

Public Health in Practice: Development of an Undergraduate Domestic Off-Campus Public Health Program

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Abstract

An innovative program, *Public Health in Practice*, successfully combines the best practices of academic civic engagement (service learning) with domestic off-campus study. Although our college does not offer a public health major or minor, there is strong student interest in this field of study. As a response, we developed a program where students enroll in two sequential introductory public health courses; between the two courses, students study off-campus with the same instructor. Unlike the majority of U.S. undergraduate public health off-campus experiences that involve travel abroad, this program focused on domestic public health. By working on local community-based projects and traveling to Minneapolis/St. Paul and Washington, DC, the students were able to compare public health efforts at local, state, and national scales. Our mixed-methods approach of evaluation using student pre/post surveys along with integrative reflections indicated that participants demonstrated an increase in (1) knowledge related to nationally identified public health competencies, (2) sense of agency in effecting change in communities, (3) understanding of how to work ethically with and in communities, and (4) personal awareness and clarification of future career paths. The combination of local, community-based ACE projects with a domestic study away resulted in improved student learning outcomes, increased confidence, and a shift in student attitudes.

Keywords

academic civic engagement, off-campus study away, public health, undergraduate

More than a decade ago, the Institute of Medicine concluded that public health literacy is essential for all citizens and recommended all U.S. undergraduates should have the opportunity to study public health (Petersen, Albertine, Plepys, & Calhoun, 2013). Another transformative initiative, the Association of American Colleges & Universities' Liberal Education and America's Promise (LEAP), supports a set of learning outcomes for undergraduates that encourages students to "engage in learning that seeks inter- and multidisciplinary answers to unscripted real-world problems" (Petersen et al., 2013; see also Calhoun, Ramiah, Weist, & Shortell, 2008). The field of public health is replete with such opportunities due to its inherent interdisciplinary nature; thus LEAP's learning outcomes integrate well with the study of public health (Albertine, 2008).

LEAP identified service learning, or academic civic engagement (ACE), as one of five high-impact teaching practices (Brownell & Swaner, 2010). Academic service learning experiences that follow widely accepted best practices (1) maintain academic rigor; (2) are reciprocal in nature, meeting an identified community need while

also meeting stated learning goals; and (3) provide an opportunity for reflection to help students "gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility" (Bingle & Hatcher, 1996; Bingle & Hatcher, 1999; Howard, 1993). Although the language used to describe service learning courses varies from campus to campus, at its core, evidence supports that learning with and in community "enhance[s] students' understanding of the relevance of course content," is "personally meaningful to participants," and has the potential to "change student . . . attitudes" (Cashman & Seifer, 2008). The inclusion of community-based projects as a means to support student engagement in complex, real-world issues aligns well with the high-impact teaching practices.

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Table 1. Time Line of the Public Health in Practice Program.

Fall trimester: First course	Winter break: Domestic study away	Winter trimester: Second course
Introduction to public health through readings, discussions, guest lectures, and short research projects	2-week study away to Minneapolis/St. Paul and Washington, DC, to compare local, state, and national public health organizations (nonprofits, government agencies, and academic institutions) and to visit with elected officials	Designed public health library exhibition for campus community
Began local, community-based ACE projects	Continued ACE projects	ACE projects completed incorporating knowledge gained during study away

Note. ACE = academic civic engagement. Undergraduate students enrolled in an introductory course during the fall trimester, traveled with the program for 2 weeks of the 6-week winter break, and then enrolled in a follow up course during the winter trimester.

A second high-impact practice is off-campus study, which is often equated with studying abroad (Kuh, 2008). Although there are multiple benefits cited for studying abroad, including learning about cultural differences, Sobania and Braskamp (2009) introduced the term *study away* to emphasize that domestic off-campus study may also be a transformative learning experience for students (Daly, Baker, & Williams, 2014). Domestic “study away” allows students to “further their knowledge in their own communities” and provides them the opportunity to “open their minds, hearts, and behaviors to difference and . . . experience such difference firsthand” (Sobania & Braskamp, 2009). In addition, domestic study away provides flexibility for faculty and students who might otherwise not be able to participate in off-campus study programs.

Our private, 4-year undergraduate liberal arts college does not offer a major or minor in public health. We incorporated both high-impact practices outlined above to develop the novel *Public Health in Practice* program, which immersed students for 6 months in the study of public health within the United States.

Program Description

The learning outcomes for the *Public Health in Practice* program were driven by a subset of the competencies identified by the Association of the Schools and Programs of Public Health (Calhoun et al., 2008; Petersen et al., 2013). The program had no prerequisites, was not housed in any department or restricted by major, and was open to sophomores through seniors. Students were traditionally aged (18-22 years), and while some were new to public health, others had previous health-related experience through coursework, internships, or volunteer experiences. Although there were only 14 students in the program, they represented 9 different majors from the humanities and social sciences to math and the natural sciences.

Program goals included providing an opportunity for students to (1) practice public health ethically in the community; (2) recognize and appreciate forms of knowledge that extend beyond traditional academic

knowledge, such as the experience and wisdom of community members; and (3) learn about themselves, including an exploration of future career paths. To achieve these goals, students enrolled in two sequential courses and participated in an intervening 2-week study away (see Table 1 for details). Students practiced public health through local community-based ACE projects, and their work was informed by travel to our state and national capitals.

Program Design

Our program builds on the developing literature measuring the impact of service-oriented off-campus programs on student growth (Daly et al., 2014; Jones, LePeau, & Robbins, 2013; Niehaus & Crain, 2013). However, it differs from short-term, service-based travel experiences for students, such as the alternative spring break model. Inherent in these short-term models is the challenge of developing a reciprocal relationship based on trust and mutual respect with a community partner within a limited amount of time. These programs pose the risk of students viewing their work as charity rather than solidarity as students may not be equipped to consider issues of power and positionality. Students need to remain cognizant of the underlying causes for what they may observe in a community. Without sufficient scaffolding to help students understand power structures or their own bias, short, but intense interactions with a community may actually negatively affect student development and “it may be simply impossible to realize the objectives of . . . service-learning given the time constraints” (Jones et al., 2013, p.232). In an attempt to build thoughtful, meaningful, and reciprocal relationships, students in our program worked with local community partners through two courses and over 6 months. We used a series of surveys and integrative reflections to evaluate whether coupling an ACE project to a domestic study away increased student learning beyond the initial introductory course.

Working across differences and recognizing the social determinants of health are essential to the practice of public health, and we felt it important that students

explore the socioeconomic, racial, and other forms of diversity within the United States. Our research indicated a dearth of domestic public health programs for undergraduate students, despite the presence of multiple global health programs. Traveling domestically not only met our goal of analyzing and comparing local, state, and national public health approaches but also allowed students to meet multiple public health professionals and gain from community wisdom at each site.

Introductory Course

The initial course provided an introduction to public health, marked the beginning of the ACE (i.e., service learning) projects, and required students to research the organizations we would visit off-campus. Specific topics covered included the history and scope of public health, the social-ecological model, health disparities, health-related data sources, and the organizational structure of the public health system. Effective ACE courses typically minimize lecture or the “dissemination of information” approach and rather include active learning strategies in which the professor facilitates learning (Howard, 1993). In this course, students played an active role in their learning as they discussed readings, collaborated with community partners, and presented research findings to each other. Their research projects focused on seven domestic public health topics: obesity, mental health and wellness, violence, food access, HIV, communicating health messages, and assessment of public health programs.

Study Away

To address the Association of Schools and Programs of Public Health (ASPPH) competency, “Analyze the effects of political, social, and economic policies on public health systems at the local, state, national, and international levels” (http://www.aspph.org/app/uploads/2014/04/Version2.31_FINAL.pdf), we traveled to Minneapolis/St. Paul and then Washington, DC. Studying away allowed students to meet public health professionals working at each organizational level and to assess how different organizations approach a similar topic. Meeting individuals whose work ranged from policy and education to research and data analysis furthered students’ understanding of the breadth of public health. Studying away supported an exploration of public health from participants’ perspective and stage in their educational career.

Being onsite allowed students to note the size, atmosphere, and resources of various organizations and gain a sense of the surrounding neighborhoods they served—all aspects harder to capture when a visitor comes to campus. Students observed and compared policy, government, and education efforts operating from the local

to the national level. For example, in the area of policy, students met with a state representative, visited with a policy director and lobbyist at a nonprofit state association, and then met with our U.S. senator’s staff.

Academic Civic Engagement

ACE served as a common thread throughout the program and helped students meet a second ASPPH competency, “Appreciate the importance of working collaboratively with diverse communities and constituencies (e.g. researchers, practitioners, agencies, and organizations).” Students selected either mental health- or food access-related projects during the initial course and collaborated with local community partners throughout the 6-month program. ACE projects allowed students to integrate academic knowledge gained in the classroom with knowledge centered in community (Kilgo, Pasquesi, Sheets, & Pascarella, 2014).

During the second course, students also designed a public health exhibition in collaboration with our library curator to share their experience with the broader campus (Walser-Kuntz & Iroz, 2016). The curator’s expertise in communicating visually to a broad audience helped students recognize their inadvertent use of jargon and forced each one of them to crystallize 6 months of thinking about public health into engaging, accurate, and concise messages. This project was in keeping with the collaborative and active learning pedagogical approach to the program, and students drove development of the exhibit by both determining content and designing infographic-style posters. Not only did the exhibit, a form of public scholarship, force students to synthesize their learning, but its central placement in our library also increased campus-wide public health literacy.

Method of Evaluation

We took a mixed-methods approach to assessment including both quantitative (surveys) and qualitative (reflections) measures. Other service learning researchers also use mixed methods as they allow for a subjective yet quantitative approach (Hayford, Blomstrom, & DeBoer, 2014). Students were surveyed at three key points throughout the program to assess their learning, attitudes, and confidence level. Surveying students on the first day (Initial), after the fall course (Pretravel), and at the conclusion of the program (Final) allowed us to capture learning at each stage.

Throughout the process, integrative reflections were used as an essential tool for both student learning and assessment (Hayford et al., 2014). After teaching multiple ACE courses, we knew that the process of reflecting promotes learning; reflections encourage critical thinking by forcing students to connect what they learn in

community to academic content (Cashman & Seifer, 2008). In the absence of reflection, students may go through the motions, but they do not intentionally make academic connections, interpret what they have experienced, or generate meaning from their actions (Bringle & Hatcher, 1999). Reflections also promote personal development, such as recognition of future career interests. Students completed required reflections at three points in the program: midway through the fall course, following the study away, and at the end of the program. These reflections were graded on thoughtful completion. In comparison, the surveys were ungraded, completed during class, and used only for assessment of the program. We had a 100% response rate on all surveys and reflections; see the appendix for sample survey questions and reflection prompts. The college's institutional review board approved our research design (institutional review board 080 exempt).

Student Learning Gains

Both reflections and survey responses indicated that the 6-month program met its goals of allowing students to practice public health, synthesize community-located and academic knowledge, and learn about themselves. Although we recognize overlap between the three areas, we categorized student learning into public health knowledge, working with community, and awareness of self.

Public Health Knowledge

We strove to break down the barriers that often distinguish academic from community forms of knowledge and to blend learning from all sources. We intentionally blurred the lines between knowledge gained from readings or the professor and that gained from interacting with community partners or public health practitioners, without placing a higher value on any form. Inclusion of ACE and onsite visits broadened the definition of "classroom" and welcomed alternative teachers; students benefited from multiple forms of knowledge, as indicated by their quotes:

We were able to meet with a variety of people working on the local, state, and national level, which allowed us to gain different types of perspectives and realize the importance of a variety of voices.

When visiting the Native American community I saw just how important culture is for the treatment of a whole person and also a population, especially when we discussed views on mental health and healing.

Figure 1 demonstrates how the program's experiential learning components enhanced learning. For example, the concept "Communicating health messages" ranked

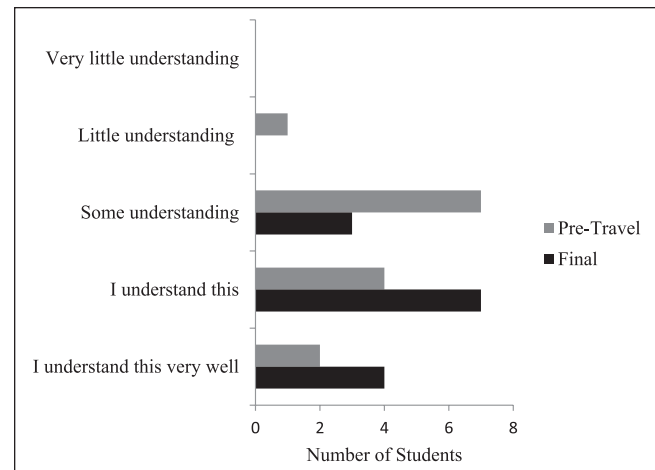


Figure 1. Increase in student understanding of "Communicating health messages" following experiential learning components.

lowest in self-reported understanding following the initial course, despite students having researched and presented on this topic. Understanding increased following a combination of the study away where students visited multiple organizations working to effectively communicate health messages and development of their own public health exhibit (Figure 1).

Although the study away enriched students' understanding of their ACE projects, the projects also provided a focus for meeting with public health practitioners during our travel. Every ACE project group either alerted legislators to relevant policy issues or brought back knowledge and resources to enhance the work of their community partner. Students articulated their recognition of this bidirectional support:

Winter break travel definitely enriched the understanding of my ACE project [. . .] gaining firsthand experience by listening to patients' personal experiences and learning more about mental health problems in the United States allowed me to really acknowledge the need for mental health programs. Talking to health professionals and directors of several organizations were great ways for me to think about how their models can contribute to our ACE project.

The ASPPH competencies, which drove the design and structure of the course, were addressed through coursework, study away, and/or ACE (Table 2). Ninety-three percent of the students self-reported competency in multiple areas related to working effectively and collaboratively in culturally diverse communities (Competencies 2, 8 and 9). Competency 1 was much broader in its disciplinary scope and geographic scale. It is impressive that the majority of students felt the program prepared them to analyze these aspects of public health. Together these findings suggest the importance of experiential approaches, that is, ACE and off-campus study, for student learning.

Table 2. Student Public Health Competencies Addressed by Components of Program.

Competency	Coursework	Study away	ACE	% self-identifying as competent
1. Analyze the effects of political, social, and economic policies on public health systems at the local, state, national, and international levels	•	•	•	71
2. Appreciate the importance of working collaboratively with diverse communities and constituencies (e.g., researchers, practitioners, agencies, and organizations)	•	•	•	93
3. Demonstrate an understanding of the skills needed to build and sustain community partnerships	•	•	•	86
4. Analyze determinants of health and disease using an ecological framework	•	•	•	93
5. Discuss the policy process of improving the health status of populations	•	•	○	57
6. Demonstrate effective written and oral skills for communicating with different audiences in the context of professional public health activities	•	•	•	86
7. Be able to define the principles of community-based participatory research to improve health in diverse populations	•	•		86
8. Cite examples of situation in which consideration of culture-specific needs resulted in a more effective modification or adaptation of a health intervention	•	•	○	93
9. Engage in dialogue and learning from others to advance public health goals	•	•	•	93
10. Apply the basic terminology and definitions of epidemiology to an outbreak, describe the role biostatistics serves in the discipline of public health, and articulate the role of biology in population health	•	•		50
11. Discuss key events in the history of public health	•			43

Note. ACE = academic civic engagement. The listed competencies are a subset of those identified by the Association of Schools of Public Health. • indicates that all students ($n = 14$) gained experience with the competency and ○ indicates that some students gained experience with a particular competency through their ACE project.

Working With Community

The introductory course provided academic background about working ethically with communities. To become aware of the potential pitfalls, students read case studies and essays about trust and recognition of privilege in terms of their own socioeconomic, racial, or cultural vantage point. Although the initial reflections demonstrate a solid understanding of best practices, it was hard for the students to grasp the complexity of working *with* and *in* rather than *for* community. The study away exposed students to successful collaborations and reciprocal, trusting partnerships, and they recognized both challenges and benefits:

This visit made me realize just how important it is for community members and researchers to work together despite the difficulty in coordinating this collaboration. I have a better idea of what really good academic civic engagement looks like and how to conduct it.

In the fall, we learned about these concepts through readings and class discussions. However, it was not until we went on the trip that I fully understood the process of working with communities. . . . I learned that creating a safe space to have dialogue in order to have all voices heard in the room is essential. I also learned that all knowledge is valuable.

Students' initial reflections prior to studying away or ACE project completion often focused on statistics or perceived "problems" within the local community. In

contrast, their final reflections demonstrate a more nuanced understanding of the issues and a recognition of the strengths that exist within community:

It is important to approach community work with humility and be open about the limits of your knowledge and abilities. People's real-world experiences are a valuable source of knowledge, sometimes more insightful than academic research and official documents [. . .] and establishing personal connections is worthwhile.

To further assess changes in students' attitudes about engaging with community, we used the following prompt at both the beginning and the end of the program: *list three key words that come to mind when you think about the term academic civic engagement.* We did not control for any words nor alter any responses. By asking students to list three words they associate with ACE, we were able to gauge their attitudes and assumptions. This method was useful because it allowed for a candid snapshot of growth in understanding from the beginning to the end of the course. This method of evaluation paired with more substantial reflection exercises and assessments allowed for a richer understanding of how the program affected their thinking about engaging with community. The most commonly used word from the initial survey was "community," followed by "learning," "application," and "helping" (Figure 2). "Community" remained the most commonly used word

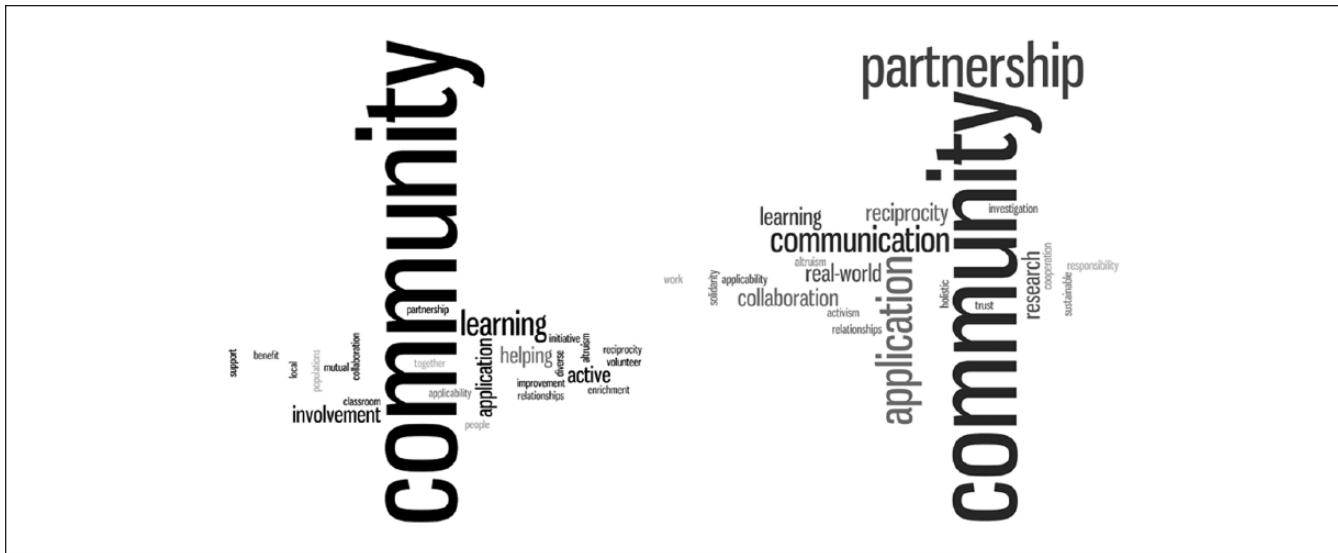


Figure 2. Change in student attitude toward civic engagement.

Note. Word cloud showing a comparison of the key words students associated with the term “academic civic engagement” on Initial (left) and Final (right) surveys.

in the final survey, but it was now followed by “partnership,” “collaboration,” and “reciprocity”; words such as “solidarity,” “activism,” “real-world,” and “research” replaced “volunteer,” “helping,” and “support.” These changes indicate a more sophisticated understanding of ACE and a shift in student thinking from doing *for* to working *with* community.

Awareness of Self

Student reflections indicate personal growth in two areas: positionality and career exploration.

Positionality. Students first encountered positionality in an academic setting through readings that challenged them to think about their particular socioeconomic, racial, gender, and cultural vantage point. Positionality was also addressed in the context of community interaction:

As a white person, my reflections on our visits with Native American organizations were difficult and uncomfortable, yet I think it’s really vital to learn about this history and allow myself to be confused and discomforted. It was in the end a tremendously valuable experience.

[T]his trip helped me to think about how my gender, race and socioeconomic status impact both my own use of the healthcare system, as well as my own future in health service . . . this trip was a great reminder in the importance of humility and open-mindedness.

Career Exploration. Studying away exposed students to a variety of work environments and a range of positions,

and at almost every site, the individuals we met with shared their own life stories. The ACE component of the program developed transferable skills and provided an opportunity to “replicate” what students may do in future public health careers (Bower et al., 2014). For their final reflection, students were asked to describe their ACE project in a resume format, and they self-identified the following skills: research, qualitative and quantitative data analysis, the ability to work effectively in a group, increased understanding of the political process, effectively and professionally communicating with a variety of people, and patience. They noted they were “developing skills that can be used across a broad spectrum of public health related work” and were “now better equipped to address health disparities” through an increased “understanding of some of the barriers that prevent individuals from attaining good health.”

While it is too early to fully measure the long-term impact on students, their survey responses and choices for graduate study or employment suggest an influence that will persist. Eight of the nine seniors secured public health-related positions prior to graduation, including two who plan to combine their medical degree with a Master of Public Health.

At the completion of the program, 100% of the students reported they were “confident” or “highly confident” that they could apply their academic training and experience to social concerns to effect change (Figure 3). As one student insightfully writes, “I find that whatever field I enter, I will keep in mind the essentials of public health (that really, every career should have in mind, too) such as collaboration with communities to ensure mutual benefit.”

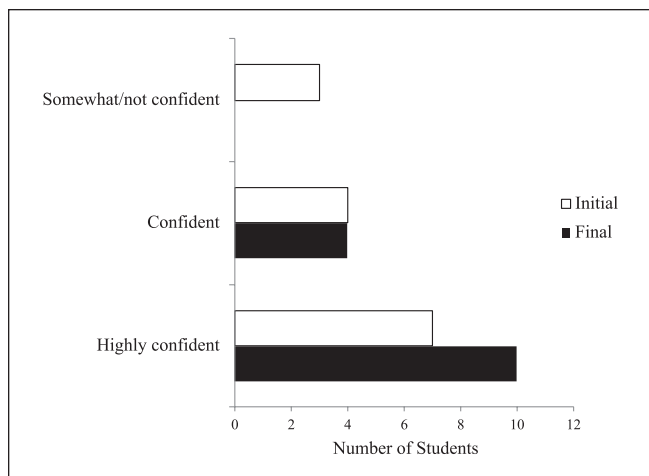


Figure 3. Change in student confidence in applying academic training to social concerns.

Lessons Learned

Our assessment of student learning and the feedback provided by students suggest that the program was successful and achieved its goals. These “lessons learned” reflect effective program features identified by our assessment; these features will remain in the next iteration of *Public Health in Practice*.

1. The combination of ACE and study away, two high-impact teaching practices, effectively

increases student learning and enhances understanding of working with and in communities. Although each component of the program individually contributed to learning, it was the combination of two sequential public health courses, a long-term community-based ACE project, and domestic study away that provided the richest and deepest learning and enhanced student confidence.

2. ACE and study away enrich one another. For example, students were able to visit legislators on our study away and ask them about policy issues related to their ACE projects. Consideration of local community needs shapes the nature of the ACE projects, which in turn will determine a subset of the organizations visited on subsequent programs.
3. Working collaboratively with communities requires time. Extending the ACE projects over two sequential courses allowed students to develop collaborative and reciprocal relationships with their community partners and provided time for students to reflect on their actions and recognize their own limitations.
4. Reflections are essential for learning and growth. Reflecting encourages making meaning of experiences and explicitly connects academic to community knowledge; it may enhance personal growth through recognition of strengths and career interests.

Appendix

Type	Timing	Sample questions
Surveys	Initial	List three key words that come to mind when you think about the term academic civic engagement. Have you ever worked together with others to solve a problem in the community where you live (now or previously)? I am (highly confident/confident/somewhat confident/not confident) I can work collaboratively with others on a public health-related project.
	Pretravel	How interested are you in each of the following seven topics? (very interested/somewhat interested/somewhat disinterested/very disinterested) Do you feel like you have a solid understanding of these seven topics and how they relate to public health? (I understand this very well/I understand this/some understanding/little understanding/very little understanding)
	Final	If you were applying to a job or internship, which of these do you feel you could include as a competency? By competency, we don't mean you're an expert. By competent, we mean you can engage in a conversation, do you have something to contribute, and would you be able to work on a related project if provided context-specific background and training. *Repeated many of the questions from initial and pretrip reflections*
Reflections	During fall course	Briefly describe the connections you've made between your project and what you are learning in the course (for full credit you must answer this question). Include both the readings and our class visitors. Describe what you have learned about public health and specific populations within the communities of Northfield/Faribault that will likely affect your civic engagement project.

(continued)

Appendix (continued)

Type	Timing	Sample questions
	After study away	Explain how your understanding of your ACE project has been enriched or deepened by inclusion of the winter break travel component. If it was not, explain why you think that may be the case.
	End of program	Describe what you learned about public health and about your topic from working with your community partner. Write a short summary of your project that could be included on a resume or personal statement. Describe the project, skills it may have helped develop, and knowledge gained. If appropriate, comment on how it may have informed your thoughts about potential careers or internships. In short, what did you personally gain from the experience and how did it shape you?

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