FROM THE FIELD

Research-Practice Partnerships as Community-Engaged Learning: Lessons Learned from a Collaborative Project with Youth Development Programs

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Abstract

To bridge the gap between community-engaged learning and research-practice partnerships, we describe our experiences in a project jointly conceptualized and implemented by undergraduate students and youth development practitioners over the course of two academic semesters. The project offered students the opportunity to apply the skills they learned through coursework in a way that also supported the needs of community practitioners, providing both groups with opportunities to learn from each other. In this paper we describe the collaborative project, our process, the challenges we faced, and the impact of the project on the student researchers and the youth development practitioners. Written by representatives of both the student researchers and the practitioner collaborators, we hope this paper will inspire others to incorporate students in research-practice partnerships and that our reflections on the strengths and challenges of this process will facilitate more effective implementation of community-engaged scholarship in the future.

Community-engaged learning can provide undergraduates with real-world learning opportunities that have the potential to simultaneously benefit community partners (Hou, 2014). Unfortunately, despite the potential for students to learn valuable real-world research skills and the importance of research-based knowledge for program evaluation (Levin-Rozalis, 2003), these experiences rarely involve research as a component of the students' work. Often distinct from community-engaged learning, research-practice partnerships are intentional relationships between research institutions and community practitioners focused on studying and addressing issues relevant to practice (Coburn, Penuel, & Geil, 2013). Such opportunities for undergraduate students to integrate research and practice with community programs can be beneficial on multiple levels. For example, as students learn valuable research skills (VanderStoep & Shaughnessy, 1997), their enthusiasm and novel perspectives may bolster existing research-practice partnerships. Student involvement could also provide community programs with additional support for program evaluation and other research needs.

Program evaluation is important to community programs as it provides an indicator of program quality and a measure of the success of programs and the value they offer to their participants (Park et al., 2016). Program evaluations provide practitioners with information necessary to report to existing funders, secure new grants, and improve programs' efficacy in promoting intended skills among youth participants (Levin-Rozalis, 2003). For instance, 4-H Youth Development programs invest extensive resources to develop activities and environments that promote the "Essential Elements" of independence, mastery, belonging, and generosity in youth participants (The National 4-H Council, 2008). Consequently,

quantitative evaluations on the extent to which participants cultivate these skills through 4-H programs would be valuable (Meyer & Jones, 2015). However, as many programs lack the resources or capacity to conduct evaluations of their own programming, collaboration with researchers—including students—could bridge this gap. Thus, we propose integrating community-engaged learning and research-practice partnership approaches to involve undergraduate students in community-based research.

Community-Engaged Learning

Community-engaged learning, service-learning, and curricular community-engagement refer to a wide range of activities that involve students working, volunteering, conducting research, or otherwise engaging with the world outside the university in ways that bolster their formal academic studies (Bender, 2008). In its broadest sense, community-engaged learning is "an interdisciplinary practice involving students and the wider community…[in which] students acquire skills that may not be so readily learned in formal classwork" (Hesson, Moskal, & Shephard, 2014, p. 500). These programs allow students to build skills through direct experience working with communities and to form meaningful relationships with community members (Eyler & Giles, 1999). Community-engaged learning allows students to gain experience with ethical decision-making, critical thinking, cultural sensitivity, and collaborative group work (Stack-Cutler & Dorow, 2012). For students, in addition to building technical skills, working with community programs also supports their understanding of real-world issues by offering insight into the organization and practices of programs (Kravetz, 2004). These opportunities can increase students' engagement in their coursework and further their learning as they integrate their classroom-based and real-world knowledge and experience (Kezar, 2006).

Research-Practice Partnerships

As with undergraduate community engagement, it is essential that research-based connections between the university and community are mutually beneficial (Teeters & Jurow, 2018). Conducting research in community settings benefits researchers and universities by integrating community priorities into scientific pursuits (Bruns & Franz, 2015). Similarly, collaborating with researchers can provide practitioners with new insight on the impact of their programs and potential areas to improve (Jagosh et al., 2015). In order to be successful, these partnerships between campus-based researchers and community-based organizations require considerable strategic collaboration (Israel et al., 2006). Yet practitioners—including those explicitly connected to research such as 4-H with its links to the national Land Grant Extension system—do not always consider research to be beneficial (Chaudhary & Radhakrishna, 2015). These collaborative projects often prioritize the university's outreach goals over the community's needs, reflecting a disconnect between university and extension perspectives (Franz, Peterson, & Dailey, 2002). Thus, research-practice partnerships must actively, consistently, and conjointly value and address both the community's and the researchers' priorities with mutual respect and urgency (Ahmed & Palermo, 2010).

Several factors may encourage research-practice partnerships to more genuinely benefit both parties. For researchers, developing respect and appreciation for practitioners' experiences, capacity, and mission is essential, as is ensuring equitable distribution of resources and credit (Shea et al., 2017). Practitioners must develop their knowledge and attitudes about the value of research (Leeman et al., 2015) while candidly assessing their resources, time, and skills for undertaking such projects (Wilson et al., 2011). Furthermore, all members in a collaborative partnership must find shared values and goals (McNall, Reed, Brown, & Allen, 2009; Vaterlaus, Skogrand, Higgenbotham, & Bradford, 2017), establish effective communications (Shea et al., 2017), and continuously work to build trust (Jagosh et al., 2015). Finally, research-practice partnerships are more likely to succeed when they have adequate resources and pursue clearly defined outcomes through strategic actions (Beckman, Penney, & Cockburn, 2011).

Engaging Students in Research-Practice Partnerships

Integrating students into research-practice partnerships (while adhering to the aforementioned factors essential to partnership) can also maximize the benefits of community-engaged learning and research-practice partnerships for all parties. However, the lack of overlap between the literature on community-engaged learning and studies of research-practice partnerships suggests that community-based research partnerships rarely involve students in this way (for a rare example of such integration, see Hildreth, 2018). We argue

that in an increasingly interconnected world, linking higher education and community work can provide undergraduates with a meaningful and practical education (e.g., Butin, 2003; Matthews, Dorfman, & Wu, 2015). Integrating research into community-engaged learning can encourage students to use critical inquiry and data exploration as tools to support and strengthen communities (Kravetz, 2004), while continuing to offer the benefits of research-practice partnerships to both researchers and communities. To illustrate this potential, our project's goal was to apply best practices for collaborative community research to a student-led project that prioritized the needs of youth development practitioners.

In this paper, we describe the process of developing a collaborative project with undergraduate students and 4-H Youth Development practitioners. Aligning with calls for greater "collaborative reflexivity" or self-reflection about collaborative processes (Banks et al., 2014, p. 37), we share lessons learned and suggestions for best practices from our experience of creating and implementing a community-research partnership.

Our Project

This project was part of the Program for Research on Youth Development and Engagement (PRYDE) at Cornell University. The overarching goal of PRYDE is to foster partnerships between researchers and youth-serving organizations in order to understand and improve the lives of today's young people. An essential component of this work is the PRYDE Scholars program, a two-year fellowship in which undergraduate students (PRYDE Scholars) are paired with faculty mentors and participate in a translational youth development research course, concluding in a two-semester community-engaged project during their senior year (the focus of this paper). The first year of the program builds students' translational research skills by fostering the necessary competencies, conceptual understanding, and group dynamic for a successful collaborative project. This preparatory year also orients students to the communities with which they will be working, in an attempt to avoid the common misstep of well-intentioned but novice collaborators accidentally insulting or burdening their community partners (da Cruz, 2017). The second year puts this knowledge into practice by challenging the Scholars to create and implement a collaborative project with 4-H practitioners in one or more counties in New York. Students and community partners jointly determine the nature of the research project (e.g., create a new program, evaluate an existing program), but maintain flexibility for shifting interests and the concerns of both parties as the partnership develops.

The community partners involved in this project were recruited through emails to the state-wide 4-H mailing list and through PRYDE's relationships with 4-H program leaders. The project was advertised as an open-ended opportunity for collaboration with undergraduate students on a project meaningful to the practitioners. Representatives from six counties agreed to join an initial conference call with the students. These practitioners varied with regard to their experience working with researchers, their organizational size and capacity, the types of programs they offered, and the youth populations they served. For example, program foci ranged from nutrition education, to STEM, to mentorship, and served youth from elementary through high school.

From the start of the project, the student research team worked with practitioners to identify program needs and discuss how to feasibly meet these needs within the two-semester timeline. Early in the fall, the Scholars held several video calls with the 4-H practitioners who demonstrated interest in undertaking the project. During these calls, practitioners discussed their goals for the partnership, their programs' needs, and how their programs could benefit from the proposed collaboration. The calls were conducted in a group setting so practitioners could hear each other's ideas and determine points of overlapping interest. For example, practitioners in four of the six counties expressed a need to evaluate the impact of their after-school programs on youth, as all had stakeholders and/or funders seeking this information. As the Scholars also shared an interest in program evaluation, we agreed that the year-long project would focus on evaluation of these programs.

Once the group decided to pursue after-school program evaluation, two counties chose not to join the partnership. One did not have an after-school program to evaluate and the other decided to prioritize different commitments. The groups who withdrew at this stage simply expressed that this project would not be the best vehicle to accomplish their aims. Positive relationships were maintained between PRYDE and those 4-H practitioners. Practitioners who joined the project represented 4-H programs in four New York counties: Ontario, Seneca, Tompkins, and Warren.

The planning and collaborative decision-making for the scientific and logistical details of the project took place through regularly scheduled video conference calls. Ultimately, the Scholars and the 4-H practitioners co-determined three goals for this project. The first goal was to create a tool to evaluate the needs and interests of the practitioners' particular programs. The second goal was to ensure that the Scholars provided evaluative tools that would be easy for practitioners to use even after the Scholars graduated. Finally, both practitioners and Scholars wanted to foster positive, cooperative, and meaningful relationships to build our collaboration skills and help develop PRYDE's platform for future campus-community collaborations.

Method and Process

In addition to the 4-H Essential Elements of mastery, belonging, generosity, and independence, the 4-H practitioners were initially interested in measuring how their programs fostered resilience, self-efficacy, self-esteem, and a sense of belonging among the youth participants. (National 4-H Council, 2008). The Scholars researched the benefits of each outcome for youth, identified validated scales, and presented this information to the practitioners. The practitioners reviewed all of the Scholars' suggested survey items and selected which measure(s), if any, best aligned with their program values, ultimately selecting one to three outcomes per county. The Scholars and practitioners then tailored the survey length and question phrasing to be age appropriate for youth in each program and decided how to implement the evaluation process, such as determining responsibility for data collection and entry and the type of incentives/rewards offered to youth participants.

The students incorporated these new details into a comprehensive proposal that they submitted as their final assignment for the first semester of the project. The proposal included information about each outcome measured, including instructions for administering and scoring each scale. It also outlined details for the spring semester, during which the Scholars would evaluate the program implementation, provide ongoing technical assistance with data collection and communication, revise the evaluation materials, conduct data analysis, and report the results. In addition, the proposal included expectations for the 4-H practitioners, such as a timeline for data collection and scheduling logistics. By submitting this proposal to practitioner partners for review as well as to the course instructor for grading, the Scholars obtained valuable feedback that they used to adjust the evaluation plan prior to implementation. Practitioners also gained a clear overview of the project and were given a final opportunity to either opt out of the program or request changes before data collection began. Since the Scholars had worked closely with the practitioners over the course of the semester and the proposal reflected agreements previously co-determined by both the students and the practitioners, all four counties reviewing the proposal agreed to continue their participation. Before leaving for their winter break, the Scholars ensured that each county had copies of the survey to administer when their after-school programs were back in session and had received the incentives (small toys) to give to youth participants.

The outcomes measured across the four participating counties were sense of belonging (Anderson-Butcher & Conroy, 2002; e.g., "I feel comfortable at this program"), resilience (Liebenberg, Ungar, & LeBlanc, 2013; e.g., "I know where to go to get help"), and self-esteem (Rosenberg, 1965; e.g., "I take a positive attitude toward myself"). The program staff who led the after-school programs administered all surveys.

In January and March, youth (with caregiver consent) in after-school programs in Ontario, Seneca, and Tompkins counties filled out paper copies of the surveys. Participants were assigned confidential ID numbers to protect their privacy and to allow for tracking of changes over time. School officials in Warren County were concerned about privacy, which delayed data collection and limited participation to raised hands in response to verbal questions. In each county, between 20 and 45 youth responded in January and March, with approximately 150 total participants in grades three through eight. After collecting paper survey responses, practitioners either entered data into an online form created by the Scholars using the Qualtrics survey platform or sent the hard-copy survey responses to the Scholars to enter. This flexibility was especially valuable to the practitioners because the time constraints of their staff varied from day to day and across counties.

In May, the Scholars analyzed findings from the evaluation and assessed each county's average scores on each measure and changes in scores for each measure between data collection points. The Scholars made oral presentations of these findings to the 4-H practitioners and the community partners provided the Scholars with feedback that

they incorporated into their final written report. In addition to this final report, each partnering county received an Excel spreadsheet reflecting their county's targeted outcomes and data. This Excel sheet included separate tabs for each scale (i.e., resilience, sense of belonging, and self-esteem) and a place to enter participant data in the future. The Scholars programmed automated features into the Excel sheets, which enabled practitioners to enter new data and update the calculations, including participant level scores for each scale, group means by time point, score ranges, and the number of youth survey participants. The Excel sheet also conducts paired t-tests to calculate the significance of changes over time on each measure. The surveys used Likert-type responses, which can be analyzed using parametric statistics such as t-tests with valid results (Norman 2010; De Winter and Dodou 2010; and Vieira 2016). Because most of the practitioners involved with the study had little formal statistical training, the Scholars wanted to give them the simplest effective tool for analyzing their data. Using more complicated procedures or requiring users to check for normal distributions before applying the t-test would have violated the goal of providing easy-to-implement evaluation tools. The Scholars also created a codebook as a reference guide to provide practitioners with more detailed instructions on how to use the Excel sheet to enter and analyze future data from paper surveys. Sharing the presentation, report, surveys, and Excel sheet provided 4-H practitioners with insight into the current impact of their programs, as well as the tools and knowledge to support future program evaluations after the Scholars graduated.

Results and Impact

We focus here on the results of this project as they relate to the participating Scholars and practitioners, rather than the specific results of the program evaluation. To help synthesize the diverse perspectives of those involved, all members of the collaboration (including those who are not co-authors of this article) were invited to complete a series of open-ended online survey questions prompting reflection on the collaboration and evaluation process. Questions addressed how initial expectations differed from the experience of the program evaluation design and implementation, perspectives on factors contributing to the project's success, and challenges with the process (e.g., "what challenges have you faced while working on this project?"). These brief reflections (submitted individually and with the option for anonymity, N=11) were coded by the lead author to assess areas of agreement and discrepancy across groups and then reviewed by the co-authors to ensure that the selected quotes were representative of individual experiences. Results revealed many similarities in the reported experiences of the Scholars and the 4-H practitioners, despite differences in perspectives and project-related tasks. With regard to comparisons between initial expectations and implementation, no one knew what to expect going into the project, but all expressed pleasant surprise with the experience in terms of both how smoothly the process went and how the relationships among the Scholars and practitioners developed. For example, one Scholar said, "I didn't have too many expectations… however, it ended up going really well" and a practitioner said, "Reality so far has gone beyond my expectations." Another point of commonality was a strong sense of appreciation for the level of investment in the project by both groups, and how the Scholars consistently prioritized the practitioners' needs and feedback. One practitioner highlighted the importance of "Students [Scholars] who are interested, listen and respond to program needs and feedback, and [show] commitment to the project," which was echoed by a Scholar who said the project worked well because "everyone [was] on-board about prioritizing the need of the practitioners."

One interesting point of difference was in how the two groups felt about communication throughout the project. Practitioners felt that "there was great communication" and "the dialogue that transpired was most helpful and respectful." In contrast, some of the Scholars felt that they had not clearly communicated or that they had caused confusion (although not reduced enthusiasm) among their practitioner partners. In general, the students reported that they "learned a lot about the process of collaboration and communication in real life implementations" and about "how important direct, clear, proactive communication was." From the perspective of the course instructor, communication challenges mostly emerged when the students had not made clear decisions among themselves before trying to convey ideas to the practitioners, or when students became overly excited about the nuances of research and presented unnecessary details to the practitioners, which had the potential to crowd out more pertinent items for discussion. However, the fact that the practitioners described the collaboration with phrases like "I truly feel this experience was optimal" and "Excellent. Well organized,

thoughtful partnership," indicate that while these moments were challenging for the students, their negative effect on the practitioners was minimal. This is not to say that the practitioners did not notice the challenges. Rather, because of their role as 4-H educators, the practitioners were experienced in working through situations and challenges with young people and were able to step into their educator roles to facilitate this learning experience for the students while also collaborating with them.

For the practitioners, the larger challenge was logistical. For example, one pointed out that "the timeline was a bit challenging and not necessarily true to a pre/post experience for our students… Our busy schedule of running and participating in other programs also can cause a challenge as far as timely entry of data." Thus, while the Scholars were concerned that they had not communicated effectively with the practitioners, the practitioners were concerned that they would not be able to implement the project to meet the ideals of scholarly rigor. Although both concerns were legitimate, it is interesting to note that both the Scholars and the 4-H practitioners were most concerned about making things more difficult for each other.

Overall, both the Scholars and 4-H practitioners who provided feedback believed the project and the collaboration was successful. The Scholars appreciated the experience and expressed pride in their work and its impact. For example, a highlight of the project for one Scholar was "hearing from practitioners that they're so excited for this project, and that it seems like it will be really useful for them!" For another Scholar, a highlight was dedicating the time to polish the proposal because "we all wanted the best possible deliverable and it was a paper that each of us was proud of, maybe the best paper I've written in college." This group synergy made the Scholars feel that they were doing meaningful and impactful work in the partner communities while also building research and program evaluation skills and knowledge. The practitioners were similarly pleased with both the experience and the utility of the final report and Excel sheet. "Way more was provided and accomplished than expected," one practitioner noted, "[A] very well thought out guide, data collection, and analysis. Beyond my expectations!" This positive experience was due, in part, to the fact that the practitioners were "able to share feedback and give input on the project from the beginning. It was nice to develop something alongside a researcher rather than be handed a packet and expectations to 'go do.'" Therefore, for both the undergraduate researchers and the practitioners, the project had a positive impact, providing professional development for both groups and the opportunity to "come together toward a common goal."

Discussion

In line with the goals of mutual benefit espoused in both community-engaged learning and research-practice partnerships (Ahmed & Palermo, 2010; Israel et al., 2006; Kravetz, 2004; Teeters & Jurow, 2018), this project sought to help both undergraduate researchers and community youth development programs by providing undergraduates with real-world research-based learning opportunities that were of value to community partners (Hou, 2014). Specifically, the project resulted in accessible, relevant program evaluation materials designed and tested by undergraduate students working with 4-H practitioners. The project fostered meaningful connections between undergraduate students and community practitioners. In addition, it reflected and informed PRYDE's ongoing efforts to foster more successful research-practice collaborations in the future.

To ensure that this evaluation would be easily and accurately implemented, the student research team consistently communicated with 4-H partners throughout the process, allowing them to create and administer surveys that most closely aligned with the goals of each program. Results from this evaluation offered insight into the effects of these 4-H programs and the system created through this collaboration can be used independently in the future. While data from the evaluation will not be published, this project has greatly contributed to the experience and knowledge of the PRYDE team as a whole and has provided evaluation tools that can be used in these and other 4-H programs, as evidenced by the qualitative feedback described above. This process and its products enabled the practitioners and undergraduate students to better understand and communicate how 4-H builds important skills and values in youth participants. By sharing the surveys, the data analysis reference guide, and the Excel sheet used to compute the results, the Scholars also helped build the capacity of 4-H programs to sustainably and independently assess their impact on positive youth development.

In addition to providing valuable tools for the 4-H programs involved in the collaboration, working on this project contributed to the undergraduate researchers' experience as PRYDE Scholars and prepared them to pursue careers in research and/or positive youth development. As many of the Scholars are passionate about youth development, their experience with this project will have a lasting effect in how they utilize research in their future work supporting young people. Similar to effects noted by graduate students engaging in community-based participatory research (Ivey et al., 2018), the project served as a connection between theoretical classwork, real-world research, and community programs. While community-engaged research is a complex process (Israel et al., 2006), collaborating with multiple practitioner partners helped to foster the Scholars' understanding of the needs, goals, concerns, and practicalities relevant to community youth programs and taught important skills for meaningful and successful applied research. We expect that this type of project would benefit other students and communities.

This project also fostered meaningful connections between the university and community 4-H programs. Despite the challenges often associated with sustaining community-based programs, campus-community connections can be lasting and beneficial (Vaterlaus et al., 2017). Therefore, we tried to conduct our project in line with best practices for effective campus-community partnerships (e.g., Israel et al., 2006). For example, by having the PRYDE Scholars collaborate with the 4-H practitioners as genuine partners throughout all points of the research process, we enacted suggestions for collaborative goal setting, shared decision-making, and knowledge of the needs of communities (McNall et al., 2009) to identify project goals and make decisions. Presenting results to the practitioners and sharing the resources necessary to conduct future program evaluation and interpret results is also consistent with the ideals of co-creation and dissemination of knowledge (McNall et al., 2009). Finally, the project contributed to PRYDE's mission to better integrate research and practice (Agans et al., 2020). We hope that sharing our experiences will enable other research-practice partnerships to make their work more accessible to students and inspire other community-based learning programs to incorporate research projects. We believe that this work is important to strengthen communities, inform research, build productive and lasting relationships between universities and communities, and train the next generation of researchers and practitioners to enact collaborative partnerships.

Limitations and Challenges

There are a few important limitations to our project and challenges in our process. First, the timeline of the project posed a challenge to all involved, as the university calendar did not align with the schedule of the after-school programs. Further, the impending graduation of the Scholars imposed a strict deadline on the project. The limitation of conducting the project during two university semesters constrained the possible forms it could take and limited the depth of relationships between Scholars and practitioners, who were all aware of the temporary nature of this particular partnership. With regard to the evaluation itself, the pilot we conducted was limited in its ability to assess the impact of the programs studied, as the timeframe examined was not long enough for meaningful change to have elapsed. If the practitioners use the evaluation tools from this project in the future, it will be more useful to collect pre-program data when youth first join the program and post-program data at the end of a program or semester. Additionally, university partners should explore how to adjust their timeline to better match the program calendar.

As mentioned previously, communication challenges arose throughout the process. Although they were mitigated by having a preestablished schedule of group conference calls and a point person for email communication, there were also times when the practitioners received mixed messages from multiple students attempting to explain elements of the process. Adhering more strictly to a practice of directing all follow-up communication from student researchers through a designated point person could help prevent miscommunication.

Finally, we recognize that the success of our project relied on systems that are not available at all institutions, specifically PRYDE's commitment to translational research and the institutional connection between Cornell University and 4-H through the land-grant university system. The preestablished relationships between PRYDE and 4-H practitioners allowed the undergraduate students to immediately begin working closely with partners at the beginning of the project rather than starting by seeking entirely new partnerships. The Scholars also received considerable guidance and support throughout

the process, both from PRYDE in general and from the course instructor, who guided the team in creating deadlines and working through logistics. The PRYDE Scholars class also met biweekly, allowing the Scholars to engage in group work, solve problems, apply theoretical material, navigate the Institutional Review Board process, and foster a shared vision and approach with practitioners. Without these support systems, successfully creating and executing such a project in two semesters would have been more difficult.

Conclusion

The project described in this paper involved undergraduate students participating in community-engaged learning through a research-practice partnership that provided a unique opportunity to combine practical, hands-on learning with true community collaboration. The success of this project in terms of its impact on both students and practitioners makes it a noteworthy example for others to follow. We hope that this illustration of our process can inspire and support others to incorporate undergraduate students in research-practice partnerships designed around community-engaged scholarship. We acknowledge that the success of this program was enhanced by resources such as PRYDE and the land-grant system with its direct links to practice through Cooperative Extension. However, we believe that such partnerships are feasible in other settings committed to collaborative research, and that the benefits of doing this type of work for students, researchers, and communities make it imperative to pursue more projects of this type.

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