Mentoring Students Through Disruption: The Case for Community-Engaged Research

Julia Waity, Ph.D., University of North Carolina Wilmington (waityj@uncw.edu)
Mitchell Farrell, M.A., University of North Carolina Wilmington
Jennifer Vanderminden, Ph.D., University of North Carolina Wilmington
Jean-Anne Sutherland, Ph.D., University of North Carolina Wilmington

Introduction

Strong mentoring relationships are crucial to student success, especially when conducting primary research activities (Shanahan et al., 2015). Additionally, scholars have found many positive impacts for undergraduates when they are included in active/experiential learning (Kolb & Kolb, 2017) and research opportunities (Cooke & Thorne, 2011; Downey, 2018; Fechheimer et al., 2011; Madan & Teitge, 2013). It is no wonder, then, that the Boyer Commission on Educating Undergraduates in the Research University (1998), who provided 10 recommendations for improving U.S. collegiate education, advised to make research-based learning a pivotal feature of the undergraduate experience (Shanahan et al., 2015). Given these findings, we suggest that the implementation of a community-engaged research project as an undergraduate capstone project unites the elements of engaged/experiential learning and mentorship and aligns with Kuh and Schneider's (2008) high-impact practices related to student education (see also Biber et al., 2022).

Specifically, the inherent flexibility that is built into such projects, especially the iterative nature of the decisions regarding how the project will take shape—influenced largely by those who are interested in/affected by the research, feasibility constraints, and feedback between mentors (e.g., professors and/or graduate students) and mentees (e.g., undergraduate students)—allows multiple perspectives to be voiced and considered in times of disruption and/or uncertainty, which likely results in a more well-rounded approach than when a single actor is forced to make such decisions (Ketcham et al., 2017). That is, the nature of this multi-stakeholder research design allows students to step outside themselves and view problems and solutions from other perspectives, which is a vital practice in the development of critical-thinking skills (Biber et al., 2022; Hickey et al., 2019; Kinzie 2013; Vandermaas-Peeler et al., 2018). The course structure and dialogue with community partners built into the structure of the capstone classes discussed in this article may aid in preparing students for the potential of disruption. This is not to say that disruptions that occur in more traditional undergraduate settings (e.g., where a faculty mentor oversees the research of an undergraduate student) are unable to rebound and regroup in the face of disruption, as they often do (see Idris & Dahal, 2021). Thus, although plans may change (sometimes drastically) due to unforeseen circumstances, community-engaged research allows students and their mentors to re-evaluate and adjust project outcomes based on the current situation while still producing a valuable product for both students, faculty, and community partners.

Why Engaging in Community-Engaged Work is Beneficial to Students
As previously stated, studies point to the positive impacts related to the inclusion of students in research opportunities (Cooke & Thorne, 2011; Downey, 2018). Specifically, previous research suggests that undergraduate students have increased research-related skill development, confidence in conducting and presenting research, improved critical thinking and logical reasoning, preparation for the job market and graduate school, and a general increased awareness of the research process as well as the community that surrounds them (Allocco et al., 2022; Kinzie, 2013; Lindsay, 2022; Miller et al., 2018; Selingo, 2016; Slavich & Zimbardo, 2012). This kind of "organic" research, centered around the students' proximate environments, allows students to appreciate and observe the real-world implications of scholarly work that may bring about social change (Melvin & Steverson, 2021; Pennel & Mahler, 2015). Relatively recent research also suggests that students who participate in some kind of experiential-learning opportunity fare better in entering careers than students who do not participate in such opportunities (Miller et al., 2018; Slavich & Zimbardo, 2012). Given these findings, it is no surprise that universities are beginning to utilize hands-on learning practices more readily and earlier on in student careers than in previous decades (Biber et al., 2022).

The fields of Sociology and Criminology may be especially suited for this kind of community-engaged project because it allows students to better understand and contribute to real-world problems that affect the areas in which they reside, though we argue that this type of project and mentoring could succeed in most academic disciplines. Additionally, by engaging in public sociology/criminology (see Burawoy, 2005), students, teachers/graduate students, and community partners may engage in dialogue surrounding the research topic so that multiple perspectives are able to be levied and incorporated, hopefully resulting in a more nuanced understanding of real-world phenomena.

This process resembles the scaffolding of perspectives described in Bronfenbrenner's (1977) *ecological approach*, which explicitly posits situating individual perspectives within larger social contexts. That is, students' experiences were nested within the larger community context (i.e., the *exosystem)* in which they were engaged in research where stakeholders, the general public, and news media could be used to understand the current, local understanding of the phenomena; the university context (i.e., the *mesosystem*) in which they could connect with resources to aid in the understanding of the phenomenon (e.g., through conversation with scholars and through reviewing scholarly literature); and in the specific course/classroom context (i.e., the *microsystem)* where the students had graduate student support, a mentored relationship with a faculty member, and connections to other organizations on campus to strengthen skills and scholarly/professional networks. The process of planning and conducting community-engaged research allows students to garner a strong appreciation for the complexities involved in not only conducting rigorous, scholarly research, but also those related to perspective-taking and expectation management.

We saw students begin to grasp the complexities of research and expectation management through our conversations in class and meetings with the community partner, which resulted in shifting deadlines and plans (e.g., perhaps a website is not doable, but a report is) with dialogue about why those shifts are needed and the implications. Perspective-taking was an ongoing process but one that certainly culminated in the presentations to the community partners and others in the community. Finally, by engaging undergraduate students in studying and attempting to help solve local problems, community-engaged research offers the opportunity to bridge the barrier between community members and the local scholarly community (Zandee et al., 2015).

Broader Perspectives on Community-Engaged Mentoring
The type of community-engaged research that we do with our students is consistent with the historical Chicagoan sociological tradition of analyzing place-based factors and social concerns (see

Park et al., 1925) to devise potential pragmatic solutions (Deegan, 2011; Harney et al., 2016), though community-engaged research can be utilized in any discipline where there is a local issue and where feedback from multiple-stakeholders (e.g., those affected by the issue, those who may be responsible or can simply help alleviate the issue, and those studying the issue) can be evaluated to provide information concerning the extent of the problem, how it may have come about, why it remains, and how it might be fixed. For example, it was common in our courses for the mentors (faculty members and/or graduate students) to initialize conversations with community organizations to obtain a base-line level of knowledge regarding the phenomenon to be potentially studied, the most pressing needs of the organization, and how/what they expected from class research collaboration, which was then relayed to the students for consideration. Once this baseline level of information was gathered, mentors and mentees would ascertain what other literature and information may prove beneficial in understanding the historical, national, and local factors which may be influencing the problem under study. Additionally, students often shared their own personal experiences, knowledge, biases, and what they have read through social media and news outlets about a certain issue, which may also aid the faculty member and community organizers from understanding the issue through a different lens shaped by, potentially, alternate sources of media consumption (e.g., Snapchat, Instagram, TikTok, Facebook). However, through this practice of perspective-sharing, the mentor(s) also had the opportunity, with the aid of prior literature, to show how previous scholars understood, approached, and ultimately "solved" related issues in ways that the mentee may not be aware and to show how the students' current understanding of an issue could deviate from reality due to factors such as media-reporting bias/exaggeration and using only personal anecdotes to form opinions.

This place-based focus has been merged with more recent scholarly work where multiple "publics" are involved in identifying, understanding, and potentially alleviating social problems such as gentrification, improved access to shared campus space, enhanced local lighting, ways to increase road safety, and potential solutions to problem regarding access to adequate housing (Harney et al., 2016; Melvin & Steverson, 2021). This type of community-engaged research can aid students in working with multiple stakeholders, while also allowing them to engage with the research methodologies that have so enriched their fields, alongside mentors who are steeped in these kinds of scholarly activities. Conducting research under the tutelage of mentors in this way aligns with Shanahan and colleagues' (2015, p. 10) salient mentoring practice of fostering "professional development through networking and explaining norms of the discipline." Similarly, mentoring in this type of close-knit environment allows students to gain knowledge of their discipline through "embodiment and enactment, moving beyond merely consuming knowledge and toward higher taxonomic modes of thinking-analysis, synthesis, application, evaluation, creation" (Pyne et al., 2014, p. 50), all of which can inspire a deeper level of understanding, critical reflection, and ultimately action for those engaged in and affected by the research project.

Overview of Mentored Community-Engaged Research in Our Department
During the last several years, a variety of senior-capstone projects have been carried out which were found to have increased integrative, imaginative, and practical thinking (Kinzie, 2013), as well as spurred students' thoughts about career aspirations (Miller et al., 2018). These community-engaged projects include work related to understanding and improving harm-reduction strategies; working to better understand correlates and consequences of youth violence; exploring inequities in disaster response; affordable housing; and food access. Elements of mentoring are dispersed throughout the entirety of the projects but are especially prevalent in the development, implementation, analysis, and dissemination phases of the research project. These capstone courses followed most closely with a collaborated type of mentoring (see Allocco et al., 2022) where students were co-mentored by both the professor of the course as well as the graduate teaching assistant, which has been suggested to lead to improvements in project outcomes as well as educational growth for all involved

parties (Ketcham et al., 2017; Lancaster et al., 2011). Students benefit as they gain experience in dealing with hierarchical personnel structures, which will benefit them in their pursuits outside of their undergraduate experience. Additionally, graduate students are given an opportunity to practice and hone their abilities to answer research-related queries. Also, of critical importance to the feasibility of conducting such resource-consuming projects, the workload can be distributed between the graduate student (co-mentor) and the primary professor.

To facilitate buy-in and a sense of community, the capstone courses begin with a general introduction on the foundations of community-engaged research. Special emphasis is placed on the frequent, clear, respectful communication that is necessary between all parties involved in the project, with the understanding that each entity brings forth valuable expertise that will contribute to the success of the project. These initial conversations with the students and the community are important groundwork for the project and set the stage for sharing needs/goals/challenges among the group, which will become essential during times of disruption. This first stage also allows for the incorporation of some of the tenets of Shanahan and colleagues' (2015) salient mentoring practices, especially those related to the early fostering of a sense of community while also allowing students to take ownership in their part of the research project. Specifically, this initial step allows for students and mentors to engage in "strategic pre-planning" and setting "well-scaffolded expectations" (Shanahan et al. 2015, p. 4–5). These initial conversations in the beginning stages of a project allow for a lessening in the professor-student power imbalance that exists in traditional, lecture-type seminars, thus garnering a stronger collaborative spirit throughout the project (Hickey, 2015).

The strong relationships, characterized by open communication between mentees and mentors, also allow mentors to better gauge the students' needs, including academic support but also mental health needs, which is especially important in times of disruption. Specifically, the structure of these capstone courses allows the community of scholars and stakeholders to engage in a dialogue to determine sources of stress and to develop strategies that may alleviate them (e.g., meeting deadlines, data gathering procedures, difficulty working with certain individuals, work-life balance issues, etc.). Additionally, given the reciprocal cycle of communication with mentor and mentee, the student may feel more comfortable in sharing "silent" struggles that they may be encountering, and the mentor can help guide them in the direction to find solutions or appropriate coping mechanisms to deal with these stressors, which fulfills Shanahan and colleagues' (2015, p. 6) salient mentoring practice of balancing "rigorous expectations with emotional support." Finally, students can support their mentors who are also likely experiencing stressors, even if this support is through enabling faculty to do their job well under difficult circumstances.

In many of our sociology capstone experiences, before the community-engaged research project begins, students are put into groups that will perform different research-related tasks. Students can self-select into a group, or the instructor can assign students to groups based on their interests and skills. Consistent with Hickey and colleagues (2019), we found that when students are provided with the opportunity to exact agency within the research process where they bring expertise and value, they are more likely to have a sense of research ownership and community collaboration. This sense of ownership and collaboration was most apparent through conversations during class and at the research symposium and brunch held at the end of the term. At the research symposium, students had the opportunity to discuss their roles in the project, share their results and findings with the community, and talk about next steps (with the community project and in their academic trajectories). The different roles in which students engaged included different forms of data collection, analysis, and presentation.

Consistent with key components of high impact practices, providing a culminating event or summative conclusion of the project and engaging in evaluation are essential. While students were frequently reminded to elicit any further help or guidance they might have needed from the professor or the graduate assistant, one of primary aims of the courses are that by the end of the semester the students would feel confident enough to conduct independent research. When possible, faculty provided an opportunity for the students to showcase these research skills and their findings to the community partner through a research symposium and brunch. The students completed reflections at the start and end of the semester, allowing them to communicate their intentions, concerns, and anticipated challenges to the faculty and graduate mentors. Some example prompts include: What do you hope to learn from this course? Do you have any concerns or questions about the course? What do you anticipate learning from working directly with our community partner that is different from what you learned from academic sources? Importantly, we did not specifically ask questions about mentoring in these intention and reflection assignments, but we plan to do so in the future. Upon reflecting on our own teaching practices, we recently added pre- and post-test evaluations to our courses, consistent with core practices in integrative learning (see Kinzie 2013). These evaluations ask students about prior knowledge as well as what they have learned in the course. Given that we only recently started using pre- and post-test assessment in addition to the reflections, we do not yet have concrete results to share, but hope to publish on those results in the future.

Challenges of Mentoring Students Through Community-Engaged Research
Challenges to mentoring students through community-engaged research, which is already labor intensive for faculty and students (see Hickey, 2015; Lancaster et al. 2011), can be exacerbated during times of disruptions such as natural disasters or pandemics. Some challenges for faculty and students include increased stress and anxiety, time constraints as work-life balance becomes even more difficult, and the potential for increased absences as mental and physical health issues arise. In addition to challenges faced by those students and faculty working on the project, it is important to recognize that most if not all disruptions facing those in the university settings are also facing the communities in which the research is taking place. The challenges could be exacerbated in low resource communities and organizations and may prevent them from participating as fully, given limitations to resources, staff, and bandwidth. For example, the community partnership for the hurricane research project was created through a need in the community and provided resources, but likely would not have worked if the project was on another unrelated topic as all resources and attention were focused on hurricane recovery. This example illustrates the importance of project flexibility, where mentors, mentees, and community partners come together to adjust research efforts to meet the most pressing community needs. Additionally, when such adjustment is necessary, it is a great opportunity for the academic mentors to model researcher-resilience by maintaining poise and professionalism in navigating uncertainty: a skill that has the potential to continue to pay dividends in the careers of the mentees who internalize and emulate this practice. See Idris & Dhal (2021) for an example of successfully navigating a major pivot in project focus as a result of an earthquake in Nepal.

But challenges can occur even without disruptions. Those can include students' lack of technical expertise and instructors having to re-teach statistical/mapping/data gathering techniques and maintaining authority in the classroom while also minimizing power imbalances. These sorts of challenges are minimized through close mentored relationships, which are particularly crucial during difficult or uncertain times. However, the structure of the class and communal research activities may not be an experience that some students, who are more accustomed to traditional, less applied college courses, are interested in undertaking. Therefore, it is important to set expectations early so students know what is expected of them in addition to what is expected of the faculty member and graduate assistant. These expectations include active engagement in the research process, including a detailed discussion with students about what participation means (not just showing up

for class but contributing in a meaningful way), the scaffolded nature of these research projects in which initial phases have to be completed so other pieces can be built on them (so students understand why late assignments can derail the project), and the uncertain nature of working with community partners in terms of shifting timelines. Expectations were communicated at the beginning of the semester both in class and through the syllabus, with periodic conversations with and reminders to students as necessary. Additionally, relatively "normal" challenges that present themselves in traditionally structured academic courses and during times without disruption (e.g., absenteeism, lack of student motivation to participate in class discussion and complete assignments, communication difficulties) also occur in community-engaged research. This is especially the case in times of disruption, though alternate strategies may be used to deal with such issues like taking advantage of opportunities to correct problematic behaviors using scaffolded mentoring (i.e., awareness of an issue early on), discussing the role of individuals as part of a group and how that is working or not throughout the semester/project, and by instilling a greater sense of responsibility to the local research community in fulfilling one's role in the successful completion of the project.

Community-engaged research is an excellent opportunity for undergraduate mentoring. The foundations that we laid through intentional course design have enabled high quality, successful mentoring to continue to occur even when we are faced with disruption, which we will describe in detail in the next section. The foundations that we built into the courses include student intention setting (through the papers described earlier), setting clear expectations, maintaining open lines of communication, and providing frequent feedback to students.

Case Studies: Mentoring Students in Community-Engaged Research Through Times of Disaster
Mentoring students in community-engaged research through times of disaster can be beneficial in several ways. Since strong mentoring components are already built into these courses, additional support for students is already present and does not need to be added in when disaster strikes. These strong mentoring components include smaller class sizes to allow faculty to work closely with students, providing oversight and support throughout all parts of the research process, supporting specific student interests through the research processes, and providing open lines of communication with mentors. There is more flexibility with this approach, allowing pivots in the course without having to start from scratch. The timing when the event occurs can impact how to mentor through the unexpected. In the Hurricane Florence case, the students were just starting to pick a community partner when the campus was shut down, so the shift did not impact a community partner we were already working with. In the case of the start of the COVID-19 pandemic, our students had a different experience since they were just about to start data collection when the pandemic hit. Then in the following two academic years, we were able to more intentionally plan for disruption from the very design of the course. This approach can also enable instructors to fill in student gaps in skills and career readiness through the course in a responsive manner as needs arise.

Those who have worked in the community know that disruptions can occur that have the potential to derail this work. In this section we will describe five case studies that highlight different types of disruptions and how high-quality undergraduate mentoring can continue under these disrupted circumstances. Intentionally designing courses with the understanding that disruptions and disappointments can occur can help students to get the most out of their experience (see Moser, Waity, & Kinzer, *forthcoming*). Designing the course to be two semesters long, providing professional development opportunities, and having strong community partnerships can all help to mitigate student disappointments (Moser et al., in press*).*

Case Study 1: Hurricane Florence

One type of disruption that can occur is from natural disasters. These may cause classes to be canceled for an extended period, necessitating a shift in the community-engaged work and thoughtfulness in moving forward given students' levels of stress and trauma. When Hurricane Florence shut down our campus for five weeks, we shifted our community-engaged work to the topic of the hurricane, and specifically sought out a community partner that was doing work in the area. To follow, we provide details on this shift and the role of mentoring throughout. A similar switch could be used for floods, tornados, earthquakes, etc.

During the fall of 2018, one of the authors was teaching our public sociology/criminology year-long sequence in which the students do a community-engaged research project from start to finish. During the first few weeks of the semester, around the time when we would typically be finalizing a topic to study and identifying potential community partners, we experienced a major natural disaster. Directly following the re-opening of campus, the class reconvened and caught up on both life (some students lost a great deal, others reeling from seeing loss all around them) and school (the project). The tone of the class was grateful to be back but also consumed with the aftermath of the hurricane. Students understandably had a hard time thinking or talking about anything else. While the class had narrowed down topics for projects to be completed that term and the next prior to evacuation, there was little interest in those topics anymore and it was clear to the faculty member that shifting was the best option. The students voted unanimously to study inequity in hurricane recovery, though subtopics within had not yet been determined. The faculty member then moved to identify a community partner that was working in the community on recovery. After meeting with the community partner, and then the community partners and students as a team, three subtopics were identified as those that were important to the community and that the students cared deeply about. It was clear that the community need was not only for information, but also capacity building for collecting data, so the faculty member applied for a small grant to purchase tablets and pay staff at the agency to collect data along with the students, all of whom went through the Institutional Review Board (IRB) certification process together. Students were incredibly invested in the project as it was something they experienced to varying degrees and found ways in which their skillsets were useful during a time of crisis. Prior to this project, students had gained a sociological perspective and research skills but had not had many opportunities to see how those skills were useful beyond coursework. In this project, students were pleasantly surprised that their capacity to form research questions, identify usable data (and data that was not usable due to issues with validity), test research questions, and (most satisfyingly) provide information to the community that was helpful to advocate for resources during recovery.

This disaster impacted our course more than most other courses because we completely pivoted to focus our attention on the hurricane and the inequity in recovery and because we had a two-semester sequence for the project. With that, the change was perhaps not as disruptive as it could have been. This was possible because the sequence was intentionally designed to be a closely mentored relationship in which the students participated in community-engaged research, which required flexibility in that it was in partnership with an ever-changing community (Shanahan et al., 2015). This pivot was difficult in that the research area was well out of the faculty member's expertise and the timeline was limited by the missed five weeks. There was also a need to re-collect ourselves and restart. The project allowed the students to see how their skills and perspectives were useful in a moment of crisis. They benefited from a multi-layered mentoring approach (see Pyne et al., 2014), in which both the faculty member and a graduate teaching assistant worked closely with them for the entire academic year. Additionally, the students self-selected into groups in which they worked closely with peers on the project allowing for peer-to-peer mentorship. This mentoring was informal and organic. After selecting into groups, students identified their skills and interests within the group and worked together on some components of the project. They co-authored sections of the

paper and worked through data visualization together. They mentored one another on the research but were also crucial supports for one another through a difficult time (i.e., hurricane recovery) and an academically challenging course. In the future, we will include mentoring information/training/etc. and be more intentional with our integration of peer mentoring into projects.

Case Study 2: Onset of COVID-19 Pandemic

The onset of the COVID-19 pandemic was a disruption that upended universities (and life) in ways heretofore never previously experienced. Being forced into an online learning environment not only meant that classes could no longer meet in person, but that we could not continue the community engagement in the way that we had planned. The creative solutions that were devised in this situation could be used in future unforeseen events.

In March 2020, at the start of the COVID-19 pandemic, our public sociology and criminology students had already planned out their research. They were planning to collect data from residents about affordable housing right when we returned from Spring Break, but then we switched to a virtual format, so they needed to change their research design. Instead of distributing surveys in person at town events, we were able to mail them with the water bills that the town sent out. Because we could not conduct focus group interviews, students analyzed some previously collected related data from in-depth interviews with key stakeholders. In the end, we did not collect as much data as we were hoping to share with our community partner, but students were still able to gain experience with primary collected data.

We kept up with our mentoring practices when our class met synchronously online during our normal class time. We continued to meet with each of the research groups individually to check in on their progress and provide feedback. In addition to talking about the progress of their research, we also allowed students space to talk about their lived experience with the pandemic. While not all students kept their cameras on during larger class meetings, during these smaller group meetings, students did turn on their cameras which facilitated a more intimate environment. In the larger class, we shifted the structure of the course to allow students the opportunity to reflect on how the research project was progressing, as well as to share some of the challenges they were facing in their internships and other aspects of school. They were able to share this both with their fellow classmates during class time as well as through reflection assignments that could take on a multimedia format. The faculty member and graduate assistant expressed to students their shared disappointment in not being able to proceed with the planned research. Together we were able to make the best of a challenging situation.

The close mentoring relationship that we built with our students enabled us to see how much the pandemic was impacting them. One group in particular expressed the desire to complete their project with something that could make a difference locally, a prevalent theme in undergraduate sociological work (see Pennel & Maher, 2015). A student in that group was doing an internship with a backpack program that was feeding kids who were out of school, which gave her an idea to look at food access. Students in that group then worked with our local food policy council to create maps showing where residents could get access to free food. They utilized the same skills that they had planned on in their original project, but they instead applied it to a pressing need in the community, indicating a high degree of integrated learning (Kinzie 2013), where students can quickly adapt their academic skills and methodology to address different research needs. They felt a sense of accomplishment knowing that their maps were helping those in need access food.

After the initial disruption caused by the COVID-19 pandemic, we were able to more thoughtfully plan what community-engaged research and undergraduate mentoring would look like. Although some of

these classes continued to be online with minimal in-person community engagement, the COVID-19 pandemic provided different opportunities for mentoring than the Hurricane Florence case study described above. Ways of dealing with extended remote learning and alternative ways to engage with the community could be useful not only in times of future disruption but for exclusively online classes as well. Some of these alternative ways of engaging with the community include a virtual resource fair that students organized to bring service providers together to share resources during the pandemic, having students submit questions and recording interviews/conversations with community partners/leaders answering those questions, as well as a virtual community mapping activity that we created in place of the original mapping activity where students had planned to walk around in the community. The pandemic forced us to think differently about accessibility and getting creative in how we connect with students and the community.

Case Study 3: Lasting Impact of COVID-19 Pandemic: Fully Online Community-Engaged Course
While the sudden disruption of classes in March of 2020 was traumatic to many, students and faculty alike, few at the time conceived that the pandemic would continue throughout the summer and into the fall (and beyond). Indeed, the summer of 2020 brought with it concerns and confusions as to whether and how returning to campus would be possible. As more and more people fell ill, death rates climbed, and social distancing remained necessary, adverse mental health experiences such as anxiety, stress, fear, and depression were increasingly reported (see Salari et al., 2020; Saw et al., 2022)

For one of the authors, starting a senior seminar which included a community-based research project in the fall of 2020, brought with it numerous challenges. As students returned to school, many were met with their first experience of learning in a Zoom environment. The preceding summer allowed faculty to explore training on best practices of synchronous online teaching and mentoring, though the literature was scant given the newness of the experience. Many faculty relied on social media for resources, including myriad teaching-focused Facebook pages. For this particular class, steps were taken to ensure the most interactive experience possible for students, given the online format and ongoing stressors related to the pandemic. Zoom training sessions offered suggestions for engaging students in discussions including techniques involving breakout rooms and utilization of the chat feature. In addition, arrangements were made for community members to meet with the class via Zoom in order to establish relationships. It was made clear to the students that requiring cameras to be on during class was not ethical, but, as a seminar style class, it would certainly contribute to a richer interaction. Students agreed and willingly appeared on camera each week, as did guests.

Engagement between the professor and community partners began over the summer of 2020. Again, plans were made concerning meetings with students in a Zoom environment. It was agreed that utilizing Zoom would actually be beneficial given the schedules and locations of all parties involved. The project for this class centered on food acquisition and inequities in the local community. Throughout the fall semester, the class met online with members of food related organizations and members of the local community who would be essential in developing a study utilizing focus groups made up of members of communities living in local food deserts in order to learn of their direct experiences and needs. On one occasion, the class was able to meet face-to-face with two community leaders in one of these food deserts. The meeting took place outside with physical distancing and mask wearing. While students had become fairly well adjusted to Zoom meetings, they very much enjoyed this occasion as it gave the class a chance to actually meet in person, and it exposed them to a local, low-income community that they would not have experienced otherwise. The students present that day later expressed how they were confronted with their own stereotypes of such communities which positively impacted their commitment to the research. The act of actually being present *in* the community is vital to community-based research (Pennell and Maher, 2014; Zandee et al., 2015). Certainly, one opportunity to be in the physical community space

with partners does not equate to multiple encounters in and with the community in the process of relationship building. However, given how infrequently physical encounters of most sort were happening in the fall of 2020, the students and community partners were grateful for at least one in-person meet-up.

During the meeting, the community partners and students reached the agreement that focus groups would be possible in similar outdoor settings. Unfortunately, the opportunity to conduct face-to-face focus groups was deemed impossible for a number of reasons. In the fall of 2020, there were hopes that COVID-19 rates would significantly drop by January of 2021 when the focus groups would begin, yet those rate drops did not occur. Given the continued high COVID-19 rates, and the uncertainty of community members willing to sit outside, adjustments had to be made concerning methods of data collection. The interview guide, which had been developed with the community partner (i.e., resident of the food desert community), was altered to an open-ended written survey. Students were indeed disappointed that they could not carry out the focus groups in and with the community. But as the spring semester continued on, students became more accepting of the circumstances. The surveys were certainly not as effective as focus groups would have been, but they did elicit good information. Exposing students via academic literature to the specifics of conducting focus groups and analyzing data continued, leaving them with a good understanding of this methodology.

Zoom meetings continued with our community partner, which allowed for that key component of community-based research to persist. Over time, Zoom became more and more natural. With the continued normalizing of Zoom, mentoring students began to resemble face-to-face interactions more and more. The awkwardness of seeing oneself on camera began to ease. The predictable occurrence of inadvertently interrupting someone speaking became less uncomfortable. While students missed the physical presence of others, they began to realize that even post-pandemic, online meetings were probably here to stay. In that sense, while necessary due to the unprecedented circumstances of the pandemic, the Zoom environment of this class offered students exposure to a method of interaction that is likely to be a feature of future jobs they secure (see Miller et al., 2018; Selingo, 2016). Community engagement and the building of relationships can still occur in an online format.

Case Study 4: Lasting Impact of the COVID-19 Pandemic: Face-to-Face with COVID Adaptations
The ongoing COVID-19 pandemic brought with it many challenges for everyone, including the changing nature of student/faculty mentoring relationships compared to non-pandemic times. In the second full academic year after the pandemic, we had shifted to once again teaching face-to-face. Even though everyone was eager to return to normal, we still had ongoing adaptations related to COVID. In addition to the mentoring that we were doing during our classes, we were also connecting with our students via email and Zoom more frequently to ensure that if they missed class, they were caught up. Students were experiencing burnout, which made us reconsider some of the assignments and format of our courses. The community-engaged format of the course allowed us more flexibility. But as happens with other courses, there were still some students who were not being reached.

We have found that although there are major challenges to doing community-engaged research during a pandemic, we have also identified major benefits that result from closely mentored relationships in an otherwise often-disconnected space. Students and faculty alike have reported that they feel students are not learning at the same level over Zoom or in hybrid capacities for a myriad of reasons (i.e., context of online environment, feeling disconnected, stress, etc.). Anecdotally, students have expressed concerns that they do not feel as if they are learning some of the core skills and materials, which could serve to disadvantage them in the labor market and in applying to graduate school (see Miller et al., 2018). We argue that these gaps can be partly filled through a mentored research project. Through a mentored research project (community-engaged or

otherwise), faculty are able to identify gaps in students' learning/skillset and through applied opportunities can work with the students to fill those gaps. During these projects, it is not uncommon for students to be anxious about the sampling, design, or analysis phases because they are not confident in their ability based on earlier courses. Through mentored projects, we can re-teach, applying the skills and then reflecting on how it went and what we could do differently next time. Knowing where the student is at, regarding their academic experience, is essential to mentoring, and in this context, the students can identify and express concerns about gaps in their skillset/knowledge base. We have found that through having students engage in research, they are able find solutions to those gaps and gain those skills and confidence. For example, as seniors, we expect students to have the skills from research methods, including operationalizing concepts and sampling designs. In having to do research with faculty, students are able to review or re-learn what these concepts are and how to use them.

Listening to student concerns during the course caused us to add additional materials on career readiness to the semester. Traditionally in our senior seminar courses, we include several different career preparation assignments, such as writing a resume or doing a practice job interview. We have found that during COVID, students are even more eager for these resources. Students felt as if they missed many of the skills they would have normally acquired due to the pandemic. We found that in addition to mentoring students through the research process, students wanted some mentoring through the job search process that they were not receiving elsewhere. This is another way we were able to be responsive to student needs.

Case Study 5: Community Events that Reshape the Research

Sometimes events that happen in the broader community, nation, or world will reframe the research that is being done with community partners. For example, students were working with a community partner looking at youth exposure to violence and had planned to examine police data on spatial distribution of arrests when a shooting happened at a local high school. In response, the research shifted to consideration of violence prevention programs and how those programs might fit within the local context given the existing data we had from the police department. Whatever the events are, it is important to keep those clear lines of communication open with community partners so discussions surrounding if and how the research should change given what is occurring can happen. When making this shift, it is also important to communicate with the students and gauge their interest in pivoting or staying on the course. In the case of the hurricane (case study 1), students were unanimously enthusiastic about the shift, but in the case of the local shooting, the students voted to shift, though less enthusiastically. The difference was likely related to the closeness of the crisis to them personally, the intensity of the relationship with the community partner, and the ability to see an immediate impact. The feasibility of a shift will also depend on the timeline, level of community involvement, faculty capacity, and student interest. In some cases, like with the shooting at the local high school, the event and subsequent shift allowed the students to see the value and clear application of their research to the local context and beyond.

When working with non-profits and other community organizations, leadership can and does change. Thus, it is important to try to prepare students for the challenges and opportunities that can come from working with a community partner through mentoring. For example, when working on a community-engaged project, new leadership wanted the focus of our research to switch directions because they had different priorities. Because of the duration of the project, we were able to make that shift, but it did require extra work on our part. As described above, these shifts in the project direction need to be effectively communicated to students. Previously built strong mentoring relationships should ensure these lines of communication remain open (Allocco et al., 2022; Hickey et al., 2019; Ketcham et al., 2017).

Conclusion

Instructors seeking ways to engage more deeply with mentored undergraduate research should consider a community-engaged research project for both the benefits to the students and its adaptability in uncertain circumstances. Community-engaged research benefits students in a myriad of ways, one of which is through the strong mentoring relationships that can be cultivated. Closely mentored community-engaged research projects have strengths and robust features that benefit students during "normal" times and allow for meaningful outcomes during uncertain times of disruption and disaster. As previous research shows, these major benefits often include a greater ability to integrate knowledge gleaned during student undergraduate careers (Kinzie, 2013), more confidence and competence in conducting and presenting research (Pyne et al., 2014), and greater career placement and success after graduation (Miller et al., 2018). Additionally, as described in our case studies, mentoring through community-engaged research allows students the opportunity to develop new skills while being responsive to the community, which is especially important for fields dedicated to involving the public in research endeavors (Burawoy, 2005; 2014).

In the reflections that students wrote in our courses, we saw clear evidence of these benefits. To provide feedback directly from students about their experiences in these community-engaged research courses, we have pulled some quotations from our capstone students' intention and reflection assignments that illustrate the larger themes that we found. Because community-engaged research was new to most students, they anticipated a few challenges they might encounter along the way. One student wrote:

> This is one of my biggest concerns regarding the course. I'm anticipating that there will be times where I'm not sure what to do. However, I'm hoping that this course and the community-based research we'll be engaging in will help me gain a better understanding of how exactly research is done.

Another student wrote, "Since I am only an undergrad student, I do anticipate problems such as the proper ways to conduct the research or writing the gathered data."

Overall, they seemed excited to be applying the skills that they were learning in the classroom, and in turn learning from the community as well. One student wrote about applying skills, "...I do not really anticipate any other problems and I think that while it will be difficult, it will also be enjoyable to finally use the skills and knowledge that I have learned over the past four years." Relatedly, a different student wrote, "From this course, I hope to learn about the different ways that I can apply my knowledge about our social world in meaningful ways that impact our environment." Another student wrote about learning from the community, "I expect that working with the [community partner] will seem more hard hitting and personal than learning from academic sources."

In the reflections that students wrote upon completion of the course, many indicated that the challenges they anticipated didn't come to fruition. One wrote:

> When we first started talking about the [community-engaged research project] it sounded like we were almost speaking a different language. I had no confidence and was feeling very intimidated. Now I am proud of myself at how far I have come, and I feel more confident in my ability to expand this knowledge and use it more in the future.

Others discussed how working with the community allowed them to gather more relevant information. One student wrote, "The data here was much more realistic, rather than what can seem far-away and disconnected in academic sources." Another student wrote about the impact that this work had on them and the community:

> Working with the [community partner] felt like we were taking more action rather than just being aware of the skills of a sociologist which is what we learn in academic settings. It felt more professional and felt as if we were using our knowledge over the past few years at university and using it for a good purpose.

Another student described how the community-engaged work kept them motivated, "Working with the [community partner] made me feel like all our work had a bigger meaning. It motivated me to stay on top of schoolwork and try my hardest on the coursework."

Students recognized that community-engaged work, especially during the COVID-19 pandemic, can have challenges, but they recognized the importance of learning flexibility. One student wrote about that:

> I think it was a challenge to be a part of a project that evolved as we were in it. But I think this is a good thing, I think that in the real world, in graduate school, or in a career there will be this same experience. I think that it was a really good way to practice being flexible and learning as we went.

While we did not specifically ask students about their experiences with mentoring in their reflection assignments, some students commented on how we mentored in class, with one student writing:

> I just wanted to commend you for being so observant of the class and making the changes that you did to accommodate for some of the students even though you didn't have to. I know there is a ton of confusion going around as to why it feels like everyone is either falling behind or simply falling apart, and I think it was extremely generous that you have broken the class down to try to make it less overwhelming.

Another student wrote about mentoring, "This class, and my team of instructors/mentors, really solidified my desire to go to graduate school and pursue a career in the field of sociology."

The challenges regarding community-engaged research should be considered before undertaking these endeavors. Like all mentoring of undergraduate students using best practices, mentoring through community-engaged research is time-intensive for faculty members (see Hickey, 2015; Ketcham et al., 2017). Students might not be comfortable with the shifting nature of these courses, even though that adaptability leads to better experiences for them. Also, as previously mentioned, community-engaged research is not a "silver bullet" that will extinguish all problems which occur in the classroom setting, especially regarding student motivation to participate, communicate, and complete assignments, though this type of research does offer ways to address such issues that more traditional classroom structures (e.g., lecture dominated) may not (e.g., layered mentoring, emphasizing a team-like response to research and project-related difficulties, instilling the importance of a team-minded research atmosphere where each individual is partially responsible for the success of the overall group).

We have reflected on some of the challenges we experienced mentoring students through times of disruption. Despite the intentional design of the courses to withstand disruption, we still were not fully prepared for the experiences. We have since sought out specific resources on mentoring, including training for both ourselves, for our graduate student mentors, and for undergraduates on peer-to-peer mentoring. We have also implemented a pre-/post-test in our classes to provide more feedback to us on student learning and plan to incorporate prompts about mentoring on the intention and reflection assignments in the future. We learned firsthand how much extra support

students needed during these disrupted situations and built into our courses time for reflection and processing.

The nature of community-engaged research projects in needing to adapt to community partners, the community itself, and the flow of research allows for more flexibility in times of disruption and uncertainty. While plans will likely change due to unforeseen circumstances like a hurricane or global pandemic, community-engaged research allows students and their mentors to re-consider and adjust the plan, implementation, and project outcomes based on the current situation, while still producing a valuable experience and outcomes for both students and community partners. Finally, the scaffolded nature of the learning and research process, as well as the co-mentoring involved, allow for students and teachers to formulate a cohesive, communal research atmosphere where clear expectations are set for all parties, along with the expectation that plans may change as the research process progresses for a myriad of reasons. Despite unforeseen changes and disruptions, this type of community-engaged research has vast potential to produce a valuable learning experience for all involved, despite any permutations that may have to occur. This process ensures that students have experience in working alongside others despite potentially changing circumstances, which mirrors the critical thinking and adaptability that is often necessary to thrive in future careers, while having the benefit of working alongside mentors who are more seasoned in the research process and who are there to support them in their academic endeavors.

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