share responses that fit into multiple categories.

riences with the group, while also offering continued education on public health topics from experts in the field. Site staff overall feel that ENCompass is beneficial to their organizations, and previous volunteers feel that ENCompass has left a positive impact on their undergraduate and future careers.

The initial years in piloting the ENCompass program have enabled volunteers to make an impact on their community; however, the program can be improved both internally and externally. Outlined below are some future directions the ENCompass program plans to take to better implement its mission.

Consultation Quality Improvement

Weekly volunteering has enabled ENCompass members to explore communicating with clients and addressing client needs. In doing so, however, ENCompass has also recognized that consultations can be improved in a variety of ways to best help clients, including the use of virtual communication and directly linking clients to resources.

Virtual Communication

The ENCompass model was created prior to the safety guidelines imposed during the novel coronavirus (COVID-19) pandemic. In autumn 2020, ENCompass students devised a tele-help model for the program, asking site directors to advertise the ENCompass phone number and have clients call this number if they need social service support. Although the in-person model likely allows for higher participation rates, a hybrid model could be used in the future to enable volunteers to work with clients both on site and off site via telecommunication. In the existing model, clients receive the ENCompass phone number; however, future models could ask that sites also keep the ENCompass contact information available on their websites and in person. Since ENCompass members visit the sites only on designated days and times, this increased access to contact information will enable the clients who enter the organizations on ENCompass “off-days” to contact ENCompass and request services.

Follow-Up Communication and Direct Linkage to Resources

As previously discussed, ENCompass members are asked to follow up with their clients to check if the designated needs have been met and/or if there are further questions that could be addressed. The participation rate for follow-up is quite low (12%). Over time, ENCompass has experimented with different follow-up methods, such as in-person, phone calls, texts, and survey links. ENCompass volunteers have also tried conducting follow-ups during their scheduled shifts, at general body meetings, and on their own time. See the Client-Based SDOH Screenings and Documentation section for the most recently implemented follow-up method. Previous research has found that clients who have been adequately assisted in registering for and contacting the resource organizations often have better outcomes than those who are just provided with the contact information (Gottlieb et al., 2016). Future program models could ask volunteers to contact the community organizations for the clients and/or help them register for programs. For a more time-efficacious approach, volunteers could provide step-by-step instructions on how to register for/contact certain social service organizations if the client has questions about doing so. In the future, ENCompass is interested in training volunteers to help clients register for government services such as Medicare/Medicaid, SNAP benefits, and utility payment assistance. These additional services would remove a barrier for clients who need these resources but don’t have the time and/or computer access to sign up themselves. Learning the details about these assistance programs would also be beneficial for volunteers for their future careers. In implementing this change, ENCompass plans to continue collecting data about how many clients were able to be directly connected with resources, and also still include a follow-up that asks clients how this direct connection may have benefited them.

Volunteer Education Improvement

Through weekly presentations and discussions, ENCompass strives to keep its volunteers up to date on public health initiatives occurring in the local community while also providing a fundamental understanding of health disparities, health policy, and SDOH. Included below are some potential ideas for how to (1) further develop this educational component and (2) introduce more perspectives into ENCompass programming.

Diversity and Advocacy Training

By serving Columbus community members and learning about SDOH at general body

meetings, ENCompass members can attest to the systemic barriers that create social needs in the surrounding community. To truly address the SDOH, ENCompass volunteers recognize the need to advocate for reform that brings about equity in all institutions of society. Researchers have identified agency (working within the system to improve health) and activism (reforming the system to improve health) as two subsets of health advocacy (Dobson et al., 2012). The current ENCompass model practices agency by addressing factors for poor health by connecting Columbus residents with social resources. However, ENCompass can improve its health advocacy work by working more upstream to dismantle the systemic inequities that inherently disfavor ENCompass's population of interest (Castrucci & Auerbach, 2019). To promote activism among its members, ENCompass plans to collaborate with organizations on campus and in the Columbus community that promote civic engagement. In the past, ENCompass partnered with OSU Votes, a student-led movement to register, educate, and encourage students to vote. Looking forward, ENCompass plans to partner with other activism groups on campus to explore additional ways to influence policymaking and social issues, such as contacting representatives, raising awareness on social media and through educational events, crowdfunding, creating community focus groups, and participating in public demonstrations.

Interdisciplinary Recruitment

At its founding in 2012, ENCompass members represented a variety of disciplines across campus. These students identified interdisciplinary collaboration as a key component of successful models that addressed SDOH. As the organization evolved, the academic disciplines of students grew more homogeneous, with a majority of members pursuing pre-health-care-related degrees (as shown in Figures 5a and 5b). This shift could be attributed to recruitment efforts through Ohio State's College of Public Health and other outlets with a health-oriented audience. Additionally, ENCompass's recruitment specifically looks for students with a passion for public health. Moving forward, ENCompass looks to reach students beyond the traditional health-related fields to recruit an interdisciplinary group of students, as envisioned by its founding members. Prioritizing the recruitment of students with a variety of academic backgrounds and skill sets enhances ENCompass's ability to serve the Columbus community. For instance, committees like Information Technology and Research and Data Analytics would benefit from members with a strong background in computer science that is not always included in premedicine, public health, or social work curriculums. Skill sets brought by business or public affairs majors could bring additional perspective to ENCompass's Site Engagement and Public Relations and Advocacy Committees. A multitude of factors influence health; therefore, members with a diverse array of skills and knowledge are best equipped to address these factors. As ENCompass extends its reach across a variety of disciplines at Ohio State, the program's mission of awareness and activism is furthered as well.

Community Advisory Board

ENCompass members have also discussed the possibility of developing a community advisory board in order to improve ENCompass's ability to serve its clients. So far, the development of the program has heavily relied on the expertise of the current faculty advisor and larger Faculty Advisory Board, composed of researchers and organization leaders with expertise within the fields of public health and social work and significant knowledge of and connections to local communities. Having additional engagement from the clients ENCompass serves could provide numerous benefits for the program's reach.

Closing Remarks, Recognition, and Call to Action

The ENCompass program has brought significant value to both Ohio State students and the Columbus community through providing a meaningful service-learning opportunity for undergraduate students that helps to address health disparities. The organization was recognized by Ohio State's Outstanding Student Organization Award, has received sponsorship from Nationwide Children's Hospital, and was selected to present at a Clinton Global Initiative annual meeting and Ohio State's Denman Undergraduate Research Forum. As an established student organization that is well-known by the university community, ENCompass hopes to remain a sustainable organization that continues to evolve each year. Through continuing to develop

community partnerships, diversifying the volunteer pool, and actively educating volunteers on the many factors that contribute to health inequity, ENCompass plans to continue growing and furthering its impact on the Columbus community. Moreover, with the many effects of the COVID-19 pandemic on social needs services, ENCompass hopes to, in the future, evaluate how the organization has evolved in response to these changes. Just as ENCompass was inspired by Health Leads, ENCompass hopes that this model can be used to inspire other universities to develop similar student organizations focused on helping their local communities and developing student interest in public health.

Note

[1] Elizabeth L. Schwartz and Shreya Shaw share first authorship.

Acknowledgments

We acknowledge all past and present ENCompass volunteers for their dedication to serving the Columbus community and for contributing to the success of this award-winning program. We acknowledge past volunteers Preethi Chidambaram, Elana Curry, Chris Gaw, and Annie Zhang for their insights on the early development of the organization. We acknowledge ENCompass's founding advisor Dr. Amy Acton, current advisor Dr. William Hayes, and the past and present Faculty Advisory Board (Dr. Diane Brogan-Habash, Dr. Macarius Donneyoung, Jerry Friedman, Dr. Leo Hoar, Dr. Randi Love, William Mitchin, Dr. Susan Moffatt-Bruce, Tanikka Price, and Dr. Lisa Raiz) for their support and guidance.

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Appendix A. ENCompass Client Need Screening Form

Section 0: Information automatically collected about screening	
1. Date	
2. Time	
3. Volunteer conducting screening	
Section 1: Client demographic information*	
1. Is this a real client?	( ) Yes ( ) No
2. Consent to service?	( ) Yes ( ) No
3. Consent to research?	( ) Yes ( ) No
4. Location of visit	Select from drop down list of all sites
5. First Name	
6. Middle Name	
7. Last Name	
8. Gender	( ) Male ( ) Female
9. Date of birth	
10. Age	
11. Primary language	
12. Street address	
13. Apartment/Suite	
14. City	
15. State	
16. Zip code	
17. Total number of individuals in household	
18. Number of adults in household	
19. Number of children in household	
20. Single parent household	( ) Yes ( ) No
21. Housing status	( ) Rent ( ) Own home ( ) Live with family/others ( ) Homeless
22. Do you have a cell phone?	( ) Yes ( ) No
23. Cell phone number	
24. Do you have access to this cell phone for the next 3 months?	( ) Yes ( ) No
25. Email address	

Continued on next page

Appendix A. Continued

26. Employment status	( ) Full time ( ) Part time ( ) Retired ( ) Student ( ) Contract/Consulting ( ) Unemployed
27. Yearly household income (if unsure, put ?)	
28. Do you have any medical insurance or medical assistance?	( ) Yes ( ) No
29. If yes, do you have Medicare or Medicaid?	( ) Medicare ( ) Medicaid ( ) MyCare (both)
30. If you have Medicaid, who is your provider?	( ) Buckeye Health Plan ( ) CareSource ( ) Molina ( ) Paramount ( ) UnitedHealthCare ( ) Aetna ( ) Other ( ) I don't know
31. Do you have any other health care plans?	
32. Are you a veteran?	
33. Are you or anyone you live with handicapped or disabled?	
Section 2: Social needs screening*	
1. Basic health	[ ] Family doctor [ ] Dental care [ ] Eye care [ ] Prescriptions
2. Basic health: Elaborate on needs	
3. Supplemental health	[ ] Mental health [ ] Tobacco/substance abuse support [ ] Insurance [ ] Wound care supplies
4. Supplemental health: Elaborate on needs	
5. Household needs	[ ] Housing/rent assistance [ ] Shelters [ ] Utilities assistance [ ] Food [ ] Clothing [ ] Furniture [ ] Transportation

Continued on next page

Appendix A. Continued

6. Household needs: Elaborate on needs	
7. Jobs/Education	[ ] Reading assistance [ ] GED classes [ ] ESL/ESOL classes [ ] Translations [ ] Job resources [ ] Library programs
8. Jobs/Education: Elaborate on needs	
9. Family services	[ ] School meals [ ] Child support/care [ ] Adult care [ ] Fatherhood programs [ ] After school programs
10. Family services: Elaborate on needs	
11. Women's/child health	[ ] Doctor for women's needs [ ] Pediatric/prenatal care [ ] Mammograms [ ] Planned Parenthood
12. Women's/child health: Elaborate on needs	
Section 3: Resource recommendations**	
1. Resource name	
2. Resource category	
3. Resource address	
Note: Questions 1–3 are repeated for each resource recommended.	
4. Status	( ) Client successfully given information ( ) Client walked out without information ( ) Client did not want information
5. Did you schedule a follow-up with the client?	( ) Yes ( ) No, will be unable to contact client again (no phone) ( ) No, client did not want a follow-up ( ) No, other
6. Preferred method of contact for follow-up:	

Note. Parentheses refer to multiple choice answer choices. Square brackets refer to select all that apply answer choices.
*Section for volunteer to complete with client.
**Section for volunteer to complete without client, after compiling "social prescription"/resource packet.

Appendix B. ENCompass Client Follow-Up Survey

Section 1: Introduction	
1. Status of follow-up	( ) Completed ( ) Left message (1st time) ( ) Left message (2nd time) ( ) Did not answer (1st time) ( ) Did not answer (2nd time) ( ) Busy (Call back) ( ) Phone disconnected ( ) Texted (1st time) ( ) Texted (2nd time) ( ) Emailed (1st time) ( ) Emailed (2nd time)
2. Did you use the resource(s) recommended to you at your last visit?	( ) Yes, I used all of the resources ( ) Yes, I used some of the resources ( ) No, I used none of the resources ( ) Refuse to answer ( ) I don't know ( ) Not applicable
3. If you only used some of the resources, please explain why	
4. If no, why did you not use the resources?	
Section 2: Resources used	
1. What was the name of Resource 1 that you used?	
2. What service did Resource 1 provide for you/ your household?	
3. Was Resource 1 helpful?	( ) Yes ( ) No ( ) Refuse to answer ( ) I don't know ( ) Not applicable
4. Would you recommend Resource 1 to a friend?	( ) Yes ( ) No ( ) Refuse to answer ( ) I don't know ( ) Not applicable
5. Additional comments about Resource 1	
Note: Questions 1–5 are repeated for each resource used.	

Continued on next page

Appendix B. Continued

Section 3: Outside resources used	
1. Did you use any outside resource(s) not recommended by an ENCompass volunteer since your last visit?	( ) Yes ( ) No ( ) Refuse to answer ( ) I don't know ( ) Not applicable
2. What was the name of Outside Resource 1 that you used?	
3. What service did Outside Resource 1 provide for you/your household?	
4. Was Outside Resource 1 helpful?	( ) Yes ( ) No ( ) Refuse to answer ( ) I don't know ( ) Not applicable
5. Would you recommend Outside Resource 1 to a friend?	( ) Yes ( ) No ( ) Refuse to answer ( ) I don't know ( ) Not applicable
6. Additional comments about Outside Resource 1	
Note: Questions 2–6 are repeated for each outside resource used.	
7. Did you schedule another follow-up?	( ) Yes, client requested ( ) Yes, unable to reach client ( ) No, client declined ( ) No, unable to reach client multiple times

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Building Equitable Partnerships and a Social Justice Mindset Through a Donor-Funded Reproductive Rights and Health Internship Program

Clare Daniel and Grace Riley

Abstract

This article discusses the characteristics of a donor-funded internship program for undergraduate students interested in reproductive rights, health, and justice at Tulane University's Newcomb Institute. It describes the results of a preliminary study of this program's outcomes and makes recommendations for program improvements. This article will also argue that this program, despite its unique challenges, provides a model for other colleges and universities that are interested in developing equitable community partnerships and cultivating a social justice mindset in students. This study indicates that the program has been successful at developing young leaders in a social justice movement, serving underrepresented student groups, building trust with community partners, and creating opportunities for multiple collaborations with those partners.

Keywords: social justice, experiential learning, higher education, reproductive justice, internships, community partnerships

In 2017, Newcomb Institute of Tulane University received a 5-year gift from an individual donor to create experiential learning opportunities for undergraduate students interested in reproductive rights and reproductive health. This donation resulted from a common interest between Newcomb Institute and the donor in creating meaningful opportunities for students to (1) learn about and become leaders in the field of reproductive rights and health and (2) make an impact on the landscape of these issues in New Orleans and Louisiana more broadly. The primary initiative that resulted from this donation has been the Reproductive Rights and Reproductive Health Internship Program (RRRH), a paid internship program that places undergraduates at community organizations and with faculty members working on reproductive rights, health, or justice initiatives or research. This article describes this program and a preliminary study of its outcomes, strengths, and areas for improvement. Based on this early data, we suggest that this program provides an important model for cultivating social justice leadership in undergraduates as well as creating deep partnerships between university and community entities.

Newcomb Institute is a center for feminist research, teaching, and student engagement, whose mission is to educate undergraduates for gender equity in the 21st century. Under the direction of Professor Sally Kenney, a political scientist, Newcomb Institute has identified programmatic priorities including reproductive rights, health, and justice; campus sexual assault; gender and imprisonment; women's political leadership; and women's history, among others. In each of these areas, the institute strives to combine curricular, experiential learning, and research opportunities that mutually inform each other. In the case of reproductive rights, health, and justice, the institute has supported course development and teaching (e.g., Media and Reproductive Rights; Reproductive Rights, Law, and Public Policy; Reproductive Politics in New Orleans; Sexuality, Knowledge Production,

and Education), ongoing research projects (e.g., on sex education in Louisiana, breastfeeding at work, racial disparities in birth outcomes), and community-engaged experiential learning (e.g., RRRH, conference attendance, and Conceiving Equity, a networking event featuring the annual Roe v. Wade lecture). This emphasis on creating synergy between teaching, research, and community engagement arises partly out of Tulane University's emphasis on community engagement and public service.

Community engagement is a crucial part of Tulane University's institutional identity and undergraduate core curriculum. For Tulane, community engagement is largely demonstrated through service-learning, which typically aims to be "a vehicle for connecting students and institutions to their communities and the larger social good, while at the same time instilling in students the values of community and social responsibility" (Neururer & Rhoads, 1998, p. 321). In the wake of Hurricane Katrina in 2005, Tulane reinvented itself as a community-engaged, service-oriented university working to recover and reinvigorate a devastated city (Giegerich, 2008). In 2006, Tulane became the first major university to require service-learning as part of its core curriculum (Cowen & Cowen, 2010). The university requires two separate service-learning experiences over the course of the undergraduate years, one that is incorporated into a course (20 or 40 hours of service) and one that can either be part of a course or an unpaid internship for academic credit. These public service experiences are administered by the Center for Public Service, whose vision is "to promote community, equality, and justice" (Center for Public Service, n.d., "Vision") through a number of goals, including to "develop a sense of self-agency and social responsibility that includes all in the community and the larger global context" and "incorporate social justice and intercultural frameworks into all our programs" (Center for Public Service, n.d., "CPS Equity Statement," para. 1).

In general, service-learning experiences are meant to develop authentic, mutually beneficial, sustainable relationships between community partners and the university (James & Logan, 2016), cultivate students' sense of self-efficacy and interest in community engagement (Knapp et al., 2010), and allow students to apply classroom knowledge to effect social change (Currie-Mueller & Littlefied, 2018). Although the Center for Public Service at Tulane works hard in a variety of ways to ensure quality service-learning experiences for students and community partners and is at the forefront of this work nationally, many critiques of service-learning remain important and relevant. For instance, some scholars and educators argue that, without the proper time, training, and resources, which can be difficult to access within the course of one semester, service-learning places a burden on the community organizations it is meant to help (Eby, 1998; Strom, 2010). Others suggest that perhaps it can function more like "voluntourism," in which students use their brief time working with disadvantaged communities to experience personal transformation while providing no real benefit to those communities (Dobson, 2018). Still others have pointed to the ways that service-learning often reifies, rather than dismantles, the structures and logics of White privilege and supremacy (Mitchell et al., 2012).

In the case of Tulane, these critiques of service-learning make up just one facet of the relationship between the university and the larger New Orleans community—a relationship that could easily be characterized as fraught (Verghese, 2020). The data from this preliminary study of the RRRH program's effectiveness suggest that a donor-funded, paid internship program may overcome many of these critiques while meeting the goals put forth by most social justice–oriented experiential learning programs, including promoting students' intellectual growth, contributing meaningfully to the missions and work of community organizations, developing social justice leadership, and strengthening the relationship between the university and its surrounding community (Austin & Rust, 2015; Butin, 2007; Reiff & Keene, 2012). This study also indicates that this type of program has unique challenges and areas for improvement, covered below. Nonetheless, this program provides an exciting model for social justice experiential learning that can complement existing programs like those run by Tulane's Center for Public Service. The program does this by (1) allowing specific students and community partners to develop a more long-term mutually beneficial relationship, (2) compensating students (including those from underserved groups) for their labor, while also providing them

significant educational benefit, and (3) deepening ties between the university and community organizations that build trust and offer opportunities for multiple collaborations.

Building Partnerships Around Reproductive Rights, Health, and Justice in New Orleans

Louisiana has some of the worst reproductive health outcomes in the nation and is arguably one of the most restrictive states in terms of laws that govern sex education, abortion access, and other reproductive health care issues. For instance, the state had the second highest rate of new chlamydia cases, seventh highest rate for syphilis, and the fifth highest rate for gonorrhea in 2018 (Centers for Disease Control and Prevention, 2018). It has one of the highest rates of maternal mortality, and its rate is increasing faster than the national rate (Kieltyka et al., 2018). The state also has the sixth highest rate of adolescent pregnancy in the nation (U.S. Department of Health and Human Services, n.d.). According to the Center for Reproductive Rights, "Louisiana imposes more restrictions on abortion providers than almost any other state" (Center for Reproductive Rights, 2021, para. 3). In the wake of the Dobbs v. Jackson Whole Women's Health decision by the U.S. Supreme Court in June of 2022, which eliminated the federal constitutional right to abortion, Louisiana banned abortion in nearly all cases. Sex education is not mandated in Louisiana, and any sex education that is taught is not required to be comprehensive or medically accurate (SIECUS, 2021). These and many other issues, including high rates of poverty disproportionately affecting Black Louisianans and women, contribute to a dire reproductive rights, health, and justice landscape in which Tulane University students are, sometimes unknowingly, immersed (Butkus & Donovan, 2018).

Numerous community organizations, often underresourced, in New Orleans are working tirelessly to improve this landscape through policy advocacy, culture shift, and service provision. Likewise, several faculty members at Tulane work on community-engaged research projects aimed at understanding problems and compiling data that will be useful in addressing reproductive health disparities and poor outcomes. The RRRH program developed out of a desire to leverage student energy toward these efforts in an intentional, ethical, and educational manner. To do this, community partners needed to be involved from the early conversations with the donor. For instance, then-executive director of the New Orleans Abortion Fund, Amy Irvin, was invited to meet with the donor and Newcomb faculty and staff to help shape the contours of the program and provide advisement and connections useful in engaging additional partners. Irvin continued to provide an advisory and cofacilitation role for the first 3 years of the program. Once the funds were pledged, Newcomb identified the need to bring on a full-time faculty member with subject matter expertise to direct RRRH and the institute's other reproductive rights, health, and justice initiatives. American studies scholar Clare Daniel (first author of this article) was hired based on her scholarly engagement with reproductive politics and extensive experience with student advisement. Daniel took over the program after two initial terms, spring and summer 2017, which were led by a senior program coordinator at Newcomb. At the time of this writing, the program has partnered with 13 different community organizations and five faculty members (see Table 1).

The RRRH program is guided by the principles of the reproductive justice framework, developed by Black women in the 1990s, which recognizes the "right to not have children using safe birth control, abortion, and abstinence; the right to have children under the conditions we choose; and the right to parent the children we have in safe and healthy environments" (Ross et al., 2017, p. 14). Community and faculty partnerships are developed based on the potential for an intern to contribute to a project that engages with some aspect of reproductive justice. Partners' work has included sexually transmitted infection testing, abortion access, breastfeeding consultation, access to doula care, sex education advocacy, eliminating unfair taxes on diapers and feminine hygiene products, and much more. Community organizations (both that serve as internship sites and that do not) are also invited (and provided an honorarium) to present at biweekly interns' meetings on issues related to reproductive justice, including fair housing, raising the minimum wage, combating sexual assault, promoting environmental justice, and many more.

Table 1. Reproductive Rights and Reproductive Health Internship Program Partner Organizations

Partner organization	Organization mission	Number of RRRH interns over all terms*
Institute of Women and Ethnic Studies	“IWES is dedicated to improving the mental, physical and spiritual health and quality of life for women, their families and communities of color, particularly among marginalized populations, using community-engaged research, programs, training and advocacy” (Institute of Women and Ethnic Studies, n.d., “Mission”).	4
New Orleans Breastfeeding Center	“The New Orleans Breastfeeding Center provides high quality, holistic, and evidence-based lactation and infant feeding support to families in the New Orleans metro area and surrounding parishes” (New Orleans Breastfeeding Center, n.d., para. 2).	4
Saul’s Light	“Saul’s Light partners with hospitals, local organizations, and healthcare professionals to meet NICU and bereaved families’ day-to-day needs” (Saul’s Light, n.d., “Long-Term Goals”).	2
New Orleans Abortion Fund	“In partnership with the National Network of Abortion Funds, the New Orleans Abortion Fund, Inc. was established in 2012 as a community-based 501(c)(3) organization rooted in social justice, with the purpose of challenging socioeconomic inequalities by providing financial help to people who cannot afford the full cost of an abortion” (New Orleans Abortion Fund, n.d., “Mission,” para. 1).	18
Tulane University School of Public Health and Tropical Medicine	“As stewards of the first school of public health in the United States, the Tulane University School of Public Health and Tropical Medicine cultivates independent thinkers, innovative leaders, fierce advocates, and accomplished scholars. From the neighborhoods of New Orleans to communities worldwide, we conduct research and collaborate with our partners to ensure that all of humanity has an equitable opportunity to be healthy and pursue optimal well-being” (Tulane University School of Public Health and Tropical Medicine, n.d., “Our Mission”).	10
VAYLA New Orleans	“VAYLA’s commitment to youth development, community empowerment through education and cultural awareness forges a sacred space for young leaders to engage and empower each other through complex cultural exchange, community dialogue, and comprehensive civic engagement” (VAYLA New Orleans, 2021, “History,” para. 2).	4
Lift Louisiana	“To educate, advocate, and litigate for policy changes needed to improve the health and wellbeing of Louisiana’s women, their families, and their communities” (Lift Louisiana, n.d., “Our Mission”).	10
Sista Midwife Productions	“Our Mission is to improve pregnancy and birth experiences and to eliminate perinatal disparities by increasing the number of black birth workers, teaching families about their rights and options; and creating transparency and accountability within childbirth education and the medical obstetrical system” (Sista Midwife Productions, n.d., “Who We Are,” para. 2).	3
Planned Parenthood Gulf Coast	“The mission of Planned Parenthood Gulf Coast, Inc. is to ensure the right and ability of all individuals to manage their sexual and reproductive health by providing health services, education and advocacy” (Planned Parenthood Gulf Coast, n.d., “Our Mission”).	2

Table continued on next page

Table 1. Continued

Partner organization	Organization mission	Number of RRRH interns over all terms*
Birthmark Doula Collective	“Birthmark Doula Collective is a birth justice organization dedicated to supporting, informing and advocating for pregnant and parenting people and their families in New Orleans” (Birthmark Doula Collective, n.d., para. 1).	2
School of Liberal Arts, Tulane University	“We strive to build a global liberal arts curriculum and faculty, we embrace our dual identity as a liberal arts college within a research one university, we forge a deeper relationship with New Orleans and the Gulf South, and we craft a liberal arts education for next generation leaders and the careers of the future” (School of Liberal Arts, Tulane University, n.d., “Our Mission”).	7
Tulane Newcomb Institute	“Our mission is to develop leaders, discover solutions to intractable gender problems of our time, and provide opportunities for students to experience synergies between curricula, research, and community engagement through close collaboration with faculty. We support student research initiatives, advocate for a gender-integrated curriculum, develop community-engaged service-learning courses, and bring women leaders to campus” (Tulane Newcomb Institute, n.d., “Today,” para. 1).	6
Creative Community League	“Creative Community League utilizes cultural strategies for movement building, supporting artists, storytelling, and other dynamic community involvement in moving reproductive and sexual awareness into creative spaces” (Creative Community League, n.d., para. 1).	1
Black Feminist Rants	Black Feminist Rants: Conversations on Reproductive Justice and Activism is a podcast that centers the experiences of Black women and femmes navigating social justice spaces and the world (Black Feminist Rants, n.d.).	1
Women With a Vision	“The mission of Women With A Vision is to improve the lives of marginalized women, their families, and communities by addressing the social conditions that hinder their health and well-being. We accomplish this through relentless advocacy, health education, supportive services, and community-based participatory research.” (Women With a Vision, 2021).	4
New Orleans Children’s Advocacy Center	“The New Orleans Children’s Advocacy Center is a program of the Audrey Hepburn CARE Center at Children’s Hospital that provides a coordinated, multi-agency approach to the investigation, intervention and treatment of child sexual and physical abuse” (Children’s Hospital New Orleans, n.d., para. 2).	1
Tulane School of Medicine	“We improve human health and foster healthy communities through discovery and translation of the best science into clinical practice and education; to deliver the highest quality patient care and prepare the next generation of distinguished clinical and scientific leaders” (Tulane School of Medicine, n.d., “Mission”).	1

Note. *Some students interned at multiple sites and may be counted more than once in the table.

Reproductive Rights and Reproductive Health Internship Program Details

The RRRH program places students in paid internships lasting a semester or longer. Typically, students may work up to 15 hours per week and receive $12 per hour. They do not receive academic credit for the internship. Students apply to open positions via a Newcomb Institute–administered application process. The program coordinator vets the applicants and sends three to five finalists to each site for interviews and selection. Finalists are selected based on a demonstrated interest in the fields of reproductive rights, health, or justice and a track record of high-quality academic and extracurricular work, with the goal of providing the organizations with passionate students on whom they can depend (Mitchell, 2008). Utilizing a cohort model aimed at cultivating a "critical community" (Mitchell & Rost-Banik, 2020), all interns come together for biweekly meetings throughout their internship term. The program is designed to accomplish a number of interrelated goals pertaining to students' career readiness; their knowledge of social inequality and its effects on reproductive rights, health, and justice; and their understanding of and ability to navigate and affect political processes.

The RRRH program combines on-site professional work experience with a classroomesque educational experience in which cohort members network with and learn from each other, as well as hear from other community organizations working on issues related to reproductive rights, health, and justice. These meetings aid in the development of what Novak et al. (2007) referred to as "the ability to reframe complex social issues," which is a common objective of experiential learning programs (Clark-Taylor, 2017). They also give students what Jakubowski and McIntosh (2018) discussed as the opportunity to engage in dialogue that prompts them to question prior beliefs and engage in important self-reflection. Through these meetings and their experiences at their internship sites, students cultivate a critical understanding of systemic injustice as they map the connections between economic, environmental, racial, and reproductive justice. This systemic understanding ideally helps to prevent what Mitchell (2008) referred to as a dichotomy of "us-them" that often occurs through service-based programs, by demonstrating the interdependencies between the reproductive lives of Tulane students and the circumstances of the greater New Orleans community. The program also requires students to develop professional communication skills as they present themselves and their work to the public via poster presentations and public blog posts (Newcomb Interns, 2021). As Bebelle (2017) described, this emphasis on professional development in students is key to developing lasting relationships with community partners, by ensuring that both parties grow from the experience. When both parties gain from the experience, it helps to develop what Sarah Fouts (2020) referred to as a "doing with" mindset rather than the "doing for" mindset that has been promoted by some Tulane community engagement programs in the past.

Another crucial aim of the program is to support and augment the reproductive rights/health/justice work of partner organizations and faculty. Service-learning and other internship programs provide motivated students over the course of a semester and therefore have the potential to give these organizations an extra resource and a fresh perspective to expand beyond their current projects (Bushouse, 2005; Tarantino, 2017). The RRRH Internship program similarly provides this to partners, but also gives students and community partners the opportunity to renew their internship relationship at the end of each term, which helps to prevent what Brown (2001) identified as the constant "turnover" typical with many short-term programs. This long-term partnership provides what Mitchell (2008) described as an opportunity for higher education institutions to authentically engage with the community and demonstrate a commitment to community development and change.

Currently in its fifth year, the program runs all year round with spring, summer, and fall internship terms. It has served 76 students. Individual students have participated in the program anywhere from one to seven internship terms. Newcomb publicizes the application for open positions each term as widely as possible to all undergraduate students via the Newcomb News (weekly newsletter) and campus partners. It is notable that the program has consistently attracted a student population that has a greater percentage of Louisiana residents and is far more racially and ethnically di-

verse than the overall undergraduate student body at Tulane University (see Table 2). By being more representative of the New Orleans community, program participants are arguably better equipped to connect the Tulane community to the surrounding community, and the program is able to resist the politics of Whiteness mentioned above in which primarily White students may presume that they have the ability to help communities of which they have little knowledge and to which they have no ties (Mitchell et al., 2012). This diversity in participants also aids in retaining partnerships with organizations that are looking for students who have insight about and affinity with the populations they serve. In addition, by paying student interns, the program provides meaningful opportunities to some students who are otherwise underserved at the university, helping connect them, or keep them connected, to the local community while compensating them for their labor. Students can spend more time at their site and develop deeper, mutually beneficial relationships.

Measuring the Impact

The preliminary assessment of RRRH (IRB Approval 2020-734) focused on how the students' experiences in the program helped them clarify their career goals, preferences, and abilities; navigate a professional work environment; build professional relationships; learn about reproductive rights, health, and justice; and understand processes of political and institutional change. This study also evaluated the degree to which students' work furthered the mission of the internship site and whether the site supervisor had a positive experience with the program. Three separate tools were utilized in this study (described in detail below): the intern end-of-term survey, the site supervisor end-of-term survey, and an alumni survey.

Over the course of the program's first year, nine learning objectives (see Appendix A) and two objectives for internship sites (see Appendix B) were developed. These objectives were used to design end-of-term surveys for interns and site supervisors, which were primarily meant to provide formative insights. At the beginning of each term, students are asked to work with their supervisor to establish five learning goals for the internship term. They are provided with resources to help them develop SMART goals (specific, measurable, achievable, relevant, time-based). Students turn in these goals to the program coordinator, they revisit these goals in the biweekly interns' meetings, and they are asked to consider whether they met their goals in the program evaluation. Site supervisors are also asked to assess whether their intern met their SMART goals in their end-of-term survey (see Appendix B)

To assess the effectiveness of the program in creating lasting impacts for students regarding the nine learning objectives, an anonymous survey was developed for program alumni, which was emailed to all former interns who graduated from Tulane University between 2017 and 2020. The response rate for the survey was 58.3% (21 out of 36; Appendix C).

The intern end-of-term survey was emailed to all interns at the end of each internship term beginning at the close of the fall 2017 term. The data analyzed in this article is from fall 2017 through spring 2021. Some students participated in the program over

Table 2. Reproductive Rights and Reproductive Health Internship Program Participant Diversity

	Spring 2020 cohort	Tulane 2019–2020 freshman class	New Orleans*
People who identified as people of color	71.4% (10/14)	30.48%**	66.01%
People who identified as Black or African American	50% (7/14)	9%***	59.7%
People who are Louisiana residents	35.7% (5/14)	9%**	N/A

Note. *U.S. Census Bureau, 2019.
**Tulane Office of the Registrar, 2019.
***Hasselle, 2020.

multiple terms and were emailed a new evaluation at the end of each term. Response rates for each term are listed in Table 3. Over the course of these 11 terms, the evaluation yielded a total of 80 responses.

The site supervisor survey was developed in summer 2018 and is emailed to each site supervisor at the end of the internship term. This survey evaluates a site supervisor's experience in the program each term, whether she/he/they acquired a new intern or continued with the previous one. Thus, if a supervisor remained as a participating partner over the course of multiple terms, they likely filled out the survey more than once (see Table 3). These rates exclude the program coordinator, who is also a site supervisor but abstains from taking the questionnaire. Some supervisors had more than one intern per term and filled out one questionnaire per intern; others who had more than one completed only one questionnaire. Each questionnaire completed was counted as one, regardless of how many interns it evaluated.

Because the intern and site supervisor end-of-term surveys were developed to obtain formative insights, they are not administered anonymously. These surveys are an important resource for the program coordinator to gain intern- and supervisor-specific information in order to troubleshoot unique issues. However, to give interns the opportunity to submit anonymous feedback, an additional survey was emailed along with the end-of-term survey with one open-ended prompt: "Please provide any anonymous feedback you have about the Reproductive Rights and Reproductive Health Internship program that you would like to share." This survey has received only three responses since the fall of 2017. These responses are discussed below.

Findings to Date

Findings from these three tools—the intern end-of-term survey, site supervisor end-of-term survey, and alumni survey—suggest satisfaction on both the student and internship site sides. The intern end-of-term survey and alumni survey indicate that most learning objectives have been met for the majority of students and that the program positively impacted their career development. Site supervisor end-of-term surveys show that most site supervisors found the intern's work to be beneficial and had a positive experience in the program. At the same time, results indicate that the program is meeting some learning objectives more than others and that on a few occasions, site supervisors had unsatisfactory experiences with their intern and/or the program, suggesting areas for improvement.

As the data from the end-of-term survey

Table 3. Survey Response Rates

Response rates for end-of-term survey		Response rate for site supervisor survey	Response rate for alumni survey (administered one time in spring 2020)
Term	**Response rate**	**Response rate**	**Response rate**
Fall 2017	100.0% (7/7)	N/A	55.6% (20/36)
Spring 2018	25.0% (3/12)	N/A	
Summer 2018	85.7% (6/7)	71.4% (5/7)	
Fall 2018	100.0% (11/11)	60.0% (6/10)	
Spring 2019	100.0% (11/11)	66.7% (6/9)	
Summer 2019	75.0% (9/12)	87.5% (7/8)	
Fall 2019	36.4% (4/11)	50.0% (4/8)	
Spring 2020	21.4% (3/14)	61.5% (8/13)	
Summer 2020	57.1% (8/14)	60.0% (6/10)	
Fall 2020	50.0% (8/16)	66.7% (8/12)	
Spring 2021	55.6% (10/18)	61.5% (8/13)	

(see Appendix A) and the alumni survey (see Appendix C) indicate, the RRRH program appears to have been largely successful at meeting learning objectives related to career development. For instance, 90% of students who completed the end-of-term survey and 95.24% of alumni respondents agreed that the internship had enabled them to learn more about their career interests and goals (Learning Objective 1). All students who completed the end-of-term survey noted that through the process of developing, reflecting upon, and working toward their SMART goals, they were able to meet some or all of their goals (Learning Objective 2). Similarly, 100% of alumni respondents agreed that the program helped them learn how to develop and accomplish professional goals (Learning Objective 2). All end-of-term survey respondents and 90.48% of alumni respondents agreed that the internship had enabled them to become better prepared for their future career by honing one or more of the transferrable skills indicated (Learning Objective 3). One alumna discussed what she learned in the program, saying, "This internship led me to understand how to be self-motivated and come up with new tasks. I keep it on my resume because it serves as a litmus test towards how well an organization fits my values." Eighty-five percent of end-of-term survey respondents and all the alumni respondents noted that they had achieved one or more of the elements related to professional self-awareness and independence (Learning Objective 4). The majority (96.25%) of end-of-term respondents and alumni respondents (95.24%) indicated that they had learned about and/or practiced professional relationship-building and networking (Learning Objective 5). These results are supported by a comment left on the alumni survey, saying, "This program helped me develop a professional network in New Orleans and exposed me to the structure of policy nonprofits." Likewise, a majority (93.75%) of end-of-term survey respondents and 100% of the alumni respondents agreed that the internship program had helped them learn to present and practice presenting their work in a professional setting (Learning Objective 6).

However, responses to some individual survey questions related to career development indicate areas for improvement. For instance, only nine of the 21 alumni respondents (42.86%) agreed with the statement "the internship program increased my understanding of my professional strengths and weaknesses." This outcome suggests that more self-reflection could be systematically built into the program, in which students reflect both with their supervisors and in one-on-one meetings with the program coordinator about their internship performance. The site supervisor end-of-term survey currently includes questions about the interns' strengths and weaknesses, so another way to increase students' awareness would be to share these results (with the supervisor's consent) with each intern at the end of the term. Relatedly, only 31.25% of end-of-term respondents noted that they met all five of their SMART goals. Although all respondents met at least some of their goals, the low percentage of students meeting all their goals provides further support for the idea of building in more structured reflections.

Data from these two surveys also suggest that the program has been successful in teaching students about reproductive rights, health, and justice, and about social inequality. All of the end-of-term survey respondents and 90.48% of alumni respondents agreed that they had learned at least one element of Learning Objective 7, regarding knowledge of the reproductive rights/health/justice landscape in New Orleans, Louisiana, and beyond. For instance, an alumna stated, "The program made reproductive justice easy to engage with and understand. I am able to take what I learned from the program and talk/educate peers and colleagues." The program's success in this area is also highlighted in one of the three responses to the anonymous end-of-term intern survey, which says, "I thoroughly enjoyed the Reproductive Rights and Reproductive Health Internship Program! I met a lot of amazing people through this program and learned about reproductive justice and rights through many perspectives of the NOLA community. It was well organized and helped us find ways to connect ourselves more with our organizations as well as the topic of Reproductive rights." Another important marker of success in terms of Learning Objective 7 is that 95.24% of alumni respondents agreed that they continue to stay informed about these issues.

Similarly, 91.25% of end-of-term survey respondents and 90.48% of alumni respondents agreed that they had learned about social inequality in the United States

(Learning Objective 8). However, only 76.19% of alumni respondents and 72.5% of end-of-term respondents stated that they had furthered their understanding of how to engage with institutions and systems of power to create change around reproductive issues (Learning Objective 9). This shortcoming likely reflects that some interns worked in capacities (e.g., conducting research, data entry, etc.) that did not engage in direct advocacy or activism, but importantly, it suggests that more work could be done to incorporate these topics into the interns' biweekly meetings through guest speakers and workshops on these topics, as well as through more intentional structures for interns to share their work with each other. This possibility is further supported by a second response to the anonymous end-of-term survey, which stated that it would be nice for the interns to have more opportunities to hear from each other in the biweekly meetings.

Site supervisor end-of-term surveys also indicate that the RRRH program is meeting its objectives for the students and for the internship sites (see Appendix B). All supervisor respondents agreed that their intern made some or very much progress toward her/his/their stated goals. And 56 out of the 58 respondents (96.55%) stated that they observed some or very much development in the student's skills, knowledge, or performance. In terms of the two program objectives for the internship site, 51 out of 58 supervisors (87.93%) agreed that their intern had benefited their organization "greatly," and five chose "somewhat"; only one respondent chose "very little." One supervisor did not choose an option regarding their intern's work but commented that the intern "developed many resources for our policy education programs and assisted in updating our website with youth friendly language." These results indicate that the program is accomplishing the goal of creating mutually beneficial relationships with internship sites.

Results were very similar for the second program objective related to internship sites. When asked how they would rate their experience with the RRRH program, 56 out of 58 (96.55%) supervisors rated their experience with the program as either "excellent" (91.38%) or "good" (5.17%). One supervisor described their experience with the program, saying, "My continued appreciation for including me in the RRRH Program. I thoroughly enjoy working with the interns and my work has benefited." Supervisors were also asked whether they would recommend this program to others. No supervisors responded that they would not recommend this program, and 52 out of 58 (89.66%) responded that they would recommend it without hesitation. Such support was further expressed by another supervisor, who commented that their intern "was absolutely wonderful! She was an integral part of our advocacy efforts and community organizing. I will miss her. Thank you so much for a wonderful internship experience! I will gladly recommend it to others!" Overall, the site supervisor surveys indicate a high level of satisfaction with the program.

However, the two instances in which a supervisor said that she would "maybe" recommend the program reveal one of the challenges of working with students who are juggling multiple responsibilities and sometimes personal hardships as well. These students can require additional supports to navigate the barriers to success that they face. In these instances, struggles with family, mental health, and economic and/or academic difficulties got in the way of completing internship duties and sometimes even communicating clearly about the need to take a step back from the internship. These realities suggest that the RRRH program could improve its training around clear communication and provision of support services.

Indeed, as mentioned above, the RRRH program attracts and retains a large number of students from marginalized backgrounds, who may be struggling with challenges related to racial injustice, gender-based violence and/or oppression, and economic hardship. For instance, 85.7% of alumni surveyed noted that they relied on their internship to help pay for their tuition/rent/day-to-day necessities. Anonymous feedback collected in the alumni survey echoes this sentiment, as one intern states, "This program is one of few that allows for paid internship experiences, which are hard to come by but extremely necessary to ensure that students of all economic backgrounds have access to formative professional experiences." Thirty-eight percent (8/21) of alumni surveyed identified as a person of color. Likewise, the spring 2020 intern cohort was far more racially diverse and contained a larger percentage of Louisiana

residents than the overall Tulane student population (see Table 2). That cohort (similar to many other RRRH cohorts) also had a far higher percentage of Black-identified students than the Tulane student body, bringing the racial makeup of the group much closer to that of the majority-Black city of New Orleans.

Although this reality may result in a higher percentage of students with multiple stressors and barriers to success than the average Tulane student, the program's ability to attract, support, and retain students of color, Louisiana residents, and low-income students has proven to be an important part of retaining community partnerships with organizations working at the intersection of reproductive, racial, and economic justice in New Orleans. However, survey results suggest that the RRRH program could do more to ensure these students have the programming support (e.g., transportation, supplies, reproductive justice training) and social/emotional support they need to be successful interns. For instance, the site supervisor who said the intern benefited their organization "very little" also commented: "We are happy to host an intern but we lack some capacity, such as we do not have a computer for the intern to work on—they have to bring their own. We do not have extra supplies for the intern to use—they have to bring their own. We would like to help the intern with transportation with bus tokens, but we do not have this capacity." This supervisor also requested that training on how to supervise an intern be provided, an idea that was also supported by the third response to the anonymous end-of-term survey in which an intern describes the need for site supervisors to be trained on how to provide regular productive feedback to interns. (In response to this idea, the program coordinator held an optional meeting of site supervisors to discuss best practices, compiled these into a resource, and made it available to all supervisors.) Creating a program that equitably serves both marginalized students and underresourced organizations requires a full accounting of what supports are needed to make the relationship a success. The RRRH program has more work to do in this area.

Next Steps, Challenges, and Implications

This preliminary assessment seems to indicate three main areas for improvement for the RRRH program moving forward.

1. More structured reflection activities should be built into the program, encouraging interns to consider what they have learned about their professional strengths and weaknesses and how this information might inform their career trajectory. Such activities could include periodic guided check-ins with the site supervisor and the program coordinator. It may also involve sharing and reflecting upon supervisor evaluations of interns' performance at the end of each term.

2. The program should place a greater emphasis on teaching interns how to engage systems of power to create social change. The biweekly meetings could include more guest speakers and workshops that focus on processes of institutional change, political advocacy, and culture shift. The program could develop more peer-to-peer learning opportunities in which interns who are deeply engaged in these activities share their work with fellow interns. The program coordinator could also develop one collective advocacy activity per term in which the entire cohort could participate.

3. A more comprehensive support system should be developed for students struggling with logistical, academic, or personal challenges, as well as organizations that need additional supplies to host an intern. For instance, regularly scheduled one-on-one meetings between the program coordinator and both the students and the site supervisors would provide opportunities to anticipate and troubleshoot barriers to success, such as transportation and scheduling issues, challenging personal issues, and academic difficulties. A separate fund could be created for students who need bus passes, emergency financial assistance, or other support. Such support has been provided in previous terms upon request and on a case-by-case basis; however, the creation of an official fund would signal to all students that this form of support is available to them. Finally, a list of campus resources for students experiencing academic or personal difficulties could be distributed and discussed at the beginning of each term.

Despite these important areas for improvement, the results of this study indicate that the RRRH program could provide a useful model for other universities interested in building deeper ties with their community, fostering a social justice mindset and skillset in their undergraduate students, and creating equitable programming for marginalized groups on campus. Moving forward, these results could be confirmed or refuted through a more substantial assessment of the program, including anonymous surveying of current interns and site supervisors at the beginning and end of each term, and a systematic longitudinal alumni study that includes a control group of students who participated in other internship opportunities or no internships during their time at Tulane.

For colleges and universities interested in creating a similar program, a primary challenge to the initiation and long-term sustainability of the program will undoubtedly be fundraising and donor relations. As mentioned above, Newcomb Institute received a 5-year pledge from an individual donor to create and implement this internship program. As of this writing, the program is concluding its 5th year, and the uncertainty of its future has loomed uncomfortably over the community partnerships until one donation from another individual donor and a grant from a private foundation were secured. These new funds will extend the program for two additional years. In order to truly secure this program in perpetuity, an endowed fund roughly 20 times the annual budget of the program would be necessary.

Fundraising is not only a challenge in terms of the program's long-term sustainability, but also in regard to the labor of stewardship. Donor stewardship and fundraising efforts, in collaboration with Newcomb Institute's executive director and Tulane's Department of Advancement, have been part of the coordinator's work since the program's inception. This work involves communicating regularly with current and potential donors about the program and its successes, contributions, and value to the students and community, which requires a special skillset that someone trained in teaching and working with undergraduates in an experiential learning program would not automatically possess. Moreover, the donor-funded aspect of the program adds a layer of accountability beyond the students, the university, and the community, the specific contours of which can vary from donor to donor.

Being donor-funded, however, also provides certain advantages for the program. First and most obviously, it allows Newcomb Institute to compensate students for their labor in the community, which facilitates many of the positive outcomes detailed above. Second, it provides a secure way to pursue programming in what is otherwise a controversial political area. The existence of a fund designated for reproductive rights and health allows for programming and resources to be devoted, for instance, to student advocacy around abortion, sex education, emergency contraception, home birth, breastfeeding, sex work, and many other topics that could cause friction with alumni and other university constituents. The unique donor-funded structure of this internship program makes it particularly suited to the goal of educating and training future leaders in the reproductive rights and justice movements.

This preliminary research indicates that, perhaps more so than shorter, unpaid service-learning experiences such as those required within Tulane's core curriculum, a donor-funded paid internship program of this sort is a crucial vehicle for the deep and sustained engagement with social justice work in their surrounding communities that students—particularly economically marginalized students whose time must be spent in gainful employment—need and desire, and that position the university as a valuable community ally. The RRRH program fosters significant ties between the university and community organizations, thus creating a connection that builds trust and provides opportunities for multiple collaborations (such as community-engaged research projects and service-learning partnerships). It also appears that programs like RRRH continue to improve student outcomes after graduation by fostering the development of skills vital to a professional environment and allowing students the opportunity to network and grow in their field of interest. A longitudinal study of alumni career outcomes would assess how much students have been advantaged by being able to demonstrate their passion for reproductive rights/health/justice and gain a foothold in the field.

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Appendix A. Intern End-of-Term Survey

Learning objectives for interns	Measurements for objective	Percent that met objective
1. Learn more about their identified career interests in reproductive rights, health, and/or justice by engaging with them in a professional context and executing a set of tasks associated with that career.	It exposed me to a workplace setting in a career field of interest.	60% (48/80)
	It exposed me to tasks that I might perform in a career field of interest.	80% (64/80)
	It exposed me to potential colleagues in a career field of interest.	67.5% (54/80)
	It has not helped me clarify my career goals.	10% (8/80)
2. Increase their understanding of their own preferences and abilities relating to professional work settings and tasks, as they develop professional goals, reflect upon those goals, and reassess them at the end of the internship.	Met all five goals.	31.25% (25/80)
	Met some goals.	68.75% (55/80)
	Did not meet any goals.	0% (0/80)
3. Become better prepared for their postgraduation career by gaining experience as paid workers in a professional environment. They will hone their punctuality, time management, professional correspondence practices, accountability, and other important workplace qualities, while gaining familiarity with receiving and incorporating feedback from supervisors and other stakeholders, as well as advocating for themselves in the workplace.	It increased my punctuality.	40% (32/80)
	It increased my ability to set my own work pace and meet deadlines.	91.25% (73/80)
	It increased my ability to follow the protocols of professional communication (in-person, over email, phone, social media, etc.).	88.75% (71/80)
	It increased my ability to advocate for myself in the workplace.	61.25% (49/80)
	It increased my ability to incorporate constructive feedback.	80% (64/80)
	It did not prepare me to enter the workforce.	0% (0/80)
4. Become self-aware, self-monitoring, and self-correcting (i.e., knowing what they need to do, demonstrating initiative, completing tasks in a timely manner, working at a pace they can sustain, producing a high-quality work product, taking ownership of mistakes, and managing self-doubt, negative emotions, or frustration).	It increased my ability to manage a project and produce a quality product.	85% (68/80)
	It increased my ability to take ownership over mistakes.	72.5% (58/80)
	It increased my ability to manage self-doubt, negative emotions, and frustration.	66.25% (53/80)
	It increased my ability to demonstrate initiative (i.e., identify problems and find solutions).	82.5% (66/80)

Table continued on next page

Appendix A. Continued

Learning objectives for interns	Measurements for objective	Percent that met objective
5. Develop networking and relationship-building skills through interactions with their supervisor, program coordinator, fellow interns, and community partners. They will know how to listen actively and ask engaged questions. Students will gain knowledge of the importance of professional networking.	It increased my knowledge of how to cultivate a professional relationship through mutual support, courteous communication, and fastidious follow-up.	83.75% (67/80)
	It increased my knowledge of the importance of networking.	73.75% (59/80)
	It increased my active listening skills.	77.5% (62/80)
	It increased my ability to ask engaged questions of potential network members.	73.75% (59/80)
	It did not increase my knowledge and skills related to building a professional network.	3.75% (3/80)
6. Learn to present themselves and communicate their work in a professional manner in multiple public forums. They will learn how to speak clearly and concisely about their experiences and the importance of their work.	It helped by requiring that I write blog entries about my internship.	66.25% (53/80)
	It helped through activities I did at my internship site (i.e., tabling, workshop facilitation, etc.).	58.75% (47/80)
	It helped by facilitating my participation in a formal presentation about my internship at a conference or professional event.	77.5% (62/80)
	It did not help me learn how to and practice presenting myself and my work to the public.	6.25% (5/80)
7. Develop knowledge about the landscape of reproductive rights/health/justice/politics in the United States, Louisiana, and New Orleans. They will understand what organizations exist in New Orleans and what work they do. They will gain knowledge of which issues are most pressing on the local, state, and national level and what pieces of legislation could or do govern these issues.	I learned about the landscape of organizations in New Orleans that work on these issues.	86.25% (69/80)
	I learned about the laws in Louisiana that regulate these issues.	77.5% (62/80)
	I learned about how the state of reproductive rights and reproductive health in New Orleans and Louisiana compares to the rest of the nation and/or world.	91.25% (73/80)
	I did not learn anything about reproductive rights and/or health.	0% (0/80)

Table continued on next page

Appendix A. Continued

Learning objectives for interns	Measurements for objective	Percent that met objective
8. Increase their understanding of the complex interlinking of social inequalities (according to race, class, gender, sexuality, ability, etc.) and develop their senses of social justice and empathy toward marginalized communities.	I learned about how the politics of race, class, gender, sexuality, ability, and immigration status intersect to affect access to reproductive rights and reproductive health services.	91.25% (73/80)
	I learned about the differences and similarities between the terms "reproductive rights," "reproductive health," and "reproductive justice," and their historical and social origins.	75.00% (60/80)
	It did not increase understanding of the complex interlinking of social inequalities and develop my sense of social justice and empathy toward marginalized communities.	6.25% (5/80)
9. Further their understanding of how to engage with institutions and systems of power (i.e., the local and state government, dominant discourse, etc.) to create change around reproductive issues.	I learned about strategies for addressing unequal access to reproductive rights and healthcare services.	72.5% (58/80)
	I learned about strategies for effecting policy change.	57.5% (46/80)
	I learned about strategies for effecting culture shift (i.e., intervening into dominant discourses that stigmatize certain sexual and reproductive behaviors).	70.00% (56/80)
	It did not further my understanding of how to engage with institutions and systems of power.	11.25% (9/80)

Appendix B. Site Supervisor End-of-Term Survey

Objectives for internship sites	Question for objective	Qualifications for meeting objective	Percent that met objective
1. That the intern's work contributes meaningfully to the organization's mission and benefits the organization.	The intern's work benefited my organization:	Greatly	87.93% (51/58)
		Somewhat	8.62% (5/58)
		Very little	1.72% (1/58)
		Did not choose an option.	1.72% (1/58)*
2. The supervisor has a positive experience, such that she/he/they would recommend the program to colleagues and community partners.	You would rate their overall experience with the RRRH program as:	Excellent	91.38% (53/58)
		Good	5.17% (3/58)
		Average	3.45% (2/58)
		Poor or terrible	0% (0/58)
	Would you recommend this program to others?	Yes, without hesitation	89.66% (52/58)
		Probably	6.90% (4/58)
		Maybe	3.45% (2/58)
		Probably not or "No"	0% (0/58)
3. The intern experienced growth and met all or some of their personal goals.	Did the intern make progress toward her/his/their stated learning objectives?	Very much	81.03% (47/58)
		Somewhat	18.97% (11/58)
		Very little	0% (0/58)
		Not at all	0% (0/58)
	Did you observe development in the student's skills, knowledge, personal and/or professional performance?	Very much	72.41% (42/58)
		Somewhat	24.14% (14/58)
		Very little	3.45% (2/58)
		Not at all	0% (0/58)

Note. *Did not choose an option, but they stated that the intern "developed many resources for our policy education programs and assisted in updating our website with youth friendly language."

Appendix C. Alumni Survey

Learning objectives for interns	Measurements for objective	Percent that strongly agreed or agreed	Percent that chose at least one option for the objective
1. Learn more about their identified career interests in reproductive rights, health, and/or justice by engaging with them in a professional context and executing a set of tasks associated with that career.	My experience as an intern helped me to better identify my future career goals.	95.24% (20/21)	100% (21/21)
	My experience as an intern furthered my interest in reproductive rights, health, and/or justice.	80.95% (17/21)	
	My experience as an intern has positively influenced my post-college professional opportunities.	80.95% (17/21)	
	The internship program exposed me to a professional environment.	85.71% (18/21)	
	This program taught me and allowed me to practice tasks relevant to my future career aspirations.	66.67% (14/21)	
2. Increase their understanding of their own preferences and abilities relating to professional work settings and tasks, as they develop professional goals, reflect upon those goals, and reassess them at the end of the internship.	The internship program increased my understanding of my professional strengths and weaknesses.	42.86% (9/21)	100% (21/21)
	This program taught me how to develop professional goals.	71.43% (15/21)	
	This program helped me accomplish my professional goals.	76.19% (16/21)	
	This program helped me clarify my preferences toward different work settings.	95.24% (20/21)	
	The program helped me clarify my preferences toward different work tasks.	95.24% (20/21)	
3. Become better prepared for their postgraduation career by gaining experience as paid workers in a professional environment. They will hone their punctuality, time management, professional correspondence practices, accountability, and other important workplace qualities, while gaining familiarity with receiving and incorporating feedback from supervisors and other stakeholders, as well as advocating for themselves in the workplace.	This program helped me build the skills I needed to enter a professional workplace.	85.71% (18/21)	90.48% (19/21)
	This program taught me professional skills that I still use today.	61.90% (13/21)	
	This program taught me time management skills that I still use today.	71.43% (15/21)	
	This program helped me develop professional correspondence practices that I still use today.	76.19% (16/21)	
	This program helped me learn how to advocate for myself in the workplace.	61.90% (13/21)	
	This program helped me learn how to receive and incorporate feedback from supervisors and other stakeholders.	85.71% (18/21)	

Table continued on next page

Appendix C. Continued

Learning objectives for interns	Measurements for objective	Percent that strongly agreed or agreed	Percent that chose at least one option for the objective
4. Become self-aware, self-monitoring, and self-correcting (i.e., knowing what they need to do, demonstrating initiative, completing tasks in a timely manner, working at a pace they can sustain, producing a high-quality work product, taking ownership of mistakes, and managing self-doubt, negative emotions, or frustration).	This program allowed me to demonstrate my own initiative and follow my own pace.	100% (21/21)	100% (21/21)
	This program helped me to develop a personal sense of work-place accountability.	66.67% (14/21)	
	I am proud of what I accomplished through this program.	80.95% (17/21)	
	This program taught me about self-correcting and taking ownership of mistakes.	90.48% (19/21)	
5. Develop networking and relationship-building skills through interactions with their supervisor, program coordinator, fellow interns, and community partners. They will know how to listen actively and ask engaged questions. Students will gain knowledge of the importance of professional networking.	This program helped me to professionally connect with people in my field of interest.	80.95% (17/21)	95.24% (20/21)
	I am still connected to at least one person I met during in this program.	80.95% (17/21)	
	This program helped expose me to the importance of professional networking.	66.67% (14/21)	
	This program helped me develop and practice networking and relationship-building skills.	80.95% (17/21)	
6. Learn to present themselves and communicate their work in a professional manner in multiple public forums. They will learn how to speak clearly and concisely about their experiences and the importance of their work.	I still discuss my past work as an intern today.	90.48% (19/21)	100% (21/21)
	I have discussed this program in professional interviews (job interviews, admissions interviews, etc.).	90.48% (19/21)	
	The experiences I had presenting my work as an intern helped prepare me for future presentation experiences.	66.67% (14/21)	
	I feel comfortable talking about the importance of the work I did through this program.	90.48% (19/21)	
7. Develop knowledge about the landscape of reproductive rights/health/justice/politics in the United States, Louisiana, and New Orleans. They will understand what organizations exist in New Orleans and what work they do. They will gain knowledge of which issues are most pressing on the local, state, and national level and what pieces of legislation could or do govern these issues.	This program increased my understanding of reproductive rights/health/justice/politics in Louisiana.	90.48% (19/21)	100% (21/21)
	I stay up to date on the latest developments in Louisiana's or the United States' reproductive rights/health/justice/politics landscape.	95.24% (20/21)	
	I am currently involved in reproductive rights/health/justice/politics work or volunteering.	42.86% (9/21)	
	I feel informed enough about reproductive rights and reproductive health issues to talk about them in a professional matter.	90.48% (19/21)	

Table continued on next page

Appendix C. Continued

Learning objectives for interns	Measurements for objective	Percent that strongly agreed or agreed	Percent that chose at least one option for the objective
8. Increase their understanding of the complex interlinking of social inequalities (according to race, class, gender, sexuality, ability, etc.) and develop their senses of social justice and empathy toward marginalized communities.	This program inspired me to get more involved in social justice issues.	85.71% (18/21)	95.24% (20/21)
	I am currently involved in social justice work or volunteering.	66.67% (14/21)	
	This program taught me relevant information about social inequality in America.	90.48% (19/21)	
9. Further their understanding of how to engage with institutions and systems of power (i.e., the local and state government, dominant discourse, etc.) to create change around reproductive issues.	This program helped me to better understand government and legislative processes.	76.19% (16/21)	76.19% (16/21)

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University–Community Outreach as an Enabler for Integral Human Development During the COVID-19 Pandemic

Veronica Esposo Ramirez

Abstract

This article examines how university–community outreach was an enabler for integral human development during the COVID-19 pandemic. Qualitative information about the University of Asia and the Pacific (UA&P) Community Outreach Program (COP) is described and analyzed. In particular, the Kabagis Aeta Projects succeeded in its initial implementation, moving from distribution of goods to capability building. It has improved family living conditions and instilled positive work values among the Aetas of Castillejos, Zambales, Philippines. The interventions served as enablers of integral human development in personal, economic, social, ecological, and spiritual life. Beyond physical, structural interventions and resources, values formation was integrated to achieve integral human development. Structures furnished through the COP—the study center, livelihood workshop, and training center—provide venues for trainings and continuous learning for the Aetas. Possible clients or markets can also be explored to absorb the products and outputs of their newly learned skills.

Keywords: community outreach, integral human development, sustainability, COVID-19 pandemic

When the COVID-19 pandemic spread throughout the world in the first quarter of 2020, the Philippines ranked high in the number of cases and deaths from 2020 through 2021. There were sudden lockdowns of public and private institutions and establishments, including schools and transportation. As a result, unemployment and poverty escalated and the needs of communities increased. While the entire Philippines was undergoing different types of quarantine modes and people were getting used to new terms such as "contact tracing," "social distancing," and "protocols," universities had to face the challenges brought about by the disruptive events that took place from 2020 through 2022. The University of Asia and the Pacific (UA&P) took this as a challenge to calibrate its new strategies for quality online education, including community outreach.

UA&P refused to be silenced by the pandemic. The voice of our humanity is strong and resilient. We acknowledge that "The purpose of human life is to serve, and to show compassion and the will to help others" (Albert Schweitzer). Guided by our motto, "Unitas," the university persists in being the innovator, the pioneer, the trailblazer that it is.

Therefore, we considered this time of prolonged COVID-19 pandemic an opportunity to serve our academic community and beyond. The university took on more aggressive community outreach, extending beyond the borders of its location in Pasig City. As a university, its strength lies in the university students, professors, and everyone who comprises the academe, who were dispersed to the different regions due

to lockdowns and travel restrictions.

This article examines how the UA&P Community Outreach Program (COP) can be an enabler for integral human development with the following objectives: (1) Determine the strengths, opportunities, support, and constraints that affect community life; (2) describe the UA&P COP and its effects on the beneficiaries; and (3) explore ways by which integral human development and sustainability can be achieved through UA&P COP.

The University Responding to Community Needs

Community life is a complex social condition that involves economic, political, religious, social, cultural, and other aspects of human life. It is composed of people who vary in age, sex, family, education, beliefs and convictions, and responsiveness to change. Community development is a process whereby various participants such as government, nongovernmental organizations, civil society organizations, private organizations, and corporations either work together or independently to address community economic, social, political, and other needs. Some examples of community needs that are addressed in the Philippines have been identified by CISaustralia (n.d.): developing and offering social welfare services for kids from disadvantaged backgrounds; teaching or teacher assistance at a local school, including teaching English; assisting with community nutritional programs; and assisting with community center projects, among others.

There have been development initiatives for Aetas in different parts of the Philippines. In October 2011, the Asian Development Bank Regional Capacity Development Technical Assistance Program reported, “targeted capacity building for mainstreaming Indigenous peoples concerns in development was conducted” (Plant & Young, 2011, p. 22). In addition, the Indigenous Peoples in Agriculture established the National Commission on Indigenous Peoples (NCIP), which is responsible for formulating sustainable development plans for ancestral domains. These agencies “apply safeguards for indigenous peoples . . . at both the project level and . . . development planning” (Plant & Young, 2011, p. 22).

Information about the communities where the project will intervene, the social structures of those communities and the families who live there, their social safety nets, and so on, is essential to projects for Indigenous peoples. Relevant topics include information about livelihoods, economic structures, and how people ensure fulfillment of their basic human needs; beliefs and cultural identities that affect people’s decisions and choices (ethical); and physical environments, resources, and the places in which people conduct their activities (Schoonmaker, 2008). In a study measuring the impact of community outreach, which they call “extension programs,” initiated by higher education institutions, Llenares and Deocaris (2018) used the Community Outcome Scale (COS) to measure the perceived changes in the knowledge, attitude, and lifestyle of the respondents based on the extended education-training programs (p. 46). They found that responsiveness of the community is key to the success of the programs. “Sustainability of community extension programs does not depend entirely on sponsors and funders, but mainly on the responsiveness of the community and the stakeholders’ approach towards community empowerment through the actions of the delivering institution” (p. 51).

Erickson (2010) claimed there is a lack of research about the impacts of service-learning in the community. Impacts on the community have been “largely undocumented,” and the community “is a constituency without a voice in academia and therefore has not been heard” (p. 16). As for methodology, the complexity of community life poses a challenge to research methodology. “It is impossible to control for all of the variables that can confound a research study” (Erickson, 2010, p. 9), including socioeconomic status of residents, demographic factors, cultural background of the community, the community’s age and history relative to community development projects, community cohesiveness, and other traits. These variables make generalizability difficult, if not impossible, to establish (p. 10).

Since the onset of the COVID-19 pandemic in March 2020, university-community outreach activities were put on hold. When these activities slowly resumed, they were greatly changed by controlled human behavior and disrupted operation and functions.

The UA&P COP was led by this author and her family before and during the COVID-19 pandemic. Our initiatives were recog-

nized on April 30, 2022 in celebration of the International Good Deeds Day, when the author was awarded the UA&P Salt and Light "Lighting a Way Through Excellence" for the Kabagis Aeta Projects, recognizing "her admirable efforts in responding to a need/cause and promoting the goodness of humanity through acts of mercy, kindness and compassion" (University of Asia and the Pacific, 2022).

Outreach Activities Toward Integral Human Development

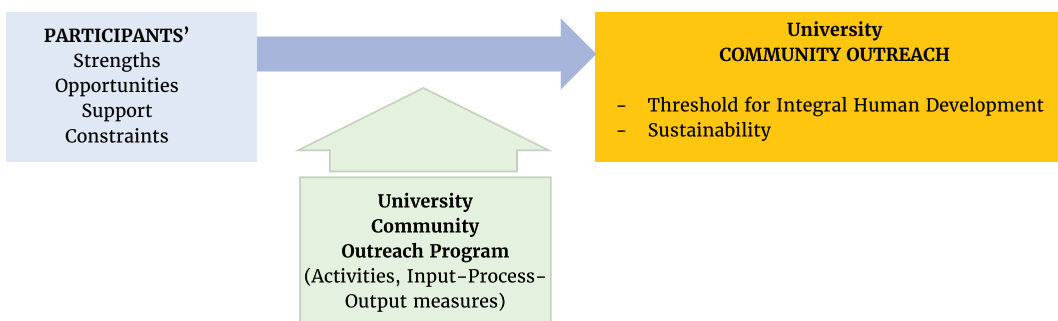
Development activities through university–community outreach programs can best be implemented toward integral human development. Development programs, "if they are to be adapted to individual situations, need to be flexible; and the people who benefit from them ought to be directly involved in their planning and implementation" (Pope Benedict XVI, 2009, §47). To this, we add monitoring and evaluation as tools toward sustainability. In the 1967 encyclical Populorum Progressio, Pope Paul VI introduced the concept of integral development: Development cannot be limited to mere economic growth. In order to be authentic, it must be complete: integral, that is, it has to promote the good of every man and of the whole man (Pope Paul VI, 1967). More recently, Pope Francis (2017) stated that development projects for Indigenous people should "take into account indigenous identity, with particular attention to young people and women; not only considering them, but including them" (para. 6).

Archbishop Ivan Jurkovič highlighted that Indigenous people experience some of the highest rates of poverty, which makes them more vulnerable, not only to the COVID-19 pandemic, but also to other current challenges such as climate change and natural disasters. Further compounding the situation, the ongoing health crisis has forced restrictions on movement, which has increased food and water insecurity and hindered access to medical supplies among these hard-hit communities. Indigenous communities, he affirmed, are "principal dialogue partners and should be included in all decision-making processes at the political level, especially those affecting them directly" as they are not "merely one minority among others" (Holy See, 2020, "Appeal for Inclusion of Indigenous Communities," para. 1).

University–community outreach can best be implemented toward integral human development. There is a greater chance of stability and sustainability if systematic collaboration is ensured between the university and its COP participants. The concept of integral human development in this study is focused on the personal, economic, social, ecological, and spiritual aspects. The conditions of the COP participants are shaped by factors such as strengths, opportunities, support, and constraints. COP activities and input–process–output measures are centered on physical health, education, food and water security, inclusion, and sustainability. These aspects are illustrated in the conceptual framework below (Figure 1).

Individual faculty members, personnel, and staff who remained in their hometowns during the pandemic were also restless. They witnessed the many effects of the COVID-19 pandemic on the lives of people in their respective communities. The call

Figure 1. University–Community Outreach Program Toward Integral Human Development



for personal initiatives was irresistible, and the response was intense. The UA&P Community Outreach Program was then brought outside Pasig City, where UA&P was located.

The Kabagis Aeta Projects

The Kabagis Aeta Projects (KAP) is one of the UA&P's COPs. Its initial goal was to provide used goods, groceries, and rice to the poorest Aeta families residing in Kanaynayan, San Pablo, Castillejos, Zambales during the pandemic. In less than one year, it has achieved this goal and has moved toward a more important goal, which is Aeta capability building. Various aspects of the project have undergone the process of planning, implementation, and evaluation, with a focus on the impact to the community and academic community, quality, and sustainability.

Since it was a response to mitigate the socioeconomic effects of the COVID-19 pandemic, the implementation of the KAP is not structured but based on volunteer work and does not receive funding from UA&P. Nevertheless, the activities promote the UA&P mission, and the program implementation and report documentation are submitted to the UA&P Management Committee.

The Initiators

This author has been with the University of Asia and the Pacific since 1996. The UA&P COP KAP is a project of the Esposo Ramirez Family Social Responsibility. With many years of experience in education, project management, and cooperative work, husband and wife Lamberto and Veronica, together with their children who were students at the University of Asia and the Pacific, led the KAP to improve the lives of Indigenous people. Two other children, Vyera and Joshua, who worked as nurses in the United States, were also remotely involved.

This author was on sabbatical in 2020 and moved to her hometown, Castillejos, Zambales. In March of the same year, the COVID-19 pandemic spread globally and throughout the country. Thus, aside from doing her research on overseas Filipino work, this author and her family embarked on helping the Aetas who reside in the far mountains and lowlands of Barangay San Pablo. This activity fulfilled part the UA&P mission where community outreach is enshrined:

> A university must be ever attentive and responsive to the real needs of the community that sustains it, seek to significantly contribute to human progress, and do everything it can to uplift the moral, cultural, and material level of the country and the region in which it operates. (UA&P, 2020, Section 1)

Methodology

In order to understand how the university can perform community outreach programs geared toward integral human development during a pandemic, the UA&P Community Outreach Program Kabagis Aeta Projects is here described and analyzed. Two questions are addressed: (1) What are the strengths, opportunities, support, and constraints that affect community life? (2) How can the UA&P Community Outreach Program and its effects on the beneficiaries be described? Training needs analyses, reports, and results of rapid rural appraisal were utilized, and anecdotal evidence and reports were used. An analysis of the KAP led to findings on how integral human development and sustainability can be achieved through the COP. Informed consent was obtained verbally from the beneficiaries selected purposively for anecdotal evidence. Since many of the KAP participants are unschooled, many cannot write their names and therefore use thumbmarks when asked for signatures. Proof of agreement to participate is seen through records of benefits claimed, photographs, and video testimonials. The primary sources of information were Elderly Leader Manuel Romualdo, Tribal Chieftain Jamoksol Sulit, Aeta family Marlon (+) and Belinda Trece, Custodian Marie Gracela, Department of Education (DepEd) Alternative Learning System (ALS) teacher and literacy teacher Irwyna Cosme.

The KAP used a targeted approach for its interventions. To show appropriate respect by outsiders wanting to learn more about the Aetas though elicitive and extractive means, rapid rural appraisal (Chambers, 1992) was conducted in close collaboration with community leaders who shared their ideas about how they are as Indigenous people and what they need to improve their lives. Continuous information gathering occurred at different times during the intervention period from

March 2020 through June 2022 so as not to divert Aeta participants from their cultural identity, beliefs, and practices.

In accord with efforts aimed at local ownership, control, and capacity building, the Aetas were the source of information and participated in decision-making regarding priority needs, usage of intervention, sustainability measures, and selection of poorest beneficiaries. Each project cycle included needs assessment, design and planning, implementation, monitoring, and evaluation. The reports per activity and intervention summarize the implementation and evaluation.

The program goals, activities, and processes are analyzed in this article using input–process–output measures. Results of the analysis yielded lessons about both the challenges and accomplishments of the UA&P COP KAP, on the basis of which conclusions were made and recommendations were given.

The Aeta Participants

The Aetas are the earliest known inhabitants of the Philippines. These Indigenous people are a nomadic people, dark-skinned and curly-haired; small in stature and skilled in hunting and jungle survival. The Aetas in Castillejos reside in the lowlands and mountains that are part of Barangay San Pablo, the third most populous barangay with a total population of 11,579 (female: 6,579; male: 5,000 in the 2015 census). Aetas reside in several sitios in Barangay San Pablo—Bagong Silang, Balenting, Papaya, and Amianan in San Isidro and Sitios Nilasin, Kamanggahan, Kakilingan, Maage-age in Kanaynayan, to mention a few. There are chieftains, pastors, and Aeta elderly leaders who lead the communities on matters of decision making, promote their Indigenous practices, and are involved in political affairs.

There are structures for religious services and a public cemetery. Two decades ago, the local government unit (LGU) constructed a health center and training center, but these structures have not been operational due to lack of health care workers, health facilities, and training projects. The structures are now dilapidated.

The Aeta house varies from "half body" to thatched hut with walls covered with some hollow blocks, woven bamboo, luna (canopy awning), or used tarpaulins. The flooring is the earth. An elevated bamboo platform serves as a bed for the family to sleep at night. They keep their houses simple so it is easier to move out when there are frequent illnesses and unpleasant occurrences in the family. There are no private toilets and no plumbing. Only some sectors have electricity. Mosquitos and flies are everywhere, especially at harvest time in the nearby poultry. Childbirth occurs at home, administered by Aeta komadrona. In difficult delivery conditions, the health center midwife is summoned if one is available. There are occasional medical missions by health workers with private organizations, such as circumcision, contraceptive implants, and feeding children. Herbal medicines recommended by the elderly are widely used among the Aetas. Certain plants are used for various women's health problems, such as menstrual disorder, labor induction, postpartum relapse, and lactation. Some plants are commonly used for medicinal preparation for decoction, infusion for therapeutic purposes, or oil extract.

A number of families are beneficiaries of Pantawid Pamilyang Pilipino Program (4Ps; Pantawid Pamilyang Pilipino Program, n.d.), a human development measure of the national government that provides conditional cash grants to the poorest of the poor, to improve the health, nutrition, and education of children up to age 18.

During the early months of pandemic, the Aeta received ayuda (relief goods) from local and provincial governments. They observed pandemic protocols such as wearing of face masks, but not social distancing, as they are close together in the kulong kulong (motorbike with sidecar) and in the marketplace. In October when health workers went to Bagong Silang to administer anti-COVID-19 vaccines, the Aetas fled to the mountains in fear. It was only when the LGU prevented entry to the market and other agencies and business establishments by unvaccinated people that they finally received vaccinations.

The Aetas have access to vast areas of livelihood resources, both within their residence area and in neighboring areas like gasak (ancestral land or swidden farms) and lahar (area near volcanic debris). They collect honey from bees and extract silver stones in caves, which they sell at 200 Philippine pesos (PhP) per kilogram. They catch bats, snakes, lizards, and more in mountain caves. During rainy days, there are native

mushrooms to harvest. Since March 2020, the series of lockdowns limited their selling in the market to two to three days a week. Some of them use kulong kulong, mainly to transport their products to the market and for personal use.

Even before the pandemic, no Indigenous development programs specifically designed for the Aetas in Castillejos directly addressed skills development, especially of young adults, or provided assistance for agricultural production and marketing. In fact, the bridge that was haphazardly constructed was left unfinished after the May 2022 elections. It was hoped to connect the road to the market to the two rivers to the thickly populated sitios of Nilasin and Kanaynayan where the only public elementary school is situated. There are also occasional instances of "gift giving" from politicians and religious activities led by different sects. Although the Technical Education and Skills Development Authority (TESDA) offers trainings, very few Aetas qualify because of the requirements of a birth certificate, high school diploma, and other documents that the Aetas do not possess. The few who qualified for baking training received four electric ovens, but these were sold after the training because there is no electricity in their residential area.

In the lowlands where there are Aetas, vast hectares of land are occupied by Magnolia Poultry (a meat supplier), private individuals, and some lots that were donated to the Aetas by former governor Amor Deloso and past LGU administrations. The Aetas are allowed to plant sweet potato, cassava, ginger, taro, yam, and other vegetables for family consumption. Bananas and papaya are harvested in the gasak and sold in the market. For small business capital, they take loans from ASA Philippines Foundation, Inc., a microfinance NGO founded in 2004. ASA charges low interest and collects payment every Thursday.

At the onset of the COVID-19 pandemic, instead of confining themselves in their home while the Aetas experienced poverty due to lockdowns, this author and her family started mobilizing friends for used items, groceries, and rice that could be distributed to the Aetas. Every time they went to Manila, they brought back to Zambales loads of used items from friends. Throughout the year, more donations came, so they had to transport more goods to Zambales through Victory Liner or Transportify freight services.

The UA&P COP KAP Outreach Activities

With expertise in research, this author surveyed specific sitios for the poorest families and obtained photo documentation and data on their family members, age, sex, and means of livelihood. When enough donations were received from generous donors, distribution of goods and implementation of projects immediately started. The UA&P COP KAP was conducted in three phases.

Phase 1

Phase 1 of the KAP consisted of a monthly supply of rice, groceries, and goods, a presentation of hygiene and health videos, and the construction of the Sitio Nilasin Study Center and Water Storage System.

Distribution of Used Goods, Groceries, and Rice

Initially, the 20 poorest Aeta families benefited from distribution, which started in January 2021 and by June 2022 had reached 100 families. The monthly distribution occurred on site or at the Esposo residence at the town proper, with strict observance of pandemic protocols such as handwashing, wearing face masks, alcohol disinfection, and social distancing. Donors who have the full trust of the Esposo Ramirez family provide rice and groceries worth PhP 500 per month for five or six months, in addition to used clothing, shoes, books, hygiene kit, and many other things. In essence, the family helps these donors help people, and they are happy that their support could reach the Aetas. There were also balikbayan boxes coming from different parts of the Philippines and the United States containing things that are useful and go a long way with the Aetas. In December, UA&P organized a Christmas drive, and it was heartwarming to see several boxes of preloved goods coming to Zambales for them. Other kindhearted donors are Julie Munsayac, Marissa Catanghal, Medoy Calma, Catherine Zamora, Regina Dimayuga, Chelet Tanjuatco, and many others. Filipinos in the United States Beth Rosas, Chita Romero, Naty Agpalo, Manny De Jesus, and others also sent useful goods or cash for groceries and rice. The family did not have to ask politicians, businessmen, or anyone for donations because these kept coming from friends.

In addition, the Philippine Foodbank Foundation, Inc., founded by UA&P professor Dr. Bernardo Malvar Villegas, occasionally sends food products such as milk, canned goods, and noodles. The foundation is "driven by the utmost concern on the current plight of hunger and malnutrition of the underprivileged," and was founded on "the concept of seeking donation of 'soon to expire' products from reputable companies for distribution to the marginalized families" (GECC Environmental Services, 2021, p. 30).

Sitio Nilasin Study Center

Sitio Nilasin is accessible to many Aetas from different sitios in Kanaynayan, but to get there from town, one needs to cross two rivers. In the Ilocano dialect, "Nilasin" means "separated site." The university knew that building a study center and water storage system could improve the Aeta community life so that they may be "included" in development rather than "separated."

The KAP responded to a request for help from the Department of Education's ALS teacher. For several years, she has been handling classes for Aetas under a makeshift bamboo structure with banana leaf roofing. Badly needed was a structure where children could browse books, practice writing, play educational games, and where ALS modular classes could be conducted as well. The author's niece, Erin Esposo Araneta, a BS chemistry student at the University of California, USA, was taught by her parents well and has developed a deep social conscience. She helped raise funds to help build the Sitio Nilasin Study Center. She made and sold accessories and sought financial support from ACS Chemistry for Life and Orange County American Chemical Society, who responded positively and generously.

After a memorandum of agreement was signed by the lot owner, Manuel Romualdo, the ALS teacher, then Tribal Chieftain Sulit and Barangay Captain Ronaldo Boquiren, the construction of the study center started on September 15, 2020, despite the COVID-19 pandemic. On October 29, the dream became a reality! No more classroom with banana leaf roofing. Now, they have a brand new study center with a galvanized iron sheet roof, nice walls, and concrete flooring. My high school classmate and good friend, Maria Fe McDermott-Cotton, donated 10 monoblock tables, 28 chairs, and school supplies. Erin sent microscope replicas, anatomy and chemistry posters, experiment kits, beakers, math boards, and more. The place was furnished with bookshelves with books for all ages, learning materials, a blackboard, bulletin board, crayons, and other educational items that were gathered from friends. Soon, a television set and two used desktop computers were acquired. The study center is now the place for ALS modular sessions, as well as health emergencies sessions conducted by midwife Melanie Gonzales. It is the distribution center and place for viewing of daily news, Holy Mass, the Department of Education learning series, and of course, the famous Teleseryes. Marie Gracela was appointed custodian and provided with a smartphone for ease of communication and coordination of the activities held there. It is also used as an emergency phone by the residents. There were also hygiene videos on proper handwashing, brushing of teeth, safety protocols for COVID, and more, prepared by the family.

From Mountain Spring to Water Storage System

Thanks to YouTube, I found the most appropriate water system for a community in the mountains: sealed drums laid side by side. A 500m 1.5 in. hose attached directly to the mountain spring brought water down to the drums located close to the houses (Figure 2). Through Erin, we received funds from the Small Change, Better World Program of the University of California, Irvine Blum Center (Blum Center for Poverty Alleviation, n.d.), whose mission is to promote social change and inspire the next generation of leaders to action with research on poverty alleviation.

When installation started, there were challenges to overcome, such as negative attitudes. Some who did not receive drums attempted to stop the installation. Someone blocked the mountain spring so that the water system could not be connected to the main source. Other Aeta families requested a drum and hose for their exclusive use, but the university could not address everybody's issues. We were grateful, though, that the blessings outnumbered the challenges. On March 12, the water system in Sitio Nilasin was completed as planned.

Phase 2

Phase 2 of the KAP responded to the needs for more Aetas because it had gained local

Figure 2. Water System Installed to Provide Water to Aeta Families

and international recognition and support.

Pumps for Life

It was a success to bring water from the mountain to Sitio Nilasin. However, the Aetas who live in the lowlands still depended on the river for their water needs, including drinking water. The local government took a long time to install a water system somewhere in Kanaynayan through the local water district. When at last the water system was installed in 2022, the Aetas had to pay for installation and monthly water consumption per cubic meter. It should be noted that the Aetas have no permanent employment and rely on occasional manual labor or selling of mountain crops for subsistence. They cannot afford to pay a monthly water bill. As the population is growing and the summer months badly deprive them of water, the demand for a clean and continuous water supply is increasing and is a serious concern.

The university attempted to do something to help the Aetas. A proposal was drafted for Jetmatic hand pump installation in Sitios Bagong Silang, Mambugan, Amianan, Mawao, and San Isidro. After one year, donations were finally received. The Philippine Nurses Association of Metropolitan DC (PNA-MDC) funded the installation of 20 Jetmatic hand pumps that benefited 100 families or 429 individuals (Figure 3). In December 2022, they funded the construction of a Health Hub and 10 toilets and baths for the Aeta families of Sitio Mambugan (Figures 4, 5, and 6).

President Carol Robles and some members travelled to the Philippines to turn over the project on January 30, 2023. PNAMDC has for its mission to "promote professional excellence and contribute to significant outcomes to healthcare and society" (PNA-MDC, n.d., "Mission"). Their donation of 20 Jetmatic hand pump installations to Kabagis Aeta Projects is a manifestation of their goal "to provide financial support or contributions to various legitimate and effective agencies or organizations, including hospitals or clinics that are engaged in charitable aid for the health and welfare of the poor or needy, and similar establishments in the Philippines" (PNA-MDC, n.d., "Goals," para. 4).

An additional 23 Jetmatic hand pump units came for the Aetas that benefited 76 families or 315 residents, including the community plaza, church, and basketball court.

Engineer Donna Matutina suggested that this author respond to Arcadis Local Sparks' call for proposals for its COVID-19 recovery program. "Arcadis NV is a global design, engineering and management consulting company based in the Zuidas, Amsterdam, Netherlands. It currently operates in excess of 350 offices across forty countries" (D. A. Matutina, personal communication, September 11, 2021). Local Sparks of Arcadis organized a COVID-19 recovery program to improve the quality of life for communities affected by the pandemic. The call for proposals was open to all the countries where Arcadis was in operation. It required answers to the questions, "What are the challenges facing your community? Which areas do you think require immediate action and positive change? What can you do to help recovery in your community? What actions can be taken to make it more resilient in the future?" (D. A. Matutina, personal communication, September 11, 2021). As of the closing of proposal submissions, the Ramirez and Arcadis team's proposal was voted second to Brazil's bicycle proposal. Surprisingly, on October 30, this author received news that Local Sparks COVID-19 Recovery Program selected and will support the proposal for Clean and Continuous Water Supply for Aeta Indigenous People. The UA&P COP KAP passed the impact categories of physical and mental health; food and water security; economic growth; diversity, equity, and inclusion; and sanitation.

In these construction and installation projects, the participation of Aetas was sought. They provided the needed bamboo and voluntary labor. They were also encouraged to observe and assist in the installation to understand the process. Now we look forward to another project with Arcadis, this time for portable solar panels that the Aetas can bring to the mountainous gasak and lahar where there is no electrification.

Building Structures

As the development initiatives increased, it was necessary to build structures. For this, donations came from friends. The Zamora family and Mrs. Cotoco funded the construction of the Bagong Silang Livelihood Workshop. A former Vietnamese refugee student of this author, Tuan Anh Hoang (who is now in the United States), provided funds for building repair of what has become the Tony Esposo Training Center in Barangay San Pablo.

Figure 3. Jetmatic Water Hand Pump Installed for Use by Aeta Families

Figure 4. Aeta Mothers in the Mambugan Health Hub

Figure 5. Toilets Constructed for the Aeta Families in Mambugan

Figure 6. Baths Constructed for the Aeta Families in Mambugan

Phase 3: KAP Capability Building

Trainings for Carpentry, Motorcycle Maintenance, and Sewing

Most of the Aetas in Castillejos are unschooled; a number have studied only up to lower grades. They end up having a family at a young age and then struggle through life with no education nor skills to earn a living for their family. To address this condition, the KAP conducted a variety of capability-building projects.

There was a need to teach mothers how to cook nutritious food for their children and to process the bananas, papayas, yams, sweet potatoes, and other vegetables that they harvest. Fortunately, there were UA&P friends who supported the KAP capability-building projects. Lourdes Basa, the author's former high school classmate who now offers food catering, and other women who could cook simple but nutritious food were tapped to handle the cookery trainings. It is also here that the computer use and adult literacy sessions handled by Irwyna Cosme are held.

There are many young fathers among the Aetas who have not completed schooling and need to develop skills to be able to sustain their family. The author's family requested childhood friends Drs. Lani Weiss and Yvonne Co, who are based in Canada, to send used and new carpentry tools for the conduct of carpentry training for the Aeta young fathers (Figure 7). Once received, the tools were placed in the cabinet that was made by the first batch of Aeta carpentry trainees in August 2021. The tools are for borrowing when community members have carpentry work. Each trainee also received a home repair tools set. Soon there were trained Aeta carpenters being hired for carpentry work. The more they worked, the better their skills became and the higher the chance they could be hired for work. This brings income for their family.

The family also observed that there were Aetas who owned a motorbike, some with kulong kulong, but did not have repair and maintenance know-how. When the motorbike breaks down, they push it under the heat of the sun until they can find help or a repair shop. Luckily, this author found a local resident, Raymond Reeves, who had 10 years of work experience in Saudi Arabia and was willing to handle trainings on basic motorbike maintenance (Figure 8). After the training, each Aeta received a motorcycle hand tools set.

Some Aeta women were interested in learning sewing. The university was able to acquire four sewing machines from friend Medoy and the UA&P Junior High School students. Through the guidance of their director, Mags Valdez, the students conducted a fund-raising virtual concert. Starting in January 2022, 2-day sewing trainings were conducted by local seamstress Ann Enriquez (Figure 9). Each trainee received a sewing kit with fabric scissors. The trainees were told that after the training, they are welcome to use the sewing machines in the training center for livelihood.

Literacy and Other Initiatives

There are other small initiatives that the family, as development enablers, conducted for the Aetas. For use in times of emergency, a kulong kulong was purchased and is under the care of an Aeta family in Nilasin. This author also discovered that the Aetas use a thumbmark for their signature because they could not write their own name. Thus, the adult literacy sessions were designed. Irwyna Cosme, an Aeta from Botolan who now lives in Mambugan, was tapped and given coaching for literacy teaching. When she was ready, she handled the literacy sessions. Truly, it was joyful to see the learners' progress from using a thumbmark on the attendance sheet on the first day to the following days, when each one could already write his or her name (Figure 10).

As for the Aeta farmers who till lands for rent but did not have carabao, a carabao was purchased through the kindness of Maria Fe McDermott-Cotton and Leni Sunico. A contract specifying the carabao "care and borrowing rules" was drafted, signed, and submitted to the barangay.

For all of these initiatives, memoranda of agreement were forged with the host, the barangay, and the chieftains. Documentation was submitted to UA&P and technical and financial reports were submitted to donors. In all of the KAP activities, it was made clear to the Aetas that they own the structures, the trainings, and all other donations that they have received. This author emphasized, "If your work is good and durable, it will last a long time, and your children and grandchildren will be able to use it."

The Esposo Ramirez family felt that God has His plans for these Indigenous people. It would be good to bring them closer to God, so the parish priest, Fr. Joel Huerto, was invited to celebrate the "first Catholic Mass" for the Aetas in the mountains and to bless the water storage system. This happened on March 8, 2021 at our Sitio Nilasin Study Center. It was a joyous and meaningful day for all. Five hundred years after the arrival of Christianity in the Philippines, the Catholic presence has begun in this "faraway place" not shown in Google Maps. On October 23, another "first Catholic Mass" was celebrated in Sitio Bagong Silang. It was attended by several Aeta families. On November 6, six children and two adults were baptized at San Nicolas Parish Church. On December 15, 2023, there were more Aeta children baptized (Figure 11).

Figure 7. Aeta Training for Carpentry

Figure 8. Aeta Training for Motorbike Maintenance

Figure 9. Aeta Training for Sewing

Figure 10. Aeta Adults Wrote Their Name in the Adult Literacy Program

ATTENDANCE

May 14, 2022
Attendance
1. Nita Caseria
2. Violeta Pan
3. Elena Soria
4. Any Cabalic
5. Medi David
6. Darling Jugatan

May 21, 2022
Attendance
1. Medi David
2. Any Cabalic
3. Violeta Pan
4. Darling Jugatan

Figure 11. Facilitated Request for Catholic Baptism of Aeta Children

Feedback From Participants

The Aeta beneficiaries tell stories about how their lives have improved as a result of the interventions, activities, and capability-building initiatives of the Kabagis Aeta Projects. Using anecdotal evidence, the usefulness of the projects was assessed. Below are some feedback from beneficiaries, translated from Tagalog:

> **Re: Sitio Nilasin Study Center.** The Study Center that was constructed is a big help for the Aeta students studying Alternative Learning System. Because of the tables, chairs, blackboard and school supplies, they can now do their learning modules. I use the IPad that was given to me to download DepEd memos and I am now able to attend online meetings and Webinars. (ALS teacher, personal communication, September 23, 2021)
>
> **Re: Water Storage System.** The water storage system that you installed for us, native Aetas benefits us a lot because we used to fetch water from the mountain spring or from the river for cooking, bathing and other water needs. Now, even passersby drink water and wash their muddy feet from the water storage.
>
> We use the portable sewing machine. We watch television to know what is happening in the world. The cellphone is also used by many of us. The books that you put in the Study Center are often used by the children and students of Alternative Learning System in doing their modules.
>
> We hope you do not stop caring for us, native Aetas. Our prayers for you and gratitude. (Marie Romualdo Gracela, personal communication, September 24, 2021)
>
> **Re: Adult Literacy Sessions.** It brings happiness and pride for the adult Aetas to at last be able to write their names and recognize some written words and numbers. (Irwyna Cosme, personal communication, May 5, 2022)
>
> **Re: Health Emergencies Sessions.** It is big help for the Aetas to know what to do in cases of emergencies that happen in the mountains and low lands. We learned what to do in case of snake bite, wound, difficulty in breathing, stomach ache, falling from a high place, cramps, skin burn and others. The First Aid Kit that you gave is important for us. (Susana Vitug, personal communication, June 11, 2022)
>
> **Re: House Construction.** Thank you very, very much ma'am, we now have a house because of your help. We will no longer get wet in the rain. My brother and I are very happy. We will always pray for you. (Edzel Mae and Edmar Gracela, personal communication, March 30, 2021) [House construction donor: Maria Fe McDermott-Cotton and family]
>
> **Re: Jetmatic Hand Pumps Installation.** We thank the sponsors of the jetmatic hand pumps, we hope you will not get tired helping the needy. Everyone needs water. We used to fetch water from the few hand pumps in the neighborhood or from the river that is why we are very grateful that we now have our own jetmatic. Now we can bathe, wash clothes and do all things that need water. In the past, we bring our water containers to fill them up in the river. We also take a bath more frequently now. (Junior Lacson, personal communication, October 23, 2021)
>
> We are grateful for the jetmatic hand pump because now we have water for washing clothes, taking a bath and do all things needing water. (Chieftain Limpio Soria, personal communication, October 23, 2021)
>
> **Re: Catholic Baptism of Six Children and Two Parents.** Madame, Sir and your children. We thank your family wholeheartedly. You have done a great thing for our children to become Christians. I wanted to cry in front of you madame, sir because of all your help to our family which is overflowing. I know that saying Thank you is not enough but my only prayer is for God to guide you always. (Marie Romualdo Gracela, personal communication, November 6, 2021)

Information Dissemination

The University of Asia and the Pacific, proud of its outreach program, featured the Kabagis Aeta Projects online through Universitas, the UA&P official publication (Ramirez, 2022a). The global company Arcadis, after completion of the Jetmatics project, also featured the Kabagis Aeta Projects in an article on its website, "Helping Philippines' Indigenous Community Access Clean Drinking Water" (Arcadis, n.d.). Indeed, many people have noticed what the university was doing. On May 17, 2021, Family Watch (2021), and on July 25, 2021, Buhay Bahay through DZXL 558 (RMN DZXL 558 Manila, 2021) and Alliance for the Family Foundation Philippines, Inc., both featured the UA&P COP. Opus Dei gave UA&P COP global exposure through publication of a feature article titled "Assisting the Poorest of the Poor" (Ramirez, 2021). Recently, an article about the Kabagis Jetmatic hand pump project supported by the Philippine Nurses Association of Metropolitan DC was featured in Inside PNNA, the official newsletter of the Philippine Nurses Association of America, Inc. (Ramirez, 2022b).

Summary of KAP Activities

The 43 Jetmatic hand pumps we installed now benefit a total of 176 families or 744 individuals. They also received water containers, water drums, pails, and dippers. As the population grows, there will be more Aetas who can benefit from the clean and continuous water supply. The number of family recipients of used goods, groceries, and rice for 6 months has reached almost 500. Within one year, several batches of Aetas have undergone training for carpentry (16 trainees), sewing (16), cookery (15), and motorbike maintenance (15). The module coaching for schoolchildren (12 participants), adult literacy (12), and health emergencies (18) sessions have definitely upgraded their knowledge. These trainings provide basic skills that can be honed through more trainings and constant practice that can earn them income to sustain their families.

Training is also a good way to instill values. Values formation among the Aetas is also one of the aims of the UA&P COP. This is done through modeling and verbal communication. To teach cleanliness, a Jetmatic hand pump was installed at the training center. Before they could enter, each one is given a face mask, hand towel, and glass. Meals, snacks, and transportation allowance are also provided. Each trainee has his/her own tool kit, notebook, pencil, pen, shirt, and bag. Values such as cleanliness, respect, and good quality of work are articulated in the Code of Work Ethics that is explained during orientation and throughout the training. Verbal assessment is given after each training. There are cultural values that cannot be changed, but there are universal values that can be discussed and taught for them to practice. All of these trainings are supported by generous friends who believe that their blessings should be shared with the less fortunate, poor, and often neglected people, the Aetas.

Early-Stage Assessment

University–community outreach programs can be successful only if partnership is active and the beneficiaries are not passive receivers with a "dole out" mentality. If the community is in partnership with the university, the beneficiaries can be more aptly called "participants." This principle is embedded in the UA&P COP KAP.

During the early months of the pandemic, the government occasionally provided ayuda, some cash assistance for select groups in the community, and intensive health preventive and curative measures that required the services of thousands of health workers and volunteers. How about community outreach activities? In the city of Pasig, things slowed down and there were barriers to the accomplishment of collaborative plans with adopted communities. Nevertheless, UA&P could not be silenced by the pandemic. The decision was to make some adjustments and find ways of delivering services while observing the pandemic protocols. As a result, community outreach projects sprang like never before, and went beyond the borders of Pasig and Manila.

At this time of crisis due to the pandemic, people seek ways to help other people. There are many who would like to help but did not know whom to help and where to send help. Together, the university and the Esposo Ramirez family endeavored to take serious action toward community outreach. They turned into development workers who mobilized support from relatives and friends to benefit the Aetas of Castillejos, Zambales.

The KAP, although not as structured in operations, responded to the needs of Indigenous people. As Erickson (2010)

claimed, not all the variables in community life can be addressed by initiatives toward development. In the case of the Aetas, cultural factors and the traits inherent to Indigenous identity as well as ecological considerations should be taken into account seriously. For one thing, their dialect is Sambal, which is not the same as the language of the volunteers.

Through carefully considering all these factors, in a span of 2 years, the projects expanded from goods distribution to capability trainings, and the beneficiaries grew in number. What is common to the study center, livelihood workshop, water storage system, and Jetmatic hand pumps is that they are all located among residences of the Aetas, who certainly look after their upkeep so that they will be useful for a long time.

Capability building was accomplished through skills trainings in carpentry, sewing, motorbike maintenance, cookery, and hair and nail care. The needed tools, workspace, meals, and transportation allowance are provided. The teachers are local residents who understand and respect the Aeta culture, attitudes, and beliefs. They share the same development goals as Ramirez development enablers, donors, and beneficiaries themselves.

As the Aetas assisted in the Jetmatic installation, they learned new skills. As the children saw their fathers assist in the construction of the study center and livelihood workshop, they saw the value of hard work and pride in building something for them.

Although many of the Aetas belong to different religious groups, some want to be Catholics. Assistance is extended to these families or individuals so that they are able to receive the needed sacraments.

Information dissemination regarding the UA&P COP KAP is done through social media, podcast, interviews on radio programs simultaneously aired through YouTube, and articles published globally.

In Zambales, the Esposo Ramirez family collaborated with the IP leaders, the barangay officials and the Catholic Church. The KAP has also gained international recognition and support from the University of California Irvine, the Orange County American Chemical Society, the Philippine Nurses Association in the United States, Arcadis Consulting based in the Netherlands, the Philippine Foodbank Foundation, and a number of friends and concerned individuals.

The above description of the UA&P COP KAP shows how community outreach can promote integral human development, particularly the personal, economic, social, ecological, and spiritual aspects. Within the integral human development perspective, authentic development integrates each and every person in a humanizing process of standing in relationships of solidarity as we strive together toward promoting the common good. The recognition of the human dignity of each and every person is both the means and the end of this process.

By centering on physical health, education, food and water security, capability building, and sustainability, the UA&P COP KAP has upholds its mission to "be ever attentive and responsive to the real needs of the community that sustains it" and "seek to significantly contribute to human progress" (UA&P, 2020, Section 1).

Synthesis

This project demonstrated how the university can expand its outreach program beyond its borders at a time of disruptive events, particularly the COVID-19 pandemic. Without violating the health protocols, outreach activities were started by faculty members who went back to their provinces when all schools were closed due to lockdowns. This author, a senior faculty member, along with her family and children who were university students, embarked on outreach activities for the Aetas of their hometown, Castillejos, Zambales. Amid the pandemic, they mobilized friends and relatives, and they received donations from philanthropic organizations to extend help to the ethnic minority. From simple distribution of used goods, the project expanded to several months' supply of groceries and rice for groups of the poorest Aeta families. In the following year, there was opportunity for capability building. The construction of training centers, donations from friends, and collaboration with skilled townsfolk made possible a variety of trainings. Soon, the Aetas were receiving trainings in sewing, carpentry, motorbike maintenance, cookery, health emergencies, and adult literacy. The university students raised funds through an online musical concert to purchase sewing machines. UA&P also responded to the basic need for water through grants from an American university

and society, Filipino nurses associations in the United States, and a global engineering company.

Moving Forward With Stronger Community Outreach

Strengths, opportunities, support, and constraints affect community life. If the participants are aware of these factors, they can actively participate in UA&P community outreach interventions and ensure sustainability. When they overcome the constraints, they can forge a partnership with the COP provider and can actively participate in the development process.

The UA&P COP is composed of structured institutional interventions, as well as unstructured voluntary outreach projects. The unstructured approach was more applicable to the Aeta Indigenous people because there are uncontrolled factors—sociocultural, economic, and political—aside from participants' characteristics that affect implementation.

The aspects of integral human development—personal, economic, social, ecological, spiritual—have been addressed through the consultative and participative processes. Every intervention responded to the Aetas' specific needs. A concrete result that promotes sustainability is the group of trained Aetas now skilled in carpentry, sewing, cooking, and motorbike maintenance who have options to earn a living and support their families. Hygiene and sanitation have improved as a result of the clean and continuous water supply for humans, animals, and plants. Adult literacy and education are improving because classes are now conducted in a stable structure with tables and chairs, learning materials and school supplies. The good example of the Ramirez family as development enablers inspired them to aim for higher goals, such as education and good health. Without imposing spiritual practices, bringing the Catholic church closer to the Aetas benefited their spiritual life.

Using the case of UA&P COP KAP, an input–process–outcome framework can be designed for effective implementation of university–community outreach, as shown in Table 1.

The UA&P COP framework encompasses the life of extension activities and community outreach with two key players: university and community participants. Inputs from the university include intervention, values formation, and resources. These inputs undergo a process that starts with resource mobilization and goes on to community orientation, signing a memorandum of agreement, planning, and evaluation. The outcome of the inputs and process are partnership and development of the values of responsiveness and volunteerism. Ultimately, the COP contributes to integral human development.

On the part of the community participants, culture and values are of primary importance. When they see that the intervention does not conflict with their needs, beliefs, practices, and traditions, they are more open to change. They participate in the UA&P COP process and eventually forge partnerships; they have access to capability building, and they learn new skills and work values. Consequently, their living conditions will improve. As they support the intervention with their own resources, "ownership" develops, which is a step toward sustainability.

The Future of University Outreach Programs for Indigenous People

Because "beneficiaries" are active partners in community outreach programs, they can more aptly be referred to as "participants." The strengths and opportunities that participants possess and can access may not be clearly known to them. Universities, with their academic expertise, can help the participants identify and develop these assets and working capital for development within the larger community or in partnership with external agencies.

Strong partnerships with universities, both local and abroad, can be tapped for their students who, while still young, can be exposed to the values and benefits of community outreach. Such experiences can inspire and motivate them to seek ways to contribute to community development when they are older.

Beyond physical and structural interventions and resources, values formation can be integrated into community outreach programs so as to achieve integral human development. This is in keeping with the vision of most universities that espouse the development of human potential.

The framework for a university–commu-

Table 1. Framework for Implementation of University–Community Outreach Program (COP)

Role	Inputs	Process	Outcome
UA&P COP as community outreach provider	*Interventions* for health, education, food and water security, capability building, etc. *Values formation*	Resource mobilization Community orientation Memorandum of agreement Planning, organizing, staffing, directing, coordinating, reporting, budgeting Monitoring and evaluation	Partnership Operation guidelines for completed structure Responsiveness to community needs Volunteers' awareness of social responsibility HEI mission achieved Contribution to integral human development Support for sustainable development goals
	Resources • Leadership • Human resources • Time and space • Financial assistance	Implementation Collaborative work	Work completion and function Sustainability
Community participants	*Culture and values* • Aware of community needs, beliefs, practices, traditions • Socioeconomic, political life • Acceptance of change	Support for labor and local materials Participation in planning, implementation, monitoring, and evaluation Application of ability/skills	Partnership New skills Capability building Values formation Improved living condition Family goal toward development
	Resources • Human resources • Time and space	*Participation in activities* • Training • Volunteerism • Collaboration	Utilization of structure and other inputs Operations support for sustainability

nity outreach program can be used for systematic and effective implementation. The indicators can be specified according to the goals, characteristics, and capability of the university. More faculty and students can come together to design literacy- and numeracy-learning modules. The potential of the study center, the livelihood workshop, and the training center can be maximized by providing continuous training and skills upgrades. Eventually, potential clients or markets can also be explored to absorb the products and outputs of participants' newly learned skills.

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Sense(making) & Sensibility: Reflections on an Interpretivist Inquiry of Critical Service Learning

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Abstract

Critical service learning, as outlined by Mitchell (2008), highlights the importance of shifting from the charity- and project-based model to a social-change model of service learning. Her call for greater attention to social change, redistribution of power, the development of authentic relationships, and, more recently with Latta (2020), futurity as the central strategies to enacting "community-based pedagogy" has received significant attention. However, little research has occurred on how to measure the effectiveness of these components. This reflective article expands upon and calls into question the ways in which critical service learning can be assessed. Utilizing focus groups, we ask the following questions: How do engaged scholar-practitioners operationalize Mitchell's (2008) three tenets of critical service learning? What are ways to measure the outcomes and impacts of Mitchell's three tenets of critical service learning?

Keywords: critical service learning, traditional service-learning, focus groups, collaboration, reflections

Mitchell's (2008) seminal work highlighted the differences between traditional and critical forms of service learning, while adding her voice to those calling for a shift from the charity- and project-based models to social change models (e.g., Boyle-Baise, 1998; Butin, 2005; Cruz, 1990; Furco, 2011; Herzberg, 1994). She called for greater "attention to social change, work to redistribute power, and the development of authentic relationships" as the central strategies for enacting "community-based pedagogy with explicit aims toward social justice" (Mitchell, 2013, p. 263). These components have become known by many as the three tenets (or Mitchell's three tenets) of critical service learning.

Recently, Mitchell and Latta (2020) have added a fourth tenet that calls for those engaged in critical service learning to "consider how (or if) critical service learning should be concerned with futurity" (p. 4). Futurity, or the "ways that groups imagine and produce knowledge about futures" (Goodyear-Ka'opua, 2019, p. 86), challenges scholars and practitioners to reflect deeply on how the operationalization or application of each tenet might produce changes for the future. For instance, when we focus on creating authentic relationships between all stakeholders, what types of outcomes might these relationships create? Or how might an equally distributed power dynamic change who is driving the decision-making within the project? Mitchell and Latta (2020) reminded us that "we should not lose sight of the future we hope to build" (p. 5), and it is here that their fourth tenet begins to take shape, thus prompting our own imaginings to more deeply understand how the tenets of critical service learning work in tandem to change systemic inequities.

The purpose of this reflective article is to expand upon the ways we, as community-engaged scholars, consider assessment in critical service learning (CSL). When differ-

entiated from traditional service-learning (SL), the means to evaluate if and how CSL projects are successful in confronting social injustice are predicated upon stakeholders' implicit understandings of Mitchell's (2008) three tenets: *authentic relationships*, a *social change orientation*, and *power relations*. To make sense of how these conceptual tenets are understood or measured, we engaged other community-engaged scholar-practitioners in formal conversation to decipher the degree to which their theoretical grounding or practice of CSL informs their scholarship. Through this discourse we hoped to collect examples of purposeful measurement of Mitchell's three tenets as implemented in the field. We also intended to explore ways to expand upon current practices of CSL by introducing *futurity* as a conceptual tool to further interrogate injustice and to open the door to greater opportunities for transformative change.

Through the utilization of a collaborative inquiry methodology, we sought to develop an understanding of how CSL is operationalized and assessed by other scholar-practitioners. We were guided by the following questions:

- How do engaged scholar-practitioners operationalize Mitchell's (2008) three tenets of critical service learning?
- What are ways to measure the outcomes and impacts of Mitchell's three tenets of critical service learning?

The Fellows—A Collaborative Collective

The engaged scholars (Fellows) in this project were brought together as part of the Indiana Campus Compact (now known as the Community-Engaged Alliance) Faculty Fellows Program, a yearlong faculty learning community enabling participants to "learn from and with one another" (Stevens & Jamison, 2012, p. 20) while examining "issues from *within* and *across* courses, disciplines, institutions, and the field" (Latta et al., 2018, pp. 33–34). As a collective, we represent three institutions of higher education in Indiana—two large public universities and one small private institution. In keeping with the tradition of the 24 cohorts of Indiana Campus Compact Faculty Fellows that have come before us, we seek to spark further conversation and exploration in all areas of community engagement. Influenced by a recent editorial by Mitchell and Latta (2020) focused on critical service learning and its call for the consideration of futurity, we have removed the hyphen from between *service* and *learning*, when referencing the critical manifestation, to represent an attention to the power balance between all stakeholders. This change indicates the shift from providing service to/with organizations and accomplishing learning outcomes, to advancing social change within communities and creating authentic relationships absent power-over models. Mitchell and Latta's (2020) thought-provoking editorial has pushed us to imagine new ways of approaching critical service learning.

Traditional Service-Learning, Critical Service Learning: An Overview

As engaged scholar-practitioners from various institutions, we recognize the nuanced differences in the ways that our individual campuses define and operationalize community engagement and service-learning. As we began this project, we felt it was important to establish a common nomenclature to frame our understanding. Bringle and Clayton (2012) defined service-learning as a "course or competency-based, credit-bearing educational experience" (p. 105) through which students in higher education use reflection to develop a deeper understanding of the discipline and a greater sense of civic responsibility while participating in serviceable acts that are mutually identified by and beneficial for the community. CSL is an explicit response to traditional forms of service-learning. Though structured similarly to service-learning, CSL explicitly locates social justice as central to the interactions embedded between students and community members (Butin, 2015; Mitchell, 2008, 2014). Further, practitioners of CSL deliberately integrate pedagogy centered on social justice frameworks used to raise critical consciousness in order to take purposeful action (praxis) against structural injustice or violence (Mitchell & Rost-Banik, 2017). This pedagogy is not discipline-specific but rather helps students recognize their own implicit biases as they make sense of their academic discipline(s) in relation to community members and community organizations.

Mitchell (2008) asked scholars and practitioners to take into account all members of the partnership—the campus faculty, students, staff and administrators, com-

munity organization representatives, and community members—when "see[ing] themselves as agents of social change . . . and respond[ing] to injustices in communities" (p. 51). She also pushed faculty (and institutions) to "recognize and problematize issues of power" as a way to work toward redistributing power across all partners, including community members (p. 56). Lastly, she called for an explicit focus on developing authentic relationships, ones that go beyond reciprocity aimed at identifying needs since such an approach is, as Collins described, "rooted in relations of domination and subordination" (quoted in Mitchell, 2008, p. 58); instead, we should seek relationships built on genuine connection.

Drawing from Indigenous epistemologies, Mitchell and Latta (2020) proposed a fourth tenet centering on futurity, a conceptual construct reflective of a cosmology of understandings rooted in Indigenous wisdom and histories (Smith, 2021). This construct considers ways that colonization and settler colonialism have been destructive forces for not only Indigenous, First Nations peoples, but also for other racialized and minoritized populations, including, but not limited to, Black populations whose cultural–historical legacies and identities are connected to slavery (Patel, 2016; Tuck & Habtom, 2019). Futurity opens possibilities for a conscious redress both of historical wrongs and of current, continued reproductions of oppression of BIPOC (Black, Indigenous, people of color) and others whose identity intersections have been marked by dominant White culture as subaltern (Goodyear-Ka'opua, 2019; Tuck & Yang, 2012). Importantly, futurity affirms Indigenous epistemes and honors relational interactions, nonlinear temporal and spatial considerations, contextual dynamics, and process-oriented structures (Rifkin, 2017; Wilson, 2008).

Mitchell was hardly the first scholar to call into question how service-learning was traditionally being implemented, nor was she the first scholar to apply critical theory to the field (Hernandez & Pasquesi, 2017; Latta et al., 2018). Indeed, many community engagement scholars and community activists have incorporated critical dialogue and praxis throughout their work (Hernandez & Pasquesi, 2017; Hicks Peterson, 2018; Latta et al., 2018; Mitchell & Latta, 2020; Mitchell & Rost-Banik, 2017). As the field of critical service learning continues to gain momentum, there has been an increased call for further research that examines the broader implications of the practice (Irwin & Foste, 2021).

Current State and Assumptions of Assessing Traditional and Critical Service Learning

According to Bringle et al. (2017), assessment should be an integral part of service-learning. Assessment provides opportunities to develop deeper engagement, transformative relationships, and better synchronized transactional programming, all of which will enhance student learning, deepen relationships with community partners, and improve the overall service-learning experience (Clayton et al., 2010). Assessment literature within the traditional model of service-learning is robust and offers the researcher and practitioner alike the ability to gauge the various ways in which traditional service-learning can have an impact on the stakeholders.

However, within the published work of CSL, there is a gap in the understanding of how to operationalize and assess Mitchell's (2008) three tenets and the newly added fourth tenet (Mitchell & Latta, 2020). Recent research has examined the implementation of CSL projects and found the model to create lasting change (Santamaría Graff & Boehner, 2019; Warren-Gordon et al., 2020), but there is limited research on how to operationalize each of the tenets and how to measure the impact and success of implementation. For example, when findings suggest that CSL implementation produced a transformative experience for all individuals involved in the project, how do we determine if one tenet contributed more to that success than another? The assessment of each tenet of CSL and its implementation is crucial to the continued evolution of the model and the overall continued advancement of the discipline of service-learning. Understanding the impact of each tenet will allow for a deeper understanding of the model and will expand our understanding of the best ways to utilize CSL.

Interpretivist Inquiry to Conceptualize Sensemaking

To understand better how to operationalize and assess the four tenets, we employed an interpretivist inquiry model through the lens of Mitchell's (2014) social justice sensemaking process, and we intentionally ap-

proached this project as *inquiry* rather than *research* in order to emphasize the process and emerging conceptualizations of critical service learning. An interpretivist approach assumes that those who are actively involved in the inquiry process interpret and coconstruct knowledge (Creswell & Poth, 2018). Interpretivist inquiry responds to the social and interactional conditions that affect the sensemaking process. Mitchell (2014) described social justice sensemaking as a process of invention that enables individuals and groups to create meaning and build context around complex concepts that emerge through social action. Social justice sensemaking requires active and intellectual engagement, combining authorship and interpretation, and it consists of six properties (Mitchell, 2014):

1. *Identity:* understanding implications of social group membership on meaning construction;
2. *Retrospective:* reflecting on past beliefs and reevaluating alongside new understandings;
3. *Referencing:* utilizing sources to expand and enhance comprehension; providing integrated referencing;
4. *Contradiction:* reconciling vision with actual condition and using contradiction as a source of inspiration;
5. *Social:* communicating and interacting with others to facilitate meaning construction; and
6. *Driven by plausibility:* developing confidence to take action and comfort in ambiguity.

The Data Collection Process

As a means of gathering data, we engaged participants who were attending the Indiana Campus Compact 2021 Annual Summit, a conference devoted to furthering knowledge around and best practices of community-engaged work. Prior to the start of the inquiry process, all procedures were reviewed and approved by the Institutional Review Board of Ball State University. The project also received approval through a double-blind peer review as part of the submission process for the Indiana Campus Compact 2021 Summit. Participants were engaged in a 90-minute interactive workshop featuring a brief overview of critical service learning, followed by three embedded, concurrent 35-minute focus group sessions, each devoted to one of Mitchell's (2008) three original CSL tenets. Due to the virtual nature of the conference, the sessions took place via the web conference system Zoom. At the start of the workshop, and in accordance with the approved informed consent procedure, participants were informed of the session's structure and that it would be audio and video recorded for transcription purposes. The questions for our focus groups, conducted via Zoom breakout rooms, were developed through a review of the literature examining how Mitchell's (2008) original three tenets are operationalized and assessed. Following the 35-minute focus group session, the workshop concluded with a discussion among all session attendees that provided a summary of each focus group's conversation and allowed participants the opportunity to ask questions of the facilitators and other participants. Throughout the workshop, participants were able to verbalize responses to the focus group questions, and they could also type responses and pose questions to facilitators using the platform's chat function.

The Participants

The participants in this inquiry were drawn from the attendees of the Indiana Campus Compact 2021 Annual Summit. Attendees self-selected to participate in the session. Sixteen individuals representing midwestern institutions of higher education participated. Participants primarily self-identified as a faculty member, a community engagement professional—a university administrator who is responsible for overseeing or supporting community engagement efforts (Dostilio, 2017)—or a combination of these roles. In addition, one participant self-identified as a retired faculty member and university administrator who devoted their career to service-learning and community engagement, another as a nonaffiliated practitioner-scholar, and one as a graduate student focused in student affairs. Five or six participants were randomly assigned to each of the three focus groups, which were each facilitated by two Fellows.

Data Sensemaking

All of the recordings from the Zoom focus groups were transcribed using a professional transcription service. The transcripts and recordings were then compared by one Fellow as an extra layer of accuracy assurance. Once accuracy of the transcripts was

confirmed, the Fellows independently coded the transcript of the focus group session they facilitated. Each Fellow analyzed the transcripts using an open coding thematic analysis scheme at the sentence level, which provided flexibility for individuals to interpret the focus group discussions based on a sensemaking approach (Hernes & Maitlis, 2010). To ensure consistency, a second round of coding was performed by a trained graduate research assistant, who took a broader approach by coding overall conceptions. Despite the different approaches, there was strong alignment between the three interpretations when the coding results were compared. Once each dyad and the graduate assistant completed the independent coding for themes, the Fellows discussed the findings. The following sections represent the findings and interpretations of each focus group, as reflected upon by the facilitators of those groups.

Making Sense of Emergent Themes

The four focus group questions coconstructed by the Fellows centered on either the conceptualization, implementation, or assessment of each of Mitchell's (2008) three tenets.

Developing Authentic Relationships

As discussed, Mitchell (2008) emphasized the need to further the community–campus partnerships developed as part of traditional service-learning programs into deeper and more authentic relationships. Session participants were asked to (1) reflect on how they operationalized authentic partnerships, (2) articulate the ideal outcomes that would result from an authentic partnership, (3) identify how to measure whether a partnership is authentic, and (4) share how they operationalized and assessed Mitchell's conceptualization of authentic relationships. Coding yielded five independent themes related specifically to this tenet: collaboration, communication, power and trust, continuity, and measuring authenticity.

Collaboration

Authentic relationships are fully collaborative. As one faculty member noted, authenticity requires "a genuine assessment of needs and ability to serve" so that the institution is "able to provide a partnership that's meaningful based on what [the community partner] need[s] and not just what you want to do." Importantly, true and deep collaboration—the kind that creates authenticity—means being vulnerable, as another faculty member noted: The community partners and the students "must be vulnerable to share parts of themselves that . . . may redistribute the power or how people are actually seeing themselves; we want them to create understanding on purpose." An ideal collaboration has a certain "vibe" to it. In an authentic relationship,

> as the kids say, you just vibe. There are some community partners that I just click with them really well because of our personalities, our shared passions, and I know that I can talk to them honestly just once a year, when we do our once-a-year project and it's fine, and I would consider them to be someone who I could count on and vice versa, whereas I couldn't do that with all community partners. (Community engagement professional)

That "vibe" of the partnership can be disrupted by a number of factors, the most common of which is the departure of a key collaborator at either the institution or the partner organization. The focus group participants pointed to the importance of centralized support at the academic institution to ensure that the collaboration between the community partner and the institution can continue despite staffing changes. Such centralized support is equally important to ensure that the community partners are not overwhelmed with requests from separate entities at the same institution. A faculty member indicated that in previous years,

> our community partners were a little bit annoyed because there was no central communication in doing partnerships within the university. . . . [There was] no central place to like find interns, find volunteers, find all these things, and then you have multiple people contacting them, then you have the general education 101 classes where they're like, "you must do 10 hours of service-learning." And the faculty members just send students off, no offense to people who have to do that, but then we know that community partners like legitimately hate that practice.

Truly collaborative, authentic relationships help prevent such frustrations.

Communication

For the partnership to be successfully collaborative, good communication is essential (Jacoby, 2015). One participant explained that it is difficult "to keep that communication going" from one iteration of the partnership to the next, especially in programs where there are leadership transitions or where students who are continuing with a partnership are slow to respond. Good communication requires having candid conversations when needed to ensure collaborations can continue. As one campus administrator charged with overseeing community–university partnerships described, "I feel like anybody in this capacity has to have that ability of authentic relationship, candid conversations, and really attempting to kind of get the lay of the land" because "one department that has that one faculty member that has one student . . . may have just really ruined our relationship because of a three-hour service that they did" that resulted in an upset community partner. If the relationship is truly collaborative and good communication has already been established, then they "can pick up the phone and talk to that person and it's squashed, hopefully in a respectful way so that we can maintain the relationship."

Power and Trust

In addition to potential communication and collaboration challenges, it is important to consider power—and the redistribution of power—when operationalizing authentic partnerships. At times, issues of power can manifest in the trust and distrust of our collaborators. One university administrator stated, "If somebody new comes into our space and is working for [the Center], I kind of vet them a bit to see [they] don't jeopardize what I've put in place." They went on to say that they feel "some ownership of what time and effort and trust and relationship building I have formed." Additionally, a faculty participant commented,

> If I come across to a community partner that I have no existing relationship with, and I ask them about ways that we might be able to work together, that's . . . going to ring a bit tinny to organizations that might be really great partners. If, on the other hand, I've been involved in a community and I've worked with nonprofits in the area and I have a certain amount of, let's just say social currency, if you will, that approach . . . comes across as more authentic.

A different professor pointed out that developing these authentic relationships can be especially "hard when you're newer to the community."

To ensure a balance of power, institutions of higher education must earn and continually build the trust of their community partner stakeholders. One community engagement professional conveyed a recent interaction they had where a local community partner shared, "We've learned not to really trust what [the University] is gonna do. . . . [It's] just like a lot of broken promises. So no offense if we're not really going to take what you have to say super seriously." This participant went on to say,

> The hard part is, I'm just one cog in this machine, and there's like just this history, decades of oppression, just many broken promises. . . . The most difficult part to combat is trying to build whatever that trust looks like when you have people doing different things.

One faculty participant equated this power balance to the stakeholders engaging in a process of shared vulnerability and reciprocity, stating that "both partners and the student and themselves must be vulnerable to share parts of themselves . . . [as it] may redistribute the power or how people are actually seeing themselves, so we want to create understanding on purpose, if you will."

Continuity

Community-engaged scholarship has often focused on the importance of partnership sustainability (Watson-Thompson, 2015), but the focus group conversation revealed that *continuity* is a more accurate term than *sustainability* since *continuity* puts the focus on people and relationships, rather than on the projects themselves. Participants described the importance of continuity when it comes to administrators and faculty at the university, as well as when it comes to the partner organization staff. It is difficult to

maintain long-term authentic relationships between institutions and community partners if any of the coordinating stakeholders—university professionals overseeing and supporting community engagement, faculty, or community partner organization staff—leave their positions, if the institution eliminates the office charged with cultivating community partnerships, or if a program depends on student leadership that changes from one semester to the next. One member of the focus group, a community engagement professional, noted that because their position has existed for 15 years, they are able to more easily manage potential difficulties when they arise:

> When something comes up, and inevitably something will come up, and it could be very, very important, or it could just be a quick chat, you know, "Hey, I heard something went down at your site, or I have a student that acknowledged this. I wanted to bring this to your attention." And those kinds of opportunities provide more growth for that authentic relationship.

Another community engagement professional described how if a "person at [an] organization leaves, all of a sudden, I no longer have a partnership with that specific organization, and we know that there's a high turnover with nonprofits." Their words capture how a potential disruption in continuity can be a recurring challenge for authentic relationships.

Measuring Authenticity

When participants were asked how they measured or assessed the level of authenticity in their community engagement partnerships, there was consensus that such assessment was necessary, yet difficult. Many discussed aspects of the themes noted above—collaboration, communication, power and trust, and continuity—that could be evaluated, with the easiest of those to measure being continuity due to being able to identify beginning and ending dates of programs and the relative ease of tracking staffing changes. However, the other elements of authenticity are challenging to assess. Focus group participants acknowledged that it's "critical" for us to measure authenticity, but that, as one faculty member described,

> measurement is always really difficult. I feel like it's incredibly subjective, and you know or you don't, the vibe thing. But also, effectiveness feels like that would innately be more objective, that'd be easier to measure in some way, because at the very basic you could say, "Was this an effective program for everyone involved?" And of course, "How do you determine effectiveness? Did we complete our mission, our objectives? Are we furthering the relationship? Are we helping the relationship?"

In short, measuring effectiveness is objective; measuring authenticity, however, is subjective and consequently more difficult. Assessing authenticity is difficult because critical service learning is not standardizable and therefore, by its very definition, goes against the nature of assessment.

A Social Change Orientation

In considering Mitchell's (2008) social change orientation tenet for our second concurrent focus group, we asked participants to focus on the following: (1) sharing examples of social change, (2) describing what social change looks like, and (3) providing ways in which they measure social change. Due to time constraints of the focus group portion of the session, participants did not have enough time to address the fourth prompt that focused on the rewards and challenges experienced in trying to measure social change. Five independent themes emerged that informed the ways that a social change orientation was conceptualized: hierarchy, responsibility, listening, time, and definitions.

Hierarchy

"Everyone has power and the moment that we talk about empowering somebody, we've just set up that whole hierarchy." This quote by a participant identifying as a community engagement professional encapsulated one of the key ways participants conceptualized a social change orientation. For another of the participants, also a community engagement professional, hierarchy interacts with power to create uneven power relations within higher educational settings. Uneven power relations privilege certain stakeholders over others and create infrastructures of codependency, whereby stakeholders' (e.g.,

community stakeholders) "empowerment" is dependent upon another's (e.g., university administrators/faculty). Hierarchies "can actually create an even greater divide between the notion of higher ed and academia and the folks" who represent organizations and entities with whom community-engaged faculty or administrators typically wish to partner.

According to the focus group participants, part of the challenge of applying social change as a disruptor to uneven power relations is the lack of a universal or cohesive definition. Not understanding fully what social change is or looks like in practice makes it difficult for those in nondominant positions in specific contexts (e.g., community stakeholders, students) to ascertain their own power. Accordingly, hierarchies that position certain individuals *over* others in community-engaged work meant to be "collaborative" or "democratic" in nature not only are disempowering, but also reproduce structures that can silence rather than support. Therefore, hierarchies that go unaddressed become obstacles to social change and orient stakeholders unequally or inequitably.

Responsibility

Focus group participants indicated that social change affiliated with critical service learning generally occurs sequentially; in other words, certain things have to be in place first before others can occur. Specifically, the participants seemed discontent with their respective institutional frameworks—ones that were either excluding dialogue attuned to social change topics and/or ones that allowed for the absence of introspection and conversation. As conveyed by one faculty participant, who primarily works with master's-level education students, "We're not talking about social change in the school districts," elaborating that perhaps the community partner's knowledge of and attention to social change may not be in alignment. "[T]he principal who runs the program or is a partner in the program . . . that's [social change] not [their] goal. It's, I got these kids, I got to do blah blah blah. . . ." Participants were also acutely focused on individual responsibility. "I'm doing my own internal work, and I think we all individually need to do that" (community engagement professional). But, in terms of a crude model to exemplify this sequence, it seems that the participants identify that *institutional* responsibility must first create a framework or culture that permits the possibility of social change—within students, faculty, and community partners. Once this framework or culture is in place, then it seems that *individual* responsibility can and will occur—but only if granted the time, permission, and/or resources for internal and external development. Once listening, talking, contemplating, and evaluating are encouraged, then social change can emerge as an iterative, evolving, and gradual process.

Listening

The importance of listening emerged repeatedly in the session. Four focus group participants mentioned this word explicitly, and some more than once. One community engagement professional commented,

> So we can enter the conversation around social change [by asking] who's involved in the conversation, what voices are we hearing and listening to, which voices are being completely ignored right now. We may not intend to, but we really examine things, and we think, "Oh, this voice just may not be part of the conversation." And so how do we bring them in? And how do we listen and not be defensive—but really listen?

The topic of conversing with others also surfaced in participants' responses. Another community engagement professional expressed that they would "look to other folks that have engaged in these conversations" as a way of working together to effect change. This engagement with individual citizens in addition to community organizations is yet another way that CSL can differ from its traditional manifestation. In connection with another theme representative of this tenet, participants' responses also implied that the sequencing of communication is crucial for social change to occur. Remarks such as "revisit them [conversations] often" and "following up [on]" indicate that social change is an iterative, ongoing process.

Importance of Time

Time within the conversation around social change translates to mean the importance of *taking the time* to create mechanisms in education, specifically in higher education,

geared to challenge students to recognize and facilitate concrete, material changes needed in society. These mechanisms were described as embedded course activities such as "poverty simulations and sensitivity-training-type things" to prepare students to begin discussing social justice and social change in meaningful ways. There were three focus group participants who, in reference to the ambiguity around a definition of social change, inferred there is a need for preconversations on social change. In one faculty participant's assessment, most people are unprepared to dive into a meaningful discussion around social change without having had the opportunity to "back up and start with other things before we get to social change. . . ." This participant continued, expressing that the time needed to truly address social change had to begin with instructors asking themselves questions: "How are they going to . . . teach their syllabi, their curriculum? . . . [How] are they going to embed some things in their curriculum . . . [to] address power and racism?" For the majority of participants, taking the time to ask such questions related to social change was a crucial first step to understanding what social change truly is within the context of community-engaged teaching. This integration of pedagogical considerations provides students with opportunities to reflect upon and engage in self-questioning and therefore is more likely to promote social justice sensemaking (Mitchell, 2014).

Definitions

One community engagement professional pointed out social change is a "really charged term" that can be perceived as "positive or negative." The same participant warned that "it's really easy to fall into the trap of thinking the community is going to have a cohesive definition" of social change. Indeed, identifying a succinct definition for social change is something that others might find challenging, too. One faculty member commented, "What does [social change] mean for the way [instructors] teach their syllabi, their curriculum?" That same faculty member suggested that students should also have a voice in defining fairness and equity in service-learning endeavors. In short, the participants believed the stakeholders involved in each situation should take the time to discuss their conceptualizations of social change.

Attention to Power

In our third concurrent focus group, the participants considered how they operationalized and assessed Mitchell's (2008) conceptualization of attention to power. Session participants were asked to (1) share examples of how power had manifested in their community engagement work, (2) describe strategies for ensuring equitable versus uneven power dynamics, (3) discuss ways to measure if or how power has been redistributed, and (4) imagine the new features or terrains that will be produced when power is redistributed and describe how this will look or be different. Four key themes emerged during the focus group: location, active community voice, relationship building, and challenges in assessment.

Location

A consistent theme throughout the discussion regarding power was the location of community engagement. All of the participants within this focus group discussed the importance of the physical locations or venues where service-learning takes place. This notion was articulated by a retired faculty member and university administrator who had devoted his career to community engagement and service-learning:

> Almost all of that work took place in the community. Meetings, advisory groups, so forth, very little of it took place on campus. And I think venue matters to someone leveling the inherent power issues of academics and the university students and administrators interacting with residents of a community. It's hard to say we're all equal when that occurs, but it's easier to say that when it occurs in the community than when it occurs on campus.

Placing community engagement and interactions in community spaces enables community-centered relationship building, deepening of trust, and reciprocity. As one faculty member described, "By being part of that conversation, and being present, it helped [the researcher] build that trust." At the same time, the participants recognized inherent differences that exist between university and community spaces and described how accessibility to university and community spaces differs. "So in terms of the power differentials and who's hosting and [has] the knowledge and the expertise,

just the whole way that is framed is different in the [community] Center, than I think it is on our campus," commented a community engagement administrator. A tenured faculty participant reiterated that "universities are rather intimidating. . . . The faculty and student collaborators go to their [community] meetings rather than expect people to come to campus. It's much more friendly." Another faculty participant reinforced this point by stating,

> I helped facilitate a Girl Scout troop, and for a while we were trying to use the [university] library as a space . . . and it just was so challenging. We ended up using a church locally instead. . . . Not always is the academic space friendly to others.

One faculty member spoke of the important transformation of a historically racist university space into a civil rights museum and community gathering space:

> It's a space where community members can gather and talk about civil rights issues, both in terms of history but also in terms of the present day, and one of the things that's been important about it, I think, is the fact that it's in a umm community that is not connected to campus, and it is . . . somewhat of a struggling community, but the members really have a lot of human capital, umm a lot of uh energy uh to share, umm a lot of insights to share, and they really have taken on that space and really see it umm, as theirs. And in terms of the way events are facilitated and posts them, etcetera, it's often the community members themselves who are [there] with just like technical support and uh the building space and help advertising the events from the Center, but it really allows community members to take ownership of uh, the things happening there and it does seem to make a difference that they're not going to campus to participate.

The focus group participants clearly connected the physical location of events to representations of power and ownership, which are essential to consider when building trust and relationships.

Active Community Voice

With regard to the second theme, active community voice, participants emphasized the importance of centering relationships and goals on the community, rather than on the university. University representatives can achieve this recentering by listening, engaging community members' voices, and finding active ways to prioritize community goals. One community engagement professional described the importance of "making sure that community members' voices are heard and designing whatever that experience or research or . . . community engagement looks like." Participants in the focus group described individual-level and structural-level manifestations of maximizing community voices. Listening to community input and understanding stakeholders' priorities and goals were identified as essential processes of community engagement. Additionally, participants discussed institutional strategies to open and maintain communication with community stakeholders. In describing institutional strategies to engage community voices, one administrator commented,

> [The university] created a form; most of the organizations in the county could basically fill it out . . . it was essentially a project proposal form. And so this way we could be really informed about what our partners are looking for . . . from volunteering, to research, to service learning courses, to internships . . . just making sure that [the projects] do happen and [the partners] are connected in a reciprocal fashion.

Participants recognized the inherent power imbalances between university and community partners. As one faculty member stated,

> The notion of listening and setting program goals together or letting the community lead those program goals is really huge, because so often the power is held in the academic world . . . until you listen and hopefully hear what the community's asking for, things can be exploitive because you work to serve your own students' needs and your own needs.

All of the respondents alluded to the redistribution of power that results in critical service learning endeavors when relation-

ships are centered on the community partners. Ownership by the community, actively engaging the community, and listening to the community's voice were all reflected by participants as means of maintaining successful engagements that promote shared power. As stated by a faculty participant, "As people's voices are honored and they claim the power that they hold in the relationship, all kinds of opportunities will show up."

Building Relationships

The third theme that emerged from the focus group on power was building relationships. Participants described the relationship-building process as moments where power manifests in service-learning. Each respondent emphasized the importance of building relationships that are based on trust and authenticity. As one faculty participant described how power is manifested in their community engagement work, they noted that having "trust and a mutual beneficial relationship [creates] a long-term relationship and . . . strength of partnership." This theme highlights the time and investment in relationship building that is required of community-engaged scholars to facilitate shared power and the authentic give-and-take between university and community partners. Historical contexts, particularly the histories of the relationship between the university and the community, were salient to this theme. Three participants described the acknowledgment of past problems and the restoration of trusting relationships as integral to relationship building between the university and community. One university–community engagement administrator commented that

> developing authentic relationships, something that our office has really worked on, umm, our [university] has a tough town-and-gown relationship, we're working on that. . . . To help push that in the right direction . . . each of us [in our office] started joining committees held in the county and eventually started inviting others from the college to join in on committees. And we got to a point where local groups were actively seeking out [university] faculty and staff and even sometimes students to join in on these committees that really get these relationships, these trusting relationships going. . . . That built to not only a better relationship between the college and the community, but also created more opportunities to partner.

A different faculty participant reinforced the importance of the town–gown relationship, commenting, "I think the relationships [in a particular town] are really strong and, and lasting for many years, so it's good that . . . it's becoming more solid."

Another key element of this theme is that of time and duration. Participants described relationship building as a process that needs to occur early in service-learning endeavors, often before the scholarly work even begins. For example, one faculty member described relationship building that researchers undertook prior to community-engaged studies: "Another [scholar] studied a housing program down in Kentucky . . . she also spent almost a year building relationships before she went down to interview them."

Relationships in service-learning may evolve over time, and participants highlighted not only the dynamic nature of relationship building, but also that power across partners may change. One former faculty member and university administrator emphasized the dynamic nature of power, stating,

> I think it's also important to be able to track power over time, like you just mentioned, because how a relationship starts can be very different than how it evolves into a umm, what we call a reciprocal partnership eventually. And [it will] have different characteristics at that stage.

Challenges of Assessment

The challenges and difficulty of assessment repeatedly emerged throughout the focus group session. The consensus among participants was that assessing power is multidimensional and complex. As articulated by a retired faculty member and university administrator, power carries numerous connotations, and different stakeholders may differ in their conceptualizations of power:

> When measuring aspects of relationships . . . one of the issues that we faced is lumping under power a whole bunch of different dimen-

> sions. And so it could be power with regard to resources or finances or expertise or communications or time. . . . And so it presents a real challenge because you can divide that pie lots of different ways in terms of components of power, and assess them, and it could go on forever. In a reductionist sense, so umm most of our strategy has been to identify different aspects of relationships, resources, decision-making, power, and communication.

In other words, CSL needs dynamic and fluid processes for assessment that respond to the context. The discussion additionally pointed out that assessment is an intervention and that we still have many areas to examine and understand:

> Multi-faceted engagement . . . involves lots of stakeholders, umm residents, students, university staff, NGO staff. And they each have a different perspective on that measurement question . . . what are those different perspectives? What sorts of understanding is there of my perspective? And what I assume to be one of my partner's perspectives? And how can we have a discussion about that and maybe enhance the clarity, umm sustainability, and satisfaction with the relationship? So in that regard, I like to think of assessment being an intervention. That it's a way in which, when we get those different perspectives represented, then we can have conversations about similarities and differences. (Retired faculty member and university administrator)

Another faculty participant commented that "it's good to have some kind of a visioning project in the beginning and maybe even continue that—that umm, dynamic assessment throughout the different phases of your project."

Making Sense Across Mitchell's Three Tenets

As we examine the themes that emerged from the three focus groups, we are able to see how they are interrelated. Common threads emerge, such as the ability to communicate effectively with and across stakeholders (Jacoby, 2015), as seen in the collaboration, building relationships, listening, active community voice, responsibility, and communication themes that were identified across the three tenets. Upon further examination of the data, the term *vibe*, used by a community engagement professional in the authentic relationships focus group, seems to cohesively tie these themes together: "As the kids say, you just vibe." In fact, when we examine the literature related to each of these six independent themes, we find these themes can be combined to make up the essence of *vibe*, which is most often found in context with musicking theory (e.g., Mark, 2017; Rodger, 2016) and human resource development (e.g., Anand & Oberai, 2018; Blithe, 2014). Vibe "implies a place-based, holistic, ecosystemic, and even cosmic view of what is going on" (Mark, 2017, p. 76). In all of the focus group sessions, participants drew connections among these aspects when discussing the ways in which they conceptualized and operationalized each of the tenets.

The focus group participants consistently pointed out that the vibe of a partnership is intertwined with power dynamics. According to Mitchell (2008), power differentials exist within every aspect of service-learning; however, they are rarely recognized and addressed. The very nature of traditional service-learning creates power differences as college students who take part in service-learning engagement are often from greater privilege since they can enroll in classes that focus on service. CSL requires that a focus on the redistribution of power and the examination of power dynamics should occur at various points in the service-learning endeavor (Butin, 2003; Mitchell, 2008), and Osman and Attwood (2007) suggested that power relationships should be examined in both "service and learning and between community and university" (p. 16); in other words, the examination of relationships must occur in order to move toward more balanced relationships. Osman and Attwood also suggested that power relationships within service-learning should be viewed from a Foucauldian perspective, recognizing that power is fluid with varying dynamics, rather than a one-dimensional "fixed source" existing within various aspects of service-learning engagement. Similarly, Ngui (2020) suggested that campus–community partnerships exist along a spectrum of community involvement, shared leader-

ship, communication flow, and decision-making.

Some scholars have gone beyond noting the importance of considering power dynamics to call for specific aspects of power that should be examined. Fouts (2020), for example, argued that collaboration with community partners should address inequalities and the structures that allow for the continued marginalization of women and BIPOC individuals. The identities of scholars and university administrators must be considered with regard to power and privilege in service-learning, scholarship, and dissemination of research. Indeed, privilege awareness is an important ethical consideration for service-learning scholars in their relationships with intended community partners (Hugman et al., 2011), as is the active promotion of nonhierarchical connections between university and campus partners (Campbell & Wasco, 2000). Postcolonial and feminist scholarship have highlighted the disparity of position and power between the researcher and the researched; this point is also salient to service-learning and university–campus collaborations (Edwards & Mauthner, 2002). Importantly, critical examinations of power may involve intersecting aspects of individual-level and structural-level dimensions of privilege and oppression.

Although the need for addressing power dynamics within the CSL model has been established, the focus group results highlight the need for further discussion as to how to understand the impact of power structures on student learning, the university and community relationship, and other factors that influence power dynamics in the CSL experience.

Problematizing Assessment

Traditional service-learning can provide uniformity within its assessment models. For example, the educator can pick which tool(s) they want to use to assess the intended outcome(s) of the project (e.g., Bringle et al., 2017; Finley, 2011; Gelmon et al., 2018; Giles & Eyler, 2013; Nelson Laird, 2005; Terry et al., 2014). However, these existing tools are not able to measure the complexities of CSL. Understanding the "how" and "why" of CSL suggests that there is a need to create a model of standardized assessment, which was confirmed by our sensemaking interpretation of the focus groups. However, we argue that the idea of a standardized model of assessment for CSL is, in fact, counterintuitive to the very nature of its goals.

Given what we have learned about Mitchell's (2008) three CSL tenets through this reflective process, we advocate that practitioners stop using the term *assessment*, as it does not adequately represent the fluidity of relationships and the evolving nature of critical service learning. Other synonyms for *assessment* that may also be viewed as inconsistent with the goals of CSL include *evaluation*, *measurement*, *grade*, *deduce*, *validate*, *rate*, *appraise*, and *value*. Interestingly, each of these terms stems from Bloom's Taxonomy (Anderson & Krathwohl, 2001).

Instead of using these terms, practitioners of CSL should focus on creating tools that *review* partnerships and that can evolve as relationships and programs are developing, based on the changes and deepening of relationships. The assumptions that are held within the traditional service-learning model—those that focus on quantitative, summative, end-of-program, student-centric, and standardized assessment metrics—do not adequately translate to the CSL model. Traditional assessment metrics also often have a fixed achievement "bar" that indicates success versus failure. By contrast, the three tenets of CSL advocate for less focus on numbers and a more formative than summative approach to address concepts associated *with* and *across* each of Mitchell's three tenets. By shifting from a standardized to an idiosyncratic approach, the achievement "bar" is able to shift based on the longevity of the relationship.

How this approach might look is very individualistic, which is compatible with the ideas of CSL. However, because standardization is counternormative to Mitchell's (2008) conceptualization of critical service learning, postsecondary institutions will likely never be able to institutionalize its practice. Instead, we argue that the practice should not be institutionalized, but rather that institutions continue to emphasize its values—*fostering authentic relationships*, *striving for social change*, and *calling attention to power relations*—through a lens of liberation.

Limitations to Our Understandings

Our data collection resulted from unconventional tactics, specifically the implementation of focus groups at a regional

conference with a discrete amount of time. We ultimately had no control over the demographics or total number participants. Even though we had an evenly split number of faculty and administrators, future research might benefit from more insight into faculty perspectives, as faculty members are generally responsible for putting the tenets of CSL into praxis. Additionally, focus groups can limit response opportunity for individuals. In other words, we did not have time to allow every person to answer every question; thus, triangulated methods (e.g., surveys, in-depth interviews) could have demonstrated further support or could have refuted initial findings from our focus group analyses. To elicit further responses, we attempted to repeat the focus group process on multiple occasions; unfortunately, participants' schedules or perhaps feeling unqualified to participate further in these subsequent sessions might have deterred people. An additional potential limitation is that we noticed in our group data analysis that we individually coded based on different units of analysis. For example, some initially coded by sentence/words/phrases, but others focused instead on overall concepts of transcribed "chunks" or paragraphs.

The composition of our focus groups is another important consideration. Because CSL is still relatively new, there are few outright experts on the model, though there are many practitioners. Most participants in this study expressed familiarity with CSL's tenets, but they still struggled to identify strategies to measure those tenets in educational settings. We made assumptions, given our own collective immersion in literature and application of CSL, that other academic peers had similar understandings, but our findings make it clear that deeper study into the idiosyncrasies of conceptualizing the CSL tenets may be necessary before scholars can gainfully examine assessment of those tenets.

Due to these limitations, we have not fully explored the interconnectivity of the themes that emerged across Mitchell's (2008) three tenets of CSL. Future researchers should explore these relationships further. How do the connections between the tenets impact individuals' and institutions' abilities to fully embrace the CSL model?

Calling on the Field

This article represents our exploration of the ways in which CSL is conceptualized and assessed. Although Mitchell (2008) presented tenets to address and dismantle inequities in service-learning through a more critical approach, focusing on systemic oppressions rooted in dominant understandings of traditional service, we, as community-engaged scholars, have found the tenets challenging to apply without concrete guidance on how to do so. Mitchell's (2014) article on social justice sensemaking does provide explicit detail about her students' more critical ways of reflecting on service-learning experiences, but how these experiences were evaluated or assessed for either success or effectiveness were vague. Consequently, we considered assessment in our own work through futurity and asked ourselves if the purpose of assessment in traditional service-learning, which typically centers on college/university students' evolving growth as civically minded leaders (Bringle et al., 2019; Bringle & Wall, 2020; Hudgins, 2020; Steinberg et al., 2011), was applicable to our own CSL projects. The unanimous answer among us was "No," as we all agreed that *to do* critical work *with* and *alongside* community members means to consider *community ways of knowing* and *doing* that exist and operate outside service expectations implicit within White-dominant norms.

Based on our inquiry, we conclude that the complexities of CSL require continual review regarding the ways in which the tenets manifest for stakeholders—faculty, students, administrators, and community partners—from one institution to the next. From our data, we believe that individuals practice CSL to varying degrees in their context-specific endeavors; however, confidence in how to measure the tenets of CSL remains low. In fact, it seems that further conceptualization is necessary in order to move CSL forward with an eye toward effective, albeit innovative, measurement strategies pertinent to the original needs of the CSL project. We call on practitioners to move away from traditional epistemologies of service-learning that center White-dominant, Eurocentric norms and to draw from their own projects and experiences to determine best practices regarding their CSL engagement and the relational contexts in which these engagements occur. Relying on community epistemic knowledge and wisdom in concert with community-engaged practitioners' expertise in determining how to move CSL projects forward will allow for the continuation of the fluidity that exists

within CSL. This fluidity is in alignment with futurity's nonlinear approach in that the time and space through which mutually beneficial agreements are established and implemented with community stakeholders may not adhere to traditional timelines met through measurable goals driven by outcomes. We furthermore call on administrators to consider less standardized tactics and metrics in their respective reviews of critical service learning endeavors, valuing the originality of such endeavors and the stakeholders involved in them.

What our sensemaking ultimately reveals is that Mitchell and Latta's (2020) addition of futurity as a fourth tenet allows us to consider CSL's authentic relationships, social change orientation, and power relations not through a lens of rigid definitions but through a lens of expansion. This expansive viewpoint enables the field to more deeply interrogate injustice and systemic oppression and to open the door to lasting, transformative change.

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Evaluating Engaged Research in Promotion and Tenure: Not Everything That Counts Can Be Counted

Lauren A. Wendling

Abstract

As institutions of higher education evolve and adapt to meet the increasing needs of their communities, faculty are faced with the choice of where and how to employ their time and expertise. To advance and encourage partnerships between institutions and their communities, academic reward structures must be designed in ways that support those who choose to leverage their expertise, resources, and time to engage with community in meaningful and mutually beneficial ways. This dissertation (Wendling, 2022) contributes to the growing body of higher education community engagement literature by investigating how school- and department-level promotion and tenure committees not only define and understand faculty's engaged research, but how they *evaluate* it. Specifically, this dissertation explored what goes into making evaluative decisions, if and how committees utilize tools for evaluation, and how evaluative decisions are made.

Keywords: community engaged research, community engaged scholarship, promotion and tenure

Since its foundations, American higher education has been inextricably linked to the public good. Higher education has long held a special place in American society, expanding public knowledge, creating tomorrow's leaders, and advancing social consciousness (Chambers, 2005; Newman & Couturier, 2002). Though the roots of higher education's involvement in society have long run deep, many fear that in the last few decades, higher education has been slowly shifting from a public to a private good. Though 95% of urban research institutions have made a commitment to community engagement in their most recent strategic plans, only 55% of Americans believe higher education has a positive impact on society (Accardi, 2018). Many believe that higher education's greatest challenge in rectifying its sullied public image requires institutions to better articulate societal benefit beyond individual economic security. It is thus essential that higher education not only continue to engage in community, but that it do so deeply and meaningfully, in ways that are beneficial to both the institutions and their communities. Higher education community engagement not only helps improve the public perception of postsecondary education, but directly illustrates institutions' usefulness to the public. In today's deeply divided political climate, engagement with community could not be of higher importance.

Working within higher education, specifically in a faculty role, involves a professional identity that embraces a commitment to advancing the public good through teaching and/or research (Austin, 2015; Shaker, 2015; Tierney & Perkins, 2015). Though individual faculty members' commitments and ideologies differ based on location, appointment type, and the various configurations of campus and community, giving to the public good remains "at the heart of academic work" (Austin, 2015, p. 55). This is not to suggest that every faculty member on every university campus must be deeply involved with local communities. However,

academic work dedicated to advancing the public good must not be considered something above and beyond what faculty are required to do, but rather something that is deeply engrained in what it means to be an academic (Austin, 2015; Tierney & Perkins, 2015). Though the professional identity and responsibility of those working in higher education involves at its core advancing the public good, the current academic labor market threatens to disrupt this notion. The increase in the number of contingent faculty, who are limited to a narrow list of specific work requirements with diminishing time, resources, and autonomy, creates few opportunities for faculty to focus their work on advancing the public good (Austin, 2015).

As the academic labor market continues to evolve, faculty, given less independence, resources, and rewards, are faced with the choice of where to employ their precious time and expertise (Rice et al., 2015). Concurrently, the American public increasingly questions higher education's impact and society's return on their investment (Saltmarsh & Wooding, 2016). Institutions must hold themselves accountable to society by publicly rewarding and recognizing the faculty who choose to engage their teaching and research with community. Academic reward structures, institutional and departmental culture, and practices that socialize faculty into pursuing various types of work must be designed in ways that support those who choose to leverage their expertise, resources, and time to engage community. Higher education can no longer remain silent and immobile when it comes to valuing and rewarding those within its institutions who engage with community.

Problem and Purpose

Current research suggests that institution-level rhetoric praising community engagement and the rewarding of engaged faculty through promotion and tenure are often inconsistent (Alperin et al., 2018; Diamond, 2005; O'Meara, 2002; Saltmarsh et al., 2009; Sobrero & Jayaratne, 2014). The perceived misalignment between institutional rhetoric and rewarding engaged faculty is problematic, specifically for institutions seeking to cultivate an identity of an engaged institution and be recognized for it (e.g., obtaining the Carnegie Foundation's community engagement classification). As campuses work toward infusing community engagement into their institutional missions and strategic plans, and are acknowledged for doing so, there is a need for research that explores this suggested dissonance between institution-level praise for engagement and how engaged faculty are rewarded through promotion and tenure.

However, the task of appropriately rewarding engaged faculty should not be left solely to institution-level leadership. It is well documented that the values, beliefs, and personal experiences of school- and department-level promotion and tenure committees influence their likelihood to reward and promote faculty who pursue engaged research (Diamond, 2005; O'Meara, 2002; Sobrero & Jayaratne, 2014). Studies show that changes to institution-level promotion and tenure guidelines reflecting an increased acceptance of community-engaged research do not necessarily ensure a similar acceptance of such research in school- and department-level guidelines (Alperin et al., 2018; Saltmarsh et al., 2009). Though school- and department-level reward processes are undoubtedly influenced by written guidelines and committee members' values and beliefs, there is currently a gap in the literature exploring the evaluative processes that school- and department-level promotion and tenure committees undertake when evaluating tenure-track faculty's engaged research or how evaluative judgments are made.

Multiple resources (Abel & Williams, 2019; Jordan et al., 2009; Wood et al., 2018) have been created to assist in the evaluation of faculty's community-engaged research, but there is currently a lack of knowledge regarding if, or how, such resources are being used. Further, research has not yet explored how committees' evaluative processes align, or fail to align, with institutional rhetoric when it comes to community engagement. As community-engaged research often operates in historically nontraditional ways, in that it includes community members as coresearchers, seeks to produce additional scholarly products outside peer-reviewed publications, and often favors local impact over national recognition, it cannot be evaluated in the same ways as traditional research (Boyer, 1990; Deetz, 2008; Ellison & Eatman, 2008; Zukoski & Luluquisen, 2002). Consequently, there is a need for a better understanding of how promotion and tenure committees at the school and department levels make evaluative decisions regarding

tenure-track faculty's community-engaged research.

Research Questions

This dissertation (Wendling, 2022) was guided by three major research questions:

1. How do school- and department-level promotion and tenure committee members evaluate tenure-track faculty's community-engaged research?
    a. What guidelines, tools, and/or processes, or lack thereof, guide school- and department-level promotion and tenure committee members' evaluation of community-engaged research (e.g., school/department-level guidelines and language, institution-level guidelines and language, peer review/letters, rubrics, other tools, etc.)?
2. How are community-engaged research processes and community-engaged research products (community-engaged scholarship) evaluated by school- and department-level promotion and tenure committees?
    a. How do school- and department-level promotion and tenure committees differentiate community-engaged research processes (e.g., cocreation of study design, research questions) and products (community-engaged scholarship) when evaluating the engaged work of tenure-track faculty?
3. What supports do institutions have in place to attract, retain, and reward tenure-track faculty who perform community-engaged research?

Conceptual Framework

To better understand and demystify the evaluative processes of promotion and tenure committees, this dissertation was couched in the interpretivist tradition, which seeks to generate working hypotheses or ideas that are fundamentally grounded in the context-specific, constructed social realities of participants (Lincoln & Guba, 1985). This study was qualitative in nature, due to the desire to emphasize participant voice and demonstrate meaning and understanding about issues that would otherwise be unidentified in quantitative research (Berg, 1995). Most prominently influencing the direction and methodology of this dissertation was Alperin et al.'s (2018) review of promotion and tenure guidelines across 129 American and Canadian institutions that identified the presence of traditional and engaged research terminology. To date, Alperin et al. have delivered the most thorough content analysis of promotion and tenure guidelines across various institution types, ultimately leading to the conclusion that "if there is one thing that is certain to count towards faculty career progression, it is producing traditional academic outputs" (p. 15). This research built upon the current literature to further investigate how review committees at institutions classified as *engaged* evaluate the nontraditional scholarship of their peers.

Methodology

Multisite Single Case Study

Due to the nature of this dissertation, desire to build upon prior research, and the complex phenomenon of evaluation within promotion and tenure, a multisite single case study was identified as the most appropriate approach to investigate the research questions. This dissertation was intentionally bounded in terms of the identified phenomenon (case), sites (institutions), and participants (faculty). Binding the case in this way encouraged the consideration of how other actors and entities affect the phenomenon being studied. It acknowledged that school- and department-level committees are not the entire, bounded case in and of themselves, but are influenced and affected by a handful of other entities—including, but not limited to, institutional missions and guidelines; school, department, and institutional cultures; and external organizations and/or associations.

Institutional Sites

Institutions for this study were first required to have received an initial classification or reclassification for community engagement from the Carnegie Foundation in the 2020 classification cycle ($N = 119$). Site selection was narrowed to 2020 Carnegie-classified institutions to involve only institutions that had been identified as the most advanced in institutionalizing community engagement across their campuses. The scope of this study was further narrowed by including only R1 institutions ($N = 28$). R1 institutions

were intentionally chosen due to their significant emphasis on traditional research, as opposed to teaching or academic service. Due to their heavy focus on research outputs, there is inherently more tension at R1 institutions to accept and place community-engaged research on par with traditional research.

This study included five of the 28 R1, recently classified institutions. The five participating institutions were included and requested to participate because professional relationships with community engagement professionals (CEPs) at those institutions previously existed, which significantly aided in the recruitment of individual participants. The five institutions, along with notable characteristics of each, are identified in Table 1.

Participants

Once IRB human subjects approval was secured, study participants were recruited from the identified institutions with the help of CEPs on each campus. Acknowledging the need to narrow the participant selection in ways that allowed for a detailed exploration of the research questions, the following participant inclusion criteria were established:

- Are a tenured faculty member and currently serving on their school- and/or department-level promotion and tenure review committee *or have* served on their school- and/or department-level promotion and tenure review committee within the past 12 months
- Have a primary appointment in either:

Table 1. Institution Sites

	Institution A	Institution B	Institution C	Institution D	Institution E
Control	Private	Private	Public	Public	Private
Region	Northeast	Mid Atlantic	Southeast	Midwest	Northeast
Size and setting	Small city	Large city	Midsize city	Small city	Midsize city
FTE enrollment	24,000	27,000	39,000	43,000	12,000
FTE faculty	2,300	1,400	2,900	2,600	2,900
Engagement in inst. mission	Yes	No	Yes	No	No
Engagement in strategic plan	Plan not public	No	Yes	Yes	Yes
Highest engagement leadership	Vice Prov. of Engagement	Vice Prov. for DEI and Engagement	Vice Pres. for Public Service	N/A	Vice Pres. Gov. and Comm. Relations
Year(s) Carnegie classified	2010 2020	2020	2010 2020	2010 2020	2020

    - Social science field
    - STEM field (i.e., science, technology, engineering, math)
- Have some familiarity with community-engaged research as an approach to inquiry

In total, 12 tenure-track faculty members across five institutions participated in this study. Table 2 outlines key characteristics of each participating tenure-track faculty member. Pseudonyms were utilized for all participants.

Data Sources

Participant Interviews

Individual participant interviews were the primary source of data. The interviews were semistructured, lasted roughly 60 minutes each, and were all conducted via Zoom during summer 2020. Interview questions were constructed to address the central research questions and incorporated a series of structured, neutral probes to elicit additional information about the participants' experiences (Berg, 1995). The interview protocol included 10 major questions that were categorized into three specific phases:

1. Phase 1: Building understanding
2. Phase 2: Evaluating community-engaged research—processes and products
3. Phase 3: Looking forward

Promotion and Tenure Guidelines

In order to better understand participant interview data in light of their individual campus contexts, a review of the institution-level promotion and tenure guidelines at each university was completed. The review was exploratory in nature and focused on the frequency of engaged terminology within all areas of the institution-level guidelines. For the review, 20 engaged terms were selected for identification. These terms have been identified as the most frequently used to reference engaged scholarship (Alperin et al., 2018; Wendling & Bessing, 2018). Focus on the institution-level guidelines was necessary, as the majority (75%) of the school- and department-level guidelines for institutions within this study were not publicly accessible. The review of the guidelines helped, post data collection, to validate, confirm, and at times question the perspectives of participants.

Data Analysis

Data analysis of participant interviews consisted of the following phases:

1. Transcription of participant interviews.
2. Data exploration, review, and memoing: This phase included a review of all transcribed data from a holistic perspective with the goal of understanding the breadth and scope of all data within single participants, within single institutions, and across multiple institutions.
3. Open coding and the development of raw codes: Open coding, or the development of raw codes to illustrate the major categories of information identified within the data, occurred after, and was influenced by, the more general data exploration and memoing phase (Creswell, 2007; Strauss & Corbin, 1990).
4. Iterative, axial coding assisted by participant member checks: Focused axial coding involved the creation of additional codes and subcodes concentrated on specific ideas and concepts, which allowed for more in-depth theorizing about the original concepts (Strauss & Corbin, 1990). Identified themes were emailed to all study participants for feedback. Participant feedback was considered and influenced the next phase of data analysis.
5. Selective coding, data reduction, and development of themes: This selective coding was more conceptual than the previous process of line-by-line coding and identified codes that frequently appeared throughout the data (Stake, 2010; Strauss & Corbin, 1990).
6. Examining the data in light of current literature: Following the analysis and emergence of solidified codes and themes, findings were presented using thick description and aided by participant voice (Geertz, 1973).

Ensuring Trustworthiness

To ensure the study upheld the tenets of good qualitative research, Lincoln and Guba's (1985) criteria for trustworthiness (i.e., neutrality, consistency, applicability, and truth value) served as a guide throughout the study's data collection, analysis, and

Table 2. Study Participants

	Institution	Field	Gender	Race	Years at current institution	Discipline	Experience evaluating engaged research	Frequency of their engaged research
Douglas	C	STEM	M	White	17	Ag. science	Moderate	Often
Felix	B	Social science	M	White	20	Public health	Low	Often
Joyce	E	Social science	F	White	17	Education	Moderate	Often
Jerry	E	STEM	M	White	25	Medicine	High	Often
Debra	A	Social science	F	White	6	Design	High	Often
Andrea	C	Social science	F	White	6	Education	High	Always
Julie	D	Social science	F	White	27	Nursing	High	Often
Stephen	E	STEM	M	White	42	Psychiatry	Very high	Often
Thomas	B	Social science	M	White	20	Public policy	Moderate	Often
Louis	E	STEM	M	White	35	Psychiatry	Very high	Sometimes
Phillip	C	STEM	M	White	12	Ag. science	High	Sometimes
Kathleen	C	STEM	F	White	13	Medicine	Low	Sometimes

presentation of findings. Lincoln and Guba's criteria were also aided by key techniques to establish trustworthiness—member checks, thick description of findings, and data triangulation.

Results and Conclusions

All participants identified that within their departments and schools, a lack of clearly defined and accepted terminology to refer to community-engaged research, coupled with rigid promotion and tenure guidelines and traditionally standardized metrics, severely limits the ability of review committees to appropriately evaluate engaged scholarship. These were the most frequently cited barriers to properly evaluating tenure-track faculty's engaged research:

- no articulated definition of community-engaged research or scholarship within school- or department-level promotion and tenure guidelines,
- absence of "community-engaged research" or similar terminology within school and department guidelines,
- narrow conception of research that excludes community-engaged scholarship and incorrectly categorizes it as service,
- reliance on traditional metrics to assess the quality of engaged scholarship,
- inability to evaluate quality research processes and reliance on bean counting to assess the quality of research, and
- lack of supports to help committees understand and evaluate engaged scholarship (e.g., definition sheets, rubrics).

Identified barriers were consistent across all participant disciplines, institution types, locations, and length of time their institution had been classified as "community engaged" by the Carnegie Foundation (2020 reclassification or 2020 initial classification). Further, the review of each university's institution-level promotion and tenure guidelines identified that engagement terminology does not feature heavily within the guidelines of any of the institutions, validating many of the feelings and perceptions of the participants.

Though all identified barriers were acknowledged by each participant, the review committees' reliance on traditional metrics to assess the quality of engaged scholarship was cited as the issue of most concern. Although the reliance on traditional metrics is affected by some barriers (e.g., absence of engaged terminology in guidelines) and magnifies others (e.g., narrow conception of scholarship, inability to evaluate research processes), it was identified by participants as the greatest obstacle around which review committees cannot maneuver. Review committees' heavy reliance on a standard set of metrics to evaluate the products of both traditional scholarship and nontraditional, community engagement scholarship was identified as the largest and most frustrating barrier by all participants.

Reliance on Traditional Metrics

Participants cited five common metrics that, in their experiences, review committees most heavily rely on to evaluate tenure-track faculty's scholarship. Each metric comes with unique challenges when committees attempt to assess engaged research through the lens of the traditional metric. Table 3 identifies the most cited metrics, the unique challenges they pose when attempting to utilize them to evaluate engaged scholarship, and how frequently the metric appeared in the promotion and tenure guidelines for the campuses within this study.

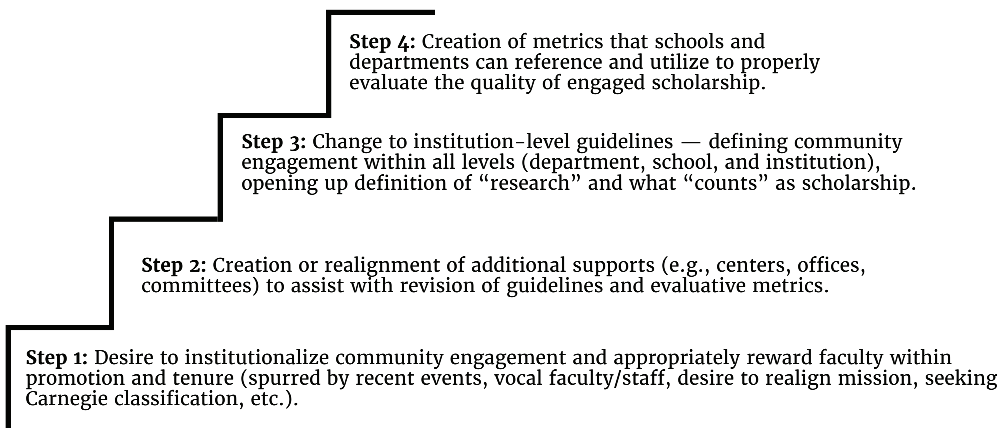
Recommendations for Institutions of Higher Education

In today's climate, momentum, though minimal, is slowly building to chip away at the rigid layers of promotion and tenure and push to expand what counts as valued and meaningful faculty work, including engagement and research with community partners. When considering how institutions might open up the current structures of promotion and tenure, this dissertation provided four clear recommendations for institutions and their leadership to consider in order to more appropriately value the engaged research of tenure-track faculty (see Figure 1). It is important to note that the creation of more accommodating guidelines and definitions of scholarship is not the final step. It is imperative that institutions not only adjust guidelines at both the institution and school/department levels, but

Table 3. Traditional Metrics Used to Evaluate Faculty Scholarship and Challenges When Applied to the Evaluation of Community-Engaged Scholarship

Traditional metric	Challenge	Presence of metric in guidelines
Peer-reviewed publications	Recognized as the "gold standard" and only acceptable outlet for the dissemination of scholarly work. Is not inclusive of community-based dissemination outlets or other scholarship (e.g., community presentations, laws/ public policy, delivery of products or services).	High
Funding	Only national funding is recognized and valued. Local/ regional funding is not acknowledged as legitimate or valuable.	Medium
Reputation	A faculty member's reputation and accomplishments with local partners is not considered or valued. Only the national/international reputation and reach of a faculty member is considered.	Medium
Impact	Impact is measured solely by journal impact factors. Community engagement journals typically have lower impact factors. Local/regional or community-based impact is not acknowledged.	High
External letters	Only opinions of other academics hold weight. Community members are not seen as peers and deemed unable to appropriately speak to the work of faculty.	High

Figure 1. Recommended Steps for Institutions Working to Appropriately Recognize and Reward Community-Engaged Research and Scholarship Within Promotion and Tenure



Note. Steps are shown in the suggested sequence to build on each other; however, they likely will be performed concurrently and inform each other.

Table 4. Current, Traditional Metrics Used to Evaluate Faculty Scholarship and Proposed Adjustments to More Appropriately Evaluate Community-Engaged Scholarship

Traditional metric	Proposed adjustment
Peer-reviewed publications	Expand the notion of what "counts" as evidence of scholarship. In addition to peer-reviewed publications, equally weight other forms of scholarship and involvement of other, community-based audiences. Examples of additional outputs to evidence faculty scholarship: • Community programs/reports • Laws/public policy • Delivery of products and/or services • Community presentations • Creative products (e.g., art shows, videos)
Funding	Recognize local/regional funding received by faculty as evidence of the need for their work with local/regional communities. Consider outputs and outcomes of locally funded research on par with products of nationally funded projects.
Reputation	Acknowledge the reputation of faculty on a local/regional level, as evidenced by voices of community members and/or partner organizations.
Impact	Expand impact beyond journal impact factors. For engaged faculty, also consider • depth of relationship faculty member has established with community, • impact of faculty member's scholarship (e.g., policy, programs) on community, through community voice, and • number of community members or organizations impacted.
External letters	If faculty conducts engaged research, their academic peer reviewers should also conduct and/or be knowledgeable about engaged research. Community partners with whom engaged faculty work should be considered as equally legitimate reviewers who can speak to the community-based work of their faculty partners. More reliance on partner voice is essential.

also revise the metrics upon which faculty scholarship is assessed. In order to advance meaningful change, it will be essential to create and include additional metrics that consider the nontraditional ways quality community-engaged research operates (e.g., inclusion of community members as coresearchers, creation of additional scholarly products outside peer-reviewed publications, favoring local impact over national recognition).

Recommendations for School/Department Leaders and Review Committees

Though change is much needed at the institution level to build structures and supports, broaden the definition of scholarship, and create guidelines and referenceable metrics upon which to evaluate engaged scholarship, change must simultaneously occur at the school and department levels to be sustained. Further, the creation of a culture and the establishment of policies, procedures, and guidelines to support and fuel the developing culture go hand in hand. When it comes to actions that can be taken by school and department leaders, this dissertation suggested that the first step must

be the expansion of what "counts" or what is defined as scholarship. Before appropriate metrics can be created to evaluate engaged research, it must first be identified and defined as "big R" research (as opposed to service) within the formal school and department promotion and tenure guidelines. The products of community-engaged research thus must be validated and accepted as research outputs that are on par with the products of traditional research.

However, recognizing community-engaged research products as valid forms of scholarship is only half the battle. This dissertation has demonstrated that when engaged research is categorized as research, review committees are required to assess it as such, and they have only one very limited set of metrics upon which to evaluate it. This dissertation illustrated how incredibly difficult it is for review committees to evaluate engaged scholarship using the current metrics that have been constructed to assess traditional scholarship. To be appropriately evaluated, community-engaged scholarship must be judged against a set of metrics constructed to assess its unique methodologies and rigor. In Table 4, alterations to the current, traditional metrics are proposed to assist with the evaluation of community-engaged scholarship.

Significance

The literature of higher education community engagement is expansive, despite it being a relatively young field. However, past research has primarily focused on the institutionalization of engagement (Benson et al., 2005; Beere et al., 2011; Holland, 1997, 2016), how institutions and faculty engage in community (Colbeck & Weaver, 2008; Colbeck & Wharton-Michael, 2006; Doberneck et al., 2010; Glass et al., 2011), and the inclusion of community engagement terminology in promotion and tenure guidelines (Alperin et al., 2018; Day et al., 2013; Ellison & Eatman, 2008; O'Meara, 2005, 2011). This dissertation was a direct response to the gap in the field, as research had yet to study the processes by which promotion and tenure review committees evaluate tenure-track faculty's community-engaged research.

As community engagement becomes more infused into institutions' strategic planning efforts, organizational structures, and written promotion and tenure guidelines, the lack of research systematically exploring how and in what ways faculty's engaged research is evaluated was apparent. This study is significant because it addressed the gap in the literature and identified the primary barriers to appropriately evaluating faculty's engaged research (e.g., reliance on traditional metrics). Further, it provided clear recommendations for institutional and school/departmental leadership to consider in order to value the engaged research of their faculty more appropriately. Findings and recommendations add depth, detail, and nuance to the current field while illustrating a clear path forward for institutions to ensure that their rhetoric praising community engagement and the ways they reward their engaged faculty through promotion and tenure are more consistent and authentic. As campuses continue the work of infusing community engagement into their missions, identities, and strategic plans, the findings presented in this dissertation will significantly benefit institutions who wish to better evaluate, legitimize, and ultimately value the engaged work of their faculty.

About the Author

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