Engaging Students: Conducting Community-Based Research in the Senior Capstone Course

Dennis J. Downey

Abstract

Engaging undergraduate students in community-based research (CBR) offers rich benefits to both students and communities *(Strand, Marullo, Cutforth, Stoeker, & Donahue, 2006)*. Finding ways to expand its application promises to multiply those benefits. Senior capstone courses represent a promising vehicle for that expansion, as they are also generally research based and extremely common in contemporary higher education *(Hauhart & Grahe, 2015)*. However, CBR and capstones each have multiple goals and present significant challenges, raising questions about the feasibility of merging practices. This research presents a case study of a capstone sociology course organized around group-based CBR projects. The case demonstrates that CBR-focused capstones, if intentionally designed, are feasible. Assessments by students and community partners provide evidence that the course also achieved the goals of capstones and of CBR. Discussion addresses steps taken since the initial case study to sustain and institutionalize the practice, including measures to assist instructors.

Keywords: Community-based research, capstone, service-learning, high-impact practices.

Introduction

*E*ngaging undergraduate students in community-based research (CBR) is a valuable experience for students and can provide important services to the community *(Strand, Marullo, Cutforth, Stoeker, & Donahue, 2006)*. Finding ways to expand its application promises to multiply those beneficial outcomes. The senior capstone course offers a promising vehicle for doing so, because it is so common in contemporary higher education and shares the focus on supervised research *(Hauhart & Grahe 2015)*. CBR and capstones, however, are each intensive and challenging propositions individually—including the logistics of working with and meeting the needs of community partners while trying to help students to apply all of the skills associated with empirical research. Is it feasible to apply practices concurrently? Each also has its own distinct set of goals: presenting a culminating experience that ties the major together (capstone) and performing research that provides practical benefits to community partners (CBR). Can they be

conducted together in a way that fulfills both sets of goals? Those questions understandably discourage attempts to integrate CBR into the capstone course.

This research presents a case study of a single-semester sociology capstone course in which students completed CBR projects from initial research design to delivery of a final report to community partners. It demonstrates the feasibility of conducting CBR within the capstone, and it presents a range of useful course design elements toward that end (such as project selection, research design and methods, and time management). Assessment based on a survey of participating students and community partners indicated that the course was also effective in fulfilling the goals of the capstone (i.e., providing a culminating research experience and linking the major together) and the goals of CBR (i.e., promoting commitment to community engagement and providing valuable service to the community).

Literature Review: CBR and the Capstone

CBR is defined as "a partnership of students, faculty, and community members who collaboratively engage in research with the purpose of solving a pressing community problem or effecting social change" *(Strand et al., 2003 p. 3)*. CBR projects generally focus on the specific and applied needs of a community partner (e.g., evaluating aspects of their service delivery or environment) and can render an invaluable service to community-based organizations that have neither resources nor expertise to systematically investigate issues that can be crucial to their ability to serve the community. CBR represents a hybrid of two recognized high-impact practices (HIPs): service-learning and undergraduate research *(Kuh, 2008)*. Service-learning can be defined simply as "any program that attempts to link academic study with service" *(Eyler & Giles, 1999, p. 5; see also Jacoby & Associates, 1996, pp. 5–10)*. When conducted with students, CBR is simply a type of service-learning in which the primary service is the research conducted. As such, it is also an example of undergraduate research.

Advocates of CBR have documented the pedagogical benefits (e.g., *Strand, 2000*) and how it offers a productive model for engaging undergraduates in research *(Cooke & Thorme, 2011)*. As a form of experiential learning, it allows students to understand the real-world implications of methods that too often seem abstract and technical *(Collier & Morgan, 2002; Ferrari & Jason, 1996; Potter, Caffrey, & Plante, 2003)*. In addition, working with partners generates addi-

tional motivation for students *(Chesbrough, 2011; Darby, Longmire-Avital, Chenault, & Haglund, 2013; Duffy & Raque-Bogdan, 2010)*. CBR also entails the kind of applied projects that students who do not continue on to graduate school are most likely to engage in beyond college, providing valuable professional development.

As a community-based practice, CBR also presents substantial challenges, which advocates have identified along with a variety of ways to address and manage them (e.g., *Stocking & Cutforth, 2006; Strand et al., 2003)*. Specifically, the service-learning character of CBR layers additional expectations and goals beyond those found in other types of undergraduate research. With service-learning, expectations exist not only for the students, but for community partners as well. Although cumulative research has demonstrated contributions to learning outcomes, it has also demonstrated that learning cannot be taken for granted as an outcome of service participation *(Eyler & Giles, 1999; Manley, Buffa, Dube, & Reed, 2006)*. Nor can the value of service be taken for granted; community partners may receive relatively little in return for the resources invested in training and monitoring students *(Beckman, Penney, & Cockburn, 2011; Blouin & Perry, 2009; Cruz & Giles, 2000; Sandy, 2007; Sandy & Holland, 2006)*. Additional challenges accrue from expectations that service-learning courses will promote future student engagement—conceptualized in terms of civic responsibility *(Myers-Lipton, 1998)*, civic participation *(Clark, Croddy, Hayes, & Philips, 1997)*, civic education *(Parker-Gwin & Mabry, 1998)*, democratic and civic values *(Hunter & Brisbin, 2000)*, democratic citizenship *(Battistoni, 1997)*, political socialization *(Owen, 2000)*, and efficacy for social change *(Mobley, 2007)*. Research has also identified a range of additional challenges associated with CBR specifically *(Polanyi & Cockburn, 2003; Weinberg, 2003)*.

Capstone courses are defined as "a culminating experience in which students are expected to integrate, extend, critique, and apply the knowledge gained in the major" *(Wagenaar, 1993, p. 209)*. Most often, the centerpiece of the capstone is the completion of some piece of original and independent research, generally conducted in a single term. Hauhart and Grahe *(2015)* specify that the "typical capstone course requires a major project or paper associated with substantive course content that is integrative of the major, requires a minimum page length, relies on peer-reviewed sources, and is submitted in an approved format and style" *(p. 39)*. Capstone courses have become increasingly common throughout higher education in recent decades, representing one example of the broader growth of undergraduate research opportunities and

expectations that emerged as a response to critiques of disengagement in higher education *(Katkin, 2003; Kinkead, 2003; Troyer, 1993)*. The central goal of the capstone is highlighted in the definitional element of a "culminating experience": To provide students the opportunity to review and apply the central skills and content of their major.

Like CBR, the capstone presents multiple benefits and challenges to practitioners. Benefits include its effects on student identity and persistence *(Collier, 2000)*, its integrative effects in promoting liberal education *(Durel, 1993)*, and its role in preparing students both for graduate work and for lives as active citizens *(Davis, 1993)*. As with other HIPs, it also contributes to rates of student retention and graduation *(Kuh, 2008)*. Most significant among the challenges confronting capstone instructors, according to Hauhart and Grahe's *(2010, 2012, 2015)* systematic national research, are those presented by limitations associated with lack of student preparation and restricted time frames. Capstones ask a lot of students, who often need significant supervision and direction, and have to move through the project very quickly to complete it on the necessary schedule. That can be a daunting proposal. Although the one-semester course is not ideal, as it compresses the time necessary for a research project, it remains the most common structure for the capstone *(Hauhart & Grahe, 2015)*.

There is little research on CBR in the context of the capstone. An exception is Collier's *(2000)* research, which found that it can be a transformative experience. It is clear that both practices require substantial investment. Guiding students through the research process—from design to delivery—within a single semester is an extremely tight timeline for any research project. The additional complications of working with and responding to the needs of a community partner exacerbate that. The next section describes elements of course design and implementation that make CBR feasible within the context of the capstone, and the subsequent section provides evidence that it can meet the goals of both practices.

Executing CBR in the Capstone

Ensuring Feasibility: Design Choices for CBR in the Capstone

Identify appropriate projects. Although CBR advocates often promote long-term ongoing projects that can accommodate a richer university–community relationship (for good reason), a short-term

project is essential for a single-semester capstone course. Projects must be selected on the basis of scale and complexity. Generally, that selection must be performed by the instructor—both because she or he will be most competent at identifying what is feasible and because projects must be identified prior to the semester to facilitate timelines.

Another issue that must be considered for appropriateness concerns IRB review. Given that the goal is a semipublic report and public presentations of data, IRB review will be required in most instances. Consequently, it is best to select projects that minimize potentially thorny issues that might delay approval. Working with sensitive topics or vulnerable populations or minors should be considered closely (although some projects associated with later versions of the current case study include research on undocumented students and homeless clients of a social service agency, and there was no problem with IRB).

Focus on applied questions. Relative to the traditional academic research model, CBR projects tend to be more applied. (*Strand et al., 2003, p. 9*, offer a useful contrast between traditional academic research and community-based research.) That difference has important implications for the way that the research is contextualized within the literature and discipline. Generally, having a more applied focus means that there is less emphasis on review of previous literature and relatively little theory brought to the projects, as community partners tend to be interested specific empirical answers to their immediate research questions rather than in generalizable patterns and theory development. That is not to say that previous research cannot be integrated, only that it is less essential—and, given time constraints, is one area that might be sacrificed in order to make CBR capstones feasible.

Limit methodological options. One of the most crucial ways to make CBR projects feasible is to limit the possible methods that can be used. One of the most time-consuming processes is guiding methods; the more varied the methods, the fewer "economies of scale" an instructor is able to achieve in that area. In this case study, projects were limited mostly to self-report methods: surveys and structured interviews. The type of projects generally requested by Community Based Organizations are well-matched to self-report methods conducted with stakeholders such as clients (e.g., food pantry clients, farmers market patrons) or volunteers. Offering a quantitative option (surveys) and a qualitative option (interviews) allows students to productively compare and contrast their applicability to the specific research questions based on conversations

with the partner. Specific methodological options will also vary by discipline. For example, a capstone in history might focus on oral histories; one in anthropology might use ethnography. The point is that limiting methodological options is an important design element for feasibility.

Create manageable workgroups. There is a limit to the number of projects that can be effectively supervised in a semester. In any event, the amount of work necessary is generally too large to be effectively completed by individual students. Those constraints together point to the need to make the projects group-based. There are advantages and disadvantages to team-based versus individually based capstone projects (e.g., *Wallace, 1988*), but well-specified projects can provide a rich experience. Groups ranging from three to four students seem most appropriate; groups of more than four often seem to confront logistical constraints, whereas groups of less than three often face workload constraints.

Project supervision and timeline management. Successful implementation of CBR projects within the capstone demands attention to strict management of timelines throughout the semester. The list below includes the major sequence of tasks that must be accomplished.

Match students with projects. At the first class meeting, presentations are made by the instructor (or partners) about the available partners and the projects— including such details as the mission of the partner, the goals of the project, potential research questions, and any additional relevant information (potential challenges, etc.). Students are asked to contact the instructor by the next day with a ranking of their top three choices. By the second class meeting, student groups are assigned to projects.

Develop a research plan. Initial contacts on the part of the instructor with community partners produce a general research concept. The first task of student groups is to arrange a meeting with the partner to discuss the project and to gather information that will allow them to make specific decisions about research questions and methods. Following that meeting, each group is required to write up a memo for the partner (and instructor) that elaborates on the project design—including background, questions, methods, timelines, and so on. Among other topics, the project design document should address why surveys or qualitative interviews have been selected for the research—and how the method is suited to the specific questions. That document serves as a template for the first sections of the final report.

Design a research instrument. The next crucial task is to develop a research instrument—in this case, either a questionnaire or interview guide. That requires multiple drafts and revisions for appropriate coverage and clarity, screened by the supervising professor and the community partner.

Clear IRB. Given the goal of delivering a research report to an external partner, human subjects review will be required in most cases. Clearing IRB will also allow students to disseminate the research in other venues as well (professional conferences, nonacademic publications, etc.). Since data collection cannot begin until IRB review is complete, that presents another temporal obstacle. It is essential to build relationships with the IRB prior to the semester to facilitate rapid review, and the instructor has to play an active role throughout—ensuring that submissions are clear and thorough, and that any requested revisions are addressed immediately. During the review, groups should more fully develop components of their project design (e.g., the methods and background sections, as well as conducting any literature review—which then can serve as drafts for subsequent chapters).

Collect data. In the case study, surveys were conducted through paper copies or online. Interviews were conducted in person (in some cases, in both English and Spanish). It is important to establish realistic data collection targets. In survey research, the marginal costs of additional subjects are negligible, so the question of number of respondents tends to focus on a floor rather than a ceiling. For interviews, it is essential to have a more defined target (or floor and ceiling). Interview projects for this case study had a target of 20 respondents. It is important to note that the data collection stage has to be tightly circumscribed, given the remaining tasks beyond that point. In this case, data collection was scheduled to be completed by the end of the 9th week in a 16-week semester (although there was some variation).

Enter and analyze data. For surveys, data were entered into SPSS, and analyses focused on the graphical presentation of data. Students were encouraged to focus first on the distributions of variables and then move to focal bivariate correlations. Interviews required time-consuming transcription, followed by thematic analysis. Students were encouraged to complete selective transcription, providing verbatim transcription where respondents address specific issues. Subsequently, students used a general matrix-structured analysis that displayed all responses to specific questions along the same row, with respondents presented in columns, to facilitate

analysis. (This procedure, which can be performed in Excel or a Word table, is a quick and efficient way to analyze qualitative data.)

Write up the report. Clear and concise presentation is essential for reports to be useful for partners, and achieving that standard requires multiple iterations, with substantial feedback on each draft. (Writing centers or other campus resources can provide invaluable assistance as well.) Students are also provided a template of sorts through access to previous reports, including a basic structure with each of the following: title page; table of contents; executive summary; background; methods; a series of findings chapters; and a concluding recommendations chapter. That template is invaluable for keeping the write-up on target (and on time).

Deliver report and disseminate findings. At the end of the semester, students deliver reports at meetings arranged with each of the community partners (in addition to an oral presentation at our annual departmental capstone symposium). Meetings are generally small and informal, including students and one or two contacts with whom students worked most closely—although presentations are sometimes made in a more formal setting (e.g., in a board of directors meeting or a commission meeting).

Overview of Case Study

The capstone course in sociology at California State University, Channel Islands (CSUCI) is designated as a service-learning course. Students fulfill a service requirement and write their capstone report on a topic related to that service experience. In the past, they have tended to draw minimally on any course-specific skill sets, and service activities varied from tutoring to farm work to participating in homeless counts. Prior to the case study reported here, typical capstone reports took the form of reflective essays integrating sociological concepts with a review of relevant literature, or analyses based on rudimentary data collected in conjunction with service. Formal end-of-semester presentations offered a valuable professional experience, but projects seldom resulted in genuinely useful findings for partners, which seemed to be a missed opportunity for both students and partners.

In spring 2011, I redesigned and reorganized the capstone course (with an enrollment of 21 students) around CBR projects. Rather than drawing on service to develop research, the capstone would feature research as service. The redesign had several components. Project selection and design were driven primarily by partners' needs rather than students' interests. Rather than con-

ceptualizing service and research requirements separately, the research itself would be the service provided, with the primary goal of delivering high-quality, professional-grade research reports to community partners to serve an identified need. The reports were to be clearly written for a general educated audience, based on data collected and analyzed to meet social scientific standards. The basic parameters of the course drew on lessons from a previous class-based CBR project that, in retrospect, served as a sort of pilot project.

The "Pilot"

In spring 2009, I led a CBR project with students enrolled in an Introduction to Research Methods course, along with a capstone student who served as a project leader. The class partnered with Camarillo Hospice, as sponsor of our local certified farmers market, which they use to support their services. The project required designing and conducting a survey of patrons to gauge relative satisfaction across a range of services and related issues. Students reported that they developed an appreciation for survey research that they never would have developed otherwise, exemplifying the benefits of experiential learning. Students could see how research design played out and validated methodological decisions that would otherwise have seemed technical and abstract (multiple edits of survey questions, attention to sampling procedures, etc.). Additionally, in informal conversations, students reported that the connection established with our partner, and their understanding of the importance of the project to the organization, made them appreciate the value of the research. That led to increased buy-in on their part, motivating increased commitment and effort.

For the capstone student, the project clearly represented a culminating educational experience: "Working alongside a professor and assisting others in learning the process of survey design, data collection, and data entry allowed me the ability to put into practice all of the facets of my education into one finalized project." She also reported that the project enhanced her subsequent community engagement, leading to "volunteer leadership opportunities in multiple venues." In addition to student learning, the community service outcomes were solid. Our partners were pleased with the final report, finding it useful in direct and immediate ways: "As a result of the survey, which we would never have had the resources to purchase, we identified certain shortcomings of the market . . . which we were able to act on easily and at minimum expense." This initial success seemed to indicate that a properly designed

CBR project could be feasible within the capstone and could fulfill the central goals and tap the central benefits of both practices. Application of the model thus took place through implementation of similar projects in a full capstone course in spring 2011.

Partners and Projects

Prior to the semester, the instructor contacted multiple community partners to gauge interest in partnering on capstone research. Students were informed about all partners and tentative projects and asked to rank them in terms of preference. (All students were assigned to their first choice, except for one who was assigned to her second choice.) Below are the six partners with a general description of each project.

Camarillo Hospice. Camarillo Hospice is a volunteer hospice providing a range of services, free of charge, to community members and their families facing end-of-life issues. The organization relies heavily on volunteers who provide those services to clients. Because the volunteers undertake extensive training and perform emotionally intense work, leaders must understand their needs and find ways to address them. That would be most feasible through a survey, to be delivered online.

Casa Pacifica. Casa Pacifica provides comprehensive services throughout the region to foster youth and families, and abused and neglected children and adolescents. Given the crucial role played by mentors for foster youth, the Chief Advancement Officer was most interested in finding ways to increase interest in serving as mentors. It was determined that a series of interviews with volunteers working with foster youth (some of whom were mentors and some of whom were not, to allow systematic comparisons) about their motivations and experiences would best serve that need.

CSUCI Osher Lifelong Learning Institute (OLLI). OLLI is a program run through Extended Education at CSUCI that provides classes on a variety of topics for seniors in the community. OLLI directors wanted to gather information from members regarding their satisfaction with services, desired course topics, and interest in additional programs. That would be best accomplished through a standard survey of current members (delivered in classes) and a more limited survey of ex-members for comparison (delivered via mail).

Join the Farm. Join the Farm is a local nonprofit organic farm linking sustainable agriculture to programs promoting nutritional equity in the county. Its central source of earned income is a com-

munity-supported agriculture (CSA) program in which members purchase "shares" of fresh, organic vegetables delivered weekly. Our partner requested a systematic survey of members to measure levels of satisfaction—along with other issues, including motivations for joining, openness toward transitional organic produce, and so on.

Project Understanding. Project Understanding is a faith-based organization providing a variety of services to economically insecure individuals and families in the county, focusing on the homeless population. The executive director was concerned about the potential for services to cultivate dependency among clients and requested research focusing on food pantry clients to identify patterns of usage and any potential issues of dependency. That could be best accomplished through a series of qualitative interviews with clients.

Ventura County Commission for Women (VCCW). The VCCW is a county commission that had previously approached the Sociology Program requesting assistance in conducting a general assessment of the status of women and girls in the county. They were interested in a systematic compilation and presentation of data using publicly available sources, such as the U.S. Census. The commission has no funding, so the capstone course offered a way to achieve their goal without cost. (That project was based on an analysis of publicly available secondary data.)

Meeting Goals: Assessment of Outcomes

Assessment is based on responses to questions addressing issues central to both capstone goals and CBR goals sent to students and partners nearly one year after the conclusion of the course. Questions for students most pertinent to capstone goals focused on the value of designing, conducting, and presenting original research; the value of producing the research report; and how well it served as a culminating experience. Questions most pertinent to the goals of CBR focused on student motivations and satisfactions related to service and potential impacts on interest in community engagement. Questions for partners focused mostly on the value of the final report. The survey instrument presented questions designed to give respondents the opportunity to bring up a wide range of issues and topics. (The list of questions is available from the author.)

Respondents were contacted via e-mail and asked to participate. (The research was reviewed and approved by our campus

Institutional Research Board.) Responses were received by partners from all seven projects and from 12 of 21 students (57%). Although that response rate might be impressive for a large-scale survey, one would generally expect higher for this type of research. The response rate was depressed by the lack of current contact information beyond students' university e-mail address (which students can retain, but many do not access after graduation). Responses were convergent across the sample for overall themes. It is important to note the potential for biased responses given that it was not anonymous—rather, the survey provided feedback to someone who might be reasonably understood to have an interest in positive feedback. Again, the consistency of specific points indicates that the themes that emerged in the responses are robust.

In spite of methodological limitations, this promising practice case study offers ample results to encourage (and guide) similar efforts and assessments. The presentation of findings below focuses on response narratives. Response distributions are also reported to contextualize narratives. (It should be underscored that the questions allowed respondents ample room for responding in distinct ways, so counts can be misleading. For example, to suggest that 50% identified a specific point does not in any way imply that the other 50% disagree with that point.)

Findings: Learning, Service, and Engagement

Student Perspectives on Learning

Culminating educational experience. When asked about the value of the CBR/capstone experience, seven of the 12 students noted that it represented a culminating experience. In some responses, that took the form of a general peak educational experience. For example, as one student responded: "When I think back on my undergraduate experience, my sociology capstone was by far the most beneficial and influential of any of my experiences." Other students focused more specifically on how the project forced them to draw on and integrate multiple skills from their coursework: "It helped put together everything we learned, from research based courses [to] the theory based." Another student called it "an extremely valuable experience" and explained: "Reflecting back on the process of putting our capstone project together, from beginning to end, I feel like it put everything that we had learned from Soc 101 to Research Methods into perspective."

Responses also underscored the methodological orientation of the projects; nine of the 12 students noted independently the course's value in learning research skills. Students noted that the application of those skills deepened their understanding. One student explained that the project helped him to "acquire qualitative methods that one only reads in texts," adding that "to actually go out there in the field and use them is a whole other ball game." Students also pointed to specific skills that they integrated throughout the project; for example, "we really had to dissect the interviews and go back to the transcriptions whenever we disagreed on some of the patterns we were describing." Another offered the following list of lessons: "learning how to properly organize research, delegating research amongst peers, as well as learning to be very thorough and precise with the secondary data." As many of those quotes suggest, much of the value of the projects accrues from students' involvement in the full arc of the research project, because it forced them to apply the range of research skills and to understand how each articulates with the others.

Focusing on more specific skills, all students (12 of 12) noted positively the experience of writing up the research report (although it is important to note that this was specifically elicited, unlike the more general topics above). This is particularly remarkable because of the intensity of the writing experience. Comments from the following pair of students exemplify students' sense of accomplishment, both in terms of what they invested and what they got out of it.

> It was a very intense and hard process that required a lot of time and attention. Being able to write a 30-something [page] report is definitely one of my greatest accomplishments in college. It taught me that a well delivered project requires A LOT of time, which I think we should ALL know before we go into grad school and/or the work force.

> The capstone report is the most professional piece of work I have, and I definitely see it as an asset on my resume. I am currently applying to graduate school for a Masters in Social Work, so this project shows that I am capable of conducting an intensive project.

Students also frequently mentioned a strong sense of pride in the final report—and the link between that pride and the enormous amount of work that went into the final report. The following response exemplifies that connection: "Though it was comprised out of very much hard work, much frustration and many, many, many hours, I believe that it reflects the heart and truth of our findings and is something that we will always be proud of." It is worth further noting that within the responses about the value of writing the report, seven students noted an educational advantage, and eight students noted some type of professional advantage.

One final response is worth noting because it points to a deficit in students' ability to effectively document their experience in writing the report. The problem is that such reports do not generally result in formal publications that are citable on a resume:

> I know that having the experience of researching and being able to write the report definitely has provided me with advantages in my educational goals. . . . However, I do not know how much advantage the report will have on my career goals . . . because I do not know how to incorporate it into my resume. I do not know what language to use to describe the work that I did.

Educational and professional advantages. Students also responded positively about the contribution of the projects to subsequent academic endeavors (four students), especially those currently in graduate programs. One student noted that the project provided "the opportunity to explore my sociological area of interest—gender—through the connections I was able to form with the VCCW." Two current graduate students recognized an advantage over fellow students in that they had completed a substantial piece of research. One added that in upcoming interviews for placements "it is certainly going to be mentioned that I worked with a community partner to provide them with program evaluation."

Students who are currently employed also described drawing on skills from the capstone projects (four students). The several responses below make those links specific:

> The part [of the project] that I found to be the most valuable was the actual interaction with the clients [at the food pantry]; the reason for this is because it helped assist me in my employment I acquired after graduation. I now run a food pantry for the Salvation Army, so

> my capstone project was a great preparation for the job and for the clients I would potentially be working with.

> The survey development part of the class was very valuable for [me] because I have to develop a client satisfaction survey and treatment team survey where I work at now and I do that on a monthly basis, as part of my duties. I also developed an Excel Program for input and graphs so that anyone on my treatment team can input data and make a bar graph for our team meetings.

> Having participated in research, I was [subsequently] able to conduct my own qualitative analysis with a national initiative. . . . I was able to utilize learned skills and lessons learned from our capstone project to be part of that effort.

Another student responded more broadly regarding professional advantages: "Even if my goals do not deal directly with social research, the skills that were put into practice are likely the types that are sought by many employers."

Motivations and satisfactions. Students generally suggested that the amount of time and energy that they invested in the project was far beyond that involved in other courses with equal credits. Yet all of them felt in retrospect that the investment was worthwhile. Students clearly exhibited a sense of ownership over their projects, exemplifying the shift from externally driven to self-driven *(Hakim, 1998)*. Why were students so willing to buy into the project and invest so much time and energy? Much of the answer comes from the motivation provided by students' commitments to the community partners and the confidence that the project would be of real value to them.

All 12 students noted that helping their community partner was a source of motivation for them, often contrasting it with the lesser motivations characteristic of other courses. As one student succinctly described: "The expectation of this project was not just to turn [in] a document that would satisfy a professor, but one that would benefit the community partner." Another student echoed that point: "I knew it was not just for a grade but also for change in the community." The following student links that service motivation specifically to her increased commitment:

It was not simply another assignment that would be read only by the professor for a grade. It was an opportunity to shed light into a question or concern the community partner wanted addressed. Their dependence on our research only heightened our commitment to the report.

The following responses develop the motivational point more fully:

Knowing that the information collected and the data analysis was work that would make a difference for an organization to create a more effective use of their resources was more motivating to me than any letter grade that could have been given to the report. This motivated me to make sure that we had developed not only useful sociological questions but also useful questions for the community partner to analyze their customer base and the level of satisfaction their customers were receiving.

From the moment we found out which community partner we were going to be working with, we were so eager to get right down to work and put all of our efforts together to ensure that we could present Project Understanding with findings that truly and accurately represented their food pantry clients. . . . We became more and more invested and motivated to get as deep as we could.

Perhaps the most telling sign of student motivation and commitment came from students who continued to work on the project beyond the end of the semester. The most notable example is a group that continued to develop and rewrite the final report through the summer (often meeting in the evenings after work) to ensure the high quality of the final report—even though grades were already submitted and they had all graduated. The situation was somewhat unique in that two members of the group were working with that partner and had a long-term connection to it. Still, it clearly indicated that students saw the projects as something more than a simple class obligation. Students also reported that participation in the project motivated them to become more engaged with the community in the future. (In the interest of space, the findings are not reported here, but they are available from the author.)

Student satisfaction can be elusive because it depends not only on delivering a quality report, but on the partner's implementation of findings, as well as students' knowledge of that implementation. The complications in that linkage are evident in the following student who exhibited a mix of optimism and skepticism about the impacts of the research: "I do not know if they actually used the data, but I really hope they did." As she added, however: "The fact that we tried helping them already makes me feel good though." Another student made the same point with more elaborate and specific referents:

> In our report we found that some of the homeless clients had been using the non-profit for far longer than 1–2 years, whereas low-income clients who were housed were primarily 1–2 year clients. Now the non-profit has begun offering more intensive services for homeless clients, which may or may not have been influenced by our report. But I'd like to think that our project played a role.

Overall, it was clear that although there was substantial satisfaction associated with the projects, satisfaction is diminished to some extent when students doubt that their work will be used. As one student stated clearly: "I think I would have a better sense of satisfaction if I knew more about how the report was used or has made changes for the organization." Students also understood the challenges that their partner confronted in implementing changes based on their research. That recognition mitigated the erosion of satisfaction, as the following quote attests:

> I believe our project will be extremely helpful, but I worry about the implementation of the results. . . . My sense of satisfaction is that we were able to come back and give them information that could be useful.

A final issue related to satisfaction was the challenge created by severe time constraints. As one student wrote: "I think given an additional semester to propose and design student research would add value to the possibility of encouraging undergraduate level student research." Even with scaled-down CBR projects, the challenges of integrating the full arc of research into a single-term course is substantial, and expanding it beyond a single term is worth consideration.

Community Partner Perspectives on Service

Value of the final report. All community partners (seven of seven) noted that the final report was valuable to their organization and that they would have been unable to complete the research on their own. Value was most often linked to organizational planning and decision making. As noted above, findings from the initial project allowed Camarillo Hospice to make subtle changes in the way that they operate the farmers market. The food pantry director also reported that findings led to more effective operation:

> I was able to look at the stats and use the info to help better our policies and intake process to assist us in attaining the info we need to more efficiently serve our clients. I was surprised at some of the stats, and that was also good because I was able to get a better idea of what our client case consisted of and implement programs to better serve that community.

Two partners noted that they were not surprised by findings, but they were quick to point out it did not make them less valuable. As one partner reported: "Although we did not learn anything new, outside validation of what we perceive to be true is always valuable." Another responded similarly: "The final report . . . confirmed our 'hunches' which is no small thing, in regard to who our customers are and what they like and don't like." That partner continued by noting that the findings provided crucial information to guide subsequent transitions:

> It contributed to the confidence we had to move in a new direction as our organization is transitioning. Specifically, because of their report, we knew our customers would support receiving food sourced from other local farms and food grown sustainably even if not certified organic.

In two projects, the findings generated significant positive attention beyond the organization itself, as in the case of the OLLI report:

> [The] main results were communicated to OLLI members and to the parent organization, the Osher Foundation. In both instances, the audiences were enlightened about what we have accomplished in the Institute, and what remained to be done. The survey and

analysis came up with several concrete ideas for imple-
mentation, several of which have guided our activities.
Highlighted needs related to the sorts of courses our
students wanted to add (some surprises here), what stu-
dents were willing to do to help the Institute, and the
attractions of the Institute in addition to courses. It was
also gratifying to know that [OLLI] students applauded
the quality of their experiences.

In the case of the VCCW project, the report represented an
important milestone: "[The report] was the first comprehensive
analysis of data about women and girls in Ventura County; it was a
great beginning reference piece." Equally important, the report was
leveraged by the commission to get funding to extend the research:

The study . . . was a valuable asset in helping the VCCW
to obtain the $20,000 grant because it gave credibility
to the capability of students and commissioners in
bringing this project's first phase to fruition and sup-
ported the belief of the funders in our capability and
dedication to complete the full study. One of the stu-
dents presented the study at our presentation before a
group of funders, which was very important.

Several partners noted that they have not yet been able
to act on the findings, so the report's "value" has not matched its
"quality." As one partner explained:

I feel that the final report has been somewhat helpful.
We have posted it on our website as a resource but have
not taken the time internally to utilize the results in an
effective way. . . . Using the findings to enhance our pro-
gram has been the difficulty internally; nothing to do
with the data, process, or final product. Simply a lack of
time and bandwidth.

A longer perspective offers additional insight on this particular
report. Two years later, the organization was able to hire a postdoc-
toral psychologist who was able to focus on the issue of mentorship.
The report that the students produced was a central resource used
to learn about the issue and to begin to design new initiatives.

Overall, partner responses emphasized that findings informed organizational planning and decision making in useful ways and ultimately increased their effectiveness in serving the community.

Interest in future partnerships. Perhaps the surest measure of the value of partnerships is the level of interest in future projects. All partners (seven of seven) confirmed ongoing interest. One underscored the benefits accruing from partnerships that would be impossible to achieve otherwise:

> I am very interested in continuing to participate in these partnerships. It is a great way to access information in raw form and from an outside source with fresh perspectives. It gives our facility a good sense of what is needed [and] we can pull direct facts for annual reporting and grant requests. Given that we are a nonprofit, our staffing and funding is limited. It helps us in that we receive quality work for free and also engages the youth in what we are doing.

Two individuals working for community partner organizations have changed organizations but expressed ongoing interest in partnerships. One reported that she has already sought out partnerships in her new organization:

> Yes, this made me want to participate in the future. Even though I'm not directing [the organization] anymore, I had such a good experience with capstone that I'm setting up my new work . . . as a CSUCI service learning site.

Discussion

This case study documents the feasibility of organizing a capstone course around CBR projects and presents an assessment that documents effectiveness at achieving the goals (and harnessing the benefits) of CBR and the capstone. The experiential benefits of participation in actual research, combined with the motivational benefits of working with a community partner, make for a capstone that is particularly effective as a culminating experience. Likewise, the capstone represents an ideal context for students to conduct CBR and reap its benefits—given that these are students at the end of their major in a class where expectations of rigorous research

are established. Assessment also suggests that the goal of meeting community needs can be fulfilled in this context.

Although participant responses underscore the projects' successes, there were concerns among capstone colleagues about the CBR focus of the course. First, there was a concern among colleagues that service hour requirements were being dropped (even if the service hours represented in producing the research were ultimately much greater). A second concern was the group basis of projects, which meant that students were not required to complete substantial *individual* written work. A third concern was that the applied emphasis of the reports did not demand integration of disciplinary literature or concepts, which is frequently a central goal of the capstone. Notwithstanding initial concerns, the outcomes—that is, the extent to which the goals of the capstone and CBR were fulfilled—largely allayed these concerns. Since the initial case study, capstone projects in our program have shifted toward CBR-oriented projects, expanding the application of CBR at our university. A wide variety of CBR projects have been conducted annually since the initial case study. Nevertheless, some persistent challenges remain that threaten the sustainability of the CBR-focused capstone.

Efforts to Sustain and Institutionalize

The single biggest threat to sustainability is the amount of instructor time and energy required for direct supervision of multiple CBR projects within a single course (although much of that is attributable to the capstone generally rather than the CBR application). The most important efforts toward sustainability, then, have focused on moderating the workload for instructors, as well as finding ways to increase professional recognition for the community service work.

The first effort on the part of our program to promote sustainability has been to reduce course capacity in the capstone from 25 students down to 15. That has been done on the basis of an attempt to generate "workload neutrality" in our courses such that those courses with the highest workload per student will have the lowest enrollments. The reduced capacity has made an immediate impact on instructor workload, as well as the quality of student experiences.

A more general effort to promote sustainability is a long-term curriculum redesign focused on better preparing students for the capstone. The redesign follows a range of best practices in our dis-

cipline (and throughout higher education) focused on creating a developmental and sequential curriculum to scaffold student skills. Our work was guided by the "liberal learning" documents produced by the American Sociological Association to report on best practices in curriculum design within the major *(McKinney et al., 2004; Pike et al., 2017)*. The intent is to address what is arguably the greatest challenge associated with capstone courses: the lack of student preparation, which effectively multiplies instructor workload *(Hauhart & Grahe, 2015)*. Program members are confident that when all components of the redesign are implemented, it will have a positive and significant effect on student preparation for the capstone. Ultimately, that also promises to lower workload, as better prepared students will on average require less time in supervision.

A third effort to promote sustainability (currently under discussion and expected to move forward soon) is to redesign the capstone toward a two-semester model. That would not only provide relief to capstone instructors, but decompress projects in ways that would address concerns of students and partners. This again follows recommendations presented by Hauhart and Grahe *(2015)* in their research. Although this research has indicated that a one-semester CBR capstone is feasible, concerns about its sustainability have moved us to rework the model.

The most exciting and innovative effort to promote sustainability takes a different approach from workload. Research has provided ample evidence of the substantial benefits to students and to partners of conducting CBR; the instructor, however, enjoys negligible benefits (aside from a general sense of satisfaction). A central problem is that although these projects result in very useful applied reports, they do not yield credit that adheres to traditional professional metrics (most notably, publications). This incongruity reflects the dearth of venues for disseminating the findings of CBR projects—largely because applied organizational research findings are not generalizable, which is most often a requirement for publication. Even though these reports may receive substantial public response, they are ultimately lost in the "gray literature." In this capstone course, the most notable example of the gap between public dissemination and formal documentation was the OLLI report, which was posted on the research page of the OLLI National Resource Center, along with an article explaining the partnership process for the purpose of promoting similar partnerships for other OLLI programs. A New York Public Library publication cited this report as a model, but the page where it appeared was taken down,

and no subsequent opportunity for dissemination has been found. That represents a loss on several levels.

The lack of publication venues for such results, and the corresponding lack of professional credit, remains a strong disincentive toward practicing CBR. This lack of opportunities for publications that would document or formalize their accomplishment for professional credit represents a particular concern for junior faculty. CBR advocates have made efforts to address the lack of publication venues (e.g., CES4Health in the field of community health), but opportunities are still extremely limited for such reports.

To provide support for this aspect of CBR, colleagues on our campus have worked together to create an annual online volume of peer-reviewed community-based research. The concept draws from efforts to promote community engagement through the creation of a repository for documenting and disseminating such activities *(Miller & Billings, 2012)*. In this case, the result is a venue that identifies and highlights the best examples of CBR conducted on campus. Peer review guarantees the baseline quality of the reports (including the appropriateness of methods, community benefit, clear presentation, etc.). The process also integrates community partners as reviewers, which will also help to sustain and expand CBR. The inaugural volume is set to be released in spring 2019 (and there is already interest in broader regional implementation). It is also important to note that in addition to making the practice sustainable for faculty, it will allow students to document their work in ways that will provide important benefits professionally.

Conclusion

This case study has been presented as a promising practice to increase community-engaged scholarship with students by integrating CBR into the capstone course. The case study illustrates that conducting CBR within the senior capstone not only is feasible but can achieve the goals of both CBR and the capstone. To the extent that the practice of conducting CBR within the capstone can be made sustainable, that represents a promising practice for expanding community-engaged scholarship with students in higher education. The project also suggests that more attention to the concurrent application of high-impact practices (HIPs) is warranted, focusing on how that might multiple (or erode) the impacts of each individually. Data from the California State University system *(O'Donnell, 2013)* suggest that participation in multiple HIPs during the course of a college career increases graduation rates sub-

stantially with each exposure; those effects are most substantial for Latino students (and, presumably, other student groups who are more likely to be first-generation college students, come from lower income families, or have recent immigrant backgrounds). However, we have little research on the outcomes of concurrent implementation, as in this case.

References

Battistoni, R. M. (1997). Service learning and democratic citizenship. *Theory Into Practice, 36*(3), 150–156.

Beckman, M., Penney, N., & Cockburn, B. (2011). Maximizing the impact of community-based research. *Journal of Higher Education Outreach and Engagement, 15*(2), 83–103.

Blouin, D. D., & Perry, E. M. (2009). Whom does service learning really serve? Community-based organizations' perspectives on service learning. *Teaching Sociology, 37*(2), 120–135.

Chesbrough, R. D. (2011). College students and service: A mixed-methods exploration of motivations, choices, and learning outcomes. *Journal of College Student Development, 52*(6), 687–705.

Clark, T., Croddy, M., Hayes, W., & Philips, S. (1997). Service learning as civic participation. *Theory Into Practice, 36*(3), 164–169.

Collier, P. J. (2000). The effects of completing a capstone course on student identity. *Sociology of Education, 73*(4), 285–299.

Collier, P. J., & Morgan, D. L. (2002). Community service through facilitating focus groups: The case for a methods-based service-learning course. *Teaching Sociology, 30*(2), 185–199.

Cooke, D., & Thorme, T. (2011). *A practical handbook for supporting community-based research with undergraduate students.* Washington, DC: Council on Undergraduate Research.

Cruz, N. I., & Giles, D. E. (2000). Where's the community in service-learning research? *Michigan Journal of Community Service Learning*, [Special issue, Fall 2000], 28–34.

Darby, A., Longmire-Avital, B., Chenault, J., & Haglund, M. (2013). Students' motivation in academic service-learning over the course of the semester. *College Student Journal, 47*(1), 185–191.

Davis, Nancy J. (1993). Bringing it all together: The sociological imagination. *Teaching Sociology, 21*(3), 233–238.

Duffy, R. D., & Raque-Bogdan, T. L. (2010). The motivation to serve others: Exploring relations to career development. *Journal of Career Assessment, 18*(3), 250–265.

Durel, R. J. (1993). The capstone course: A rite of passage. *Teaching Sociology, 21*(3), 223–225.

Eyler, J., & Giles, D. E. (1999). *Where's the learning in service-learning?* San Francisco, CA: Jossey-Bass.

Ferrari, J. R., & Jason, L. A. (1996). Integrating research and community service: Incorporating research skills into service learning experiences. *College Student Journal, 30*(4), 444–451.

Hakim T. (1998). Soft assessment of undergraduate research: Reactions and student perceptions. *Council of Undergraduate Research Quarterly, 18*(4), 189–192.

Hauhart, R. C., & Grahe, J. E. (2010). The undergraduate capstone course in the social sciences: Results from a regional survey. *Teaching Sociology, 38*(1), 4–17.

Hauhart, R. C., & Grahe, J. E. (2012). A national survey of American higher education capstone practices in sociology and psychology. *Teaching Sociology, 40*(3), 227–241.

Hauhart, R. C., & Grahe, J. E. (2015). *Designing and teaching undergraduate capstone courses.* San Francisco, CA: Jossey-Bass.

Hunter, S., & Brisbin, R. A., Jr. (2000). The impact of service learning on democratic and civic values. *PS: Political Science and Politics, 33*(3), 623–626.

Jacoby, B., & Associates. (1996). *Service-learning in higher education: Concepts and practices.* San Francisco, CA: Jossey-Bass.

Katkin, W. (2003). The Boyer Commission Report and its impact on under-graduate research. In J. Kinkead (Ed.), *Valuing and supporting under-graduate research* (New Directions for Teaching and Learning, No. 93; pp. 19–38). San Francisco, CA: Jossey-Bass.

Kinkead, J. (Ed.). (2003). *Valuing and supporting undergraduate research* (New Directions for Teaching and Learning, No. 93). San Francisco, CA: Jossey-Bass.

Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter.* Washington, DC: American Association of Colleges & Universities.

Manley, T., Jr., Buffa, A. S., Dube, C., & Reed, L. (2006). Putting the learning in service learning: From soup kitchen models to the Black Metropolis model. *Education and Urban Society, 38*(2), 115–141.

McKinney, K., Howery, C. B., Strand, K. J., Kain, E. L., & Berheide, C. W. (2004). *Liberal learning and the sociology major updated.* Washington, DC: American Sociological Association.

Miller, W. E., & Billings, M. (2012). A university library creates a digital repository for documenting and disseminating community engage-ment. *Journal of Higher Education Outreach and Engagement, 16*(2), 109–121.

Mobley, C. (2007). Breaking ground: Engaging undergraduates in social change through service learning. *Teaching Sociology, 35*(2), 125–137.

Myers-Lipton, S. J. (1998). Effect of a comprehensive service-learning pro-gram on college students' civic responsibility. *Teaching Sociology, 26*(4), 243–258.

O'Donnell, K. (2013). Bringing HIPs to scale. In G. D. Kuh & K. O'Donnell (Eds.), *Ensuring quality & taking high impact practices to scale* (pp. 15–22). Washington, DC: American Association of Colleges & Universities.

Owen, D. (2000). Service learning and political socialization. *PS: Political Science and Politics, 33*(3), 638–640.

Parker-Gwin, R., & Mabry, J. B. (1998). Service learning as pedagogy and civic education: Comparing outcomes for three models. *Teaching Sociology, 26*(4), 276–291.

Pike, D. L., Ciabattari, T., Messineo, M., Monson, R. A., Salam, R. A., Wagenaar, T. C., . . . Sweet, S. 2017. *The sociology major in the changing landscape of higher education: Curriculum, careers, and online learning.* Washington, DC: American Sociological Association.

Polanyi, M., & Cockburn, L. (2003). Opportunities and pitfalls of community-based research: A case study. *Michigan Journal of Community Service Learning, 9*(3), 16–25.

Potter, S. J., Caffrey, E. M., & Plante, E. G. (2003). Integrating service learning into the research methods course. *Teaching Sociology, 31*(1), 38–48.

Sandy, M. (2007). *Community voices: A California Campus Compact study on partnerships.* San Francisco, CA: California Campus Compact.

Sandy, M., & Holland, B. A. (2006). Different worlds and common ground: Community partner perspectives on campus–community partnerships. *Michigan Journal of Community Service Learning, 13*(1), 30–43.

Stocking, V. B., & Cutforth, N. (2006). Managing the challenges of teaching community-based research: Insights from two instructors. *Michigan Journal of Community Service Learning, 13*(1), 56–65.

Strand, K. J. (2000). Community-based research as pedagogy. *Michigan Journal of Community Service Learning, 7*(1), 85–96.

Strand, K. J., Marullo, S., Cutforth, N., Stoeker, R., & Donahue, P. (2003). *Community-based research and higher education.* San Francisco, CA: Jossey-Bass.

Troyer, R. J. (1993). Comments on the capstone course. *Teaching Sociology, 21*(3), 246–249.

Wagenaar, T. C. (1993). The capstone course. *Teaching Sociology, 21*(3), 209–214.

Wallace, R. C. (1988). A capstone course in applied sociology. *Teaching Sociology, 16*(1), 34–40.

Weinberg, A. S. (2003). Negotiating community-based research: A case study of the "life's work" project. *Michigan Journal of Community Service Learning, 9*(3), 26–35.

About the Author

Dennis J. Downey is chair of the Sociology & Anthropology Department at California State University, Channel Islands. His research focuses on politics, social movements, and issues of diversity in contemporary American society. He earned his Ph.D. from University of California, Irvine.