

# Minding the Gap: Using an Applied Research Center to Improve Student Learning

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[journals.sagepub.com/home/jax](http://journals.sagepub.com/home/jax)**Adrianna Smell<sup>1</sup> and Josh Packard<sup>2</sup>**

## Abstract

Universities are under increasing pressure both internally and externally to demonstrate student learning outcomes generally and in the liberal arts and social sciences specifically. Internally, students and others often complain about the lack of direct connection between what they learn in the classroom and what happens, or what they perceive happens, in the real world. In addition, universities are often required to demonstrate to state and federal authorities the value of liberal arts and social science education. In this study, we use in-depth interviews to demonstrating the value of an Applied Research Center (ARC) to help communicate value to stakeholders, close learning gaps, and foster university-community partnerships. Our findings suggest that an ARC can play an integral role in reinforcing student learning outcomes, increasing student career success, and establish disciplinary value to a variety of constituents.

## Keywords

diversity, racial differences, higher education

## Introduction

Universities are under increasing pressure both internally and externally to demonstrate student learning outcomes generally and in the liberal arts and social sciences specifically. Internally, students and others often complain about the lack of direct connection between what they learn in the classroom and what happens, or what they perceive happens, in the real world (Ballard and Daniel 2016; Rowen 2016; Stolley et al. 2017). In addition, universities are often required to demonstrate to state and federal authorities the value of liberal arts and social science education (Chin, Senter, and Spalter-Roth 2011; Spalter-Roth et al. 2010). Parents, students, and professionals, working in and around higher education, have become increasingly concerned with the relationship between costs and benefits of attaining a liberal arts degree and pursuing a career in the social sciences. This concern has given rise to an increased emphasis on identifying the economic (Ballard and Daniel 2016; Sandahl 2015) and social (Humphreys 2014; Rowen 2016) value of the liberal arts, often relying on new and alternative ways of measuring value and success (Gullion and Ellis 2014; Stolley et al. 2017).

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This study describes how an Applied Research Center (ARC) can be an alternative means of demonstrating to internal and external stakeholders the value of a liberal arts degree, especially in the social sciences. An ARC bridges the student learning gap, accelerating department's abilities to meet the required student learning objectives (SLOs), and supporting the university/community relationship—three key features associated with increasing and showing the value of the liberal arts and specifically, the social sciences. Closing the learning gap and accelerating SLOs helps ensure that students have the necessary skills to successfully merge into the professional world and fulfill a variety of roles. Supporting the community and university relationships provides students with an abundance of networks and resources that enable their success pre- and postgraduation by providing professional experience and potential career options. In this article, we use evidence from 15 semistructured interviews conducted with a combination of students, faculty, university staff, and community partners to show how an ARC can close the learning gap between the classroom and the real world, further validate department-outlined student learning outcomes, and strengthen university/community relations.

## **Background**

The relationship between the cost versus the benefits of higher education are often a direct concern for parents, students, and professionals whose work involves higher education, especially for those with liberal arts degrees (Adamuti-Trache et al. 2006; Humphreys 2014; McPherson 1998; Paino 2014; Rowen 2016; Skinner and Lawson 2006). These concerns have led to increased focus for describing the value of liberal arts degrees, in terms of social (Ballard and Daniel 2016; Hollway 2005; Paino 2014; Sandahl 2015; Spalter-Roth et al. 2010) and economic benefits (Adamuti-Trache et al. 2006; Humphreys 2014; Rowen 2016; Tubbs 2013) in addition to finding alternative ways to measure and produce desired student learning outcomes (Bills 2008; Gullion and Ellis 2014; Hirsch and Quartaroli 2009; Holbrook and Chen 2017; Korsching and Peter 2007; Lehnerer 2008; Stolley et al. 2017). Previous research has also focused on documenting student gains during two specific time periods: during degree attainment (Bills 2008; Gullion and Ellis 2014; Lehnerer 2008; McKinney and Naseri 2011) and into the workforce (Stolley et al. 2017; Ballard and Daniel 2016; Bandini et al. 2016; Spalter-Roth 2007; Spalter-Roth and Van Vooren 2010).

Researchers have used numerous strategies to emphasize the value of liberal arts degrees and produce reliable measurement strategies. The implementation of teaching innovations that emphasized active learning within courses (Gullion and Ellis 2014; Holbrook and Chen 2017; Korsching and Peter 2007) or within the university (Bills 2008; Lehnerer 2008; Stolley et al. 2017) were used most often to increase and document student learning outcomes. Additional methodologies used by researchers to highlight the value of liberal arts education include longitudinal studies (Adamuti-Trache et al. 2006; McKinney and Naseri 2011; Spalter-Roth et al. 2010; Spalter-Roth and Van Vooren 2010), surveys (Ballard and Daniel 2016; Spalter-Roth 2007), case studies (Hollway 2005; Rowen 2016), and experimental designs (Coulter 2012.; Pedersen and White 2011). Professionals have also produced a handful of perspective pieces using experience and previous research to emphasize the importance of skills gained from the liberal arts, in sustaining and improving society (Agestro 2011; Humphreys 2014; McPherson 1998; Paino 2014).

What all of the aforementioned studies conclude, through a variety of different methods, is that there is significant value of a liberal arts education, especially in the social sciences. Typically documented during two distinct time periods, throughout one's education and during different phases of one's career, the value of the liberal arts is foregrounded in both social and economic advantages. In the following section, we examine how these benefits translate into the job market.

### *Liberal Arts on the Job*

Liberal arts education is especially important for graduates entering a complex and ever-changing society and job market. Liberal arts degree holders provide skill development in three major areas, individual thought, cultural competency, and civic action (Gullion and Ellis 2014; Hollway 2005; Humphreys 2014; McPherson 1998; Paino 2014). The ability to think freely and broadly and a concern for social justice aids in the economic prosperity of liberal arts graduates as there are numerous social-service-related career opportunities in government, nonprofit, and private sectors (Humphreys 2014; Paino 2014; Spalter-Roth 2007; Spalter-Roth et al. 2010; Spalter-Roth and Van Vooren 2010). However, research has continually expressed concerns with the lack of career guidance, especially within nonacademic trajectories (Ballard and Daniel 2016; Rowen 2016; Spalter-Roth 2007; Spalter-Roth et al. 2010; Stolley et al. 2017). These concerns can lead to decreased major (Rowen 2016; Spalter-Roth et al. 2010) and job (Spalter-Roth and Van Vooren 2010) satisfaction. Despite concerns with career guidance, when social science graduates were situated in discipline-related careers that allowed for advancement, their satisfaction levels increased.

While professionals with liberal arts degrees initially earn less than those with applied and professional/pre-professional degrees, wage gaps even out as people move through their careers (Adamuti-Trache et al. 2006; Humphreys 2014). Over time, most professionals have the opportunity to advance from entry level to senior and executive positions (Rowen 2016; Spalter-Roth 2007). As professionals move up the prestige hierarchy, from entry- to senior-level positions, economic stability is not the only professional marker that increases. Professionals, especially from applied and public social sciences, show heightened job satisfaction as their responsibilities and immersion in discipline-specific duties increase (Bradburn et al. 2018; Spalter-Roth 2007; Stolley et al. 2017). This is also true of professionals with a liberal arts degree as their abilities to network and find mentorship amplified the purpose and value founded in their careers (Rowen 2016). Therefore, the value of a liberal arts education is most visible when considered in social and economic contexts. Liberal arts education may lead to less financially abundant careers; however, this is made up for in the social and economic capital that many graduates derive from their experiences.

### *The Importance of Technical and Professional Skills*

The skills used most often by professionals with liberal arts degrees include working with diverse groups (Korsching and Peter 2007; Stolley et al. 2017; Spalter-Roth and Van Vooren 2010), thinking critically and using the sociological imagination (Gullion and Ellis 2014; Humphreys 2014; Spalter-Roth 2007), and communicating and problem solving (Ballard and Daniel 2016; Humphreys 2014; Spalter-Roth 2007; Stolley et al. 2017). Liberal arts degree holders also tended to be comfortable articulating, using, and differentiating between discipline-specific research methods (Bandini et al. 2016; Spalter-Roth et al. 2010). Across a variety of academic and non-academic careers, professionals agree that the interdisciplinary nature of the soft and technical skills developed through liberal arts education are valued on the marketplace.

For example, graduates who communicated their sociological skills during job interviews ended up using this expertise to complete job-related tasks (Spalter-Roth et al. 2010). When graduates used discipline-specific knowledge and professional skills to solve problems, career-related satisfaction increased (Holbrook and Chen 2017; Spalter-Roth 2007). Likewise, college graduates with liberal arts degrees tended to find value in their career-related experiences and a sense of purpose in their work (Rowen 2016; Stolley et al. 2017). Another means of ensuring that discipline-specific knowledge and professional skills are acquired through liberal arts education is by developing and increasing the active learning opportunities available to students.

## Active Learning Through Hands-on, Real-World Experience

Taken as a whole, the aforementioned literature demonstrates both the threat that the liberal arts and social sciences are under as well as the benefit and value of the skills graduates receive. What is needed is a more effective tool to bring those two contradictory facts into alignment with one another. We argue that an ARC can bridge the gap between the classroom and the outside world by simultaneously developing and demonstrating the value and skills that students gain in liberal arts and social science programs.

Constructivism posits that the most meaningful learning is experienced through activities that build knowledge and connect new experiences and perspectives to existing discourses because new and enhanced understandings are developed (Bransford, Brown, and Cocking 1999). Active learning—engaging in meaningful educational activities and analyzing and connecting them to relevant experiences (Bonwell and Eison 1991)—is derived from constructivist learning theory and often required to assure that graduates gain the expertise needed to be successful postgraduation. Through active learning, students learn not only the skills but also how to apply these in messy real-world situations, which helps them become autonomous thinkers and doers (McPherson 1998).

Course-based and service-learning strategies, in the form of research projects, are often drawn on by faculty and instructors to provide students with hands-on active learning experiences. These experiences have shown to be especially beneficial in solidifying classroom learning (Bandini et al. 2016; Gullion and Ellis 2014) because these activities allowed students to apply their training to authentic community concerns (Hirsch and Quartaroli 2009; Holbrook and Chen 2017; Lehnerer 2008). As social science and humanities graduates become critical thinkers, their discipline-specific expertise and professional skills become a resource for a variety of institutions, such as in nonprofit organizations.

In this paper, we use interview evidence to demonstrate how an ARC can function to increase student learning outcomes by closing the gap between classroom learning and real-world application. An ARC can demonstrate the value of social science education to internal and external constituents by helping departments in meeting their learning objectives and by providing students with experiences honing professional skills. Through an ARC, students gain experience applying their expertise to client's concerns and are exposed to the obstacles and issues that professionals face in the real world, every day. In a fully functioning ARC, students use a variety of technical (e.g., methodical and theoretical) and professional (e.g., presentation and communication) techniques to complete various research projects.

*Benefit to the community.* Communities have shown to greatly benefit from partnering in civic-engagement through hands-on learning experiences. Case studies show that partaking in service-learning projects helps community partners become aware of emergent field practices and perspectives that can better their service to the public and provides these organizations with the opportunity to help transform students into active community members (Jakubowski and McIntosh 2018). Interviews suggest that through service-learning projects, community organizations became more effective public servants, more proactive in building community networks, more willing to try new things, and eager to help form the next generation of community leaders (Gerstenblatt 2014). A mixed-methods study by Birdsall (2015) reiterated the findings discussed and also touched on the financial benefits of service learning for community partners faced with budget reductions or limited resources. Service learning provides an extra source of labor for community partners, and the fulfillment of learning outcomes can be used to bolster organizations' grant requirements. When local organizations are engaged in service-learning projects, they have the ability to promote community development, heighten the cultural awareness of community partners, and inspire social change.

## Method

### *Research Setting*

An ARC can take many forms, but at its core, an ARC is tasked with using expertise and skills within the university to solve problems and meet client needs from external constituents. The ARC in this study was founded in 2007 through an internal series of grants designed to foster greater university and community engagement.

Housed in the sociology department, the ARC is run by an executive director elected by the sociology faculty to serve two-year terms, and the executive director is supported with a course reassignment each term. In addition, the ARC has evolved to include two full-time graduate assistants (20 hours/week, fiscal year) and hires additional student labor as needed. To date, the ARC has employed more than 100 students for just over 7,000 hours since its inception with steady, year-over-year growth using both graduate and undergraduate students.

Students are involved in every phase of the ARC. The explicit model of the ARC is to use the center as a “teaching hospital” for data collection and analysis, report writing and project management, and soft skill development such as client interaction, working under deadlines, professional communication, and other similar skills. Students are assigned to tasks based on two criteria: competence and desire to learn. In other words, the ARC will assign students with low skill to work on a project simply to learn the skill to prepare her or him for the next project. To manage the ARC’s reputation, students are only assigned as the primary contact for a client after permission has been obtained from the client. Otherwise, all official communication goes through the director. Everything in the ARC, from strategic planning and financial records to initial client phone calls and all project-specific tasks are open to students.

Projects are solicited through direct marketing, networks, and strategic partnerships both on and off-campus with a primary focus on working with off-campus entities. The ARC conducts no projects for free and exists with a teaching-first mission. The primary goal of the ARC is using real-world projects from clients to help bridge what students learn in the classroom and what they will be asked to do on the job.

The ARC is equipped and experienced in conducting research in a variety of methodologies including observations, surveys, focus groups, interviews, and pre-/post-research design. Recent projects include a long-term program evaluation for a local community health initiative, an impact assessment of a sexual-violence-prevention curriculum with a local nonprofit assessment of a pastoral leadership initiative for a national denomination, ongoing employee engagement, and parent satisfaction surveys for charter schools as well as supporting occasional on-campus, grant-funded, research projects for faculty.

Although there is no “typical” project for the ARC, some of the more complex projects showcase the capacity of the ARC and the opportunities that exist in the field. For example, the ARC completed a needs assessment for the local parks and recreation department to determine the needs of young people in the community. The project lasted eight months and involved interviewing stakeholders, conducting community listening sessions, administering surveys, mapping local parks relative to resources, and making regular observations at different times of day at every park in the city. The result was a report with recommendations presented to the city council as part of an overall budget request. The ARC report ultimately helped shape the development of local programs and procurement of resources.

The ARC operates as a “cost-recovery” unit within the university as opposed to a source of revenue generation. This strategic choice has a couple of consequences. First, because of the teaching mission, project timelines are necessarily much longer than they would be from a similar research center run either as a revenue generator for the university or as a private enterprise. For example, where a typical employee engagement survey might take a for-profit company a month from initial conversation to reporting results, our typical timeline is

closer to two months. Projects that are longer or time sensitive can be completed with enough lead-time. However, the engagement of students through assistantships, as hourly employees or as interns, helps offset project costs and opens up more community partnerships than might otherwise be possible.

### ***Data Collection and Analysis***

To explore how an applied ARC affects student learning, department-specific SLOs, and community university relations, a graduate research assistant conducted 17 semistructured interviews between July and October 2016. Interviews were conducted with three university faculty, three university staff, six students, and five community partners. Potential participants, based on their interaction with ARC, were first identified by the researchers. Emails were sent out to these individuals describing the parameters of the study and gauging interest in participation. Once participants responded to the initial email, they received a follow-up email or phone call to set a date, time, and location that was most convenient for the interviewees.

The interviewer audio recorded each conversation, used time stamps, and took notes to ease data transcription. Interviews were conducted in the participant's place of choosing, generally in their offices or a campus building, and lasted between 20 and 60 minutes. Interviews focused on uncovering reasons for involvement with the ARC and how the center has affected the individuals and associated organizations. Please see the appendix for the guide used during interviews.

Following data collection, the research team met to discuss codes emerging from previous data and awareness. The graduate research assistant then listened to recordings multiple times and compiled interview notes. She then conducted preliminary analysis based on codes discussed by the research team and those emerging from the data. Following preliminary coding, the research team met to discuss the coding scheme and emerging themes with and across groups of data to refine the coding scheme. Using word processing software and the refined coding, interviews were coded by group.

The graduate assistant analyzed data for themes within and across groups. Themes with representative data were compiled and checked by both authors iteratively. This process was completed two more times and then a final analysis document was compiled. Together, the authors edited, expanded, and reorganized the final analysis to better explain how an ARC can close the gap for student learning and show the value of a liberal arts and social science education. Results from the analysis are presented in the following.

### **Findings**

Through interviews conducted with students, faculty, university staff, and community partners, three major findings regarding the presence of an applied ARC emerged. An ARC can help (1) connect classroom learning to real-world experiences for students, (2) social science departments fulfill SLOs, and (3) support the university/community relationship.

### ***Bridging the Classroom and the Real World***

Previous research indicates those holding, or pursuing, a bachelor's degree in social science fields often lack the capital (e.g., professional networks and selves, discipline-specific knowledge, critical thinking skills, autonomy, and income) to be successful in their field (Adamuti-Trache et al. 2006; McKinney and Naseri 2011; Spalter-Roth et al. 2010; Spalter-Roth and Van Vooren 2010). Students with enough capital often develop it through hands-on and real-world experiences (Bandini et al. 2016; Gullion and Ellis 2014; Lehnerer 2008; Stolley et al.

2017). Our study suggests that an ARC can bolster student's capital by providing real-world, hands-on experience that motivates students to develop a more professional stature. Joe, an undergraduate transitioning into the graduate program, explained that compared with classroom learning, "[ARC] instruction isn't as rudimentary and is more guided. [ARC projects are] more applicable rather than learning just a basic skill." Similarly, Sam, a first-year graduate student, said that the ARC "is a really good step into the real world. So, the ARC is on the cusp of being on the front lines." Alyssa, a program graduate continuing her education at another university explained,

Being responsible for a report or research requires you to draw on the skills that I don't think is really possible in the classroom. I came away with so many useful skills and this really prepared me for graduate school and the ways I'm thinking about things.

The ARC acts as a stepping stone between their undergraduate experience and the workforce, or further education, by providing students with real-world experience that is not easily attainable in the classroom or through independent research.

Department faculty and university staff also emphasized the value of an ARC for connecting classroom learning with real-world experience. When discussing what students gain from the ARC Karen, a university staff member who used the ARC for some of her department needs explained that postgraduation is a "competitive environment for college graduates and when we can involve our students in the work of the university it gives them those meaningful, transferable experiences they can highlight when they are applying for work or other opportunities they are interested in." When Dr. Smith explained what students gain from working in the ARC, he noted, "To really close the loop completely, cement those lessons, you need abstract learning that you get from a textbook, concrete examples of lessons from the field via your professor, but then you also have to have that hands-on experience." Similarly, Dr. Williams discussed the major difference between students working on grant-funded research and ARC projects is that, "[Grants] are not expecting outcomes in the same way that a paying client does for research on their organization. The stakes are so different . . . I just think the real-world connections and applications are really unique." University faculty and staff involved with ARC find the experiences to be unique and necessary for student success, both in the department and onto the next steps of their careers. Similar to Korsching and Peter (2007), this study suggests that the ARC is another avenue that provides students with real-world experience to develop and refine discipline expertise. However, rather than restricting coursework, an ARC can be a supplemental tool that provides students with more motivation to engage as their work is not just for a grade but rather for the good of the community.

### *Practicing Professional*

The shift from classroom expectations toward more professional expectations is also valued by students who show great appreciation for moving away from grades in a classroom to business in the center. Josh, a program graduate continuing his education at another university, discussed the benefits of working in the ARC suggesting that

being able to be in charge of your own project was a really great confidence boost, I think. You aren't just doing your normal humdrum assignment where you read and do your exam. You are actually working on a product that is helping somebody else.

Sam, a first-year graduate student, discussed his perceptions of why the center is necessary saying, "the ARC runs like a business. You aren't doing [a project] for a grade, you are doing this

because it is a job. It has definitely been a dose of reality, way more than sitting in a classroom.” These points were reiterated by Kelly, a second-year graduate student who emphasized how the ARC “forces [students] to actually work and appreciate what they are learning. They get an appreciation not from methods or stats but from going out there in the real world and seeing what it takes to be a scientist.” These findings suggest the lack of student growth around discipline-specific knowledge (McKinney and Naseri 2011) can be assuaged by providing ARC-like experiences. Working in an ARC builds confidence because students are treated more like true social scientists who are doing work that affects more than just grades. Working in the ARC provides students with experience and desire to become responsible community members (Humphreys 2014; McPherson 1998; Paino 2014).

### *Technical Skills*

By working on ARC projects, student employees reported having the opportunity to build on technical skills, especially research methods, taught in the classroom, and use these skills in a way that mirrors professional work environments. Kelly, a second-year graduate student, emphasized how her technical skills continued to grow as she worked on projects.

Working on these projects has given me experience about what can go wrong and how to avoid it. When you think about the first survey you designed, you think this survey is awesome. Then, you go run and clean the data, you start to think, why didn't I ask this question that way?

Likewise, Joe explained how he “did more statistical work on [the center project] than I do in my normal research. I didn't really know how to write an executive summary, which is something I learned. How to write all of my findings on one page was something I had not done before.” These findings support those from Spalter-Roth et al. (2010), who argue students without these experiences are comfortable with research methods but lack statistical analysis. The skill development and experiences expressed by Joe and Kelly earlier are crucial for getting a head start in the job market. Liberal arts graduates often use research-related skills on the job market as noted by Ballard and Daniel (2016), Hirsch and Quartaroli (2009), Bills (2008), and Spalter-Roth (2007). ARC student employees expressed that they developed these skills directly in their work in the Center, not in the classroom.

### *Soft Skills*

When discussing the most valuable soft skills that were developed through interaction with the ARC, growth in professionalism, communication, and teamwork were continuously mentioned by student employees. Helen, a graduate student starting her second year explained, “I really practiced my communication skills. I had not worked with an outside entity before. It was really interesting to see how different[ly] you convey information between an academic setting and a real-world setting.” Sam, discussed his professional development noting that “I didn't actually think I needed to grow in that area and then realized oh, this is the real world. There is still room to grow and things to learn.” Josh, a program graduate now working on his PhD described how “not just faculty but working with other graduate students on projects was a lot of fun and also a good [tool] that you use later.” Soft skill development is particularly important as the center director, Dr. Smith, empathized, “What do we say in here all the time? [This job] is maybe 15 percent technical skills and 85 percent client management.” Working in an ARC provides students with the soft skills graduates use as professionals (Humphreys 2014; Paino 2014; Spalter-Roth 2007; Stolley et al. 2017) and that employers desire (Hart Research Associates 2013; McPherson 1998).



## *Teachable Moments*

Hands-on experience and teachable moments are important learning components in the ARC. Faculty expect students to perform as if they are in the field, which affects the type of feedback that faculty provide to students.

When something goes wrong in the classroom, it is something that did not go right with the lesson or theory or something I did wrong so it is easier for me to call it out. When something goes wrong in the lab, when it is something crazy the client has done, those are easy teachable moments because we kind of laugh about it but the other stuff that goes wrong comes down to a specific student, and it is really hard to call out a student by name in front of others and sometimes it has to be done because we need that less. Those moments do harder because I'm not going to stop everything and say here is how Adrianna messed this up and you need to learn from her error, I try not to do that. Even what it has to be done it is really hard and I try to make them teachable moments. Interpersonal is just harder than classroom. (Dr. Smith, faculty member)

Likewise, when asked about teachable moments in the ARC, Dr. Jones explained,

There is a teaching curve but the stakes are higher because community partners are involved. They have or will pay us money to do a professional job and that is what makes it more difficult. If the student messes up, the faculty supervisor has to clean up the mess.

(S)he goes on to explain if and when complications arise, "I would probably have to fix the problem myself and then explain, in detail, to the student what I had to do so they know for next time." Faculty suggest that while teachable moments are present in the ARC, the form they take differs from traditional classroom teaching because of the nature of the projects. Although the primary purpose for the ARC is as a teaching center and the secondary as a community resource, the higher stakes and professional environment affect how faculty handle mistakes and challenges.

## *Employment Ready*

For some community partners, like Mary, "knowing we could give [ARC Students] the environment to do some hands-on learning" was a particular reason her organization hired the ARC. Larry, a community partner that has hired the ARC for numerous projects, was also drawn to working with the ARC as it is

student connected and that, to me, is an asset because I think the kind of work that students bring is thinking differently . . . students are more likely to start from the beginning with the questions we are asking and perspectives we are bringing to it.

In addition to providing learning opportunities for students, ARC clients tend to take the ARC interactions a step further by employing or desiring ARC student employees outside of center capacities. Allen, a community partner, discussed how his organization has "a young lady who works for us part-time who came through the program, who either got her master's or is finishing it up. The experience she has gotten through the ARC and sociology department is phenomenal." Similarly, university client Denise said, "I would love an intern from the research center. They can come work with us on our data, we have so much data and are collecting more." Both university and community clients take pride in helping students develop their skills and find the ARC to be an important tool in refining and providing career experience.

### *Faculty Expertise Requisite*

While ARC clients invest in the ARC because of its ability to help develop students into professional researchers, the oversight and expertise that faculty provide is a necessity in maintaining success. When discussing the importance of faculty oversight on ARC projects, Larry explained, “there needs to be faculty oversight to make sure that projects go well and are designed well, and also for the continuity of the entity, the center.” Lisa, university staff and ARC proponent emphasized how

you need to have the investment of faculty to run a center well. [Center growth] has come from faculty advocacy. Like I said earlier, if you have someone like Dr. Smith, Dr. Jones, and so many folks who want to have a [great] program why wouldn't you support it?

Denise, ARC client and university staff, discussed community partners' desire to have faculty involvement on projects and said, “We know because we have worked with community partners . . . [They] are really eager to receive faculty input and expertise.” Having faculty oversight and expertise on a project puts community partners at ease that their projects are being conducted efficiently and provides reason for community partners to support the ARC.

### *Aiding in the Fulfillment of SLOs*

While bridging the gap between classroom learning and real-world expectations, the ARC simultaneously helps the department fulfill SLOs centered around the application of theory and methods to social problems, through research projects. Alyssa, program graduate, explained that

though the [client's report] may not be filled with sociological jargon, you are still relying on theories in a way that will help you write. In some ways, I think it requires you to know, even more, what you are doing because you have to be able to think about these things in a way that you can apply them without needing to say it.

When discussing her development as a sociologist, Kelly explained how the ARC gave her

a greater imagination to step away from the textbook and approach research in your own way. Now, when I am writing a research report or designing a study I'm like okay, I was taught this way, these people want it this way, but what if I tweak it a bit because this doesn't fit.

University staff also noted different ways in which the ARC can help fulfill department learning objectives for students by having them apply research and theory and developing their researcher mind-set. Denise explained, “The center is an excellent example of the ways in which students are exposed to connecting their course learning, particularly research methods and sociological theory, to community-based issues.” Likewise, Lisa, a university staff member, emphasized how ARC students have “the way of thinking, the mind of the researcher [that allows] you to have a systematic way of thinking that guards against assumptions and your own bias, that it is testable and verifiable.” The ARC helps evoke students' sociological imaginations and apply theoretical perspectives and research techniques to current community problems. Similar to the findings of Spalter-Roth and Van Vooren (2010) and Ballard and Daniel (2016), our study suggests that an ARC can help departments fulfill their SLOs, which in turn make graduates more marketable because they can use discipline-specific skills to solve complex problems.

### *Support the University-Community Relationship*

The ARC provides both the university and the local community a vehicle to see, explore, and connect to another. Many students were unaware of resources operating with the local community and felt the center helps improve that. Alyssa, a program graduate, found that the center “can be a really great way to partner with people in the community. Sometimes in a town like that, it can be easy for people in the community and college to feel separate, like separate entities.” Josh, another program graduate, explained that connection to the community “was the part that surprised me . . . I would say that [The ARC] really helps the university not seem like a bubble surrounded by the city. The center helps reach out to the community, which is important for universities.” Student employees, like Joe, currently working in the ARC, found that it “allowed me a vehicle to see how the university is involved with the community and not entirely separate. Obviously, there are people who belong to the university that go into town, but it is interesting to see it at an institutional level.” For many students, an ARC opens doors including opportunities to see their university serve the community in which they are situated.

Community staff emphasize how the ARC is a good representation of the role they expect and how they want to see their universities affect the surrounding community. When discussing the value of the center, Lisa emphasized that “not only is [the ARC] necessary, it is probably critical to student learning and to the university in terms of what it can represent to the community.” Similarly, university staff Karen explained that she feels, “[The ARC] is a good service for the campus and community. I would like to see it expand beyond its capacity because there is so much demand.” Faculty also discussed the ability of the ARC to act as a bridge between the university and community by providing organizations with a much-needed resource and allowing the next generation of social scientists to see that academia does not need to exist apart from the community. Dr. Smith explained how he believes, “At some level, universities should exist as resources for their local communities and the center is one way it can do that. I leave and come to work every day knowing that we are doing our part.”

Likewise, Dr. Williams, when talking about the importance of diverse clientele, explained how this allows students and clients “see that we are not just this ivory tower, academic institution doing lofty ivory tower projects. We are doing things that can have close, short-term, local impact, which is nice to see.” University staff and faculty shared the sentiment that an ARC can be a positive force that connects and creates positive outcomes for both the university and community. This study builds on previous studies like Holbrook and Chen (2017) and Gullion and Ellis (2014) by further highlighting how the university-community relationship is mutually beneficial, providing the community and students with important resources.

Community partners involved with the ARC also emphasized the value of their interaction and the importance of having an ARC that serves community organizations. Sarah, a long-time community partner explained that when surveys come from the ARC, her organization’s members “feel that it is of high quality, confidential, and will be managed well. I think it sends a great message to our staff and our parents.” Community Partner Larry explained that the ARC can help organizations fulfill their mission noting,

part of our mission as a community organization is to help prepare people that are younger for community leadership. The more we can do that in the context of actual projects the more likely we are going to do a good job of helping young people prepare for their future.

Allen explained how the ARC helped “plant a seed” because “I actually put in a funding request with the city council after we got the assessment back and council said yep this is perfect let’s put it in the budget.” Leslie, a continued client of the ARC, explained that with

reports produced by the ARC, “we were able to tell what benefits there were to certain kinds of interventions and shortcomings there were to certain types of interventions.” Following suit with Holbrook and Chen (2017) and Gullion and Ellis (2014), this study suggests that an ARC helps organizations better serve its community members and show the impact organizations are having, which eases the concerns of people being served and ensures communities are fulfilling their mission.

## **Conclusion, Implications, and Limitations**

Universities are under increasing pressure both internally and externally to communicate value to stakeholders and bridge the classroom and outside world with demonstrable skills and learning experiences. In this article, we used evidence from 15 semistructured interviews conducted with a combination of students, faculty, university staff, and community partners to show how an ARC can close the learning gap, validate learning outcomes, and support university/community relations.

This study suggests the value of applied liberal arts and social science education comes from getting involved with real-world community concerns. The hands-on experience of working in an ARC refines technical skills, allows for the application of theory-to-community issues, and instills a sense of professionalism, especially confidence and communication. The skills learned and used in the ARC are those expected and desired among employers and graduate education, as indicated by university staff and community partners as well as existing research. The use and development of these skills allowed current and former student employees to feel they are ready for the step in their professional careers.

By bridging the learning gap, ARCs support SLOs and provide recruiters, universities, parents, and graduating and incoming majors with quality evidence of the value of liberal arts education, especially in the social sciences. This research also shows that an ARC fulfills more advanced department requirements by helping students apply sociological concepts to social problems, critique and evaluate various institutions, and conduct research in the real world.

All of the parties involved with university ARC in this study find that the value of the ARC extends to students, the university, and the community. An ARC supports the university/community relationship by initiating a mutually beneficial relationship between these entities. Community partners and university staff find the ARC is a good representation of the role they expect and how they want to see their universities interacting with the surrounding community. Faculty found that the ARC provided organizations with a much-needed resource and exposed the next generation of social scientists to the role and impact they can have in the community. Students and community partners shared the sentiment of faculty—students saw the center as a vehicle to the community and community partners found a source of support in the ARC for gaining outcomes that affected organizations’ direction and initiatives.

To the best of our knowledge, this study is one of few that has focused on uncovering the impact of an applied ARC on bridging the student learning gap, reinforcing SLOs, and supporting the university-community relationship. The consistent and positive experience that both university- and community-related participants had with their ARC interactions suggest that more universities should (1) explore the impact an ARC could have both on and off-campus and (2) consider implementing an applied ARC into their departments. While the initial effort of creating an applied ARC may be strenuous, the benefits that the students, the departments, the larger university, and the surrounding community derive greatly outweigh the start-up cost.

## Appendix

### *Interview Guides*

#### *When interviewing a student*

What kinds of projects have you been involved with in the Applied Research Center (ARC)?

What prompted you to get involved with the ARC?

How will you communicate your ARC experience to future employers?

The ARC is intended, in part, to be a place where classroom learning meets real life. Did you find this to be the case? If so, how?

What skills do you think you learned or practiced while working on ARC projects?

Aside from technical skills such as data analysis, collection, report writing, and so on, what other things have you learned working in the ARC?

Is the center necessary? Couldn't you just learn all of this stuff in the classroom or from readings?

Does the center offer you different opportunities than working on your own, independent research projects?

The ARC works with a diverse set of clients. Do you think that's important? Do you feel more connected to your community? If so, why?

Working on ARC projects seems different than doing a class assignment, and yet, you are still taking direction from a faculty member. Do you think it is different? If so, why and how?

[Probe for use of critical thinking and problem-solving skills. We really want to see if students will talk about having to use their existing skills to solve a problem or craft solutions to fit a particular project]

#### *When interviewing a faculty member/staff*

What kinds of projects have you been involved with in the ARC?

What prompted you to get involved with the ARC?

The ARC takes a LOT of time for anyone who is involved with a project. What are some of the reasons you are involved with ARC projects?

What skills do you think YOU learned or practiced while working on ARC projects? What about the students you were working with on those projects?

Aside from technical skills such as data analysis, collection, report writing, and so on, what other things do you think students gain from working in the ARC?

Is the center necessary? Couldn't students just learn all of this stuff in the classroom or from readings?

Does the center offer students different opportunities than working on their own, independent research projects?

The ARC works with a diverse set of clients. Do you think that is important? Do you feel more connected to your community? If so, why?

One of the explicit goals of the ARC is to be a connecting point between the university and the community. In your experience, does it play that role well? What are some of the challenges in that respect? Do you think the university administration understands that aspect of the center?

The ARC presents a number of challenges as well as opportunities. In your experience, what have been some of the biggest challenges you have faced? Often, in teaching settings, when something does not go right, like you just described, it becomes a learning opportunity. Do you see that in the center? Do the challenges become learning opportunities for you or students or are they just barriers that need to be worked through? If yes, how do you make these into teaching moments for the students you are working with?

### *When interviewing a community partner*

You worked with the ARC recently on (insert project name here). What prompted you to get in contact with the ARC in the first place?

What did you ultimately do with the data you received? How did it affect your organization?

What would you have done if the ARC had not existed? Would you have been able to get that information in another way? Would you have hired a different organization?

[If local/regional] One of the goals of the ARC is to be a resource that bridges the university and the surrounding community. Do you think the ARC helps in this regard? Is the center a good reflection of the role you want the university to be playing in the region?

As you know, the ARC uses students behind the scenes on projects with faculty overseeing the research. Did the student involvement matter to you? Was the opportunity to be a part of an education experience for students something that attracted you to working with the ARC or was it not a factor? [Follow up and probe here. We really want to see how much of a two-way street this relationship is].

As an employer, how do you value the kinds of experiences that students gain from working on projects like this? [In other words, if someone were applying for a job with a bunch of ARC projects on her or his resume, would it matter?]

How, if at all, do you see the ARC affecting the relationship between the university and the community?

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