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Love of Place: The Metropolitan University Advantage
2015 CUMU National Conference in Omaha

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Love of Place: The Metropolitan University Advantage: 2015 CUMU National Conference in Omaha

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The theme for the 2015 CUMU National Conference in Omaha, NE was "Love of Place: The Metropolitan University Advantage". The 2015 theme celebrates key elements that establish the identity of metropolitan universities and CUMU as an organization. The theme recognizes the unique opportunities and benefits provided by metropolitan universities for students and communities. Metropolitan universities provide students with enriching educational experiences while contributing to building and strengthening the community. These enriched experiences also support faculty and staff growth as members of the university and community. The theme encouraged conference participants to explore new pedagogical approaches, strategies for sustaining meaningful partnerships, and opportunities for successful engagement of the community by examining the transformative power of the relationships between metropolitan universities and their "place." Essential to this theme is the notion of stewardship and being good stewards of the communities that we live in, that bless our lives, our families, and our universities. The special issue devoted to the theme and notion of "Love of Place" provides an overview of the stewardship witnessed at the conference and then launches into the full article contributions that illustrate the "Love of Place" exemplified by the great presenters and the many initiatives occurring across the CUMU.

The Conference Experience

The University of Nebraska at Omaha was honored to host the 21st Annual Coalition of Urban and Metropolitan Universities Conference October 11-13, 2015. This year's theme, "Love of Place: The Metropolitan University Advantage", grew from UNO's long-time institutional commitment to the city of Omaha and its pride in being Omaha's university. Of course, UNO's commitment and pride are shared by all CUMU institutions. The conference included a variety of keynote speakers, sessions, panels, and the presentation of the Lynton Award. Here we provide some highlights to help all remember the "Love of Place" experienced in Omaha.

Opening Symposium

On Sunday, October 11th, the opening symposium was conducted at the Barbara Weitz Community Engagement Center (CEC) on UNO's campus. Panelists included Barbara Weitz, co-founder of the Weitz Family Foundation, David Brown, president and CEO of the Greater Omaha Chamber of Commerce, John Scott, vice president of the William and Ruth Scott Family Foundation, and Sara Woods, Director of the Community Engagement Center. Panelists discussed the Community Engagement Center as an embodiment of the conference theme and as an example of metropolitan university engaging its community.

The symposium was facilitated by B. J. Reed, Senior Vice Chancellor for Academic and Student Affairs at UNO. UNO's Chancellor, John Christiansen, provided a warm welcome to everyone who was able to attend and highlighted the purpose of the CUMU conference, to learn from one another and have fun! With 300 attendees from 62 universities in 32 states and 3 provinces in Canada, the opportunities for ideation and growth at this year's conference were abundant. The Chancellor commented on the conference theme, and as a part of UNO he affirmed that Omaha is an incredible place that has been transformed because of the remarkable things created by public/private partnerships, such as the Community Engagement Center (CEC).

The CEC makes the community more accessible and salient to UNO students, faculty and staff and at the same time provides resources to the community (e.g., meeting and event space at no cost, student volunteers) that organizations like Omaha's Chamber of Commerce have used assertively. B. J. Reed kicked off the symposium by asking panelists to first speak to the challenges of building and maintaining the CEC and the vision behind its creation. All panelists agreed that the building grew out of a smaller pilot in the early 2000's to house nonprofit agencies as well as the lessons learned from the inception of a service learning initiative at about the same time. They noted that it was a difficult concept to communicate to potential donors because the idea is difficult to explain to people who are not familiar with the concept of metropolitan universities and community engagement or who had not had firsthand experience with the earlier efforts. Once two key donors committed resources and others provided initial support, sufficient funding was raised to move forward with the project. However, now that the CEC is built and functioning, people are beginning to see the vision in action and the value it provides to both campus and community. Even though the building plan included adaptable and versatile space, creating and maintaining a flexible space and an adjustable plan moving forward to allow the CEC to meet community needs has been another challenge for UNO and CEC sponsors. In addition, the ambiguity surrounding the concept of engaged space with dual purposes of community use and student involvement at a scale that had not been done before makes assessing the performance and outcomes of the CEC very difficult. Woods asserted that the values upon which the CEC was built, such as reciprocity, communication, and collaboration, are the foundation of every decision and continue to drive the direction of the CEC.

The panelists then shared a few lessons that they have learned from the experience of creating the CEC that would be transferrable to other metropolitan universities. One matter discussed was that having leadership at the university that has vision and buy-in to creating and improving community engagement is essential for creating lasting change. In addition, Scott emphasized that being intentional and "serious" about creating a space like the CEC will ensure that change agents can build something truly meaningful and powerful. The primary outcome gained by the CEC is the interaction between students and the community that creates a cultural change on campus and integrates the university and the community. They also noted the importance of engaging potential donors in the process and concept of campus engagement so they can experience its potential on a first-hand basis.

During the question and answer portion of the symposium, attendees were able to share their enthusiasm for community/university collaborations, discuss in more detail the staff infrastructure of the CEC, comment on the future challenges in store for this kind of a building, and emphasize the role of the CEC as a facilitator, not a driver, of community engagement.

Poster Presentations

Following the symposium, a reception was held throughout the CEC for attendees to connect and continue touring the building. In addition, poster sessions were held regarding the following topics:

Building and Strengthening Communities
Embracing Community Locally and Globally
Facilitating and Measuring Transformation
Transformative Academic Programs and Partnerships

The posters generated insightful and collaborative discussions about how universities are demonstrating "Love of Place" by engaging with their communities and meeting their needs in creative ways. Presenters shared examples of service learning, engaged scholarship, and community partnerships and how their efforts created beneficial outcomes for students, institutions, organizations, and communities.

Lynton Award

The Ernest A. Lynton Award was established in 1996 to honor Ernest Lynton and his "vision of faculty scholarly engagement as inclusive, collaborative, and problem-oriented work in which academic share knowledge-generating tasks with the public and involve community partners as participates in public problem-solving" (CUMUonline.org). The award recognizes an early career faculty member whose scholarship in teaching, research, and service is connected to community engagement. More information on the award and Ernest A. Lynton can be found at www.nerche.org. The award recipient is selected by NERCHE and presented at the annual CUMU conference. The recipient this year was Dr. Erick DeMeulenaere, Assistant Professor of Urban Schooling in the Department of Education at Clark University. In his teaching, research, and community engagement, Dr. DeMeulenaere demonstrates his commitment to "confronting inequalities and empowering urban youth to create change in their communities" (2015 Lynton award recipient, 2015).

Panel of Omaha Nebraska Leaders

Following the presentation of the Lynton Award, three Omaha area leaders -- Arvin Frazier III, director of College Possible; Pete Festersen, Omaha City Councilman; and Lyn Ziegenbein, Director Emerita of the Peter Kiewit Foundation, discussed how metropolitan universities can partner with their communities to provide economic stability, a continuous flow of new leadership, and social capital. Specifically, the panel examined the dual themes of economic development and workforce growth and how metropolitan universities could play a role in helping their cities attract and retain business and industry, as well as attract and retain a diverse and talented workforce. Ziegenbein discussed the need for building social capital in communities by developing a strong base of community leaders and described the role she believed urban and metropolitan universities can serve in addressing this challenge. Frazier, whose organization provides college mentoring and support to first generation students, discussed how metropolitan universities can provide greater support to underserved populations through deeper community partnerships, commitment to students at earlier ages, and better access to financial aid.

Special Conference Issue

Each year Metropolitan Universities Journal provides a venue where full articles based upon the presentations at the CUMU Conference are published. More than 20 submissions were received this year for the 8 spots in the special issue. Because of the wonderful interest from CUMU Conference participants, it was decided that an editorial board for the special should be assembled to assist with reviewing and managing the article selection process. The Editorial Board included Deb Smith-Howell, Paul Sather, Rosemary Strasser, Brian McKevitt, Kathy Lyons-Oleson, Sara Woods, Mitzi Ritzman, and Nancy Kelley-Gillespie. In addition to the board, an Assistant Editor, Kelly Prange, was enlisted to help with managing the review process and other tasks to ensure papers moved smoothly through the publication process.

Top Paper Award

In an effort to increase interest in the special issue and to reward the great work being done by so many wonderful faculty and administrators in the CUMU, the University of Nebraska at Omaha introduced the first annual "Top Paper Award", celebrating the best and most highly-rated submission for the special issue.

The following process was used to decide which paper would receive the award. First, all papers were reviewed by editorial board members and other reviewers as a standard practice for the MUJ. During the

review, raters provided ratings concerning the practical and theoretical significance of the submission, the fit of the submission to the conference theme, the appropriateness to the journal, the quality of the literature review, the quality of the research design (if applicable), and the overall presentation and communication clarity of the submission. Second, the top five, highest-rated submissions were then discussed at length in a meeting of the editorial board and special issue editor. During that meeting, the strengths and merit of each paper was discussed and a final vote was rendered concerning which of the papers stood out above the rest.

It is a great honor and privilege to announce that the first article of this special issue, the winner of the first annual Top Paper Award, and the most highly rated paper from the submission review process, was written and submitted by Judith Ramaley, and is entitled "Collaboration in an Era of Change: New Forms of Community Problem-Solving".

Top Paper Spotlight

Collaboration in an Era of Change: New Forms of Collaborative Problem-Solving. Ramaley's article portrays how the digital age is changing our society and creating complex issues in our communities, which challenges metropolitan universities to adapt the way they approach higher education – that is, promoting a more innovative, collaborative, and competency-based scholarship framework (Levine 2015; Heifetz et al. 2009). She also explains how metropolitan universities can support community-based learning experiences for students by creating a culture of engagement and participating in collective impact efforts to solve community issues. Ramaley gives examples of how Portland State University has implemented programs to support PSU's commitment to helping students prepare for excelling in their professions and for solving the "wicked problems" their communities face. Through multi-year, collaborative partnerships and a commitment to creating and sustaining an age-friendly university, PSU demonstrates its promise to be a partner and a resource for their community while leading readers to reflect on the 2015 CUMU conference theme, Love of Place: The Metropolitan University Advantage.

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Reflection Promotes Transformation in a Service Learning Course. Stover, a professor in the college of nursing at the University of Massachusetts Dartmouth, describes the importance of the social aspects of health and social justice in determining the true health of individuals (Marmot and Allen 2014). She describes an exploratory service learning course that brought this issue to light for nursing students at a metropolitan university. Most importantly, her paper describes the use of reflection activities that lead to transformative learning outcomes and provides an exemplary illustration of best practices in service learning.

Teacher Training in Urban Settings: Inquiry, Efficacy, and Culturally Diverse Field Placements. McGlamery, Franks, and Shillingstad, professors at UNO, offer expertise about preparing elementary education majors to confidently teach mathematics and science to culturally diverse students (Buss 2010). They describe a field experience in which elementary education majors worked with female children at a camp to introduce them to STEM topics. The college students' self-efficacy was measured, and significant increases were found from pre-scores to post-scores, indicating that the field exercise and community partnerships are a potential solution to helping prepare effective teachers.

The Dynamics of University/City Government Relationships: It's Personal. Curry, the dean of lifelong learning at Simon Fraser University, discusses the importance of university/city government partnerships for building love of place, yet the difficulties inherent therein (Huxam 2003). Best practices are described for reducing roadblocks and building trust between partners so that mutual objectives can be met and the community can benefit.

Enhancing the STEM Ecosystem through Teacher-Researcher Partnerships. Tapprich, Grandgenett, Leas, Rodie, Shuster, Schaben, and Cutucache, from UNO and Omaha Public Schools, describe K-16 partnerships formed between UNO faculty and teachers at public schools to conduct research. This long-term collaboration is a response to the national priority given to STEM education. Positive outcomes are anticipated for both faculty and students involved as this program continues.

Collective Impact versus Collaboration: Two Sides of the Same Coin OR Different Phenomenon? Prange, Allen, and Reiter-Palmon review literature regarding collective impact, reiterating the importance of having a common goal, shared measurement systems, reinforcing activities, continuous communication, a backbone organization, and certain mindset shifts when solving our communities' complex social issues (Kania and Kramer 2011; Kania, Hanleybrown, and Splansky Juster 2014). To delve deeper into the practice of collective impact, the authors draw comparisons from organizational psychology literature and conclude that collective impact is a specific form of inter-organizational collaboration.

The University Next Door: Developing a Centralized Unit that Strategically Cultivates Community Engagement at an Urban University. Holton, Early, Resler, Trussell, and Howard, from Virginia Commonwealth University, provide a case example of a unit within a metropolitan university dedicated to increasing community engagement. To do so, Kotter's (1996) model of organizational change was adapted to fit the structure and needs of a metropolitan university. Through this change, Virginia Commonwealth hopes to create lasting change in their communities through cross-sector and cross-departmental collaborations.

Volunteer Program Assessment at the University of Nebraska at Omaha: A Metropolitan University's Collaboration with Rural and Spanish-Speaking Volunteers. Scherer, Graeve-Cunningham, Trent, Weddington, Thurley, Allen, and Prange, from the industrial/organizational psychology program at UNO, describes the efforts of a student-led organization that provides volunteer program evaluation tools free of charge to non-profit organizations and provides professional development opportunities for undergraduate and graduate students. This unique organization has demonstrated love of place by translating their tools and outreach to rural populations to meet the needs of community partners. The authors stress the importance of building trusting, reciprocally beneficial, relationships with community organizations.

Conclusion

As the conference summary and articles contained in this issue illustrate, "Love of Place" truly catches the spirit of the vision and aims of many Metropolitan Universities. These articles embody the combined efforts of administrators, faculty, staff, students, and community members in celebrating their unique "Love of Place" in their respective communities and universities. It is the hope of the entire editorial team, the CUMU Conference leadership, and the contributors to this issue that those who read the contributions will catch the spirit of "Love of Place" and perhaps engage further in building the universities and communities that lift us all.

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Collaboration in an Era of Change: New Forms of Community Problem-Solving

Judith A. Ramaley

Abstract

Campuses are developing new ways to respond to complex social, cultural, economic and environmental problems by adapting their educational approaches and their scholarship to address a changing world order. At the same time, government agencies, nonprofit organizations and businesses are embracing collaborative approaches to community problem-solving. These collaborative approaches, on and off campus, are creating new forms of university-community engagement that will require us to rethink the nature of the societal roles we play and how we generate knowledge, create an inspiring educational environment, and assist our students in acquiring the knowledge and skills they will need to work effectively with others to address the complex societal problems that they will face throughout their lives.

Introduction

In this article, we will examine some recent examples from the Greater Portland Metropolitan Area in Oregon that offer insights into new forms of collaboration and collective action that involve faculty members, students and community participants. We will consider the creation of sustainable neighborhoods, the development of an age-friendly environment and the changing pattern of interactions among community-serving organizations, both governmental and non-profit and how the curriculum and the research work of faculty and students are contributing to these new relationships.
Our nation's colleges and universities have gone through a number of transitions in their roles and responsibilities and in their approach to educating their students. The pressures for change have always been shaped by a combination of new generational values and expectations and social, economic and environmental changes in the world itself. As Rudolph put it in his class text on *The American College and University*,

> War, declining enrollments, the sudden instability of whole areas of knowledge, dynamic social and economic changes—these and a multitude of other developments have often thrown the American college back upon itself and forced upon it a moment, perhaps even an era, of critical self-assessment and redefinition (Rudolph, 1990, p. 110)

Today's societal context offers an especially challenging blend of cross-generational change combined with the emergence of a pattern of complex, multi-faceted problems that require new forms of collaboration, knowledge creation and shared responsibility both within our institutions and within the context of our relationships with the communities we serve. Our colleges and universities, regardless of mission, are being called upon to educate our students to become the kind of people who can create sustainable communities in which individuals of all backgrounds can thrive in today's world. In this paper, we will look at some of Rudolph's "other development" and how campuses are both helping to shape the capacity of communities to work together and are, in turn, being shaped themselves by those experiences (Ramaley, 2003) in ways that enhance their ability to prepare their students and their communities for a world of complex social, environmental and economic change.

From Repertory to Improvisational Work

In a recent essay in the *Chronicle of Higher Education*, Levine (2015) captured the gist of the transition

that we are undergoing. As he explains it, our nation is "making a transition from a national, analog, industrial economy to a global, digital, information economy." Industrial economies focus on common elements that unfold over a predictable timeframe. Think of a repertory company in the theater where the performers follow a script, plays are performed on a defined stage that separates the actors from the audience, every part is defined and there is a formal ending to the play. Information economies are more like improvisational theater where innovation and discovery play a key role, the audience can become performers as well. The action may weave through a space that does not look like a formal theater. The story that develops and the outcome and the process of achieving that outcome are variable. The audience is often left wondering what might happen next and will probably be invited to participate in shaping the story.

We are all familiar with how the industrial model applies to education. It defines a 12 year sequence of schooling (a script) followed by an idealized four year college degree comprised of a prescribed number of courses of a set length (semester or term) followed by graduation (the end of the play). The roles in this play are defined as are the tasks to be performed. Teachers teach and students learn. The phrase often used to describe the role of the faculty member in this play is "sage on the stage." Levine (2015) summarizes succinctly, "In education, [the assembly line] translates into a common four-year undergraduate program, preceded by 12 years of schooling, semester-long courses, credit hours and Carnegie units." The coins of that realm are seat time and individual courses selected from a menu of options rather than a coherent sequence of increasingly demanding and consequential learning experiences.

Heifetz, et al. (2009) explain the tools and tactics for changing our organizations for a changing world, the kinds of challenges we face are not solvable by well-researched, well-practiced *technical* expertise. These unresolved dilemmas require *adaptive* strategies.

> "What is needed from a leadership perspective are new forms of improvisational expertise, a kind of process expertise that knows prudently how to experiment with never-before-tried=before relationships, means of communication and ways of interacting that will help people develop solutions that build upon and surpass the wisdom of today's experts (Heifetz, et al., 2009, 2-3).

Since the publication of *Greater Expectations* in 2002 (AAC&U, 2002) and the emergence of the Liberal Education and America's Promise (LEAP) portfolio a few years later .followed by the LEAP Challenge in 2015 (AAC&U, 2015), efforts to rethink the undergraduate curriculum and the experiences that accompany it have led to a shift of emphasis from teaching to learning and from individual courses and requirements to increasingly integration of learning over time. This path is structured around the study of increasingly complex problems and increasingly collaborative efforts that bring faculty, students and community members together to learn together, work together and address "real world problems." In some ways, this approach is improvisational and more likely to prepare graduates to work in an increasingly collaborative and networked environment. In this model, anyone may play the role of teacher or learner at different times and knowledge is developed through collaboration in which participants learn with and from each other. Unlike the assembly-line or industrial model, the support structure for this kind of learning must be *adaptive* rather than *technical (*Heifetz, et al., 2009).

The goal of this shift in the enactment of what it means to be educated is to prepare "intentional learners who can adapt to new environments, integrate knowledge from different sources, and continue learning throughout their lives (AAC&U, 2002, p. xi)." While foreshadowing the realities of today's world in which our graduates will use their education in new ways, *Greater Expectations* focused largely on the adaptations taking place in the colleges and universities that participated in the studies and conversations that led to the report. The societal changes that were generating the need for new approaches to the curriculum, to faculty and student work and to relationships between the campus community and society

as a whole were an important but background element. In this paper, we will look at those societal changes in the foreground and explore some examples of the complex interactions and collaborations that are now emerging between increasingly networked communities and the colleges and universities that interact with those environments

Creating a Culture of Engagement

Working in an adaptive mode requires deep cultural and structural changes in all of our organizations, including our colleges and universities. Over the past twenty years or so, postsecondary institutions have been slowly embracing a culture of engagement that supports the new kinds of relationships and collaborations that will be needed to address the Big Questions that characterize the challenges of our era. Colleges and universities that thrive in the 21st century will adapt their approach to leadership and engagement with broader issues of society (Ramaley, 2014a). This will entail rethinking the roles and responsibilities of faculty and staff, the opportunities they provide for students to contribute to collaborative solution-finding and the ease with which all members of a campus community can work across disciplinary and organizational boundaries to create the kind of shared expertise and responsibility needed to participate in adaptive leadership and solution-finding. The patterns that are emerging suggest what these more interactive and cross-disciplinary institutions will look like. They will begin to connect with a rapidly growing network of cross-sector collaborations (Bryson, et al., 2015) within society at large. The components of a reconfigured internal community will increasingly create greater capacity to connect to the elements of more collaborative external environment. These growing connections between higher education and other community-based organizations and groups will begin to reflect and support a true *culture of engagement* both on campus and beyond.

On campus, the characteristics of a culture of engagement will open up access to innovative and relevant educational programs, new research interests and sources of information gathered both from the work of the academic community and beyond. These capacities will be supported by a broad array of partnerships that address social, economic and environmental issues, a growing capacity to integrate efforts across the campus and new forms of engagement within the university along with new policy choices that will support and invest in engaged scholarship and collaboration. These changes will result in a more collaborative approach to both learning and scholarship. These shifts in culture, working relationships and expectations will create new capacity to work on Big Questions that will have a measurable impact on the quality of life locally and globally through a focus on health, culture, economic stability and resilience and the environment.

Community Responses to an Emerging Set of Problems

In the past decade, the challenges facing communities as well as the capacities that are emerging to address those challenges are leading to new ways of thinking about the role of collaboration within and across organizations that comprise the sectors of a community (e.g., business, public, nonprofit, educational) and the role of citizen participation in identifying and then working on complex societal problems that are shaping the quality of life, both locally and globally. In their text *New Public Governance*, Douglas Morgan and Brian Cook (2014), capture the basic shift that is going on in communities through the lens of the role of government in the public sector. Morgan and Shinn (2014) describe two contrasting approaches to rethinking the role and structure of local government that began to emerge in the 1980s. One path led to the concept of "a smaller and less intrusive government that reduced regulatory and fiscal burdens on individuals and property owners (Morgan & Shinn, 2014, p. 3)." This approach resulted in a move toward less government influence in the community and the expectation that other sectors both private and non-profit could provide services more efficiently and at lower cost to taxpayers. This shift in thinking has opened up two models of government, a business or market-based

model referred to as New Public Management (NPM) and the other "a collaborative approach to the provision of public services, working with partners within and across the public, nonprofit and private sectors (Morgan & Shinn, 2014, p. 3)." This second path, called New Public Governance (NPG) blends some of the market-based elements of NPM with a value structure that supports collaboration to seek the larger public good. Both approaches focus on reducing the size, scope, costs and inefficiencies of the older model of government but they approach the challenge in different ways.

As might be expected, the emergence of NPM has created problems for higher education as colleges and universities are being asked to justify the value of their educational model in strictly financial terms (Ramaley, 2013; Humphreys, 2013). Institutions are being asked about how long it takes to earn a degree, what an education costs and how much debt students will accumulate as well as what salary a new graduate can earn. The NPG model, in contrast, is based on a value platform that defines the role of government as a vehicle for promoting the public good. The means for accomplishing this is to create ways to facilitate "the generation of implementable agreements among wide-ranging stakeholders (Morgan & Shinn, 2014, p. 5)." This philosophy is generally more attractive to colleges and universities who are seeking to prepare their students for a changing world and who see their role as a contributor to the public good through their scholarship and the educational experiences they offer as well as through their preparation of active and engaged citizens who are well prepared for the workplace and who will contribute to the communities in which they live. For this purpose, public good equates to the quality of a college degree (Humphreys, et al., 2015).

As the 21st century unfolds, campuses are increasingly expanding their approaches to engagement with the broader community and focusing both on a culture of engagement within their own campus communities and in the context of different forms of collaboration with various community partners. These relationships are expanding to include coalitions and networks made up of several organizations that are working together on common goals. To the thoughtful taxonomy developed by Sockett in 1999, we now must add a new set of collaborations that link universities to the growing networks of participants working together to pursue a shared goal. These collaborations are cross-sector and are often referred to as Collective Action or Collective Impact Models (Kanter, et al., 2005).

Collective Impact and Wicked Problems

Higher education institutions have long played roles in building healthy communities. In the past twenty years, these efforts have been collected under the term of *civic and community engagement*. A decade ago, Rosabeth Moss Kanter, Rakesh Khurana and Nitin Nohria (2005) prepared a working paper entitled *Moving Higher Education to its Next Stages: A New Set of Societal Challenges, a New Stage of Life and a Call to Action for Universities.* After reviewing the adaptations that higher education has made to address changing societal needs in the past, Kanter, et al. (2005) lay out a clear vision of what lies ahead. As they point out, "new eras bring new challenges (Kanter, et al., p. 10)". Along with the expected disruptions in the economy and the workplace that generates new demands for technical and adaptive skills, "a class of problems of another order of magnitude also appears today, which calls for new approaches and new leadership: societal challenges involving well-being and the social infrastructure. (Kanter, et al., p. 10-11)."

These problems are not as new as we often make them out to be but changes in the world order, including the forces of globalization and the impact of technology "tend to exacerbate them, make them more visible and/or increase the urgency of addressing them (Kanter, et al., p. 11)." Kanter, et al. (2005) build their emerging problem set from a Harvard Business Review global survey that Kanter conducted in 1991 (Kanter, 1991). The survey gathered information from 12,000 managers from 24 countries who agreed on four key issues that must be addressed in order to improve "the state of the world." The issues

were global poverty, global health, basic education and degradation of the environment. In the intervening years, these issues have grown ever more challenging and have influenced the quality of life in communities across the globe.

Addressing these kinds of "wicked problems" (Weber & Khademian, 2008) will require new leadership skills, new ways of learning, new ways of working together across organizational, social and economic lines and new ways of drawing upon insights from many disciplines. This new pattern addresses many perspectives and a demand for cross-sector solutions that are shaped by what Archon Fung (2015) calls "the democracy cube." The *democracy cube* raises three key questions: 1) Who participates? (2) How do they communicate and make decisions? (3) What influence do they have over the resulting public decisions and actions? To this *trifecta* of questions, we might add a fourth: Who decides what matters most?

Wicked problems can be described in a number of ways. According to Camillus (2008) who drew upon earlier work by Rittel and Weber (1973), these kinds of problems (1) involve a range of stakeholders who have different values and priorities, (2) have origins in a tangled set of interacting causes, (3) are hard to come to grips with or make sense of, (4) continue to change as we seek to manage them and (5) have no clear or familiar solutions. These problems unfold in "a diverse and mutually interacting ecology" (Fung, 2015, p. 514) of people and organizations and require a great deal of boundary crossing to bring together ideas and resources from multiple sources. To capture the experiences of a diverse community and to tap resources that otherwise might be ignored, new forms of interaction amongst citizens, government agencies, nonprofit organizations, and the business community are being created to support new approaches to community development (Fung, 2015, p. 515).

As Fung (2015, p. 517) explains, complex and wicked problems require "multi-sectoral problem-solving" and ways to remove the barriers to "pooling knowledge and coordinating action" through the formation of networks that connect organizations together. These networks are built on the basic concept that the solutions too many of society's most pressing problems today will require tapping into the expertise and ideas of different parts of the community and different disciplines. Solutions to multi-faceted problems must be designed in an adaptive way rather than chosen from a repertoire of well-researched and well-tested technical solutions (Heifetz, et al., 2009).

Kania and Kramer (2011) launched a new generation of thinking about collective efforts directed at complex problems in their series of articles on the concept and practice of collective impact. The components that characterize an effective collective impact model built up through networks of interaction amongst the participants in solution finding and action are (1) a common agenda arrived at through a thoughtful process of exploration and interaction, (2) shared measurement systems and a willingness to look honestly at the evidence collected, (3) mutually reinforcing activities that draw on the strengths and interests of each participant, (4) continuous communication amongst the participants, and (5) a mechanism for backbone support that facilitates the building and maintenance of the relationships needed and the capacity of all participants to act knowledgably and in cooperation with the others.

These kinds of collaborative solution-finding efforts will be unlikely to generate equitable and inclusive outcomes so long as "those advantaged by political, economic, or social circumstances exercise undue influence to secure policies and public actions that reinforce their economic or political positions (Fung, 2015, p. 519)." This fact reinforces the importance of rethinking how we define partnerships, who we choose to partner with and how we will draw these experiences into our curriculum. Building a curriculum around a succession of explorations of increasingly complex problems and the introduction of integrative and applied learning as a culminating or capstone experience offers an especially powerful example of how colleges and universities are adapting to the ways that their graduates will be called upon to use their education in the future (AAC&U, 2015; The LEAP Challenge). Integral to these curricular

reforms is a growing emphasis on ways to produce educational environments that are equitable and inclusive in order to prepare a more diverse group of graduates for the roles that they must play in the future as professionals and as active citizens and to engage a more diverse group of organizations and neighborhood groups in problem-solving (Dowd & Bensimon, 2015; Ramaley 2015).

The Challenge for Our Institutions

In order to prepare a differently educated citizenry and to play meaningful roles in community-building, colleges and universities must model informed and collaborative ways of learning and working together within their own institutional context as well as through their interactions with the broader society of which they are an integral part (Ramaley, 2014b). The path toward a more interactive and collaborative approach to collective action will have implications for every aspect of our campus culture and practice—the nature of our curriculum, our expectations of our graduates, our approach to learning and teaching, the nature of our scholarly agenda, the ways that faculty and staff careers unfold, the structure of our institutions and how we will support our capacity to accomplish our mission. The path that lies ahead offers both challenges and opportunities for regaining a core role in working with others to shape life in our communities.

Connecting to Collaboratory Networks: The Sustainable Neighborhood Initiative in Portland, Oregon

The Institute for Sustainable Solutions (ISS) was established in 2008 when an Oregon-based Foundation, the James F. and Marion L. Miller Foundation, made a $25M challenge grant to Portland State University (PSU) to integrate sustainability across campus and to prepare students for change-making careers. Since that time, ISS has served as a university hub for sustainability. It does so by supporting interdisciplinary research, curricular development, opportunities for student leadership and meaningful community partnerships that "contribute to a just, prosperous, and vibrant future for our region and the world (Institute for Sustainable Solutions (ISS), 2015)." ISS approaches programming and relationship building guided by two key principles: (a) learning happens everywhere and (b) a commitment to translating research into action in close collaboration with community partners.

PSU has used the ISS to begin to link together those community networks with a growing collaborative environment within PSU itself. It is clear that SNI is adding an additional element to the Carnegie (2015) definition of community engagement. The Carnegie definition emphasizes the concepts of (a) collaboration, (b) mutually beneficial exchange of knowledge and resources and (c) a context partnership and reciprocity. These components inform the more complex forms of university-community collaboration such as Sockett's Systemic and Transformative approaches. In these collaborations, "the parties share responsibility for planning, decision-making, funding, operations and evaluation of activities and…each institution is transformed through the relationship (Sockett, 1998, p. 77)." These kinds of relationships have developed further since Sockett developed his classification model. The focus is now more on the effects of these working relationships on the community and less on the partners themselves. In May 2014, ISS formally launched the Sustainable Neighborhoods Initiative (SNI).

The Sustainable Neighborhoods Initiative builds on Portland State's legacy of community-based learning and the interest and enthusiasm among PSU faculty and students to work on projects in Portland neighborhoods that will make a difference in the lives of people who live there. The initiative pairs PSU classes with a small number of Portland neighborhoods for multi-year relationships that will match University assets, expertise, and energy with specific neighborhood sustainability initiatives and community expertise. The SNI provides students with rich opportunities to develop meaningful community connections and gain valuable work experience. A lot of progress has been made in the year

since SNI began. The entire effort depends upon the fact that neighborhoods in the Portland area have been developing collaborative systems to address issues of importance to their communities.

Although the SNI is still quite young, one of its core goals is to match up the interests of faculty, students and community members but also to begin to help ISS shape the internal community that makes up PSU itself and to promote a culture of collaboration and resource-sharing and mutual influence than spans departments, schools and support units in ways that open up new ways to work together, learn together and address complex problems. It is never easy to shift the value structure and culture of a large institution. One way to move beyond individual efforts to a more institution-wide effort is to set up hubs like ISS and its newer offspring, SNI as a means to make connections and open up pathways to collaboration.

Consider the following project that was completed in the first year of SNI, the Maiden Court Community Orchard in the outer southeast neighborhood of Lents in Portland, Oregon. The Public Administration program offered a section of Introduction to Civic Engagement each term. For three consecutive terms, students in that course participated in a partnership with a local organization called Green Lents to create a shared community vision of a new community orchard. The students canvassed over 1300 homes in the neighborhood and talked with 260 local residents about the project and invited them to participate in planning efforts at community design meetings. This effort added much needed capacity to the local grassroots organizations who did not have the capacity to do this kind of community outreach on their own. At the same time, the project provided a practical learning experience for the students by providing them an opportunity to apply concepts of civic engagement that they were learning in their coursework and to begin to understand firsthand the challenges that community leaders face.

Similar projects took place in two of the other three neighborhoods that constituted the first cohort of Portland neighborhood that signed on to the SNI project—the South Waterfront Market area bordering the PSU campus (SoMa) and the Cully neighborhood in Portland's northeast. One focused on building a miniature park (a "parklet") in the neighborhood surrounding Portland State where people can gather and interact. The other created a map of biodiversity in the Cully neighborhood in cooperation with several community groups and residents of Cully. The map will be used to promote science literacy and environmental awareness among the young people in the neighborhood.

Responding to Generational Transitions: The Age-Friendly University

The concept of an age-friendly university interacting with an equally age-friendly community offers another example of ways that new forms of collaboration and networking can create greater capacity to address rapidly emerging societal challenges.

The story begins in 2002 when the World Health Organization (WHO) (2002) began to focus on the development of Age-Friendly Cities. That year, the WHO organization estimated that between 2000 and 2050, the proportion of the world's population over 60 years of age will double from abo0ut 11% to 22%, a total of over 2 billion people. Of those individuals, 395 million will be over the age of 80. Most of those people will be aging in the world's cities.

Based on its active ageing framework developed in 2002, WHO proposed eight interconnected domains that can help to identify and address barriers to the well-being and participation of older people in the life of an urban community. The eight domains are Community and Health Care, Transportation, Housing, Social participation, Outdoor spaces and buildings, Respect and social inclusion, Civic participation and employment and Communication and information. The WHO's Global Age-friendly cities research project included 33 cities in 22 countries. Portland, Oregon was the only U.S. city that participated at that early stage.

Portland's contributions to the WHO project were supported by research conducted by PSU's Institute on Aging (IOA) The Institute identified urban features that make cities age-friendly, features that are barriers to age friendliness, and offered suggestions for changes that could improve the experiences of older adults. In 2010, the WHO created a Global Network of Age-Friendly Cities, subsequently renamed the "WHO Global Network of Age-Friendly Cities and Communities."

A core concept of this working definition of age-friendliness is the focus on people of all ages. In the past decade, efforts to create age-friendly environments have focused either on the specific needs and interests of older adults and the impact of an aging population on the economy or on the concept of multigenerational interaction and the participation, health and well-being of people of all ages in a shared environment, either within an organization or in a community.

The components of an age-friendly community are similar to definitions of a sustainable or healthy community (Institute for Sustainable Communities, 2015). In both models, all of the main community functions are aligned to create a high quality of life and active civic engagement in which a cross section of the community contributes in meaningful ways that generate significant capacity to adapt to larger social, economic and environmental changes. Both approaches include three core elements—a healthy climate and environment, social well-being and economic security.

Portland's Path to Age-Friendliness and Portland State's Role

PSU's Institute on Aging (IOA) was invited by the WHO to join its Global Age-friendly Cities project and conduct the original baseline research on Portland's age friendliness. The IOA approached then mayor Sam Adams to request that he and the City Council commit to becoming more age friendly and apply for membership in the WHO's Global Network. Mayor Adams agreed, but in exchange asked for IOA staff to serve on his Portland Plan Advisory Group, which they did.

Once Portland was designated as a member of the Network, the IOA formed an Advisory Council for an Age-Friendly Portland and work began on drafting the Portland Action Plan, with strategies and action steps identified for each of the eight domains (expanded to 10 in Portland, to pull apart civic engagement and employment and community and health services). In 2008, the Multnomah County Task Force on Vital Aging released an action plan in the form of a report entitled *Everyone Matters: A Practical Guide to Building a Community for All Ages*, which guided this work, along with the baseline study and other relevant data and reports. As WHO explains, "Making cities more age-friendly is a sound investment. Supportive and enabling environments enable older people to stay independent longer and in turn cities and communities benefit from the contributions older people have to offer." A focus on age-friendliness can enhance inter-generational social relationships and bonds and facilitate community integration and benefit people of all ages.

In April 2012, the City of Portland's Portland Plan (2012) was adopted. The Plan seeks to make Portland "prosperous, educated, healthy and equitable." The Plan includes a section entitled Portland as a Place for All Ages (p. 24-25). That section, which was prepared by the Portland Bureau of Planning and Sustainability, addresses age-friendliness. However, the elements of age-friendliness that were included in the plan make no mention of education or the economic impact of older members of the community. The focus is essentially on the needs of older members of the community rather than on their contributions to the community, although the document quotes the WHO definition of age-friendly cities and is entitled "Portland is a Place for All Generations."

IOA staff drafted the Action Plan for an Age-Friendly Portland, members of the Advisory Council then reviewed it and provided comment, and IOA revised and submitted the Action Plan to the City Council.

The City Council accepted the Action Plan in October, 2013. Since then, IOA has continued to coordinate the Advisory Council and has staffed the working committees formed with overseeing the implementation of the Plan. Although there has been little funding specifically for this age-friendly work, a $1 million gift provided by two PSU alumni has provided funds to support student and faculty efforts in support of the age-friendly agenda. The Board of County Commissioners of Multnomah County passed a similar resolution to the City's in October 2014, accepting the areas of the City's Action Plan but requesting that the Plan be modified to be appropriate for the County. IOA is supporting that plan also. PSU itself has endorsed the age-friendly effort but is still exploring the question of how it can become a model for age-friendly education and multigenerational engagement and how it might draw upon more of its intellectual and social resources across the institution to contribute through its scholarship, educational programming and community collaborations to Portland's effort to become a model age-friendly city.

In 2013, PSU picked up the age-friendly theme again along with a focus on PSU's role in promoting the development of Portland as an age-friendly city. Several briefing papers were prepared that outlined the demographic changes underway both globally and in Oregon. One of those papers entitled *Portland and the New Longevity*, issued in July 2013, laid out a portrait of what a New Aging Agenda might look like and why and how Portland might lead the way in developing that concept. The paper explored three themes: Rethinking Work, Engagement and Aging; Enhancing Age-Friendliness; Transforming Health and Social Services through New Technology.

Building on this briefing paper, the team then prepared an argument for the role of PSU in contributing to the formulation and enactment of a New Aging Agenda within an Age-Friendly Context. The second Prospectus proposed a plan entitled *Tapping Portland's Hidden Asset Rethinking Aging, Longevity, Engagement and Equity.* The report described the changing age demographics as a "whole new game moment" and proposed a scenario in which age-friendly cities will emerge as "more desirable, successful and economically viable than those that are not." In the report, the authors laid out a strategy that would position the Portland Region as a world leader and proposed the use of the Collective Impact Model with PSU as the backbone institution to link existing partnerships and create greater momentum for moving toward the goal of becoming an Age-Friendly City served by an Age-Friendly university.

In January 2015, the Dean of the College of Urban and Public Affairs (CUPA) at Portland State University submitted a prospectus for a "Big Idea" for the next PSU Comprehensive Campaign. The prospectus outlined ten components of a university-wide plan designed to make Portland State University an age-friendly campus built on a platform of inter-generational collaboration and mutual learning. These elements match up well with an earlier set of principles for an age-friendly university developed by Dublin City University (2014). The concept of age-friendliness articulated by Dublin City University is broad-reaching "to encourage the participation of older adults in all the core activities of the university, including educational and research programs." The components include promoting personal and career development in the second half of life, promoting intergenerational learning, designing online educational opportunities for older adults, including the interests and needs of older adults in the university's research agenda, to promote participation by older adults in a broad range of university programs and to engage with the university's own retiree community and, finally, to ensure regular dialogue with organizations representing the interests of the ageing population.

In March 2015, a consulting firm, ECONorthwest that focuses on ways to build a thriving economy in the Pacific Northwest and AARP Oregon, co-sponsored a gathering of community leaders from every sector of society to talk about the economic and social impact of the changing age distribution in both the metropolitan region and in rural Oregon. This was followed by a breakfast meeting for a similar mix of community leaders on September 22, 2015 to "challenge business and community leaders to explore how to engage with the 50+ population to strengthen the economy." As one participant put it, "it is time to shift from the metaphor of a silver tsunami to the idea of a silver reservoir of talent, energy and social and

economic resources." These efforts to generate interest in the implications of changing demographics have been reinforced by articles in the local media.

The next step will be to prepare a white paper that makes the case for the social and economic benefits that older adults contribute to Oregon. At this point, Portland State steps in as a partner with ECONorthwest to develop and then promote the case.
The Academic Deans at PSU have met to talk about research activities, curricular treatments of aging and multigenerational topics and to identify and foster current partnerships across the Colleges that address some aspect of age-friendliness. This discussion could be especially helpful in assessing PSU's efforts in the following three components of Dublin City University's principles and can form a prospectus to be considered as PSU's next comprehensive fund-raising campaign is developed.

- To ensure that the university's **research agenda** is informed by the needs of an ageing society and to promote public discourse on how higher education can better respond to the varied interests and needs of older adults.
- To recognize the **range of educational needs** of older adults (from those who were early school-leavers through to those who wish to pursue Master's or PhD qualifications).
- To promote **intergenerational learning** and facilitate the reciprocal sharing of expertise between learners of all ages.

Conclusion

The story of building a culture of age-friendliness in Portland, Oregon spans over a decade. The lessons offer insights into how Portland State University, a university built on a traditional academic structure consisting of colleges and departments and with a strong commitment to the concept of *Let Knowledge Serve the City* must rethink its own internal culture and ways of working together. How will the university mesh its people and ideas with the growing cross-sector efforts being developed within the broader metropolitan community to address complex problems and opportunities in our region? These two examples offer some lessons.

The initial impetus for creating an age-friendly environment centered on one node within PSU, namely the Institute on Aging, which began to work with WHO soon after the turn of the century. From this point, connections between the university and local government provided a channel to engage the City of Portland and then Multnomah County in exploring the opportunities and challenges created by an aging population. At this point, the path is becoming much more reciprocal as both the university and the community work to build a thriving intergenerational culture. Critical to this shift in emphasis has been the interests of key academic leaders, who have embraced the value of linking PSU as an age-friendly university to the effort to convert public opinion from a concern about a *silver tsunami* that we cannot afford to a *silver reservoir* filled with potential and opportunity.

PSU already is involved in long-term projects that address some of the most important aspects of life in the Greater Metropolitan area today. There is much to learn from our own local experiences in putting together a collaborative approach to addressing large scale, complex societal challenges. Might the concept of age-friendliness with its emphasis on creating Portland as a Place for All Generations become an element in each of the four identified thematic areas that guide decision-making at Portland State? Those areas are (1) Sustainability; (2) Cradle to Career; (3) Community Health; and (4) Economic Development. All that would be required would be to expand the second theme of Cradle to Career to include the career interests of people aged 55-79 or older. The Institute on Aging is continuing to serve a supportive role. Expanding the backbone to include additional components of PSU across all four themes

could strengthen the ability of PSU to support additional community-based collaborations that link an increasingly collaborative culture of engagement internally with the growing cross-sector patterns that are starting to shape Portland's future.

As the pattern of cross-sector collaboration become more common and as leadership and approaches to more equitable community representation gradually adapt to the challenges of working across institutional and community boundaries, the early efforts of institutions like Portland State to create a transdisciplinary academic culture and to practice new forms of communication and working together will intensify. As this process unfolds, more options will open up for university ideas, people and expertise to contribute more meaningfully to the creation of sustainable communities where people of all backgrounds can thrive.

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Reflection Promotes Transformation in a Service Learning Course

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Abstract

The purpose of this paper is to outline the delivery of a Master's level, Community/Public Health Nursing service learning course that spanned a two semester academic year. The instructor of record created a reflection binder with selected assignments to facilitate the transformative learning process that occurred during the course. Analyses of the reflection assignments demonstrated that isolated incidences of transformative learning occurred. One exemplar of the transformative learning process is presented.

Introduction

For years, scientific research and public health campaigns focused on individual lifestyle as the primary etiology of poor health (Freudenberg, 2007, p. 1). Personal choice and behavior such as smoking, sedentary lifestyle, unhealthy eating, alcohol consumption, and use of illegal substances were funded public health interventions and were the focus of mass media communication that spanned billboards, radio advertisements, and healthy living websites. However, population health in the United States continued to decline, and as reported by Robert Wood Johnson Foundation Commission to Build a Healthier America (2009, p. 9) for the first time, "Americans are raising children that were more likely to live sicker and shorter lives than their parents." This fact resulted in a paradigm shift. Instead of "blam[ing] individuals at highest risk for ill health, even when their choices have been constrained by public policies and corporate practices" (Freudenberg, 2007, p. 1), public health professionals emphasized that social factors within an individual's environment were just as influential on individual health and health related behaviors/choices; thus, emerged the need to understand the social determinants of health (Commission on the Social Determinants of Health [CSDH], 2008, p. 1; Brennan-Ramirez, Baker, & Metzler, 2008, p. 10; Robert Wood Johnson Foundation, 2008, pp. 16-17).

The World Health Organization (2015) defined social determinants of health as, "the conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks." Examples of social determinants include access to healthy food, adequate housing, good education, safe neighborhoods, and freedom from racism and other forms of discrimination (Brennan-Ramirez, Baker, & Metzler, 2008, p. 10). According to Marmot and Allen (2014) these factors are just as influential on individual health as biology and genetics. For example, adjusted statistical models demonstrated that white and black adults (65 years and older) living in mid- and highly- disadvantaged neighborhoods in Alabama had a 60%-80% greater odds of having hypertension (Buys, et. al., 2015, pp. 1183-1185). For those older adults who lived in highly-disadvantaged neighborhoods, 40% were less likely to have controlled hypertension (Buys, et. al., 2015). Disadvantaged neighborhoods were defined by the level of poverty and presence of a female head of household which are two major social determinants of health. Additionally, participants who reported limiting their outdoor exercise due to fear of being robbed or attacked were more likely to be from mid- to highly-disadvantaged neighborhoods. The possible cause and effect relationship between not exercising and higher odds of having hypertension cannot be overlooked for those individuals living in progressively more disadvantaged neighborhoods.

The necessary focus on social determinants of health is apparent in the public health work conducted at the national level. *HealthyPeople* is a national initiative focused on improving the overall health of the nation. By identifying goals in various health indicators every ten years, the initiative strives to

document national trends towards improving health. The current initiative, *HealthyPeople 2020*, is founded on the roots of examining determinants of health, including those that are biological, physical, and social (U.S Department of Health and Human Services, n.d.). The four overarching goals of *HealthyPeople2020* revolve around promoting optimal health in Americans. Nurse play a vital role in reaching these goals because of the focus on health promotion and creating social and physical environments that support healthy living lifestyles. When educating nurses about *HealthyPeople2020*, it is common to have students conduct a community assessment. By structuring this community assessment using the social determinants as a data collection framework, students are able to distinguish health patterns and trends that certain social groups exhibit, and direct health interventions at the appropriate social condition to improve health outcomes. The assignment also challenges the student to acknowledge barriers to health that are social in nature. Social justice concepts such as discrimination, racism, and access to healthcare often emerge as major contributors to health related behavior and outcomes. The community assessment was the starting point of this transformative journey.

Purpose

The purpose of this paper is to outline the delivery of a Master's level, Community/Public Health Nursing service learning course that spanned a two semester academic year, and consisted of twelve academic credits: six didactic credits and six practicum credits. This course was developed on the foundation of social justice concepts with an anticipated outcome of increased awareness of self within the broader society and greater appreciation of the impact of social factors on individual health. Aggregated quantitative and qualitative data demonstrate the transformative learning that occurred for the students over the academic year.

Background

It is important for nurses to acknowledge the relationship between various social factors and health in the individual and the community. Nursing education that is grounded in social justice concepts (discussed below) with assignments that engage students in the reality of the community environment are likely to expose students to a way of living that is much different than their own.

Social Justice

Bell (2007, pp. 1-2) wrote about social justice as being a vision where the allocation of resources is equitable among all members of a society and members of that society recognize their responsibility to self, their society, and the world in which they live. A critical review of the cultural and social self, with acknowledgement of how that self-identity interacts with the greater social structure provides a rich learning environment for the student to explore social justice constructs.

Nursing service provided in the community, with a social justice approach, "redirects the focus of service learning from charity to social change and connects awareness to action" (Bowen, 2014, p. 53). Students are guided to appreciate their service as more than just providing the community with help. Instead, they are aware that their services are directly related to the social culture of the community and may potentially enact social change. This is the target of transformation.

Transformational Learning

Adults develop assumptions, beliefs and values of the world that guide interpretation and action. Family, culture, society, and the vast array of media messages regularly influence the development and revision of individually held assumptions. Transformative learning is a process in which the adult becomes,

"critically aware of how and why our presuppositions have come to constrain the way we perceive, understand, and feel about our world; of reforming these assumptions to permit a more inclusive, discriminating, permeable, and integrative perspectives; and of making decisions or otherwise acting upon these new understandings" (Mezirow & Associates, 1990, p. 14).

An instructor cannot guarantee that transformative learning will occur in a given course. As such, one distinct method for teaching towards transformation does not exist. The responsibility of the instructor is to provide an environment where transformation can occur. According to Mezirow (1997, p. 10) this learning environment needs to provide a setting where events and situations challenge individual assumptions, there is a safe means for articulating individual assumption, there is an opportunity for critical discourse and continued reflection with an exchange of alternative views and perspectives, and there is plausible action based on the new perspective(s).

Service Learning and Transformation

Service learning is one pedagogical method used to facilitate transformative learning. Service learning is a teaching and learning strategy that integrates meaningful service in a community with instruction and reflection to enrich that learning experience, teach civic responsibility, and strengthen community. According to Eyler and Giles (1999, pp. 1-22), there are four components to a successful service learning experience: (1) personal and interpersonal development, (2) application of the knowledge learned in class, (3) perspective transformation, and (4) developed sense of citizenship.

When students are placed in a societal "context that challenges their prejudices, prior experience and assumptions about the world" (p. 17) they learn about themselves, and their relationship to the greater group (community, society, and world). Transformation is aimed at engaging the individual beyond just the status quo of daily living. The engaged citizen is one who challenges the social norm by recognizing his/her role in changing the norm. This is extremely important for norms that have deep roots in social justice concepts. Eyler (2002) attributes service learning to the development of an engaged citizen by achieving the following:

1. Student interest is engaged by involvement in authentic service to the community,
2. Students develop positive attitudes towards community engagement,
3. Students develop a sense of personal efficacy and commitment,
4. Students develop deeper understanding of social issues (or other subject matter),
5. Students develop lifelong learning and problem solving skills,
6. Students develop skills for community action and involvement, and
7. Students develop post formal reasoning abilities necessary to deal with complex "ill structured" social problems (p. 519).

As an engaged citizen, the status quo of inequities, especially those related to health, are examined, confronted, and changed for benefit at an individual and societal level. The courses described below aimed to engage six female Master's students in a public university community/public health nursing program. This project received approval from the Institutional Review Board at the academic institution.

The Service Learning Course

The Master's in Community/Public Health track requires the student to enroll in a year-long didactic course and co-requisite practicum focused on developing knowledge and skills in community assessment, planning, intervention, and evaluation. Each course is three credits: six credits in the fall and six credits in the spring. Three practicum credits equaled 168 practicum hours, for a year-long total of

336 hours. The principles of service learning were applied to the practicum course to facilitate the link between classroom content and the community based service work.

Implementation

Each student selected a community to perform the practicum hours. This selection was generally based on interest and was facilitated by the connections already existing between the instructor and a community agency contact. Selected communities covered a large geographical area and a diverse range of age, gender, racial, and ethnic demographics. The student group engaged with children and families across various housing and educational situations and addressed issues related to asthma, diabetes self-management, anxiety and depression, sleep hygiene, and physical restraint management.

In the fall semester practicum, the students focused on community engagement. The intent of engagement was to perform a comprehensive community assessment that collected social determinant data and identified strengths and resources of the community. Data collection included epidemiological data and qualitative data from key informant interviews and focus groups. These data, along with recommendations from community members, informed the planning of a health-related intervention in the community. In the spring semester, the 168 hours of service focused on implementing and evaluating the health program that was planned during the fall.

Six graduate students were enrolled in the fall course, and five of the six students continued into the spring course. The remaining student applied for a leave of absence. Assignments for the spring built upon the work conducted in the fall and the culminating project consisted of a poster presentation at the College of Nursing Annual Scholarship Day, a written evaluation paper, and a tangible giveback to the target community. All five students prepared a three ring binder with a descriptive outline of the program, print resources or Internet links to electronic resources, a brief evaluation of the implemented program, and recommendations for the next program implementation.

Student Reflection

Service learning courses rely on the student reflection to help to link the course content to the service activities. Reflection is also a key tenet of Transformative Learning Theory. Reflection is the process by which individuals develop the capacity to develop cognitively and think critically (Eyler, 2002, pp. 527-528). The course instructor strategically embedded reflection exercises throughout the semester to meet both of these goals. During the fall semester, critical reflection was used as a mechanism to help students explore and understand their assumptions of social concepts and develop the comfort and competence to question their assumptions and how those assumptions directed their societal view and action. When assumptions are acknowledged and challenged, different perspectives are recognized as viable ways to solve problems. This process is important for Community/Public Health nurses who work with a variety of social groups that may be unfamiliar to their own.

Student reflection is not a one-time occurrence and should not only be conducted at the end of the service learning experience. According to Eyler, Giles, and Schmiede (1996) there are four C's to facilitate effective service learning reflection: continuous reflection, connected reflection, challenging reflection and contextualized reflection. Continuous reflection is an ongoing reflection that begins before the initiation of the service learning and continues through the completion. Reflection prior to the service assists in preparing students for placement in the community. The creation of a learning contract where students identify learning goals and the evidence that will be needed to demonstrate their achievement is a common mechanism of pre-service reflection (Eyler, 2002, pp. 524-526). During service, reflection addresses the direct experience on site and focuses on problem solving. Post-service reflection includes

an evaluation of the service experience, and begins to transform newly gained experiential knowledge into existing knowledge. Connected reflection is a purposeful method to build the bridges between learning content, personal reflections, and first hand experiences. Challenging reflection focuses on looking at old questions with varying perspectives to answer and develop new questions that promote learning. Contextualized reflection provides a meaningful interaction between the student, the activity, and the setting, and may involve the community members as a mechanism to explicate this meaning. Contextualized reflection examines critical incidents that occur in the life of the student during the service learning experience (either in society or specifically affecting the student). These occurrences were examined for their influence on the service learning experience and were considered transformational if the student demonstrated that their perspective had some meaningful change.

Reflecting on the social structure of the environment can be uncomfortable and anxiety provoking forthe student. To prepare the group for the intimate reflection component of the course, the following statement was included in the syllabus and reiterated at the beginning of many classes. "This course will be most successful when all participants commit to develop a learning community in which the beliefs of all may be discussed in an open, civil, and respectful environment. Everyone will be expected to consider multiple perspectives, engage in critical reflection, and take intellectual risks built on one's confidence in the content. Class activities will focus on critical analysis of (1) course readings, (2) research findings, and (3) class discussion. Your personal experiences are important but require critical reflection and analysis. Hence, the ability to interact with the material in a personal and self-reflective manner is essential."

Fall Semester Reflection Exercises

In the fall, students completed six r assignments, with various levels of required reflection, to raise their self-awareness of cultural and social self-identity. See Table 1for a brief description of each assignment. The instructor included these assignments to facilitate the understanding of self and the self within the greater social environment. Tools with an asterisk (*) are found in the appendix of Adams, Bell, and Griffin (2007). There were minor adaptations made to the process questions to make them applicable to the course content and the role for which students were being educated. Tools with two asterisks (**) are located in the Faculty Toolkit for Service Learning in Higher Education (Seifer & Connors, 2007, pp. 32-41, 49-57).

Table 1

Description of Reflection Assignments to Promote Transformative Learning

Reflection Assignment	**Description**	**Process Questions Directing Reflection**
*Social Group Membership Profile and Identity Wheel	The student reflected on belonging to the following social groups: ethnicity, race, sex, gender, sexual orientation, age, class, religion, ability/disability and other. The student determined whether belonging to the group is an advantage or disadvantage in society. Advantaged status was defined as having access to resources, social power, and privilege within society. Disadvantaged status was equated to experiencing oppression, being targeted and/or denied the resources, social power, and privileges of the other members of society. The student created an identity wheel. The wheel was segmented into "pie pieces" which represented the social groups that the student identified.	1. Which of your social group memberships were easy to identify? 2. Which of your social group memberships were most difficult to identify? 3. What questions are raised for you about your social group membership? 4. Which of your social group status were easy to identify? 5. Which of your social group status were most difficult to identify? 6. What questions are raised for you about your social group status? 7. How does the examination of your own social group membership influence the way you approach community health nursing?
*Privileges and Disadvantages Inventory	Thirty-five questions were answered using a true-false dichotomy. Questions focused on many privileges awarded to certain social groups. For example, students are asked to answer whether they were teased, prevented from getting a job, accused of lying, stealing, or cheating, or had been a victim of violence based on race, ethnicity, religion, sexual orientation, or gender expression.	1. What are your reactions to the process of doing the activity? 2. What are your reactions to identifying some of the privileges and disadvantages associated with some of your social group memberships? 3. What statements were particularly striking to you? Why? 4. What questions about privilege and disadvantage are raised for you? 5. How was your experience of privilege and disadvantage the same or different from members in the community that you are working with?

*Class Background Inventory	Ten questions directed the student to reflect on his/her class background by acknowledging the family source of income, housing environment, educational preparation, and priority values. Students wrote about how these concepts influenced attitude, behavior, and feelings about community and community program planning.	None. The exercise already had open ended questions.
**Worksheet Guidelines for Writing a Partnership Agreement Memo	The students completed this form prior to identifying their service learning goals. Students were encouraged to complete this form with their community preceptor because it asked about necessary resources, key stakeholders, predicted challenges and other key concepts important in academic-community partnerships.	None. The exercise already had open ended questions.
**Partnership Assessment Tool	This tool is a resource of 56 questions used to measure the success of the academic-community partnership. Questions rated the strength of various qualities in the academic-community work. Scores of 1 – 4: 1 = low and 4 = high.	No additional questions were asked because the instructor worried that 56 questions may be burdensome and she did not want to increase. Students were instructed to elaborate on scores with comments as deemed necessary.
**Student Self-assessment	The student self-assessment used the course requirements and goals to assist the student to reflect on the extent to which they met them. The student assigned themselves a course grade with rationale.	No additional questions were asked because the instructor worried that 23 questions may be burdensome and she did not want to increase. Students were instructed to elaborate on scores with comments as deemed necessary.

In addition to these assignments, each student wrote four journals describing a specific practicum experience. The instructions in Table 2 (Seifer & Connors, 2007, pp. 88-89) were provided to the student in the course syllabus. The instructor focused on section four an indicator of transformational learning occurring in each student.

Table 2

Directions for Journal Writing

Please clearly divide each entry into the following categories. 1. Date and hours worked 2. Objective/Description of your experiences *What happened? Write a factual account of the behaviors you observed that does not include your opinion. Write at least 100 words.* 3. Interpretation/Explanation *Now try to understand the behaviors you described above in #2. Use principles and concepts from the course reading material and lectures in making your interpretations.* 4. Personal Opinions/Feelings and Learning *Thoughts/opinions. Interpret what you saw and heard today. What does it mean to you? Use emotion words (i.e., happy, surprised, frustrated) to describe your feelings. What knowledge and/or skills did you acquire today? What did you learn about yourself? What did you learn about others around you?*

Spring Reflection Assignments

According to Eyler (2002, p. 522), a high level of "reflective judgment can assist individuals to identify the ill-structured nature of social problems, frame them, resolve them, and understand the need to continually readdress the issue as conditions change and new information is developed." After reading through the fall semester reflection binder, the instructor felt that the journal entries were not demonstrating the transformative learning that was seen and heard during classroom discussion. Collectively, the students were applying the self and the self within the society into their practicum experiences. Therefore, the instructor assigned more structured reflection questions in the spring semester course. Each reflection had a due date. The instructor read and provided a written comment on the submitted reflection. The student was encouraged to address any comments made by the instructor before submitting the reflect ion assignment in the reflection binder at the end of the course. Topics of reflection included the following:

- Conflict within the partnership.
- Minimally involved stakeholders, or stakeholders who dropped out of the partnership.
- Community members who made strong impression, either positive or negative, and why.
- What was satisfying about performing the service?
- How has the service affected your worldview and your professional relationships?
- How has your understanding of the community changed?

The student continued to write practicum journals per Table 2.

Results

At the end of semester one, students completed a service learning survey which assessed the impact of the service learning experience. After completing the fall semester, six students responded to the service learning survey. Students were asked to rate their ability to engage in multiple community engagement skills and civic engagement skills. Two sets of scores were calculated, the student's self-reported skill prior to the service learning course, and the student's self-reported skill post service learning course. A paired *t*-test found significant differences ($p < 0.05$) between pre-course mean scores and post-course mean scores.

Table 3

Significant Findings (p < 0.05) from Fall Service Learning Survey

Community Engagement Skills	**Pre- Course Mean Skill Score**	**Post-Course Mean Skill Score**
• Identify needs and resources of the community	2.50	4.33
• Apply knowledge and skills gained to real problems/opportunities in my community	3.00	4.50
• Make connections between learning and issues/needs of the community	3.17	4.67
• Articulate the value of engagement to other members of the community	2.67 3.33 3.0	4.50 4.33 4.17
Civic Engagement Skills		
• Organize other students to take action on a community problem	2.17	3.50
• Create a plan to address the issue	2.50	4.17
• Get people to care about the problem	2.67	4.00
• Organize and run a meeting	2.67	3.50
• Find and examine research related to the issue	3.50	4.33
• Apply what I learned in my service learning class	3.00	4.33

At the completion of the spring service learning course, the students completed the same survey. The instructor directed the students to answer pre-course skill using a self-reported rating from the fall, prior to enrolling the service learning course and post-course skill ratings for when the academic year was over. As depicted in Table 4, the group mean had a significantly higher score in many items correlated to community engagement and civic engagement skills.

Table 4

Significant Findings (p < 0.05) from Spring Service Learning Survey

Item	**N**	**Pre-mean**	**Post-mean**	**99% CI**	**t**	**Df**	***p*-value (2tail)**
Community Engagement Skills							
Identify needs and resources of the community	5	3.0	4.4	-.27223	-5.715	4	.005
Apply knowledge and skills gained to real problems/opportunities in my community	5	3.0	4.4	-.27223	-5.715	4	.005
Make connections between learning and issues/needs of the community	5	3.0	4.6	-.47223	-6.532	4	.003

Articulate the value of engagement to other members of the community	5	3.4	4.6	.52269	-3.207	4	.033
Evaluate and integrate information from multiple sources	5	2.8	4.4	-.47223	-6.532	4	.003
Civic Engagement Skills							
Organize other students to take action on a community problem	5	2.2	3.2	.45594	-3.162	4	.034
Create a plan to address the issue	5	2.6	4.2	-.47223	-6.532	4	.003
Get people to care about the problem	5	2.6	3.8	-.27918	-6.000	4	.004
Find and examine research related to the issue	5	3.2	4.4	.52669	-3.207	4	.033
Apply what I learned in my service learning class	5	2.8	4.4	-.47223	-6.532	4	.003

Quantitative results are important in determining the impact of an intervention. However, the qualitative information gathered from the student's practicum journals and reflection assignments provides important data to support the transformational learning process that occurred. Table 5 contains selected student quotes that are cross walked with the type of reflection (the four C's) and the assignment that the quote was taken.

Table 5

Reflection Statements from Students (Fall)

Assignment	**4-C Component**	**Selected Student Reflection**
Worksheet Guidelines for Writing Partnership Agreement Memo	Connected	"I am a little worried about being able to produce tangible results in the span of one academic year. Still, I am more concerned with doing a project that is worthwhile to myself, my colleagues, my students and their families."
Social Group Membership Profile	Challenging	"The most memorable piece to this event occurred at the end of the day when we were cleaning up. We obviously had too much food, so [name withheld] opened the doors to a number of homeless people that were walking around outside. They offered them warmth and food. We made up some [food] bags to take with them for their friends and family. One of the women talked to me about how she became homeless and her daughter of six years old would be so happy to eat so much tonight. One older homeless gentleman gave up some of his portions to another man who had two children to feed. It is unbelievable how your life can turn on a dime like these unfortunate souls. I walked away with a mix of emotions. I was impressed by the kindness and professionalism I saw here today and I was so much more appreciative of what I have."
Identity Wheel	Challenging	"I never felt my class background played any part in my feelings, attitudes, etc. Now as an adult, I can of course see how my ability to have hope of a good education, expectations to be treated with respect do come from my background."

Privilege and Disadvantage Inventory	Challenging	"This topic [I will never need to teach children in my life about racism for their survival] has not been on my list of big talks to have with my small children and it occurs to me now that many other families have had to have this discussion with children younger than mine."
Class Background Inventory	Challenging	"The statement about feeling safe if police were present was striking to me. I had to think for a few moments about why it wouldn't be. Then I was thinking about the events of this week at my work. One of my students, a 20 year old, black man ran into an office this week. The student is tall and fit and, I guess, could look intimidating to someone who doesn't know him. He has very little meaningful language and very slow processing time with verbal curs. Needless to say, the woman who was in the office was extremely upset and reported the incident to the principal in the building. Had one of our white students, female students wandered into that office, there probably would not have been an issue. Little did that person in the office know that the student she met is never aggressive unless provoked. Yet other students who "look" harmless can be very violent for reasons that you'd never guess…yes these are real life examples."
Partnership Assessment Tool	Contextual	"I enjoyed speaking with [name withheld]; however I was disappointed in the lack of detail that she could provide. I did not get the sense that improving sleep in college students was a passion of hers."
		"I just wanted you to know that this AM I have sent my 3rd email to [name withheld] at [location withheld] asking for dates and times I can start my project and asking for the ability to see the materials so I can build that curriculum. The previous 2 have gone unanswered so I hope she answers this one!"
Student Self-assessment	Contextual	"I initially entered this project with some hesitancy due to my lack of experience with juvenile diabetes, but I learned that I knew much more than I thought."

The reflection journals from the spring semester provided much more in depth self-analysis and application of course concepts to the service work. This was achieved by the instructor providing more structured reflective questions to the students. Excerpts from reflection journals are presented in Table 6.

Table 6

Reflection Statements from Students (Spring)

Connected	"All of the women came with a child, most babies which I got to take care holding while the women did their art. I did find it a little difficult to babysit while running group, but on the other hand, I realize this is the reality of doing community nursing. " "I think the longer you work somewhere or engage with the people somewhere the more comfortable you become and more like an insider you feel." "I am definitely learning that no matter what you have planned, 'rolling with the punches' is necessary, what YOU want to do may not be what THEY want to do and ultimately the group is about THEM.

Challenging	"…in this class, there was a student who stood out to me who seemed to have sleep issues from his vague comments, mannerisms and actions. He made me wonder: how does a nurse make the transition from the tailored individual plan to trying to help a group as a whole? As a home care nurse, I go into homes, and I work with an individual and see success or failure. With this community geared program, I received feedback from the students, but I do not know if there was individual success." "I am surprised by the extent of the services offered the residents of the shelter…It also surprised me how many women actually preferred living at the motel instead. They agreed that the shelter was more supportive and the benefit of the kitchen as well as reducing isolation, but appreciated the privacy of having your own space without really having to answer to anyone. I think of these people when I am driving down route 6 in [town] and seeing people walking to the nearby Walmart or Target to get their everyday needs met but due to the snow they have to actually walk on Route 6 with their children in tow. I've seen them push their strollers out onto the busy street in frigid, wet, snowy weather and I can't imagine that it is better than the shelter."
Contextual	"I made several attempts to engage in community activities with [name withheld] in order to gain trust and slowly build a relationship with the community but that was not always successful sue to schedule conflicts or poor weather." "[name withheld] is also wanting me to do other groups such as personal hygiene and teaching use of feminine hygiene products. Although the role of an advanced degree community nurse certainly includes teaching on all levels I'm feeling a little overwhelmed with multiple curricul[a] since I, of course, want to do my best at each one."
	"The participants were asked to decorate the outside of as they present themselves to the outside world and the inside of the box as they truly feel on the inside…Another woman surprised me with her box. She explained that her box was backwards. She stated she "had" to project herself as angry and hard so the outside of her box reflected that, the inside of the box was decorated with family and love because she felt she had to not allow others to see that part of her that was happy. I had fully expected all of the participants to create an outer box of happy, put together individual and the inside to be 'chaos.'"

Table 7 represents the pre- during- and post- continuous reflections that emerged from the practicum journals that the students passed in during the academic year. These examples are presented separately to exhibit the seven month journey of the students in their selected communities.

Table 7

Continuous Reflection Statements

Practicum Journals	Continuous	Pre- "Spending time going door-to-door provided me the opportunity for engagement with community members. Once community members saw me walking door-to-door on several occasions they wanted to know who I was and shortly realized that I was there to help the community."

	During- "Although I am sure most of the families in the shelter have heartbreaking stories of loss and stress, I found, surprising that I was not feeling sad for them. I thought I would feel more pity. I was happy, smiling, the way people do when they watch children having fun. These children were no different than the kids my kids play with at the playground or in their schools. For this reason I am glad there is no real in-depth interaction with the families, I will not be becoming familiar with the shelter's inner workings and the stories of the difficulties and traumatic histories of these children. I want to be able to enjoy them having fun and hope that it helped them relax and forget for even just an hour and not give them pity, they get enough of that." During- "I observed a large number of students using cell phones while the athletic administrator spoke. It became more apparent that this is the younger students' culture. Cell phone use will be a competition in educational sessions. So, can cell phone use be involved in the [my education session, through poll applications?" "Miscommunication and lack of communication seem to be dominating my semester, as I am sure it does in the real world." Post- "I felt uneasy giving the program away. This feeling was unexpected…This group already had a full plate; are they going to put the effort into maintaining [program name]." "I have come to understand that although the project is very important to me, others may not consider it a priority." "Once it was over, I truly felt that it was fun, and I was disappointed that I did not have more presentations scheduled…My original plan did not work, and although I did not like it, I still had fun."

Transformative Learning Exemplar

Of the five students that completed the academic year service learning course, there was one student who clearly demonstrated the process of transformative learning as evidenced through her reflection journals. Her end of the year reflection is depicted in Table 8, segmented by the stages of the transformation process. Although her, "stereotypes and jaded experience" of the homeless population may not have been altered, the willingness to acknowledge, examine, and act upon these feelings are important steps in the transformative process.

Table 8

Transformation Exemplar

Transformation	**Student Reflection Statement**
Knowing self and acknowledging biases and assumptions about the social world	"I hoped my worldview would be more [a]ffected working with this population in this environment. Working on a psychiatric unit for 12 years I have dealt with my share of homeless individuals, made homeless by many different circumstances, some poor decisions, some a series of bad luck. Although I like to believe that I choose to see the good in people I have found this population in the hospital to be a bit entitled."
Knowing self and acknowledging biases and assumptions about the social world	Continued: "I hoped that I would find that in the real world, in the shelter, I would find that these were hard working people, struggling to make a transition, to make their lives and the lives of their children better. Many of the people I have interacted with at the shelter have struggled with being at the shelter. This week in particular however, I have seen that entitled attitude I am so used to. One woman who is 14 weeks pregnant was talking about how she thought being pregnant would get her to the front of the line for an apartment and was quite surprised when it didn't. Another was very upset when she fell, due to pain, and the shelter worker commented on how messy her room was. It was, unfortunately, not surprising to hear that she was feeling better only because another resident (the pregnant one) gave her an oxycontin."
Reflection	"Reflecting on my worldview, which consists of stereotypes and jaded experience, reminds me that our system for dealing with the homeless population leaves much to be desired and hopefully we can learn from other countries who don't seem to have the same issues we do in this country."
Subtle change in perspective with a proposed plausible action to act on the social environment of homelessness and mental health illness	"I'm very glad to have done this community work, it has validated, for me, the need for community mental health options for populations which do not consider their mental health to be a priority. Although many have trauma, stress, and depression they have other priorities like joblessness and housing issues that take priority. When I complete my degree I hope having this type of experience will make me more marketable in an outpatient psychiatric setting, dealing with more of the community population and their untreated mental health issues."
Actual action to promote change	"I am able to subtly inject my values mostly by modeling. Much the way I have seen the other shelter workers doing. We treat the children well and with respect, I insist that in my class participants treat each other with respect also. I try to show them that I am working hard to get ahead in life. I also show them that I am there, every week (weather withstanding) in order to have a good class for them. I do what I say I'm going to do and follow through with requests.

Discussion

In this Master's level service learning course, reflection assignments were completed by the students and analyzed by the instructor for demonstration of a transformative learning process. The use of a reflection binder at the end of each semester provided the instructor with ample data to analyze. In general, themes from the data were related to the more popular concepts of community engaged work, such as the importance of community engagement, collaboration with community partners, flexibility on the part of the planner, and the need for clear and concise communication. The student group struggled in the fall to demonstrate the higher-level thinking and critical analysis needed to determine if transformative learning had occurred. This improved in the spring semester.

Interpretation

The small sample size of five students requires the reader to interpret quantitative data with caution. However, it is evident that the service learning course had a positive influence on the students' abilities to develop community engagement skills and civic engagement skills. Based on the qualitative data extracted from the reflection binder assignments, it appears that the selection of assignments and reflection questions were helpful to the students to meet the components of service learning, and when they were provided more directed reflection, isolated student statements alluded to a plausible transformation in thinking. For example, one student wrote, "I was extremely moved by the speaker's honesty about his experience, and I wondered if the students would be too…I feel I understand that addiction is a disease; however, I still feel frustrated at times with individuals who are addicts. This session reminded me that addicts are people, and they are everywhere, including the campus of [name of institution withheld]."

Recommendations

Both service learning and transformative learning embed rigorous and quality reflection as part of the process. Therefore, it is reasonable to assess for both service learning outcomes and evidence of transformative learning in the same course. However, one of the most challenging tasks for the instructor is to provide appropriate and useful reflection assignments as part of the course offering. In this first trial run, the instructor quickly realized that the student struggled to demonstrate, through their writing, the high level thinking associated with transformative learning. The instructor believes that having the more structured reflective questions in the spring semester provided more direction for the student to frame their thinking, and consequently their writing. The instructor will include more structured reflection questioning in the fall assignments, especially for the first few assignments since the student may have never been exposed to such type of in-depth critical analysis of self in relation to the world. These tenets have been reported by others in the service learning literature (Eyler & Giles, 1999; Ash, Clayton, & Atkinson, 2005).

Transformative learning is not complete without the individuals acting on their revised assumptions. In the practicum course, the students were paired with a community based preceptor and the instructor of record communicated with the preceptor via phone and email and had one scheduled on-site visit in the spring. Therefore, it is plausible that the students acted on their revised perspectives without the knowledge of the instructor and without documenting that specific incident. Consequently, some evidence of service learning induced transformation was not available for analysis. In the future, the instructor will involve the community based preceptor in this active analysis of transformation by having each preceptor understand the process of transformation and employ methods of data collection. In particular, preceptor reported conversations between the student and preceptor and on-site observation will be added as evidence for analysis of learning.

Conclusion

Several years ago, when this instructor read the editorial From Lifestyle to Social Determinants: New Directions for Community Health Promotion Research and Practice, it became apparent that one avenue for social change in health belonged in academia. As outlined by Freudenberg (2007), universities had four mechanisms to promote social change: "(1) academics can help reframe our view of lifestyle, (2) analyze the social processes that create poor health in order to identify new intervention opportunities, (3) engage more constituencies in health promotion, and (4) develop health professionals with new skills (pp. 1-2)." In this Master's course in Community/Public Health, the instructor rooted the course in service learning principles with a focus on social justice concepts that would help the students further understand and apply the social determinants of health in the local communities. The use of a reflection binder at the end of the fall semester, and a cumulative reflection binder (all fall and spring assignments) provided the instructor with the opportunity to assess transformative learning in each student.

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Teacher Training in Urban Settings: Inquiry, Efficacy, and Culturally Diverse Field Placements

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Abstract

This study describes two years of findings with a unique field experience (teaching science inquiry activities to African-American girls in a summer STEM camp) for preservice elementary education majors. It reports on the effects of the field experience, in conjunction with blocked science and mathematics methods courses, on preservice teachers' scores on the Science Teaching Efficacy Belief Instrument (STEBI-B), as well as their rankings of their course experiences with regard to science self-efficacy.

Introduction

What is culturally responsive teaching? Geneva Gay (2012) defined it as using cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively. To do so requires a number of commitments, including developing a cultural knowledge base, demonstrating caring and building learning communities, communicating with students from diverse ethnic and cultural groups, and responding to ethnic diversity in the delivery of instruction (p. 106). For U. S. preservice teachers, most of whom are young, white, and from middle class families (Barnes, 2006), acquiring these skills can be a challenge, especially if they have little or no experience with children from cultural backgrounds different from their own. On the way to becoming culturally responsive teachers, they need two basic experiences to start with: one is simple exposure and interaction time with students of different ethnic groups and/or cultures, and the other is successfully teaching content knowledge and/or skills to those students.

The challenge of culturally responsive teaching is even greater when preservice teachers are dealing with a content area in which they often feel they have little expertise, such as science. Elementary school experiences serve as children's introduction to science and science exploration, so it is vital that they experience positive science-learning outcomes. Such outcomes are unlikely, however, if teachers hold negative attitudes about science or lack confidence in their ability to teach it.

In offering students the kinds of experiences that will help them to become more culturally responsive, the benefits of a community partnership in teacher training can hardly be overemphasized. Urban community settings, whether in schools or elsewhere, offer vital points of contact between preservice teachers and the culturally diverse students they will be teaching. They also allow preservice teachers experience with a key feature of culturally responsive teaching, that of selecting participation structures that reflect *students'* ways of knowing and doing, rather than their own. As Elizabeth Kozleski (2010) recommends, teachers should put themselves in situations where they are not dominant or are a noticeable minority, to recognize how this feels and to "sit with the discomfort" (p. 6). In working with groups of mostly Black students, our mostly White preservice teachers had the opportunity to experience such a situation, and to consider how it affected their self-efficacy for teaching science.

This study explored the effects of a unique field experience (teaching science lessons in a summer STEM camp for predominantly African-American girls) in conjunction with blocked science and mathematics methods courses, on the scores of preservice elementary teachers on the Science Teaching Efficacy Belief Instrument (STEBI-B). It also explored the preservice teachers' rankings of their course experiences with

regard to science self-efficacy. Data collected during two years of the summer camp program are reported here.

During each of the two summers, the preservice teachers participated in a field experience with EUREKA-STEM!, a summer camp designed to promote STEM education. The camp is held yearly on the campus of a mid-size urban university, and is offered in cooperation with *Omaha Girls, Inc.*, a community support program for girls. Most of the girls who participated in the program were from single-parent families with annual incomes below $30,000. Most were African American, but African (Somali), Latina, and Asian girls also participated.

Perceptions of Science and Efficacy for Science Teaching

Preservice elementary teachers historically have negative perceptions regarding science education and science learning, as well as reduced understanding of scientific principles (Buss 2010). Research suggests they often have had negative experiences while learning science, and as a result may express a low level of interest in it, or undervalue its relevance to their lives (Bleicher & Lindgren, 2005; Watters & Ginns, 1995). This reduced level of scientific engagement can result in a lack of efficacy about presenting science lessons (Bergman & Morphew, 2015).

Compared to other elementary content, such as language arts, preservice elementary teachers exhibit lower efficacy ratings for science and mathematics, possibly due to their lack of knowledge. They often feel uncomfortable and sometimes unable to teach these subjects effectively (Buss, 2010). The combination of previous negative learning experiences and lack of knowledge can lead to negative emotions, attitudes, beliefs, and values, all of which may affect teachers' ability to learn, and later to teach mathematics and science (Cassel & Vincent, 2011; Yürük, 2011). The important task of creating positive science-learning outcomes for children that will serve as the foundation for science performance in later grades cannot be accomplished if elementary teachers hold negative attitudes toward science education.

Outcome expectancy refers to the belief that effective teaching affects students' learning positively, whereas self-efficacy refers to the belief in one's *own* ability to teach effectively (Bandura, 1993). Both are necessary if preservice teachers are to view science teaching with confidence. Bleicher (2006) explored both elements in a science teaching methods course based on nurturing conceptual understanding and confidence; following the course, preservice teachers demonstrated significant increases in personal self-efficacy and outcome expectancy, as well as in understanding of basic earth science concepts. Bergman and Morphew (2015) found that a single semester science content course designed specifically for elementary preservice teachers, that emphasized not only content but also strategies for promoting inquiry-based learning, resulted in significant increases in participants' self-efficacy and in their outcome expectancy for teaching science.

The relationship between teacher efficacy and successful teaching outcomes has been widely studied. Teachers with higher self-efficacy have high expectations for their students, set more ambitious goals for them, and effect greater growth (Allinder, 1995). They also spend more class time on academic activities and focus less on discipline than do teachers with lower self-efficacy (Tschannen-Moran & Hoy, 2007). In contrast, teachers with negative attitudes toward science are most likely to use avoidance tactics when teaching science content; thus, they spend less time teaching science-related topics and are less able to stimulate a positive attitude towards science in their students (Jarvis and Pell, 2004; Osborne, Simon, and Collins, 2003). This leads to decreased outcome expectancies for their students' understanding of material (Leonard, Barnes-Johnson, Dantley, & Kimber, 2011).

Field Experiences and Science Efficacy

Requiring a field experience in a science methods class is a common practice. Preservice teachers learn recommended science teaching methods, and receive direct feedback about their own effectiveness in real classroom situations. Cannon and Scharmann (1996) observed higher teaching efficacy among elementary preservice teachers who had experiences in field placement classrooms than among those who did not, and a review of studies on the challenges faced by new science teachers (Davis, Petish, & Smithey, 2006) concluded that field experiences not only contributed to understanding science instruction and teaching efficacy, but also helped preservice teachers learn to anticipate their students' ideas.

Swars and Dooley (2010) observed increased self-efficacy after the opportunity to work directly with children and teach them science activities, and further observed that preservice teachers attributed their work with the children to the increase in their self-efficacy beliefs. This is particularly relevant to the present study because the field experience in Swars and Dooley's (2010) study involved working with children who were predominantly ethnic minorities (65% Hispanic, 20% African American, 8% Asian, 4% multiracial, 3% White) and nonnative English speakers. Efforts to address achievement gaps in science among ethnic minority students, particularly girls, have been a focus of interest among science education researchers for some time (Buxton 2006; Carlone, Johnson, & Scott, 2015; Fraser-Abder, Atwater, and Lee, 2006); the field placement in the present study was designed specifically for ethnic minority girls.

In helping preservice teachers prepare to teach science effectively at the elementary level, particularly in urban environments with students from diverse backgrounds, three kinds of support appear to be crucial. Support for science content knowledge, training in inquiry methods, and experience with real students all are needed to produce effective elementary science teachers who can engage students, particularly those from groups underrepresented in the sciences, in meaningful science activities. This study reports the effects of a science methods class that included all three kinds of support on preservice teachers' science self-efficacy.

Research Questions

The university students who participated in this study were engaged in learning highly interactive, inquiry-based science teaching methods. Since practicing teachers with high self-efficacy are more likely to use such methods, we wanted to see if learning and practicing them, even in a 4-week summer class, would result in improved science self-efficacy. Another reason for exploring self-efficacy in this context was that the practicum experience for the class took place in a summer camp designed specifically to empower girls and interest them in STEM careers. We thought it likely that the experience of providing at-risk girls with an encouraging atmosphere for doing science would have a positive impact on the preservice teachers' confidence as well.

A variety of issues related to inquiry-based pedagogy (some reported elsewhere) were explored with these students. This article focuses on our exploration of their expressed self-efficacy after taking a science methods class with a unique field placement setting. Self-efficacy was measured with the two subscales of the Science Teaching Efficacy Belief Instrument (STEBI-B), Science Teaching Outcome Expectancy and Personal Science Teaching Efficacy Belief (Enochs & Riggs 1990), as well as by student rankings of class experiences. As such, our research questions were as follows:

1. How does the science methods class affect Science Teaching Outcome Expectancy scores for preservice teachers?
2. How does the science methods class affect Personal Science Teaching Efficacy Belief scores for preservice teachers?

3. How do preservice teachers rank their experiences in the science methods class with regard to their science self-efficacy?

Although it is possible that teaching science concepts to actual students for the first time could affect self-efficacy negatively in some students, our prediction was that the combination of training in inquiry-based science education with a unique field experience designed to be positive and supportive for at-risk girls would result in increases on both subscales of the STEBI-B for elementary education majors. We made no specific predictions about how our participants would rank their experiences in the science methods class.

Setting

The Summer School Experience

For both years of the study, the preservice teachers were all registered in TED 4340/4330, blocked science and mathematics methods courses taken during a summer term. The courses taken were required for all elementary majors to complete, and no effort was made to recruit or allow for self-selection into the summer block. All the elementary education majors who enrolled in the course block were due to student teach within two semesters of completing the TED 4340/4330 block.

The Field Experience

For the preservice teachers enrolled in TED 4340, the EUREKA-STEM! Camp served as their required field experience. The four-week summer camp experience is designed to introduce at-risk female students to STEM education in a positive college setting. Topics for the camp included robotics (working with CEENBoTs), an introduction to programming and coding, financial literacy, physics, biology, chemistry, engineering and mathematics. University faculty, staff, and graduate students planned and executed the summer program, which also included physical education and swimming. Science classes were part of the program, and each preservice elementary teacher was required to teach a series of four science lessons to a small group of girls. Although these students were in middle school, their science content knowledge was estimated to be 2-3 years below their grade levels, as reported by our community partners. Thus, the science content taught ranged from 6^{th} to 8^{th} grade level.

The preservice elementary teachers were divided into teams of three. Each team was required to teach 4 class sessions of 90 minutes each. The 90 minute classes were divided into 3- 30 minute segments. Each team was assigned a thematic science topic and given four to six science lessons to adapt and teach to their small (2-3 students) group of middle school girls. Each team set up their science lessons in a center format. The groups of middle school girls rotated through the science centers, spending 30 minutes at each assigned center. The teams of preservice teachers were instructed to adapt the lessons to three 30-minute sessions, and to expect to teach the lesson of the day three times, with each preservice teacher taking a turn at leading the lesson. The four teaching sessions lasted 90 minutes each. The teacher candidates also turned in a written science lesson plan and science journal reflections after teaching each 90-minute session.

Other Class Assignments and Activities Used to Address Efficacy

The preservice teachers were immersed in a science methods course designed to teach inquiry as a pedagogy to assist students in learning science. The components of the course and assignments are described below. While inquiry pedagogy is not the focus of this article, it is necessary for the reader to recognize that in order to be successful at teaching science, preservice elementary teachers must

understand inquiry and its application to science teaching. Therefore, we were interested in which parts of the course influenced the preservice teachers most with regard to their science teaching efficacy.

The class assignments used to address efficacy were the same for both years, and included:

1. What is Inquiry? (pre-assessment). An open-ended question was posed and pre-service elementary teachers wrote about their understandings of inquiry-based science instruction.

2. Science Biography (self report). Pre-service elementary teachers reported on the courses they completed in high school and college science and mathematics, and described the type of learning experiences they had in these courses.

3. Faculty presentations. Faculty gave presentations on inquiry-based teaching methods and engaged the preservice teachers in discussion questions about inquiry-based instruction in science.

4. Participation in Inquiry Labs (six labs total). Each week for the four weeks of the course, the preservice elementary teachers performed inquiry-based labs in class. Following the field experience, the in-class labs resumed.

5. Inquiry Reflection Paper. After reading several articles on teaching science using inquiry, preservice teachers wrote a paper indicating their understanding of inquiry-based instruction. The paper was completed during the third week of class.

6. Field-based teaching of inquiry-based labs (structured level) in a college setting. The pre-service teachers taught inquiry based science labs to middle school students for two weeks, with a total of four lessons taught per pre-service teacher.

7. Preservice elementary teachers constructed inquiry-based labs given only researchable questions (guided level). After the field experience and during the last week of the course, preservice elementary teachers were given questions about science and asked to design an inquiry-based lab experiment for elementary age children to complete. They were expected to select the researchable question, phrase the question, identify the variables, and write the procedure for the experiment. Subsequently, they performed the experiment, gathered data, graphed their data, and reported their findings and conclusions.

Method

Participants

Participants in Year One were 27 undergraduate elementary education majors (2 males, 25 female) who were enrolled in blocked science and mathematics methods courses taken during a summer term. Participants were all Caucasian students at a medium-sized urban university in the Midwest. Participants in Year Two were 20 undergraduate elementary education majors (1 male, 19 female) who were enrolled in the same methods courses during a summer term at the same University; there were 19 Caucasian students and one Hispanic female student. As described earlier, the field component of the courses involved working with primarily African-American female middle-school students who were enrolled in a summer STEM camp held on a university campus.

In Year One, the camp participants were 60 girls ages 11-14; 4 were African (Somali), 3 were Latina, 1 was Asian, and the remainder were African American. In Year Two, the camp participants were again 60

girls ages 11-14; 5 were African (Somali), 3 were Latina, 1 was Asian, 1 was Caucasian, and the remainder were African American.

Instruments

The preservice version of the Science Teaching Efficacy Belief Instrument (STEBI-B), (Enochs & Riggs, 1990) was used in both years to assess students' self-efficacy regarding science teaching. This widely used instrument measures two subscales, Personal Science Teaching Efficacy Belief (13 items) and Science Teaching Outcome Expectancy (10 items). A re-examination of the instrument's reliability and validity (Bleicher, 2004) established that the two subscales were homogenous, with factor loadings comparable to those reported by Enochs and Riggs (1990), and concluded that the basic integrity of the STOE and PSTEB scales were upheld, supporting the continued use of the instrument. Participants rate their beliefs on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Each subscale contains both forward-phrased ("I will continually find better ways to teach science") and reverse-phrased ("I will not be very effective in monitoring science experiments") items. In a more informal measure, during the fourth week of class, the participants were asked to rank each of the seven components of the course (listed above) in terms of its influence on their self-efficacy in teaching science. The three most highly ranked activities were then reported.

Procedure

In both years, the STEBI-B was administered to all the students on the first day of class, before any content was covered and after introductions were completed. Students then participated in the field experience and other efficacy-related course assignments, as described above. At the end of the 4-week session, the posttest administration of STEBI-B occurred on the last day of class, following the class session but before the last exam.

Since all elementary education majors are required to take this methods class, random assignment to this class or to some other methods class was not possible; therefore, a quasi-experimental, within-groups design was used to compare self-efficacy scores between pretest and posttest scores in each of two separate years.

Results

We first calculated the internal reliability of the STEBI-B instrument as a whole for our sample, using the pretest scores. The Cronbach's alpha for the measure was .80, indicating a good level of instrument reliability. Paired samples *t* tests were then used to evaluate differences between pretest and posttest scores for the two subscales of the STEBI-B, Science Teaching Outcome Expectancy (STOE) and Personal Science Teaching Efficacy Belief (PSTEB).

Table 1 illustrates the results observed for the two subscales in Year One. On the STOE subscale, the difference between pretest and posttest scores was significant, $t\ (26) = 2.12$, $p = .04$. On the PSTEB subscale, the difference between pretest and posttest scores was also significant, $t\ (26) = 3.18$, $p = .004$. Using an Eta^2 formula for a paired samples *t* test, a large effect size of .15 was obtained for the STOE subscale and an even larger effect size of .28 was obtained for the PSTEB subscale (Cohen 1988).

Table 1

Paired samples t-tests with pretest and posttest scores on Science Teaching Outcome Expectancy and Personal Science Teaching Efficacy Belief subscales of the STEBI-B, Year One.

Subscale	N	Mean, SD Pre	Mean, SD Post	*t*(26)	*p*	Effect size*
STOE	27	36.48 (3.30)	37.85 (3.46)	2.12	.04	.15
PSTEB 27	47.93 (6.60)	51.33 (4.58)	3.18	.004	.28	

STOE scores out of 50 possible; PSTEB scores out of 65 possible
*Eta^2 values: .01 = small effect, .06 = moderate effect, .14 = large effect (Cohen, 1988)

Table 2 illustrates the results observed for the two subscales in Year Two. On the STOE subscale, the difference between pretest and posttest scores was again significant, t (19) = 3.16, p = .005. On the PSTEB subscale, the difference between pretest and posttest scores was also significant, t (19) = 3.90, p = .001. Using an Eta^2 formula for a paired samples t test, a large effect size of .35 was obtained for the STOE subscale and an even larger effect size of .44 was obtained for the PSTEB subscale (Cohen 1988).

Table 2

Paired samples t-tests with pretest and posttest scores on Science Teaching Outcome Expectancy and Personal Science Teaching Efficacy Belief subscales of the STEBI-B, Year Two.

Subscale	N	Mean, SD Pre	Mean, SD Post	*t*(19)	*p*	Effect size*
STOE	20	34.90 (3.79)	38.15 (4.42)	3.16	.005	.35
PSTEB 20	43.70 (5.22)	48.65 (5.61)	3.90	.001	.44	

STOE scores out of 50 possible; PSTEB scores out of 65 possible
*Eta^2 values: .01 = small effect, .06 = moderate effect, .14 = large effect (Cohen 1988)

In addition to the administration of the STEB-B, the preservice elementary teachers were asked to rank the course components, based on the influence each component had on their efficacy about teaching science. In Year One, the field experience was ranked highest, with 98.2% of the preservice teachers indicating it was the most useful aspect of the course in influencing their self-efficacy. The second most influential component of the course was the opportunity to do inquiry labs in class, with 94.7% of the preservice teachers ranking these labs as the second most influential component. The third most influential component of the course was the opportunity to design inquiry labs when given a science question to explore; 90.4% of the preservice teachers ranked it third overall.

In Year Two, results were very similar to Year One. The field experience was again ranked highest, with 97.9% of the preservice teachers indicating it was the most useful aspect of the course in influencing their self-efficacy. The second most influential course component was again the opportunity to do inquiry labs in class, with 96.2% of the preservice teachers ranking these labs as the second most influential component. The third most influential component of the course was again the opportunity to design inquiry labs when given a science question to explore; 89.9% of the preservice teachers ranked it third overall.

Discussion

As our results illustrate, field experiences and other aspects of professional development do not have to be lengthy to have an impact on preservice teachers' self-efficacy. Even after a four-week summer course

that involved only 360 total minutes of student contact, the teacher candidates in both years of our study showed marked improvement in both outcome expectancies and personal self-efficacy regarding science education. Thus, our prediction about the positive effects of the course on students' self-efficacy was supported. Such effects have been observed with even briefer professional development opportunities for practicing teachers (Nadelson, Callahan, Pyke, Hay, Dance, & Pfiester, 2013), but the participants in our study had less training and far less experience with children than practicing teachers do. What components of the summer experience are most likely to be responsible for such strong gains in self-efficacy? The students' own rankings provide the best answers to this question.

For both years, the field experience was ranked as the most useful experience for the preservice elementary teachers with regard to self-efficacy. Teaching science to at-risk middle school girls provided an opportunity for the preservice teachers to face and work through their fears and concerns about teaching science. Working with students from a variety of different cultures and ethnic backgrounds may have offered these Caucasian teacher candidates some challenges to their beliefs about teaching science to diverse groups. But the opportunity to experience authentic science teaching using inquiry methods, with the training and support to do so successfully, clearly helped them to overcome their doubts, not only about their personal self-efficacy, but also about their beliefs that the effective teaching of science can influence student learning. Swars and Dooley (2010) reported similar results with preservice teachers who taught science to ethnic minority and nonnative English speaking children. The preservice teachers in their study demonstrated increased personal science teaching self-efficacy following the opportunity to work directly with children on science activities, and they attributed their work with the children to the increase in their self-efficacy beliefs.

By our participants' rankings in both years, the second most useful component of the course with regard to efficacy was the opportunity to perform inquiry-based science labs. Preservice teachers were given multiple labs to complete and analyzed the results. They first completed the labs as an elementary school student would experience them, and then reflected on the content and pedagogy used when completing the lab. Thus, they had the opportunity not only to practice inquiry themselves, but also to review content they will need to teach science in the elementary context.

The third most useful aspect of the course (chosen by the preservice teachers in both years) was the opportunity to design inquiry labs for elementary age students to complete. After the field experience, preservice elementary teachers were given questions about science and asked to design an inquiry-based lab experiment for elementary age children to complete. They were required to select the researchable question, phrase the question, identify the variables, and write the procedure for the experiment. Subsequently, they performed the experiment, gathered data, graphed their data, and reported their findings and conclusions. In completing this last phase of the course, the preservice teachers, who had already used inquiry based science labs to teach children science, were further challenged to explore inquiry from the design perspective. The act of designing their own inquiry lab also proved to the preservice teachers that they were indeed capable of teaching science to children, and they also understood at a higher level the nature and purpose of science inquiry.

Most science methods classes include field experiences in regular classrooms. Our results suggest that this is not the only environment possible for building the confidence of elementary education majors about their ability to teach science. A field experience that provides exposure to students who are very different in ethnicity and culture from teacher candidates, combined with strong support for learning science content and designing inquiry-based activities, can also result in improved self-efficacy.

Limitations of the Study

One possible limitation of this study is that the preservice teachers presented their lessons to the science camp participants in small groups (two to three children) as opposed to the larger groups found in typical classrooms. It is possible that this almost one-to-level of interaction was less difficult and gave them more confidence than would have been the case in a regular classroom setting. Our future research will address this issue by comparing the results we found here with those of students who take the same Methods class during a regular school semester, in a culturally diverse school setting. Another issue that could be addressed in future research is the long-term impact of field experiences; do the increases in self-efficacy reported by the preservice teachers remain with them as they move into more advanced Methods classes and student teaching? This would be difficult to assess, given that the preservice teachers continue to have training experiences that could contribute to their self-efficacy, but it is nevertheless an interesting question. Future research will also need to address the actual gains in science content knowledge experienced by the preservice teachers. Their experiences in designing Inquiry Labs, for example, may have impacted not only their confidence but their actual understanding of scientific concepts.

This research reports only effects on preservice teachers, not on the students with whom they worked. This is because the science camp experiences involved multiple activities with a variety of adults besides the preservice teachers. The science lessons provided to them were only one part of a fulltime, four-week program. Thus, effects on the EUREKA campers could not be attributed only to the experiences designed and presented by the preservice teachers.

Conclusion

It is common for preservice elementary teachers to exhibit lower efficacy ratings for science and mathematics than for other elementary content (Buss, 2010). Finding ways to improve preservice teachers' attitudes and confidence early in their training is crucial to providing an appropriate introduction to science exploration for elementary students. This is especially true for elementary students from minority groups underrepresented in science, and for those at risk for achievement gaps due to poverty. As noted earlier, two basic experiences are needed for education majors to begin the process of becoming more culturally responsive: interacting with students of different ethnic groups and/or cultures, and successfully teaching content knowledge and/or skills to those students. The program described here provided both, and illustrates some benefits of unique non-school community partnerships in helping teachers in training to develop into culturally responsive teachers.

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The Dynamics of University/City Government Relationships: It's Personal

Joanne E. Curry

Abstract

The rich potential of university/city government relationships is often overwhelmed by day-to-day conflicts over everything from planning and land use to transportation and noise. Such disputes—even a single, unresolved incident—can create an enduring narrative of antagonism that undermines the relationship ongoing. Leveraging recent doctoral research contrasting two case studies, this paper discusses the importance of history and context and describes management processes that can build trust and lead to a mutual strategic purpose.

Introduction

Universities and their host city governments share a love of place and both are increasingly interested in the potential for universities to serve as crucial anchor institutions in urban and metropolitan areas. Universities can assume a variety of roles in economic, social and cultural development and collaborations with city governments and community organizations can be mutually fulfilling. However, many researchers warn of the perils in collaborations. Huxham (2003, 420–421) comments that "making collaboration work effectively is highly resource-consuming and often painful. . . . Don't do it unless you have to." Harkavy (2000, 3) reflects that "to make the case for university/community partnerships is easy to do. The hard thing is to figure out how to do it. The hardest part of all, of course, is to actually get it done." These statements resonate with those of us who have been involved in creating and sustaining partnerships. Their conclusions are also supported in the management literature on inter-organizational alliances, the public sector literature on collaboration, and the higher-education literature on university-community engagement.

In this paper, I will use the results of recent doctoral research involving a comparative case study of a Canadian university, Simon Fraser University, and two of its three host city governments.

I will explain how the context of the university and each city, the record of historical incidents, and the created story of the university/community relationships can continue to influence the relationship between a university and a city government. The paper also identifies the management and communication processes that are important. Two factors, the impact of the relationship between the university president and city mayor and the importance placed by city representatives on less formal interactions, will be highlighted as being among the greatest surprises from the research. The paper concludes with a list of the practical implications for city governments and universities.

The characteristics of the two case study cities is summarized in Table 1 (Curry, 2015, 50). This research included a literature review, extensive archival research, and twenty-six in-person interviews with university and city representatives at various organizational levels as well as with leaders of third-party organizations. The findings from the literature as well as the perspectives and voices of those interviewed are used throughout this paper.

Table 1

Profile of SFU's Host Cities

Municipality	**City One**	**City Two**
Population (2011)	223,218	468,251
Avg. annual growth rate (2006–2011)	10.1 percent	18.6 percent
Percent of population age 20 and below (2011)	19.8 percent	26 percent
Avg. family income (2011)	$61,023	$60,168
Jobs per resident worker (2006)	1.30	0.69
Foreign-born residents (2011)	50 percent	41 percent
Business tax base (% of overall base) (2010)	$98,202,458 (52.2 percent)	$65,779,849 (31.5 percent)
Population 20 years & over with university degree (2006)	29.5 percent	16.4 percent
SFU student population resident in city (2013)	6,387 (21.3 percent of total)	4,373 (14.6% percent total)
SFU faculty & staff resident in city (2013)	1,705 (25.3 percent of total)	478 (7.1 percent of total)

City Governments and Universities: An Unusual Relationship

The relationship between a university and its host city is substantially different from other inter-organizational alliances commonly explored in the literature. University/city relationships can span centuries and university campuses are uniquely permanent elements in the urban fabric. Even over a short period of time, key participants in those relationships can change with great frequency, given election cycles and fixed-term positions for many university senior administrators. Universities are also highly decentralized. The interaction between universities and external entities can occur at various levels of the institution, including at the level of the president's office, through departments and research centers and also at the level of individual faculty and staff members. The stance of city governments towards its dealings with external organizations and the dynamic of the working relationship between elected city officials and staff can also affect the relationship.

Another impact of the long-term nature of the university/city relationship is that changes in the strategic purpose that can occur over time (Koza & Lewin, 2000). This is in contrast with private-sector inter-organizational alliances in which the strategic purpose may be known from the outset and usually is the impetus for entering into the alliance. Thus, with university/city relationships, both organizations need to develop processes to adjust to changes and to take advantage of emergent opportunities and strategies.

My recent thesis (Curry, 2015) contrasted two case studies to illuminate how university/city relationships can go beyond being a transactional or operational focus and evolve to a partnership that is strategic and "transformational" (Goddard & Kempton, 2011; Petter, *et al.*, 2015). Transactional activities and low-level disputes, such as a challenging zoning submission, can create stresses that discourage the development of a higher-level partnership. On the other hand, a more strategic partnership can help resolve transactional activities, as small issues are more likely to be dealt with positively if the partnership is viewed as strategic and long-term. The increasing interest by both city governments and universities in expanding roles and activities in regional economic development (Benneworth, 2010) can create the opening to redefine a university/city relationship.

The goal of my thesis was to understand the "doing of collaboration" and the specific management processes that are important for developing and maintaining (or re-establishing) trust and for building confidence in the university/city collaboration. In related research, Wagstaff (2013, 9) had distinguished between the structure and process of collaboration – the "way things are done." He identified the importance of paying attention to "the more subtle and nuanced aspects of the partnership that ultimately contribute to the quality of the relationship. There is a requirement for relationship building, flexibility and creativity, cross-cultural skill, patience and perseverance. . . . It is in the less clearly differentiated, more ambiguous relational aspects of the partnership that the seeds of success or failure are sown." Thomson and Perry (2006) have also identified this area of activity as a gap in the literature, calling for further research to make sense of "the black box of collaboration."

The Influence of History and Key Incidents

> And when he comes, you see . . . he's stepping [on]to some ice that he's never seen before, but underneath it is the legacy of this relationship….It's right there, and he has to find out…what was underneath the ice in a place where [he's] never been. (Faculty member)
>
> Within the bureaucracy of the city, I think there were long memories; [that] would be my guess. And maybe there were blow-ups over some of the things we did up here . . . there was somebody there who wanted to drag the anchor for quite a while. (Former university president)

As the literature suggests (Davies, 1998), and as these two case studies support, when it comes to the potential for collaborative success between a university and its community, context is everything. The history of the university/city relationship is especially relevant in affecting the success (or failure) of joint economic development activities and even the willingness to pursue a deeper collaboration.

The case studies in question were with two different cities. In the first (City One), the relationship dated from the founding of the university in 1965, whereas the second (City Two) concerned a campus that was just over a decade old at the time of the research. These two cities had vastly different local economic contexts. City One was completely confident of its ability to attract economic activity, irrespective of its relationship with the university ("We got a guy with a big stick, and he beats off the businesses we don't want. . . . I mean, it sounds a bit cocky, but it's a bit true. . . . This place attracts business, and you really can be a little bit picky and choosey as to which businesses you facilitate" [City staff member]). City Two, on the other hand, was managing a negative public perception, primarily due to safety concerns, and a corresponding challenge in attracting businesses. This—and the absence of any historic grievances with the university—meant that the city government quickly recognized the initial benefit of the university's presence in rebranding the city and attracting investment.

In the case of City One, the fifty-year history featured long periods of peaceful co-existence and lack of appreciation for one another interspersed with a few episodes of significant conflict. The history was carefully documented in the thesis using archival research, internal and external correspondence from the office of the president and newspaper articles of announcements and controversies. The documentation revealed ups and downs—and "ins and outs"—as one or both partners made efforts to nurture the relationship. Periods of inactivity would be followed by the arrival of a new president or mayor who would reach out to correct past irritations or advance initiatives that had stalled due to a poor relationship. These efforts often resulted in a resolution, after which a long period of peaceful co-existence was the norm.

The correspondence, and interviews with those involved during the past several decades, revealed several themes. First, in the university's early years, there was a constant struggle and resistance to municipal governance authority. University officials believed they should be able to build or make use of their campus lands without interference from the city government, whereas the city government was unsure of how to manage their new resident university:

> The view of the university was that we could do whatever the hell we liked. And there was kind of arrogance on the part of the university. . . . [When we started to deal with them in a more kind of equal way and respected that they [the City] basically had the authority . . . when we finally kind of accepted that then worked on that, I think our relationships were really quite good. (Former university president)

Another theme was the belief among university representatives that the city government did not understand the role of a university and lacked appreciation of the university's contributions of time and funding and its potential role in economic development:

> They have absolutely no appreciation whatsoever of the significance of the university to the municipality. (William G. Saywell [university president], to Bob Anderson [director of community economic development centre, personal communication, August 10, 1989).

The research also revealed the fundamental and enduring impact of key negative incidents. Absent a formal mechanism to track the university/city relationship, critical information was "lost" in the university's institutional memory. For example, the city's original donation of over 1,000 acres of land on which the university was sited was forgotten over time. More than twenty years after the original donation, the city repurchased some of this land, at a cost of ten million Canadian dollars, in order to dedicate the land for park purposes. This resolution came after a very public and bitter battle, during which the university resisted reducing its land holding, given uncertainty about future needs. Only through this research has many of the current generation of University officials become aware of the original donation and the need to acknowledge the city's original—and significant—contribution.

The continual lack of acknowledgement of this donation, and likely other smaller incidents, contributed to the enduring story of a negative and unproductive relationship. And while the long-serving mayor has come to terms with the cost of the land repurchase, the public battle appears to have left scars and reduced trust.

While the dispute in this case was a large one, discussions at practitioner conferences suggest that a series of smaller incidents can have a similar result. Memories, which can fail at critical times, can equally prevail over long periods when there are old wounds or even just vague recollections of mistrust or resentment. These can come to define the relationship in a way that is difficult to change.

The Importance of the Story of the Relationship

Currall and Inkpen (2002) state that there is a socially constructed shared history between organizations that constitutes a collective orientation. In the City One case study, the dispute over the lands and subsequent indifference to the needs of the other organization engendered a shared impression of a poor relationship. This dominant narrative masked periodic small successes ("There is a history where we work together, but it doesn't get a lot of play. It is more known in-house" [city mayor]). The legend of a poor relationship became a barrier in itself; staff in both organizations lost interest in identifying joint initiatives and there was no visible support from the leadership to take risks to pursue collaborative programs.
To move forward, it was suggested that the organizations needed to change the narrative:

> Change the story. The hope is that the view [that the city wasn't] fully compensated for the land has been overtaken by the fact that [there] is a successful community on the mountain [and] they benefit from the developing infrastructure and growing tax base. . . . We are not footloose. We are rooted here. We have to make it work. So even when it isn't working, it's working. (Third-party chief executive officer)

> Stop thinking it's adversarial. So, you know, how many meetings have you and I sat in and listened to the senior administrators at the university [complain about] [the city]. Stop it. As long as you do that, you perpetuate it and it's them and us. So we are in this together, we don't have to like the players to want to work together to an outcome that benefits everyone. . . . Break that cycle. (Unattributed)

Even in the City Two case study in which the city-university relationship was trumpeted as vital and successful, interviewees recognized the importance of a positive narrative: "It's important to create that environment and to really demonstrate that there is a good working relationship. I think from that, people will realize that we have been working together, we are working together, and we'll continue working together." (City mayor)

The Cultural Divide

Given the challenges and perils facing a university/city government relationship, it is easy to see how relationships falter so frequently. In addition to fissures resulting from historical conflicts, the cultural divide can hamper understanding between the parties. Senior leaders from cities and the university highlighted this divide:

> I think a lot of politicians are uncomfortable in the presence of academics…. And so you're seen as [a] bit of an exotic creature in the minds of people that you're dealing with in city hall, even though many of them are more sophisticated and more talented than you are. But there [has] always been this distance… (former university president)

> Many universities are not the best partners. They are used running their own show. They are used to being a senior partner. . . . I think that can undermine or contaminate relationships with municipalities. On the other hand, municipalities may not fully appreciate or understand the needs of universities, and that can cause difficulties too. (University president)

> They [city governments] manage themselves really well. They did not need a university or anybody else who felt kind of uppity to suggest to them what their relationship ought to be like. (Former university president)
> [It's] not easy for every peasant to be part of the Olympus [referencing mountaintop location of university and socioeconomic distance] (unattributed).

> If you are naturally inclined to be academic, you tend to associate with people who come from that kind of background. If you are more inclined to be a people person . . . then you tend to be more interested and engaged in that kind of area. (City mayor)

This cultural divide needs to be bridged and a commitment to collaboration can help to create the appropriate level of expectations for the relationship.

Committing to Collaboration and Setting Expectations

Holland (2005) summarizes the principles and characteristics of effective university/community partnerships published by several organizations. The common elements include attention to communication patterns and relationships of mutual trust, respect, genuineness, and commitment. My research supported the importance of these principles and characteristics in the two case study relationships.

It takes commitment to overcome historical conflicts and bridge the cultural divide. Given the barriers, universities and cities need to ensure that someone is advocating for the collaboration. This is especially the case when excessively low or high expectations are pointedly counterproductive:

> Really, maybe the relationships don't have to be great. Maybe it's enough that the kids get their education, they get their degree; they chug off to a job whether it is in Burnaby or Vancouver or Timbuktu and maybe that's enough. (Former university senior staff member)

The level of expectation about the benefits of a collaboration is important. Abodor (2005) found that trust-building can be a self-fulfilling prophecy in which initial expectations affect behavior and trust. There is an optimal level of expectations. Expectations that are too low, or too high, can be counterproductive. This vicious circle can also be expressed differently: the lack of commitment and limited interaction block familiarity, preventing the university from understanding the needs of the cities and discouraging cities from harnessing the university's intellectual and physical resources and its worldwide network. Lacking a track record of success, neither party is inclined to aim higher or take risks.

> Well we have this center for community economic development, can it be useful? (Faculty member)

Representatives need to be assigned to nurture the relationship, especially in the early days ("There needs to be someone else who chooses [the city]." [Third-party chief executive officer]). The commitment to assign personnel needs to be long-term. Given the tendency for a dominant narrative to undermine the impact of intermittent small successes, the level of interest and involvement has to be sustained. The worst starting point is to interact only when a decision is needed on a planning issue.

City and university representatives highlighted the importance of visibility and frequency of contact:

> When I came on board, I guess that I was shocked [about] how bad the relationship was. . . . I remember the councillor was telling me, "Jeez, you know, the only time we ever [see] the university is when they come down off the mountain and want something from us, and once they [get] it, they go up and don't come back." And that was a pretty standard comment that I heard. (Former university senior staff member)

> And in all fairness, I mean, a lot of people commute. . . . Their world revolves around getting off the mountain at 4:30. . . . I mean, if we're a university that wants to be part of the community,

> engaged as [current president] has talked about, you have to have boots on the ground. You can't really do it online or from 9:00 to 5:00. (Former university senior staff member)
>
> You have to work at it; it's like any relationship. I mean, the city is very sensitive when you disappear for a while. . . . I wouldn't say it's insecurity—that's too strong of a word—but if [you] go away for a while, there's a tendency of them to think . . . they don't really need us anymore. (Former university senior staff member)

Mutuality—the two-way nature of the collaboration—was a theme that arose in the interviews. Often the starting point is for one organization to assist the other in an area that is not in their immediate self-interest. Enos and Morton (2003, pp. 20-41) outline a "self-to-shared interest" continuum that moves move from a transactional partnership with discrete objectives to a transformational relationship, in which partners are able to empathize and accurately represent each other's interests. As you move closer to transformational along the continuum, interpersonal relationships are deepened and significant risks are taken as institutional relationships are tested, resulting in mutual learning.

The Importance of Trust-Building

Trust in a university/city government relationship must be built over time and the process is never permanent or complete. Huxham and Vangen's (2005) trust-building loop was useful in explaining the unique situation of each case study relationship. There must be adequate trust for parties to be willing to take a risk and initiate a collaboration. As expectations are based on past behavior, Huxham and Vangen suggest beginning with modest and realistic immediate-term goals to reinforce trusting attitudes and build the foundation for more ambitious collaborations.

In situations where lack of trust might frustrate an ambitious collaboration, my research identified the need for an on-ramp to the trust-building loop. The on-ramp or transitional phase is necessary to resolve past conflicts, demonstrate commitment and support taking risks.

A key feature of the on-ramp is encouraging responsiveness to the needs of a collaborator. A record of responsiveness, especially when not based on self-interest, demonstrates the institution's commitment to the collaboration. In the City Two case-study (featuring the newer, more productive relationship), senior leadership helped to create an environment in which staff at all organizational levels were encouraged to be open, responsive and approachable – reaching out to individuals in the other organization for their expertise and support.

Sustaining trust is crucial – and difficult – as incidents occur, the environment changes, and primary representatives are replaced. The challenge is to sustain the trust-building loop by attending to the dynamics of collaboration and making constant adjustments in response to changes. Huxham and Vangen (2005) identify the management processes used to sustain the loop, including: managing dynamics; managing power imbalances; nurturing the collaborative relationships by paying attention to the management of communication; credit recognition; joint ownership; varying levels of commitment; and resolving conflicting views on aims and agendas.

The Relationship between the University President and City Mayor

Establishing a good relationship between the university president and the mayor (or in some cases, the city manager) is often believed to be crucial to the relationship between a city government and university.

> The relationship therefore has to be with the president [as] the symbolic ranking counterpart. So if that relationship . . . is kind of like the Chinese saying, you know it's the mandate of heaven, [if] that relationship is blessed, then other good things could follow. . . . Everything else is a reflection of how good the mayor and the president get along. Do they play golf together? (Faculty member).

> Establishing a sense of personal connection and trust was actually very important to greasing the wheels. I mean, at the end of the day, things were going to be treated very professionally and very technically and very openly in terms of the zoning approvals and all the rest of it. But the establishment of the direct personal relationship and then of that liaison committee that met regularly was a very good thing. (Former university president)

However, in the two case studies, a good mayor/president relationship did not always advance or deepen the organizational relationship. In one case, a very close and collegial relationship did not translate into more support for joint projects or create a greater desire to pursue opportunities. In another case, a tense relationship between the mayor and president was mitigated as other senior administrators assumed primary liaison roles. However, in both cases, periodic involvement of the president or mayor was helpful and their lack of presence was noted:

> They always sent a flunky, they always held back. . . . You need senior people involved—the president/vice-presidents and mayor/deputy mayor if this is a priority item. (unattributed).

In the City Two relationship, multiple layers of interaction were established during the first decade to pursue joint research projects and a variety of social and economic initiatives. These relationships emerged between and among a city manager, a campus administrator, a faculty dean and department head, as well as between individual faculty and staff members. In all cases, there was frequent contact and mutual support. Despite this layering of fruitful relationships, leadership from the mayor and president was still felt to be important to encourage interaction, acknowledge the relationships as a priority, and publically celebrate successes. It was, therefore, a significant benefit for the mayor and president to be visible at key points in the process and seen as supportive.

Personal Relationships and the Importance of Informal Interaction

In both case studies, interviewees stressed the importance of personal relationships and of the relatability of the respective organizations' representatives. This "soft tissue" of the relationship acted as an additional connector across and between more formal structures and interactions.

> [We] had become friends over the years, and we spent an hour bullshitting every time we get together, talking about various perspectives on . . . our kids and all of those things. . . . There are people who are more inclined to hang out. (City mayor).

> Is there somebody across the table that you can phone up outside of the structure and say, "What about this?" . . . If you have the relationship, then you can make things happen. Now you may have to have a structure which formalizes the relationship. But you hopefully build the relationship inside of that structure. . . . The structure is a tool . . . but it doesn't make the thing work. (Former senior staff).

> Who do you schmooze [with]? Who do you actually have a regard for on the other side of the table who's going to be straight with you? Even if it's off record—outside of….a formal setting—but can you phone them and say, "This is what we're thinking about. Before we float this, what's the deal?" (Former senior staff).

> That organizational structure doesn't matter a damn. Has nothing to do with outcome. The only thing that matters is connections. . . . But you can't get people to talk; you can't get people to even negotiate, which was the history of failed non-negotiations with [the city] largely on the [the city] side, because you didn't have the personal connections. . . . You couldn't create an organizational structure that could do what [a well-connected university senior administrator] could do as a person walking in the door, having a martini with somebody. That's the way it works. (Former senior staff)

> That's the truth in all areas of life and in business. It's true too that you get relationships where a couple of people hit it off, they like each other's company, they tend to be more willing to talk candidly, they get past issues quicker, you know, where you've got to more stand off this relationship and where you're not so engaged . . . you don't get as much done. . . . You tend to be more willing to listen or more willing to be able to work with. (City mayor)

My study supported the need for liaison people—boundary spanners with the appropriate skills and mandates. Boundary spanners or knowledge brokers are frequently cited in the literature as important to the success of collaborations (Atkins et al., 1999; Meyer, 2010; Weerts & Sandmann, 2008; Reichert, 2006; Williams, 2002). For example, it is invaluable for the University to have people who can recognize the city's needs (and ability) to utilize the university's research capacity. The relatability of individuals should also be considered when assigning the liaison role. In addition to being able to identify opportunities, liaison people should also be adept at reaching back into the university or city and, in some cases, at convincing people to participate.

There was some disagreement in research findings on the importance of less formal, social interactions. While university officials were inclined to see informal get-togethers as time-wasters or as occasions to avoid, lest they get caught having to manage sticky issues, city representatives valued these occasions as good opportunities to get to know one another and to raise issues and opportunities at an informal level. City staff also preferred this approach in that it sometimes saved them from including an untested issue as an agenda item in a formal meeting and/or raising it before the mayor and council:

> It's the conversations—that liaison committee of groups of two and three standing around chatting before we sat down to dinner. To me that's where the work gets done. . . . And if we have to endure either the president of the university or the mayor or me going on about how great we are and all the wonderful things we are doing. . . . That's a small price to pay for the opportunity to be in a room with people who are focused on the issues and projects that affect all three parties simultaneously. So skip the dinner. Meet, have cocktails, chat after, done! (unattributed)

> My operating style is pick up the phone, wander down, drop in, show up, have conversations. Scheduling meetings—suddenly there's the need for an agenda, suddenly everybody is a little more sensitive in both what they reveal and what they don't. (Third-Party chief executive officer)

While formal liaison committees can be useful mechanisms to ensure that time is allocated for discussion, the two case studies provided evidence that such committees do not guarantee that fruitful discussion will take place and are not always an effective management mechanism. Short, informal interactions can be beneficial and are particularly highly valued by the city participants, supplemented by more formal meetings to fully discuss any issues that arise. Committees that involved other stakeholders from the city appeared to be more valued than bilateral committees.

Summary of Findings on Critical Management Processes

My research delved into the "black box of collaboration" to understand the various factors that influence collaborations and the range of management processes that are useful in building and supporting relationships. The history and context along with informal interactions and the mayor-president relationship were highlighted in this paper. While the research produced a great deal of nuanced understanding, some of which is elaborated upon in this paper, this paper focused on four major findings:

1. History Matters: Like trust, the record of history builds slowly, but whether it turns into a foundational stone on which to build, or a millstone straining at the institutional neck, depends upon whether the details of history are recorded and remembered accurately and, even more, whether conflicts and injuries are resolved openly and in good faith. Stories—good or bad—endure and may define the relationship.

2. Context Matters: Although lessons can be universal, every relationship is unique and every city (and every university) has its own set of challenges and opportunities. Whether on the university or city side, the best way to advance goals and avoid problems is to make the effort to understand the context of your collaborator.

3. Encouragement Cascades from the Top: University presidents and city mayors possess great capacity to lead by example. The president/mayor relationship doesn't have to be warm, friendly or supremely close, but both parties should understand that they set the tone. If there is a commitment to put effort into the collaboration, the leaders can create an environment of openness and responsiveness. Interaction should be encouraged at multiple levels of the organization through a combination of participation on existing committees and initiatives and special-purpose structures.

4. Good Institutional Relationships Depend Upon Good Personal Relationships: In organizations as complex and multilayered as universities (and cities), there are many potential points of contact. It is crucial to support the ability of key liaison people to span boundaries, solve problems and maintain goodwill. Success flows from frequent personal and informal contact and from attention to trust-building processes that seek mutuality, set expectations, attribute credit, and encourage adaptability.

Recommendations to Cities and Universities

The following are the practical recommendations for universities and cities that wish to build successful collaborations:

Take into account the history of the relationship. Document and understand the history of the relationship and recognize that there are different interpretations of that history. Negative incidents should be identified and addressed to the best ability of both parties. This will allow each organization to be open to strategic opportunities and responsive to the other institution. Ensure that this history is communicated to new employees.

At minimum, accept and maintain a positive and respectful relationship. If the relationship's history has not allowed for trust to be developed or repaired and if a strategic project or strategy of mutual interest has not been identified, it is still desirable to achieve a respectful, peaceful co-existence. A range of communication mechanisms, including participation of both the university and the city in third-party

organizations such as boards of trade, can help to identify common issues and possibilities for joint projects.

Establish a culture of openness and responsiveness. Demonstrating responsiveness to the needs of a collaborator is a major factor in building a successful relationship. Senior administrators in both organizations should strive to create an environment in which staff at all levels feel encouraged to be open and approachable to their counterpart to identify and respond to opportunities. Both organizations must be prepared to work at the collaboration and to build the necessary relationships and processes.

Demonstrate relevance and identify a valued university role and shared purpose or vision. Has the university established its relevance? What is the "why" of the relationship? Does the city understand the opportunities and areas in which the university can contribute? Building understanding can take time and many small demonstrations of relevance are needed, especially when attempting to harness the power and benefits of a research university. It is crucial to understand the context of the university and city and how this might assist the university in determining the optimal roles in economic, social, and cultural development.

Build trust over time. Set appropriate expectations, celebrate and attribute successes, take risks, and assist without the need to realize a short-term benefit (for example, in some areas of advocacy that assist the other organization). Repairing a relationship marred by conflicts and disputes is different from starting afresh. If both parties are committed to resetting a troubled relationship, start with small projects to gain confidence and build trust. It is likely that disputes will arise with greater contact. Some existing liaison structures and relationships may provide relief but a dispute-resolution process (such as guidelines for the appointment of a joint or external mediator) should be discussed in advance.

Communicate regularly using a number of approaches. Make sure there are one or more designated liaison people or relationship managers who are relatable and have the appropriate skills. Make use of third-party organizations and venues in which the university and city are part of a larger group of business and community. Consider cross-committee appointments, liaison committees with a mandate appropriate to the goals of the relationship, and other mechanisms—but only when they have a purpose. Periodically reflect on the health of the collaboration and review formal liaison committees and management structures. An unnecessary committee or meetings that is seen as useless does not further the collaboration.

Encourage and develop multilayer points of sustained contact. Pursue roles and activities that deepen the reach and impact of a university's teaching, research, and community engagement missions. Student involvement is generally a safe starting point, but connecting to the research enterprise has great impact. A commitment to community engagement as an institutional mission or campus mandate is useful. It creates a positive environment to encourage this contact. It also can support the case for allocating people and resources to the collaboration.

Conclusion

Collaboration and the processes that support it are resource-intensive but beneficial for cities and universities pursuing mutual strategic objectives. Joint initiatives in areas of importance to the city and its residents, whether in economic development or addressing environmental or social issues, can move a university/city relationship from transactional to transformative. Even in cases where a mutual strategic objective has not yet been identified, a peaceful, respectful relationship is beneficial for resolving transactional issues. Openness, responsiveness and demonstrated relevance on the part of both organizations builds trust and confidence. It is through this kind of communication and relationship-building that city governments and universities can best identify and respond to emergent opportunities

and find a strategic mutual purpose. The result can be a virtuous and reinforcing cycle as early successes strengthen the commitment to collaboration and the willingness to dedicate resources. This, in turn, creates greater collaborative capacity, leading to more interest to cooperate and to take risks for the betterment of community and place.

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Enhancing the STEM Ecosystem through Teacher-Researcher Partnerships

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Abstract

STEM faculty at the University of Nebraska at Omaha (UNO) have partnered with teachers and administrators in the Omaha Public Schools (OPS) to implement a Teacher-Researcher Partnership Program. This program establishes resources and infrastructure that engage K-12 science teachers in scientific research experiences. In the first implementation of this program, eleven UNO faculty mentors, drawn from several STEM disciplines, were matched with eleven OPS teachers to conduct genuine research projects in support of their teaching.

Introduction

Science, technology, engineering, and mathematics (STEM) education is a national priority for good reason. According to a 2014 report from the U.S. Bureau of Labor Statistics, the number of jobs in STEM areas will increase by about 1 million from 2012-2022 (Bureau of Labor Statistics, 2014). At the same time, only 37% of U.S. high school students are ready for college-level science (American College Testing, 2014) and U.S. high school students rank 23rd in science readiness and 30th in mathematics readiness among industrialized nations (National Center for Education Statistics, 2012). Obviously, the gap between STEM educational preparation and career opportunities in the U.S. is alarming.

The State of Nebraska mirrors national statistics and highlights the persistent challenges for STEM educational pathways and STEM careers. An estimated 102,000 STEM positions will be available in the state of Nebraska by 2024 (Alliance for Science and Technology Research in America, 2015) while students in the Nebraska public education system have continually been outpaced in terms of their academic performance in science and mathematics. Currently, only 49% of K-12 students in Nebraska are proficient in science (American College Testing, 2014), only 42% of graduating seniors are ready for college science (American College Testing, 2014) and students from low socioeconomic households and those of migratory families show alarmingly low proficiencies of only 13% (Nebraska Department of Education, 2013).

While the statewide statistics cause considerable concern, the challenges in Omaha are even more significant. The Omaha Public Schools (OPS) district is by far the largest and most diverse school district in Nebraska with a total enrollment of over 50,000 students. Of these, 66.4% are minorities and 74% receive free and reduced lunch (Nebraska Department of Education, 2013). The district represents approximately 20% of the state's overall student population. In this highly urban district, more than one hundred different languages or individual dialects are spoken by students attending 7 high schools, 11 middle schools, and 63 elementary schools. When considering students within OPS, the proficiency rate in science drops to 46% (Nebraska Department of Education, 2013). The statistics are even more troubling for students who are eligible to receive school lunch at a free or reduced cost. Across the district, less than 31% of these students are tested as proficient in science. At a time when the number of low-income students in OPS is increasing by 2–3% per year, students receiving free or reduced lunch score 5–20 percentiles lower in mathematics and science standardized tests than students not in this program. Proficiencies are even lower for black and Hispanic minority groups; disaggregated achievement data from the standardized tests indicate that, compared to their white peers, African-Americans generally score 10–20 percentiles lower, and Hispanic students score 10–30 percentiles lower

in standardized success measures in both mathematics and science (Nebraska Department of Education, 2013). These numbers indicate a clear and immediate need to improve STEM education and opportunities in STEM for all Nebraska students, particularly within OPS.

OPS and UNO are already very closely linked in the STEM learning pipelines. More than two-thirds of all UNO students come from the Omaha metropolitan area, and of those, 34% are graduates of OPS (University of Nebraska at Omaha, 2015). Nearly 60% of the secondary STEM teachers in OPS have received their degree from UNO. Thus, by working collaboratively with OPS on STEM initiatives, UNO has the opportunity to catalyze STEM reform that engages the entire K-16 educational system. Since UNO is not unique in this kind of relationship to partnering school districts in their local area, interventions at this metropolitan university that successfully address STEM educational pathways and related needs in a diverse urban context will serve as a model for replication on a national scale.

To advance the OPS-UNO partnership, enhance the STEM ecosystem in the metropolitan area, and provide genuine research experiences for teachers and youth in Omaha, faculty at UNO have developed an innovative approach called the Teacher-Researcher Partnership Program (TRPP). The TRPP is firmly grounded in Discipline-Based Education Research (DBER) evidence showing that STEM learning is greatly enhanced by implementing inquiry-based strategies into the classroom, and authentic research experiences are among the most effective of these strategies (American Association for the Advancement of Science, 2013). It is important to note that the TRPP is complementary to an aggressive and comprehensive OPS program called the K-12 Comprehensive Science Teaching and Learning Project. The OPS project has private funding to support a cohort of K-12 science coaches who assist science teachers as they synthesize professional learning opportunities into useable teaching tools, strategies, and lessons. The OPS project participating teachers engage in intensive professional development that includes graduate coursework, research immersion experiences, and other individualized professional learning opportunities. The TRPP led by UNO is an exemplar of a scientific research experience for OPS teachers as they benefited from systemic and programmatic support from both the TRPP research experience and the OPS project. This provides an environment of professional development synergy that increases the likelihood of positive change in the classroom.

The OPS Comprehensive Science Teaching and Learning Project is a project in which scientific inquiry meets K-12 teachers' professional development. The OPS project has a long list of objectives, two of which are increasing student achievement in science and increasing teacher effectiveness. Another major goal of the initiative is enabling students to conduct authentic scientific research. After less than a year of implementation, the project has eight active science coaches (the majority of whom participated in DBER research at UNO during the first half of 2015), thirteen teachers that completed a graduate-level UNO course in scientific research methods and eleven teachers that completed the summer TRPP. There are currently 52 OPS teachers who have signed up to work with coaches on their individual classroom plans and to enhance their science instruction.

This paper describes the overall organization, implementation and assessment of the TRPP. As mentioned, in the first implementation year of this program, eleven UNO faculty mentors, drawn from a variety of STEM disciplines, were matched with eleven OPS teachers to conduct genuine research projects in a 4-6 week summer session. These projects were supplemented by graduate level courses at UNO, journal clubs involving all teachers and faculty mentors, and a capstone research symposium where teachers presented the results of their research, and were scored according to a common rubric (by three anonymous participating teachers and three anonymous faculty mentors).

Results of the TRPP, which are described in detail below, were extremely encouraging. For example, pre and post program focus group sessions of teachers suggested learning gains in the understanding of the scientific method and of scientific research, and post project surveys of teachers and mentors showed that

the vast majority of participants intended to apply for the TRPP next year. We also observed an increase in confidence in science and in scientific research by teachers that participated in the genuine research experience as reported by the focus groups. Moreover, many teachers stated that they have chosen to implement lessons learned from the summer research experiences into their courses (whether that be a class-led project or working with smaller groups of students toward projects at the Nebraska Junior Academy of Science or local science fairs). In some cases, teachers and mentors are continuing to work side-by-side to implement lessons into the teachers' classroom. Overall, our Year 1 results suggested that the TRPP is a useful strategy for empowering teachers by giving them the tools, resources, and personal confidence needed to conduct authentic research projects with youth in OPS. This contributes to the growing STEM ecosystem in the Omaha Metropolitan area by actively promoting authentic scientific inquiry into earlier K-12 stages of the STEM pathways. We hypothesize that these experiences will encourage students to be more interested and persistent in later stages when scientific inquiry is experienced at the university level.

TRPP Implementation

The TRPP was developed as an integral component of the UNO-OPS partnership supporting the OPS K-12 Comprehensive Science Teaching and Learning Project. This project began in January of 2015 with the selection of the first cohort of K-12 Science Coaches and enrollment of K-12 teachers in a special graduate level course called Discipline-Based Education Research Methods hosted by the UNO Biology Department. With this backdrop, the TRPP recruited mentors and teachers for the summer research program. Students in the graduate course and OPS Science Coaches were informed of the TRPP summer program and encouraged to contact the TRPP leadership team to express their interest in applying. After learning about goals and requirements of the TRPP, eleven teachers applied, were accepted and committed to participate.

For this initial implementation of the TRPP, UNO faculty mentors were recruited by contacting potential candidates from all STEM disciplines, and explaining the goals and requirements of the program. Eleven faculty mentors were identified. Faculty mentors submitted an abstract of the research problem that teachers would address in their summer program and these abstracts were posted online. Teachers were asked to review the abstracts and to submit a prioritized list of three potential mentors that they would like to work with in a collaborative scientific research effort. Given the teachers' requests, the TRPP leadership team matched teachers and mentors, doing their best to respect the teachers' top choice. After completing the matches, mentors reached out to teachers to establish initial communication, arrange preliminary meetings, discuss scientific interests and provide background readings and resources. Teachers and mentors signed a joint memorandum of understanding that articulated expectations for both partners.

The summer TRPP program commenced with an orientation session involving both teachers and mentors. At this orientation, expectations of the program were explained and reiterated. The orientation for teachers included sessions on ethics, scientific misconduct and laboratory safety as required of other graduate students that participate in research at the university. The orientation sessions also provided opportunities for completing personnel paperwork, obtaining campus identification cards, distributing keys and discussing parking strategies. Finally, a pre-project focus group was completed for both teachers and mentors at the end of the orientation.

After completing the orientation, each teacher began their research project, and began the minimum 20-hour per week schedule that was pre-arranged with their mentor. A research community involving all teachers and mentors was maintained in required once-per-week journal club meetings for both teachers and faculty. For the journal club, teacher-mentor pairs took turns finding and presenting a research paper

and leading the discussion. The summer research project required a minimum of four weeks. The journal club continued for six weeks.

Teachers were provided full tuition remission for any summer courses in-discipline in which they enrolled, including an "Independent Research" course (BIOL 8020 at UNO) at the graduate level. This opportunity helped to fulfill content requirements needed for any teachers pursuing master's degree in a STEM field or interested in eventually qualifying to teach dual enrollment coursework within the sciences.

The summer program culminated with a virtual capstone research symposium reminiscent of the platforms used today by major scientific research societies-- again emphasizing the translation of the work to a broader audience. This opportunity provides a "full-circle" approach to scientific research for the teachers by authentically sharing their work professionally as a scientist. This symposium was a poster session. Teachers were responsible for developing their posters with mentor input and were provided with a template that identified major topics areas. Posters were posted online and made available for viewing, posting comments and evaluation. Each poster was formally evaluated by three teachers and three mentors, who were each selected randomly. Mentors were excluded from evaluating their own teacher partner. All evaluations followed a common rubric developed collaboratively by the faculty principle investigators on this project. Reviewers were asked to assign a score of "0" (not present), "1" (present; not well-described), or "2" (well-described/effectively communicated) on each of eight questions. Questions included: 1) was the objective/hypothesis communicated clearly?, 2) Were the methods that supported the hypothesis clearly articulated?, 3) Were the major results or significant take home messages of the study clearly described?, 4) Was the summary of the summer work conducted clearly articulated?, 5) What was (were) the major strength(s) of the study?, 6) What was (were) the major limitation(s) of the study?, 7) What would a future question based on this study be?/What would next steps be for this project?, and 8) Was this poster effective at communicating science? We used a generalized linear model (with binomial family with log link) to compare the consistency in scores among questions from evaluation rubrics of the research symposium. Due to the low prevalence of "0" scores (n=34), we lumped scores of "0" and "1" in the same category and compared the probability of those responses with the probability of 2's among questions. Similarly, "intermediate" responses of "1.5" (n=4) were rounded to "2" for all analyses except for calculation and comparisons of total score. Rubrics with missing values on $\geq$1 questions (n = 9) were not included in the total score comparison. Analyses were performed using the program JMP (Version 10.0.2, SAS Institute, Inc., Cary, NC).

We also asked mentors to provide information about what type of a mentoring strategy they used in the program with their mentee. Specifically, faculty were asked, i.) "Describe your mentoring style, ii.) Demonstrate how effective this method of mentorship was with your mentee, iii.) Do you intend to apply to this program in subsequent summers?, and iv.) Were you able to mentor your teacher mentee in a fashion similar to your approach for mentoring undergraduate and/or graduate students?" Responses from faculty mentors are summarized in the results section.

A post-project focus group was conducted separately with each of the teacher and the mentor groups. For the most part, the questions for the post-project focus group sessions were the same as the questions for the pre-project focus group sessions. Small changes in the questions were necessary for a few questions. For example, the question "What do you expect to learn" in pre-project focus group was changed to "What did you learn" in post project focus group".

Results

The recruiting and matching program implemented by the TRPP leadership team produced a diverse array of STEM research experiences for teachers. It also assembled a multi-disciplinary cohort of faculty and teacher colleagues for journal club discussions and capstone symposium participation. Table 1 shows teacher-faculty matches, research area disciplines, and titles of projects. As indicated in the table, a number of STEM disciplines were represented. The diversity of projects within disciplines further expanded the breadth of scientific experiences for teachers.

Table 1

TRPP Participants and Projects. Summary of mentored projects completed by teachers in the program.

Table Overview: Summary of projects completed by teacher-researcher pairs through the Teacher-Researcher Partnership Program. Projects mentioned below were all performed during the inaugural year of the program. This summary shows the diversity of disciplines and projects available to teachers in the program.		
Science Teacher Level	**STEM Discipline/Department of Faculty Mentor**	**Project Keyword**
Middle School Science	Biology	STEM Education
High School Science	Biology	Insect Immunity
High School Science	Biology	Rain Gardens
Middle School Science	Biology	Prairie Mass
High School Science	Chemistry	Enzyme Kinetics
High School Science	Geology	Mineralogy
Middle School Science	Bioinformatics	Genome Analysis
High School Science	Biology	Native Bees
High School Science	Biology	Viral Genomes
High School Science	Biology	Bat Ecology
Middle School Science	Biology	Cancer Biology

Since this was the first year of a three-year project to provide opportunities for teachers within OPS to participate in genuine research experiences advised by University faculty, the findings reported herein are based solely on this pilot year. However, the results for this first year were quite encouraging. Specifically, we observed significant gains from the teachers in terms of content knowledge, ability and confidence in discussing science, and in their understanding of the scientific process as detailed by the four major findings presented below.

Firstly, we observed increased teacher voice and comfort in discussing science and pedagogical problems through the weekly journal club context. Specifically, the journal club included methods papers for scientific protocols, discussion of the National Academies Press STEM calls to action series "Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future" (Committee on Prospering in the Global Economy of the 21st Century 2007, 1-30) and discipline-based education research articles focusing on integrating active learning strategies and authentic research experiences for both K-12 and undergraduate students in the sciences. Candid observations of what worked and didn't work in their scientific research endeavors and instructional efforts were openly discussed by both mentors and mentees. There were also several spontaneous brainstorming sessions on how to further research certain topics of particular interest, discussions of how to effectively frame a research question, and how to translate information accrued through the research experience back to the K-12 classroom and for research experiences for youth. Each weekly journal club was well attended and mentors and mentees alike commented on the positive and supportive atmosphere for sharing science and

the ability to learn more through reading peer-reviewed, primary literature articles in various STEM disciplines.

Secondly, through the virtual research symposium, teacher mentees were provided the guided opportunity to share their findings via the poster presentation. In almost every case, this was the first time that the mentee had created a research poster presentation and shared it with others. As part of the learning process, both mentors and mentees alike scored the posters. The common scoring rubric contained eight questions and evaluative comments were encouraged. A perfect score for the rubric questions was 16. The overall total score mean was 13.1. Interestingly, the mean score for mentor evaluators was higher than the mean score for teacher evaluators (13.6 vs. 12.5, $p = 0.03$). A summary of insights from evaluating three of the eight questions is shown in Table 2.

The probability of a high score ranged from 59% to 81% but was not statistically significant (Likelihood ratio test, $X^2 = 13.14$, $df = 7$, $p = 0.069$). Specifically, there was consistency in the distribution of scores for questions 1, 2, 3, 4, 6, and 8 ($p > 0.09$ for all, probability of "2" = 62-79%); however, scores of "2" were more likely on Q5 (ß = - 0.592 ± 0.30, L-R X^2 = 4.43, $p = 0.035$; probability of 2 = 81%) and less likely on Q7 (ß = 0.5043 ± 0.2512, L-R X^2 = 4.0464, $p = 0.044$; probability of 2 = 59%) compared to questions 1, 2, 3, 4, 6 and 8. In summary, mentors reported higher total scores than teachers (ANOVA, $F_{1,35} = 4.83$, $p = 0.035$). Out of 16 possible points, mean total scores reported were 13.6 (± 0.34) among mentors, and 12.5 (± 0.37) among teachers. However, ordinal logistic regression analysis revealed that distribution of scores was consistent among mentors and teachers within each question ($p > 0.05$), except Q5, where mentors were more likely to report higher scores than teachers (ß = -0.86, $p = 0.036$).

Table 2

Poster Scoring Insights. Summarized results from teacher and faculty scoring of the posters in the research symposium.

<u>Table Overview</u>: The following insights were found from analyzing rubric scoring and comments from evaluation of the research symposium posters. This summary reports insights from three of the eight rubric questions. These questions most closely address scientific communication.

Rubric Question	**Score**	**# of times reported**	**Comment Summary**
1.) Was the objective or hypothesis communicated effectively?	2	47	Clearly written. Easy to identify. Thorough. Justified. Emphasized with special text formatting. Well Described. Understandable. Differentiated between multiple objectives and/or personal/overall goals.
	1	16	Addressed indirectly or partially. Present but lacking in detail/required clarification. Objective(s) stated but reasoning insufficient. Objective(s) stated but inconsistent with results. Addressed but not well integrated/did not flow well within the text.
	0	3	Lack of clarity, understanding, inclusion, and/or development

2.) Were the methods that supported this study clearly articulated?	2	52	Clear. Easy to follow. Thorough. Descriptive. Supported by supplemental material. Few or no items missing/lacking in detail. Reviewers suggest some changes in format, protocol, legend, flow, citation of references, and/or description of analysis. (*Note: two reported values of "1.5" are included in this summary)
	1	14	Present but brief, unclear, incomplete, and/or lacking in detail or reasoning. Ineffective presentation. Terminology not defined or clarified. Quantities and/or description of materials lacked sufficient detail.
	0	0	N/A
3.) Were the major results or significant take home messages of the study clearly described?	2	47	Clearly articulated. Well explained. Well communicated with figure(s) and text. Sufficient detail & explanations. Figure informative, legends complete. Results easily understood & significance described. Addressed both scientific results and personal impact. Few if any questions unanswered. (*Note: one reported value of "1.5" is included in this summary)
	1	18	Present but lacked data, support, detail, strength, and/or left questions unanswered. Project incomplete, so this topic was lacking. Figure(s)/table(s) helpful but significance unclear, and/or more needed. Take-home was identifiable but not emphasized. Not well understood.
	0	0	N/A
	None	1	Focused on challenges more than discussion of results, but basic take-home was clear.

Thirdly, when we analyzed the specific type of mentoring taking place through the TRPP by faculty survey, we observed that guided mentoring and apprenticeship style mentoring were used. Specifically, the majority of mentors reported using a guided mentoring experience (71.43%; Figure 1A) wherein they gave some background information, demonstrated how to do the science first, then let the mentee progress in the experiment until a roadblock occurred. The majority of mentors reported that this guided mentoring approach worked well the majority of the time (Figure 1B). Most faculty indicated that they planned to apply for the program again in subsequent summers (Figure 1C). Lastly, just under half of mentors reported that they used the same level of mentoring for teacher mentees as they did for undergraduate students, but not graduate students (42.86%). A total of 28.57% of mentors reported that they used the same mentoring strategies for their teacher mentee as they do for both undergraduate and graduate students (Figure 1D).

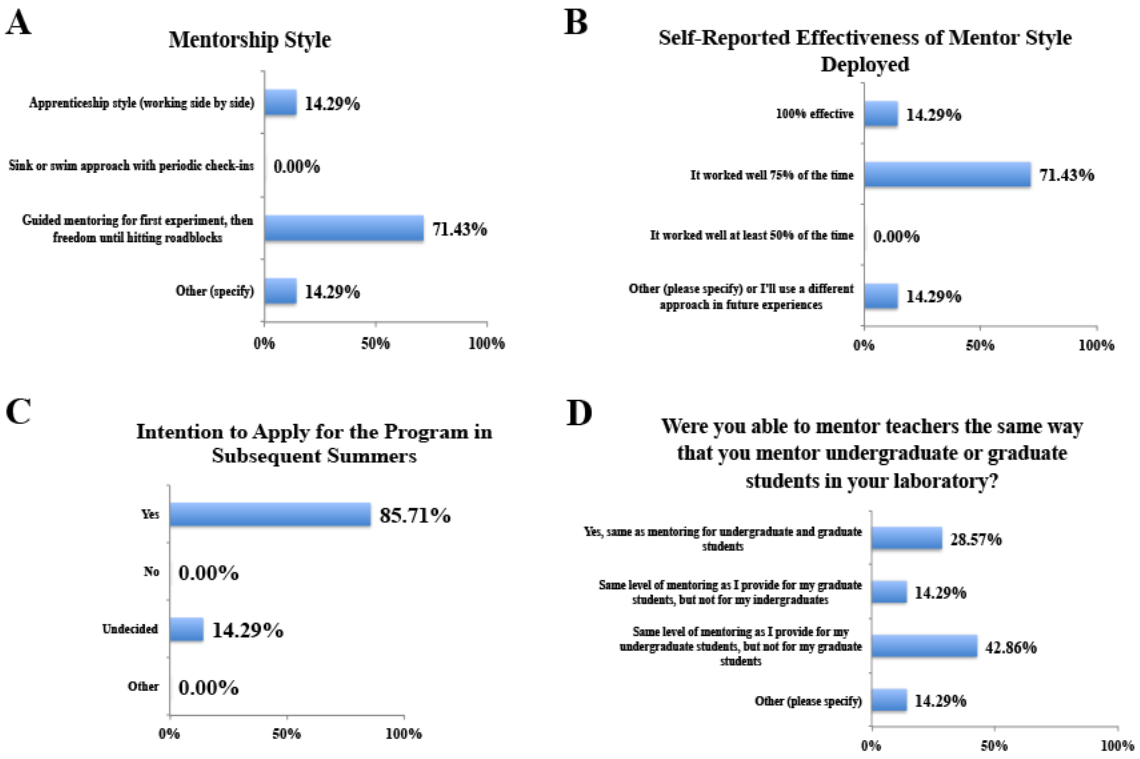

Figure 1. Faculty responses regarding their usual mentorship style and subsequent mentoring strategy. (A) Faculty mentors were surveyed to determine the type of mentorship style they conducted with their mentee. (B) Faculty mentors were surveyed to determine their perceived effectiveness of their mentorship style/methodology that was deployed. (C) Faculty mentors were surveyed to determine, at this time, how many are considering applying to participate in this program again in subsequent years. (D) Faculty mentors were surveyed to compare how they mentored teacher researchers as compared with undergraduate and graduate students in their laboratories.

Lastly, we analyzed the transcripts of post-participation focus groups of mentors and mentees as compared with that of the pre-participation focus groups. The salient findings of these transcripts are described in Table 3. Specifically, the insights gained across all focus group responses during the post-participation discussion included the fact that teachers found scientific research to be much more collaborative and involved than expected prior to the experience. Moreover, teacher mentees gained an understanding of data collection and error considerations in great depth through the experience and commented on the importance of following protocols and taking accurate measurements so that the data are reproducible. Other major findings included the recognition of the sheer amount of time that scientific research takes—many participants acknowledged the fact that it's quite difficult to adequately address an authentic research question in just 4-6 weeks. Faculty mentors commonly reported gains in the confidence of their mentees and increased communication with them as they appeared to become more comfortable with the collaborative research process—often recognizing that there may not exist a "correct" answer in the research process. Mentees ultimately recognized the need to strengthen scientific inquiry across the grade levels to involve youth in more authentic research experiences. Table 3 provides a summary of the pre and post focus group insights from both teacher mentees and faculty mentors.

Table 3

Focus Group Insights. Summarized results from teacher mentee and faculty mentor focus groups.

Focus Groups Insights (Teacher and Faculty Participants)	
Table Overview: The following insights were found from four focus groups, one with Teacher Mentees before and after the TRPP process, and one with Mentor Faculty before and after the TRPP process. The focus groups were done separately. The questions were slightly differently in the focus group prior to the experience. For example, "What did you learn?" on the post focus group question set was stated as "What did you expect to learn?" on the pre-focus group questions.	
Focus Group Questions (Post)	**Insights Gained Across the Four Focus Group Responses**
Question 1. Teachers: What would you define as "scientific research"? Faculty: What would you define as "scientific research"?	• [Teacher Pre] In the pre-project responses, teachers appeared to nearly "quote" from their science texts, stating the "scientific method" steps, and "the importance of making careful observations". • [Teacher Post] In the post-responses, which varied significantly from the pre-responses, teachers talked more about that the research process being "collaborative", "contributing to deeper scientific understandings", "depending on replication", and "involving careful field work". Teachers also emphasized the time needed "to do research right", "avoid errors" and "taking time to allow for reasoning of results and interpretation". • [Faculty Pre and Post] In contrast, the faculty mentor responses varied relatively little from their pre to post responses, and emphasized "collaboration", "following scientific methodology and protocols", and "ultimately answering focused questions, and solving problems".
Question 2. Teachers: What did you learn during this shared research experience with your faculty mentor? Faculty: What do you expect that your mentee teacher will learn during this shared research experience with you?	• [Teacher Pre] In the initial focus group, teachers generally expected to learn very generalized skills, that again seemed to be drawn somewhat from a textbook statement, such as "how to collect data", "how to do a lab journal", "how the scientific method is used", and "how technology is used". • [Teacher Post] In the later focus group, teacher responses were much more personalized, and included thoughts that seemed to imply a more experiential perspective, including thoughts such as "it is difficult to do viable research in a short time", "setbacks are common but contribute to understanding", "introspection on errors is important", and the need to "move away from cookie cutter labs" with their own students. • [Faculty Pre] In the initial focus group for faculty, there was an expectation that teachers would hopefully "gain confidence and deeper insights into the complexity of research", and also eventually "better model actual research" in their classes. • [Faculty Post] In post focus groups, faculty mentioned that they saw both the "comfort level and communication" of their mentee teachers increase, as well as their "general interests in the research being undertaken", and a more "careful consideration of error".
Question 3. Teachers: What challenges did you have during this	• [Teacher Pre] Teachers entered the summer TRPP very nervous, and mentioned that they "felt out of their league", they were worried about "disappointing the faculty", or perhaps making the faculty member "babysit" them during the research process.

shared research experience? Faculty: What challenges did you have during this shared research experience?	• [Teacher Post] Post summer focus group comments from teachers suggested a much higher comfort level in pairing with faculty. Challenges centered more directly on logistical considerations, such as challenges in "scheduling", "weather", "pictures", and "computer skills". • [Faculty Pre and Post] Faculty expected and noted challenges relatively consistently between pre and post focus groups including: "short time duration", "getting the teacher up to speed", and generally a lack of an opportunities to involve teachers in "developing the project". Shared terminology use between the faculty and teacher was also mentioned as a challenge in collaboratively conducting the research.
Question 4. Teachers: How do you hope to have this impact your classroom instruction? Faculty: How do you hope to have this impact the teacher's classroom instruction?	• [Teacher Pre] Teachers in the initial focus group generally mentioned somewhat holistic or "big picture" impacts in their classroom in "being able to share the science experience with students", "bringing passion to the science classroom", and having more "credibility with students". Very little was mentioned about teacher expectations for refining the scientific process itself or the scientific process for their students. • [Teacher Post] In the focus group after their TRPP experiences, teachers tended to more clearly discuss refining the scientific process in their classroom, including "having students read scientific articles", using "different methodologies", "moving away from cookie cutter labs", and "helping students to formulate and develop good questions". • [Faculty Pre and Post] Faculty were again relatively consistent from pre-TRPP to post-TRPP focus group comments. They hoped that teachers would "be able to confidently teach and guide" their students and other teachers, "provide a direct link to hands-on curriculum", "give better laboratory experiences" and "teach from a point of view of enjoying the discipline", as well as having a "stronger belief in inquiry" in their classrooms.
Question 5. *(Post Only)* Teachers: How did your confidence improve through the research process? Faculty: Did it seem like your mentee became more confident through the process? What evidence do you have to support that?	• [Teachers Post] This question was only asked after the TRPP experiences, and teachers in the post focus group talked quite a bit about how their confidence had increased including related to: "math/stats involved in research", "doing it myself", "equipment handling", "understanding professional literature", "scientific rigor", "preparing students for college science", and ultimately, "teaching inquiry in a real way" with students. • [Faculty Post] Faculty agreed that teacher confidence greatly improved over the TRPP summer activities. Faculty mentioned that they saw confidence improve in: "presenting scientific work", "trouble-shooting", "instrumentation", "discussing scientific work", "communication". In general, they felt that the teachers became much more confident in discussing the research and "answering questions" about the research process.
Question 6. Teachers: Any final comments? Faculty: Any final comments?	• [Teacher Pre] The final "round the table" comments in the teacher focus group prior to the TRPP experiences showed again that the teachers were very worried about the upcoming research experiences, and that generally felt somewhat "stressful", with nearly all comments focused on that feeling. • [Teacher Post] In contrast, open ended final comments by teachers after the TRPP never resurfaced any comments on stress or nerves, and instead reinforced the overall contributions of the project in numerous

	areas, including: “being more comfortable in lab settings”, “presenting data”, “bringing in scientific literature”, “the power of collaboration in science”, “letting students know that no one is perfect”, “the need to strengthen science inquiry”, “the need to reevaluate others work”, and “having a deeper understanding of actual science”. • [Faculty Pre] Final comments in the initial faculty focus groups before the TRPP experience did not mention nerves or concerns of any kind, and instead simply mentioned that they were excited to get started. • [Faculty Post] Faculty comments in their final open-ended period of the focus group were very positive, and mentioned that for the first TRPP go around “they were really pleased”, “they really liked communicating with the mentee”, and that “talking about teaching approaches was beneficial with my mentee”. Faculty also mentioned a desire to further contribute to the K12 classroom, and wondered “how do we help them get the resources to do real science?”, “keep the connection going”, and insights such as “understanding the limits of public education was eye-opening”. Finally faculty reinforced in several different comments that that TRPP project “has shown its value”.

Conclusion

As described, our results show that the first year of the TRPP was a successful effort that brought K-12 teachers and university scientists together for an authentic collaborative research experience. The immersive discipline specific coursework and research experiences of the TRPP provide a level of professional development that would seem critical for K-12 teachers for enhancing STEM pathways as described in the introduction of this article and the national reports cited. By experiencing authentic research, teachers in the TRPP developed a working understanding of scientific research and the related inquiry that they did not display at the beginning of the program. Most importantly, teachers in the TRPP began to adapt their research project into an experience that they could replicate with students in their own classrooms. The participation in journal clubs also led to a candid, thoughtful and positive discourse commonly practiced by scientists and added to the teachers’ confidence and camaraderie within a context similar to that of a scientific community. Through a guided mentoring approach, as noted in the focus group comments, teachers were better able to take ownership of their project, consider the accuracy of their measurements and data, make interpretations and share results, while having the ongoing support and encouragement of a university scientist, thereby increasing their confidence in the ability to complete the research project and to lead more authentic research experiences in their own classroom. By engaging K-12 teachers in such authentic research that can be translated to their classroom, the TRPP enhances STEM capabilities of teachers while also providing opportunities for K-12 youth to experience STEM research. Evidence shows that such experiences improve understanding of science and the scientific method, including the importance of iteration and that failure can be an acceptable and at times required step in the scientific process (American Association for the Advancement of Science, 2013). Early introduction of authentic research experiences will enable students to become more interested and persistent in the educational pathways that might lead to a STEM career.

The program we have developed seeks to enhance the teachers’ ability to provide the most effective and realistic STEM experiences to their students. While our focus is on teachers, the true test of program impact will be the success of students. The collaboration that links the UNO-based TRPP to the OPS-based Comprehensive Science Teaching and Learning Project has established a basis for sustained evaluation of these interventions and their influence on student preparedness. The overall goal for both UNO and OPS is improvement in student success. We will provide ongoing analysis of student

preparedness as part of the UNO-OPS collaboration. In the end, evidence that our goals have been achieved will be provided by the achievement testing conducted by statewide agencies such as the Nebraska Department of Education and national organizations such as American College Testing and ultimately the interest and success of these students going into STEM educational pathways and careers. We also expect to see an increase in inquiry-based instruction in OPS science classrooms as identified by the evaluation measures of the Comprehensive Teaching and Learning grant.

We fully recognize the importance of local actions to address the national imperative in the United States to provide more experiential, hands-on learning opportunities in science, technology, engineering, and mathematics. STEM concepts and competencies can be infused in the classroom through genuine research experiences across K-16. These inquiry-based approaches are essential for understanding how scientific research works, to build confidence in participants in STEM fields, and to better understand major concepts. While this is the first year of this project and results will be more robust as the program is sustained, we are increasingly enthusiastic that this program will lead to major gains for the teachers involved in the project and the youth that the teachers serve. Through projects such as the TRPP, we are building a STEM ecosystem amongst university faculty and K-12 that contributes to the effectiveness of the STEM pathways that will hopefully lead to the increased number of STEM professionals that are so critically needed by our country.

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Collective Impact versus Collaboration: Sides of the Same Coin OR Different Phenomenon?

Kelly Prange, Joseph A. Allen and Roni Reiter-Palmon

Abstract

Collective impact is a recently developed concept and approach to solving social problems that rectifies many of the issues associated with isolated impact. We compared collective impact and the formal definition of collaboration and made integrations between the two concepts. Specifically, we explored effective assessment and facilitation methods and applied them to collective impact initiatives in order to facilitate more purposeful implementation of collective impact. We concluded that collective impact is a specific form of collaboration.

Introduction

Communities across the nation face complex social and economic problems regarding health, education, violence, pollution, and others (Mitchell and Shortell, 2000). To address these issues, communities need stable resources and sustainable solutions to create change. Grantors and funders have sought out partnerships as a way to allocate resources to organizations willing to work together to address these difficult challenges (Gallagher, 2014). As collaborations and social change initiatives have increased in the past 20 years, many terms have been used to describe the phenomena of organizations partnering and collaborating to impact the community, including community engagement, community involvement, civic engagement, service learning, volunteerism, coalitions, and community collaboration.

Although these sorts of collaborations are often the kind that funders seek, they are often characterized by a single organization trying to make the most impact with the fewest resources. This type of system is common in the non-profit world and is called isolated impact (Kania & Kramer, 2011). Isolated impact results from grantors seeking to satisfy a specific goal when allocating funds: Invest in the initiatives that use the least amount of resources to make the greatest impact. This traditional system produces programs that often have little to no measurable, lasting effects on communities and are only focused on the short term rewards and costs (Kania, Hanleybrown, and Splansky Juster 2014; Kania & Kramer, 2011). Community leaders and organizations use trial and error in an attempt to find a more effective approach to solving social problems, and they may have found an alternative approach: Collective impact (Allen, Miles, & Sternberg, 2014; Irby & Boyle, 2014; Kania & Kramer, 2011; Kania, Hanleybrown, & Splansky Juster, 2014).

The purpose of this paper is to provide a full definition of collective impact and identify the steps needed to carry out such an effort correctly and most effectively. In doing so, we will also attempt to compare collective impact to collaboration in a meaningful way, illustrating that collective impact is a specific form of collaboration, and bridge the science/practitioner gap. By tapping into the science of collaboration, we then provide suggestions for how to integrate a more collaborative framework into collective impact, particularly from an assessment perspective.

Collective Impact

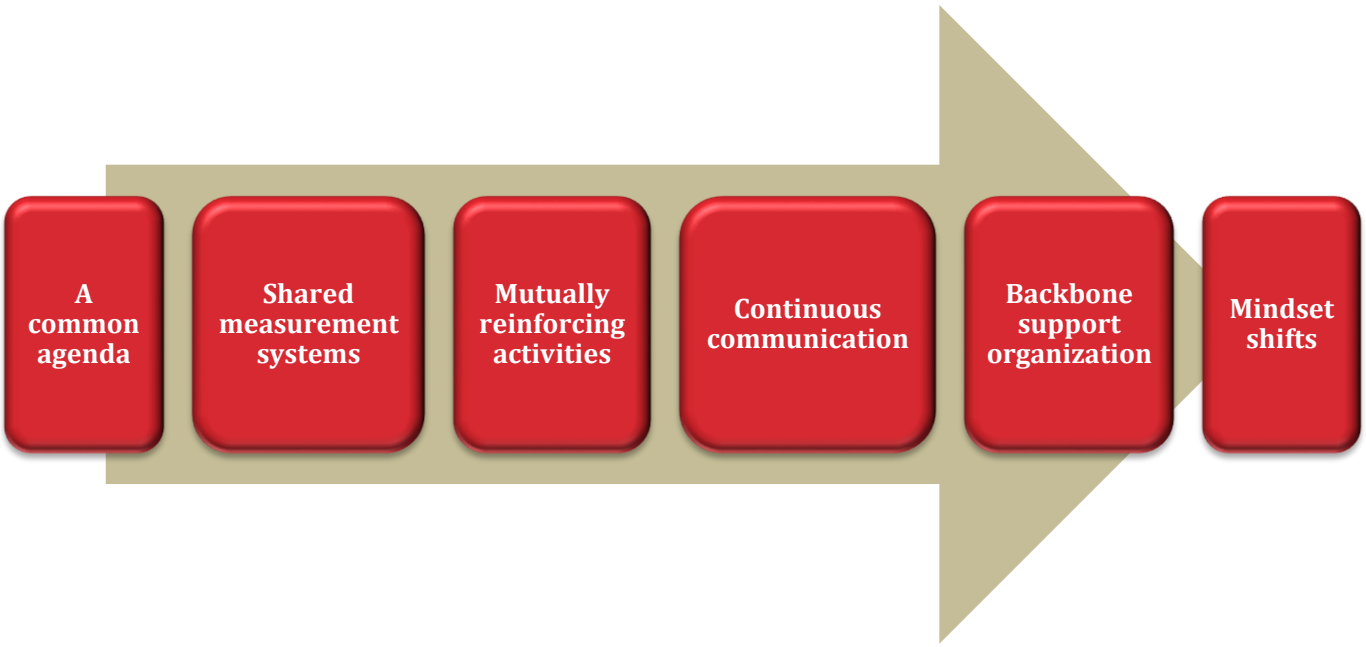
Collective impact is a new collaboration format designed to put an end to isolated impact and short-term solutions. This new approach to mending social issues was first explained using case studies and given a formal definition in the literature in 2011 by Kania and Kramer. In order for the inventive strategy to be

practiced and implemented, Kania and Kramer introduced the concept of collective impact and provided a definition in the Stanford Social Innovation Review: "The commitment of a group of important actors from different sectors to a common agenda for solving a specific social problem" (36). John Kania, in an interview at the 2015 Tamarak conference, mentioned that the idea of collective impact has existed in some form for decades, but now it is being re-branded with new language. Most importantly, people are realizing that there is a need for a new form of partnership and are becoming more interested in learning how to make a continuous impact in their communities. People are searching for solutions, and collective impact may be the answer.

According to Kania and Kramer (2011), efforts to collaborate amongst organizations have not produced the desired outcomes because they do not result in a sustained alignment of goals across the organizations. Further, Kania and Kramer explain that the root of collective impact's success stems from its key characteristics. Their research has identified five characteristics of collective impact initiatives that lead to successful outcomes (Kania, Hanleybrown, & Juster 2014):

> (a) *A common agenda*. This characteristic allows community members to align their interests and their resources in a meaningful and sustainable way. A common agenda is not only a common goal – it is a shared understanding of how to reach that goal and what the problem is.
>
> (b) *Shared measurement systems.* Assessment provides information about whether the initiative is successful. Without a common agenda, it is difficult for collaborators to agree on what needs to be measured to define success of the venture. This step is complex, because no two organizations use the exact same measurements. However, in order to be able to report results and come to reliable conclusions, agreement on when and how the outcomes will be measured is essential (Parkhurst and Preskill 2014).
>
> (c) *Mutually reinforcing activities.* Cross-sector coordination (i.e. coordination between organizations that perform varying functions and a variety of services/products) does not require many organizations doing the same activities, but rather managing the expertise and strengths of each organization so that it can own a specific part of the project. However, each organization needs to be acting in tandem with the rest and in alignment with the common agenda.
>
> (d) *Continuous communication.* Continuous, regular, and structured communication has been identified as paramount in creating trusting relationships between collective impact participants. Without the investment of a lot of time and conversation, the first two steps would be difficult to achieve.
>
> (e) *Backbone support organizations.* The backbone support organization fulfills the role of facilitator, project manager, and data manager for the collective impact initiative (Kania and Kramer 2011). Staff at the organization provides administrative support and coordination between all participating organizations to ensure that the project overcomes obstacles and moves forward. In this way, collective impact diminishes competition between social change initiatives through encouraging collaboration rather than isolated impact (Irby and Boyle 2014).

These five characteristics are profound, difficult to attain, and, as research shows, worth the investment (Parkhurst & Preskill, 2014; Stewart, 2013). Relatively few social change initiatives can designate their collaboration as collective impact because its characteristics challenge organizations and community members to shift their way of thinking from traditional approaches.



Collective Impact Mindset Shifts

Collective impact is a new "buzz word" in the non-profit world. One of the potential problems with it becoming popular so quickly is that everyone will use the term without having a deep understanding of the challenges of implementing a collective impact initiative. Further, many who use the term may not be fully aware of what makes it different from every other type of collaboration. Organizations planning to use collective impact must understand how to use it correctly by intentionally putting in place the mechanisms for a successful collaboration effort described above. Collective impact helps facilitate change in communities, and it does so in an intentional way (Gallagher, 2014), which means organizations should employ collective impact initiatives by purposefully setting the stage for a successful collaboration. Doing so requires leaders to reject traditional ways of thinking about social change. Specifically, Kania, Hanleybrown, and Splansky Juster (2014) refine Kania and Kramer's (2011) five characteristics by adding that three mindset shifts must take place within leaders and organizations to maximize the effectiveness of a collective impact approach.

The first mindset shift *requires getting the correct people involved to help a specific problem* (Kania, Hanleybrown, & Splansky Juster, 2014). Collective impact calls for cross-sector coordination, rather than isolated impact or a solution implemented by an individual organization. It is not just the number of organizations involved or the type of organizations that matters, but identifying the most well-equipped and well-positioned organizations to be engaged in the initiative (Irby & Boyle, 2014; Bartczak, 2014). Therefore, multiple organizations must be involved, but also the *right* organizations should be collaborating to facilitate the sustainability and longevity of the project. This shift also includes identifying meaningful collaborators who have personal experience with the social issue collaborators are trying to rectify. People who have experiences with the problem will be able to provide valuable insight as the collaboration evolves. Sometimes, this mindset shift includes getting the target population involved with the process.

The second mindset shift requires that *collaborators change the way they work with one another* (Kania, Hanleybrown, & Splansky Juster, 2014). This includes (a) the realization that the relational aspect of change is just as important as the rational aspect. The rational side of collaboration is important, but, just like in sales, sometimes it is not the enticing product or low prices that makes a sale—it takes a relationship built on trust. This shift also includes (b) trusting the structure of collective impact to guide

partners' solutions instead of finding one path to solving the problem and sticking with it. The structure of the initiative should enable people to interact and learn, and through that process, new ideas develop. Because isolated impact has been rewarded in the past by grant funding agencies, it is difficult for organizations to focus on the total, collective impact rather than (c) take credit for their individual part in the process. Doing so poses the risk that an individual organization may veer from the collective vision.

The last mindset shift asks proponents of change to *understand that social issues relentlessly change and our solutions must adapt to the change* (Bartczak, 2014; Kania, Hanleybrown, & Splansky Juster, 2014). Previous collaboration efforts have focused on implementing pre-determined, replicable solutions. Kania, Hanleybrown, and Splansky Juster, (2014) assert that collaborators recognize the need for adaptation when they start thinking in terms of developing relationships and channels of communication for people to interact. This enables communities to think of their intervention as part of the larger context of the community and figure out how social change initiatives can fit together to instigate social reform.

Collective impact has distinct characteristics that set it apart from other partnering efforts focused on solving social problems (Kania & Kramer, 2011). The primary aspects that differentiate collective impact from other approaches include the emphasis on assessment and the need of backbone organizations (Easterling, 2013). However, the feature of collective impact that makes it fundamentally different and more successful is that it adopts a collaborative, rather than a competitive approach to solving social problems. Appley and Winder (1977) called for a movement away from competitive approach where individual and isolated impact gives way to a new value system that includes collaboration. As Trist (cited in Appley & Winder, 1977) states, "Evidence is mounting that the individual by himself, or indeed the organization and even the policy by itself, cannot meet the demands of these more complex environments. A greater pooling of resources is required; more sharing and more trust." Forty years ago, researchers recognized a need for change and collaboration in order to have a fully functioning society. The time has come to put those thoughts and ideas into action.

Collaboration Makes Collective Impact Work

Collaboration and its corresponding values and best practices have become a precise discipline that has been studied by social scientists for decades in the realm of organizations (DiBenigno & Kellogg, 2014), leadership (Finch, 1977), social work (Bronstein, 2003), education (Friend & Cook, 1990), and as a general practice (Wood & Gray, 1991). Practitioners in the non-profit, government, and for-profit sectors talk about collective impact as a form of collaboration, but does the practitioner definition match the scientific definition of collaboration? And, if so, are there scientific principles and findings that are applicable to the concept of collective impact and can be integrated into its definition and best practices? As previously stated, one of the goals of this paper is to bridge the science/practitioner gap by pulling together the two fields of study. To determine what characteristics and findings from collaboration research can inform how collective impact is understood, collaboration and collective impact will be compared side-by-side.

Collaboration as an Academic Discipline

Collaboration is defined as "a joint effort toward a goal" (Harper, 2001, as cited in Kolfschoten, Vreede, & Pietron, 2011), and collective impact is described as "The commitment of a group of important actors from different sectors to a common agenda for solving a specific social problem" (Kania & Kramer, 2011). Kania and Kramer's conceptualization of collective impact fits the definition of collaboration, as multiple organizations are joined together to solve a social problem (i.e., a common goal). This ideal state of collaboration is reiterated in both sets of literatures, and some of the pitfalls are echoed within the research as well. For instance, in both collaboration and collective impact research, experts warn that the

goal may be shared, but the journey to the solution can be a source of disagreement and dysfunction (Easterling, 2013; Wood & Gray, 1991).

Moreover, a common pitfall of partnerships is trying to follow multiple goals, or starting the project with one goal, and then organizations branch off in order to accomplish solitary objectives, which distract from the primary goal. When defining collective impact, Kania and Kramer (2011) point out this potential pitfall and identify practices to mitigate the risk of having multiple goals. For example, having a backbone organization keeps each partner accountable to their piece of the project, and warning organizations against taking credit for their individual actions prevents organizations from getting distracted from the goal. In the same way, collaboration experts recognize the importance of incorporating joint decision-making, having agreed-upon rules, and explicit voluntary membership, and even add those elements to refine their definition of collaboration (Wood & Gray, 1991). In addition, collaboration experts suggest that it is important to find ways in which individual goals can be tied to the broader group or organizational goals (Briggs, Reining, & de Vreede, 2006).

Looking at the two definitions, we conclude that collective impact definitely fits into the academic definition of collaboration and is a specific instance of collaboration. Given this conclusion, there are further comparisons and integrations that can be made between the two concepts. Specifically, we compare collective impact and collaboration in terms of levels of analysis, assessment, and facilitation versus funder roles in order to facilitate a better understanding for the collaborative framework in collective impact initiatives.

Level of Analysis

Collaboration has primarily been studied at the team level and at the organization level (e.g., between departments and teams) (Sharfman, Gray, & Yan, 1991). There is less research on inter-organizational collaborations, which may be another name for collective impact. When changing the level of analysis from the team or group level to an inter-organizational level, the context shifts from the organization to the domain (Wood & Gray, 1991). In the same way, collective impact attempts to instigate *social* change rather than only organizational change or even individual change.

Perhaps an important question to consider is whether collective impact is simply a form of inter-organizational collaboration. Collective impact definitely occurs when multiple organizations interact. However, cross-sector coordination is also a critical component of collective impact. Non-profit organizations work with government and for-profit organizations, and collective impact is most successful when organizations across fields and industries collaborate. An argument for cross-sector collaboration as a distinct, higher level of collaboration may be made. A new science may be forming, as there are opportunities to research the intricacies and characteristics of cross-sector collaboration. Future inquiry into collective impact versus collaboration should consider the cross-sector characteristic and formally test whether the cross-sector characteristic is essential for success. A potential challenge to this is finding two collective impact efforts that are both similar in terms of goals/aims while different in terms of the inter-organizational partners.

Assessment

Assessment is essential to document and evaluate the success of collective impact and social change initiatives. Parkhurst and Preskill (2014) call for a different kind of measurement in collective impact than what is traditionally used to assess collaboration. This requires collaborators to start measuring the progress and process of change holistically instead of simply measuring the outcomes of single interventions. The four levels of a collective impact initiative are the following:

1. Initiative's Context: Anything that influences an initiative's design, implementation, and effectiveness (e.g., economics, demographics, culture);
2. The Initiative Itself: The initiative's design and process;
3. Systems the Initiative Targets: The systems (e.g., public policies) and norms, or patterns of behavior (e.g., perceptions of community members) the initiative is trying to impact;
4. Initiative's Ultimate Outcomes: Overarching goals of the initiative (e.g., decreasing childhood obesity rates in a city).

Approaching assessment of collective impact using this structure requires the involvement of multiple stakeholders because the full picture of social change can only be captured by multiple sources of information. Evaluating these aspects gives stakeholders information from which to make decisions about the future of the collaboration.

In contrast, many aspects of collaboration have been assessed in collaboration literature, such as satisfaction of participants, repeatability, participant commitment, and others. Nabukenya, Bommel, Proper, and de Vreede (2011) identified eleven core success indicators for collaboration, gave definitions for each indicator, and identified ways in which each could be measured (see Table 1). When collaboration initiatives assess all 11 core success indicators, they get a robust picture of the success or failure of the initiative. This allows for the adjustment and improvement necessary prior to any further collaborations in a similar domain.

Taken together, the levels of collective impact initiatives and the success indicators for collaboration set forth a potentially comprehensive method for assessing overt collective impact initiatives that use cross-sector inter-organizational collaboration. Table 1 provides the definitions of the 11 core success indicators and a column that highlights how they map onto the four levels of collective impact initiatives. Interestingly, many of the measures appear to capture more than one of the levels.

Table 1

Eleven Core Success Indicators by Levels of Collective Impact Initiative

Collaboration Indicator	Description	Measurement Means	Operationalization Tools	Collective Impact Level
Satisfaction	An effective response with respect to the attainment of goals (process outcomes; and the process by which the outcomes were attained)	The output achieved versus output planned	(i) Session outcome questionnaires with participants, problem owner, facilitator (ii) Focused inter-views with problem owner and partici-pants	Ultimate
Group productivity	The outcomes achieved over the resources used in a collaborative process in order to arrive at satisfactory results	(i) Number (quantity), uniqueness and importance (of each unique) of contributions (ii) Amount of resources used to get results	(i) Transcribing reports/data logs to determine quantity and quality of results from the process (ii) Session process questionnaires with participants, and problem owner	Initiative
Repeatability	Different groups working on different collaborative tasks should produce similar collaboration patterns when they execute the process; i.e. the same process could be applied successfully in each workshop with different groups and focusing on different collaborative tasks	(i) The extent to which the same collaborative task can be applied in different organizations; or, with different groups in same organization (ii) When it is domain focus within task; we measure the extent to which different foci in context	(i) Direct observations (ii) Focused interviews with participants (iii) Documentary analysis	Systems and Context

		of task, e.g. different types of incidents in IRP, or different types of requirements in EasyWinWin, can be applied		
Organizational Adoption rate	The extent to which organizational stakeholders easily get used to the collaboration process in their work practices	How long it takes an organization to get used to the process or actually uses it	(i) Focused interviews (ii) Documentary analysis	Initiative and Systems
The sustainability of deployed work practice	The use of the work practice as the standard way of executing the task without ongoing support from experts outside the organization	(i) Practitioners executing the process themselves without external/expert facilitator help; (ii) The collaboration process being accepted/ adopted as the organizational standard process (iii) Practitioners being able to fix the collaboration process when it is broken	(i) Direct observations (ii) Documentary analysis	Initiative and Context
Transferability	The extent to which practitioners can be successfully trained in executing the collabo-ration process and understand how to execute it	The collaboration process should not cause a high cognitive load on the practitioner while executing it	(i) Direct observations (ii) Focused interviews with practitioners	Ultimate and Systems
Creativity of participants' contributions	The identification of solutions that are feasible to implement, and fall outside the set of known solutions	(i) New and unique solutions (ii) Appropriateness and quality of solutions	(i) Transcribing reports/data logs to evaluate quality of results from the process by domain experts (ii) Session outcome questionnaires with problem owner	Initiative
Perceived gain in collaboration process' efficiency	The degree to which there is perceived savings of the amount of resources required for attainment of the goal	The actual resources used versus planned resources, e.g. Time (duration), effort, costs, etc...	(i) Session process questionnaires (ii) Focused interviews	Initiative and Systems
Perceived gain in collaboration process' effectiveness	The extent to which there is perceived effort for a group to achieve its goal	The quality of results in a traditional way of doing things versus quality of results in a new way of doing the same things;	i) Session outcome questionnaires with participants (ii) Focused interviews with problem owner, and participants (iii) Direct observations (iv) Quantitative outcome analysis	Initiative and Systems
Participant commitment	The collaboration process should not be complex, and should be easily understood by practitioners, i.e. the process should be easy for the practitioners to learn and execute routinely	Number of times a collaboration process is executed by practitioners with ease e.g. being able to modify, make reviews routinely.	(i) Direct observations (ii) Focused interviews with participants	Initiative and Ultimate
Ease of use	An assumption of an obligation to expend resources to fulfill the terms of a proposal	(i) Positive versus negative remarks towards accomplishment of the execution of the process; (ii) The willingness of participants to commit their time or resources	(i) Direct observation (ii) Focused interviews with participants	Context

For example, sustainability is likely an initiative goal as well as largely dependent upon the context in which the initiative takes place. As such, the assessment of sustainability would have implications for both levels of collective impact. Collaborators can use the facets put forth by Nabukenya, Bommel, Proper, and de Vreede (2011) to guide their assessment of collective impact initiatives. In this way, it will be easier for partners to ensure that all aspects of the initiative are being captured by their evaluation of the collaboration.

Funders/Grantors and the Role of Facilitator

As previously mentioned, isolated impact has become the foundation on which grantors allocate funds to organizations (Kania & Kramer, 2011). Following that system, grantees must demonstrate how their

organization will make the greatest impact with the smallest amount of resources, and it creates a competitive cycle in which non-profit organizations are pitted against one another and social change efforts are isolated from each other. In addition, non-profit organizations are being separated from for-profit organizations in their quest for solving social issues. Collective impact calls for the goals of grantmakers to change; grantmakers must identify organizations who have a common goal when allocating funds.

In addition, the *role* of grantmakers must also change. Easterling (2013) points out that grantors are in a unique position to lead and organize collective impact partnerships because of their extensive knowledge of the many organizations relevant to solving the problem. In this way, grantors can act as a facilitator as the collaborations form and evolve to impact social problems (Bartczak 2014). In collaboration literature, facilitation has been studied in its own right because facilitation and leadership are an essential part of collaboration (Clawson, Bostrom, and Anson 1993). There are multiple dimensions of the facilitator role (Clawson, Bostrom, and Anson 1993). The facilitator influences a collaborative effort profoundly, by acknowledgement and creating standards. However, training is needed to mitigate the facilitator biasing the group (Griffith, Fuller, and Northcraft, 1998), just as it is important that the funders do not force organizations to collaborate in social change partnerships like collective impact (Bartczak, 2014). Collective impact experts also discuss the role of the backbone organizations to provide support and ensure collaborators are aligned toward the ultimate goal (Irby & Boyle, 2014; Kania & Kramer, 2011).

Therefore, collective impact calls grantors to become facilitators of collective impact issues – something that is easy to say but not easily achieved. A shift to collective rather than isolated impact must start with funding agencies choosing to allocate resources to proposals that offer a collective impact approach to solving problems. Then, the role of grantors must also change to one of facilitation in order for the collective impact initiatives to be sustainable for the long term.

Conclusion

In summary, collective impact is indeed one type of collaboration format, which is designed specifically to solve a multi-faceted and complex social problem by banding together multiple organizations from different sectors with a common goal. Because this approach is relatively new, we have reiterated why it is important to be intentional when implementing a collective impact initiative to include all of its distinct characteristics – to ensure that the initiative is successful, sustainable, and an efficient use of resources.

We encourage those who practice collective impact to understand what level of analysis their initiative is using, how they will measure and inform the future of the initiative, and who will act as the facilitator of the initiative. We also challenge grantors and funders to shift their way of thinking when allocating resources to organizations. Going forward, it is important for practitioners in universities, non-profit organizations, and all sectors to continue refining the definition of collective impact and the best practices in organizing, implementing, and sustaining collective impact initiatives. Finally, we have drawn parallels between collective impact and collaboration. Collaboration has been studied extensively as a domain. There is much that we can learn from past research on collaboration and apply to collective impact.

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The University Next Door: Developing a Centralized Unit that Strategically Cultivates Community Engagement at an Urban University

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Abstract

Using Kotter's model of change as a framework, this case study will describe the structure and efforts of a centralized unit within an urban, research university to deepen and extend the institutionalization of community engagement. The change model will be described along with details about the implemented strategies and practices that fall within each of the eight steps. The paper concludes with reflections and future efforts.

Virginia Commonwealth University (VCU) is physically, socially and economically intertwined with the City of Richmond. From the university's inception, community engagement has been an integral part of VCU's values and mission (VCU, 2014). In the process of creating VCU as a public institution of higher education for the city of Richmond, the Wayne Commission (1967) established that VCU would be "an urban-oriented university . . . unique in that its basic philosophy concentrates on meeting the needs of an urban population living and working in an urban environment (p. 12)." It is in this context that VCU has come to develop and refine its relationship with the region.

Since its founding in 1968, VCU has worked to live up to its calling as a public urban university. An early focus on professional programs in social science and health fields were VCU's entrée into bridging the educational goals of the university and the societal needs of its urban community. Overtime, the vision for VCU expanded as an institution that not only serves urban community members directly but also fosters partnerships across governmental and educational boundaries that provide the highest quality of service to its students and to the wider Richmond region. [For more information on the history of the university and its commitment to engagement, see Bonis, Koste, Lyons and Curtis (2006); Howard and Allison (2004); and Trani and Holsworth (2010).] As a result, numerous organizational changes and initiatives have been undertaken that reflect VCU's commitment to institutionalizing community engagement as a means to educating the citizenry and generating new knowledge while also having a positive impact on its communities.

Evolution of Engagement Infrastructure at VCU

In 2006, VCU established the Division of Community Engagement (DCE), a centralized administrative unit that resides in the Office of the Provost and is responsible for institutional progress related to community engagement. Prior to that, efforts and programs related to engagement were housed in a larger administrative unit along with other programs and offices such as continuing studies, summer programs, and international education. As community engagement gained prominence across the university and was increasingly seen by the leadership as core to VCU's mission and values, Dr. Eugene Trani, the president, and other senior leadership established the DCE as the first unit with a sole focus on engagement and a university-wide scope of responsibilities. While the DCE has gone through a series of name changes, the word "community" has been included in each as a signal to the university and broader community that VCU values engagement. The DCE has grown and strengthened its role as the primary coordinating structure for supporting and advancing community engagement for all academic and academic support units across the university. Using Kotter's model of change, this paper will review the strategies used by the DCE to extend and deepen VCU's engagement with and impact on our communities.

Kotter's Model for Organizational Change

John Kotter (1996) identified a set of principles for leading organizational change. These principles, outlined in eight steps, are based on his many years of leading long-lasting change initiatives in large companies: (a) create a sense of urgency, (b) form a powerful guiding coalition, (c) create a vision, (d) communicate the vision, (e) empower others to act on the vision, (f) plan for and create short-term wins, (g) consolidate improvements and produce still more change, and (h) institutionalize new approaches.

In general, the steps are considered to occur in a sequential order leading to institutionalized change. Skipping a step, or getting too far ahead without a solid base, can create problems. At the same time, the dynamic nature of complex organizations often necessitates tackling multiple steps at once. Therefore, Kotter (1996) emphasizes the importance of the first four steps for preparing organizations for transformation. Steps five through seven introduce new strategies and practices to the organization. The final step anchors, or institutionalizes, the change into the organizational culture (Kotter 1996).

Although Kotter's steps do not seamlessly translate from corporate to academic settings, the framework is useful for examining and describing change implementation, spread, and institutionalization in higher education (Furco & Holland, 2013). The model has been used to effectively describe the transformation processes of universities and colleges that have redesigned their promotion and tenure systems (Seifer, et al. 2009; Harris, et al. 2003); enacted curricular reform (Susman & Pascoe, 2001, Bland, et al. 2000, Guze, 1995); and facilitated educational innovation (Viaggiano, Shub & Giere, 2000). We employ Kotter's change model as a framework to describe the DCE's strategies and practices that have enabled and deepened the institutionalization of community engagement at VCU. To do this, we describe each of the eight steps in the change model, situate each step within the context of VCU, and describe implemented strategies and practices within each step.

Create a Sense of Urgency

Kotter suggests that most successful change efforts begin when an individual or group examines circumstances of the organization and its environment, such as potential threats or developing opportunities. When these circumstances are broadly and dramatically outlined, especially with respect to potential crises or great opportunities, a sense of urgency is created (Kotter, 1996). This sense of urgency is crucial to gaining the needed cooperation and motivation (Kotter, 1995).

The establishment of the office that later became known as the DCE occurred during a time when the United States saw an increased interest in and exploration of the connections between institutions of higher education and their communities (Welch & Saltmarch, 2013). Several articles released over this time captured and helped to propel this movement. Ernest Boyer's seminal work, S*cholarship Reconsidered: Priorities of the Professoriate* (1990) challenged the traditional notion of scholarship and proposed an emphasis on engaged teaching and research. In *Returning to Our Roots: The Engaged Institution*, The Kellogg Commission on the Future of State Universities and Land Grant Colleges (1999) outlined both the challenge of public engagement and the ways in which institutions must mobilize to respond. Soon after, the American Association of State Colleges and Universities released, *Stepping Forward as Stewards of Place* (2002) to serve as a guide for leadership to integrate public engagement throughout the institution.

A new mechanism for institutions to be recognized among their peers began in 2006, when the Carnegie Foundation awarded its first cohort of colleges and universities with an elective classification for community engagement. Receipt of this classification continues to be based on evidence-based documentation of institutionalization of engagement, and offers an opportunity for validation of efforts that are not necessarily recognized in other ways, such as through *U.S. News* rankings (Jaschik, 2006).

Similarly, multiple professional organizations were launched to advance the national dialogue around the role of higher education in their communities. For example, Campus Compact, a national collation of nearly 1,100 colleges and universities committed to the public purposes of higher education, first convened in 1985 (Campus Compact, 2015). In 1989, the Coalition of Urban and Metropolitan Universities (CUMU) was founded to advance the integration of urban universities with their immediate environment. Today, it is the longest running and largest organization committed to serving and connecting the world's urban and metropolitan universities and their partners (Coalition of Urban and Metropolitan Universities 2015). Community-Campus Partnerships for Health (CCPH) was started in 1997, and continues to promote health equity and social justice through partnerships between communities and academic institutions (Community-Campus Partnership for Health, 2015). And finally, Imagining America was formally launched in 1999 to encourage campus-community collaborations in humanities, arts, and design and advance public scholarship. Today it contains over 100 college, university and community organizations (Imagining America, 2015).

Combined, these individual and organizational thought leaders created a sense of national urgency regarding the value of public engagement in the mission of higher education. Concurrently, a sense of urgency was developing locally. One issue was related to the rapid growth in VCU's student body and its physical footprint, which placed increasing pressure on the surrounding communities. For instance, in the early 1990s VCU prepared a master plan that involved expansion north into the Oregon Hill community. The residents adamantly opposed this expansion north and protested as the incoming president, Dr. Trani, came to campus. Dr. Trani responded by throwing out that master plan and establishing a community advisory board to foster better communication between the university and its neighbors (Howard & Allison, 2004).
Physical expansion also significantly impacted another neighboring community. As described in detail in Howard and Allison (2004), VCU's relationship with the Carver community created both a need and opportunity for an intentional and mutually-beneficial partnership between the university and Carver. This partnership received significant support from Dr. Trani and other senior leadership and faculty across the university.

A part of this expansion was the desire for VCU to be seen as a critical and integrated part of the region's success. As such, Dr. Trani and other senior leadership saw the need for the faculty to be present in the community and recognized as solving real-world problems through their research. Similarly, it was important for VCU to be known for graduating the next generation of an engaged citizenry that was prepared to meet the challenges facing the region and world. Here we highlight two initiatives that developed from this: service learning and the community associates program. Service learning was seen as a way for students to have meaningful learning opportunities while contributing to the community. A faculty member was hired to develop service learning at the university, including its definition, approval process, and the training of the first cohort of service learning faculty. At the same time, the community associates program was developed to support faculty who wished to engage in research and teaching that specifically met needs in the community (Howard & Allison, 2006).

Finally, it is important to note that these initiatives occurred during a time when there was increased funding to support engaged efforts. These funding opportunities allowed for and encouraged individual faculty and universities to initiate and build the infrastructure to sustain engagement efforts. For instance, VCU received funding from Campus Compact to support service learning and received a grant from Department of Housing and Urban Development (HUD)'s Community Outreach Partnerships Centers Program (COPC) to support the Carver-VCU Partnership (Howard & Allison, 2006).

Form a Powerful Guiding Coalition

Forming a strong guiding coalition involves assembling a group with enough power and legitimacy to lead the change effort. While major renewal programs might start with just one or two people, in order for a successful transformation to occur, a leadership coalition must form and grow over time (Kotter, 1996). This coalition develops a shared commitment to excellent performance in the area of change. In the most successful transformations, the coalition is comprised of individuals with powerful titles, information, expertise and reputations (Kotter 1996).

One of the continual challenges of community engagement efforts at large universities is coordinating efforts so that they become part of the institutional culture. Universities are often characterized as *loosely coupled* systems where units are somewhat responsive to each other but retain unique goals and values (Weick, 1993). In order to create a cohesive culture of change, universities must develop rational systems to coordinate constituent units' values and goals (Orton & Weick, 1990).

The challenges of the loosely coupled system manifested for VCU. As a large, urban university with two main campuses and an academic medical center, it was difficult to know the full breadth and depth of the engaged scholarship and outreach occurring across the university. Academic and administrative units separately organized and carried out their community efforts. Additionally, considerable engagement-related work was being led by individual faculty, staff and students. While the university was committed to excellence through engagement, no central mechanism charged with supporting this goal existed. Such a central mechanism was seen by the president as having the potential to not only be a champion of community engagement, but also facilitate internal capacity building for engagement among VCU faculty, staff and students; coordination of community engagement projects among multiple units; linkage of community interests with VCU's teaching, research and service interests; and enhancement of the quality of these efforts.

To address this, in 2006 VCU developed two organizing bodies around which to develop guiding coalitions: the Division of Community Engagement (DCE) and the Council for Community Engagement (CCE). Both were envisioned as aligning and supporting VCU's then strategic plan, *VCU 2020: A Vision for Excellence* and its goal of "maintaining VCU as a model for university-community partnerships." While this case study primarily examines the efforts of the DCE in influencing change, this section will also include a brief discussion of the CCE and its activities since the DCE provides the administrative support for the CCE.

Division of Community Engagement. The DCE was established as the primary coordinating structure for supporting and advancing community engagement across all academic and academic support units. It began as a small office, and over the past ten years has grown and strengthened its role. It currently operates with a budget of $2.5 million—nearly three-fourths of which come from education and general funds.

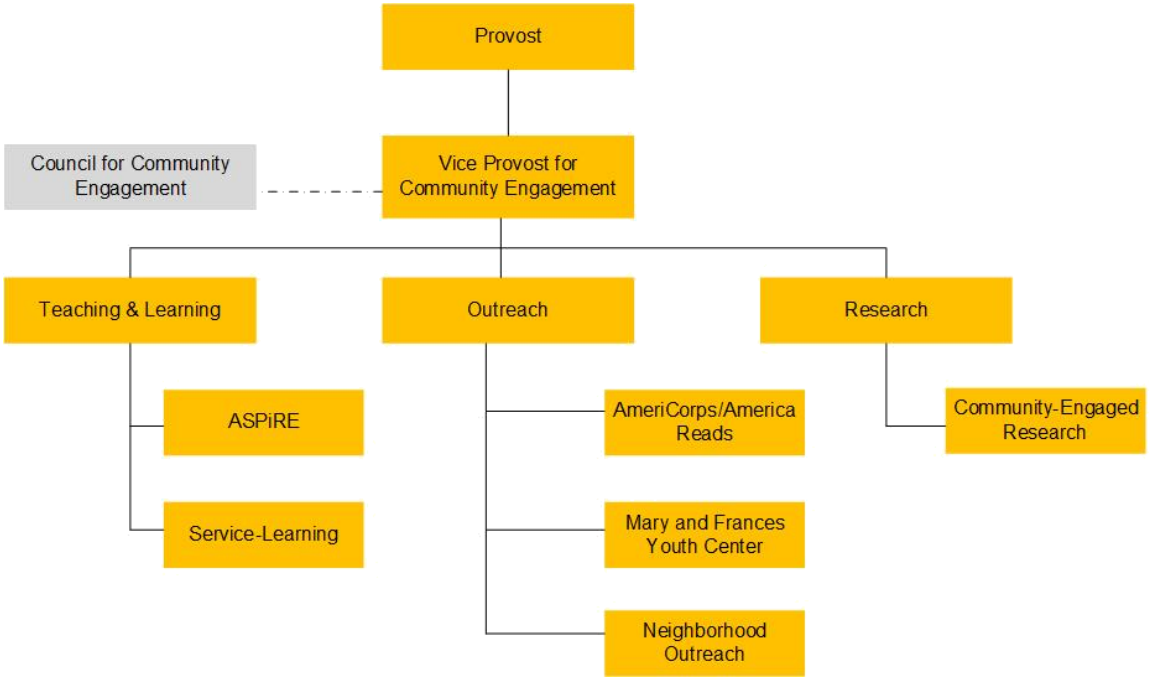
Housed in academic affairs, the DCE was, and continues to be, led by a vice provost who reports directly to the provost. This organizational location has provided visibility and credibility within the university, as well as a "seat at the table" with other university leadership. This has enabled the DCE to advance engagement through critical opportunities such as strategic planning processes, development of policy, and strategic university initiatives.

As the needs of the university and community have changed over time, so has the DCE. It currently employs over twenty full-time faculty and staff members appointed directly to the division, who are experts in community engagement, along with other part-time staff and students. Currently, the DCE organizes its work around improving the impact within three core elements of VCU's mission: 1) outreach, 2) teaching/learning, and 3) research. To better evaluate and understand VCU's efforts in each of these domains, the DCE also leads and contributes to institutional research regarding university-wide

community engagement activities and impact. Here we highlight selected the DCE programs that are currently active and show how they relate to other institutional initiatives and priorities (see Figure 1).

Figure 1

Current Structure



Community Outreach

Community outreach involves the application and provision of institutional resources, knowledge or services to directly benefit the surrounding community (VCU Community Engagement Terms and Definitions 2013). As an urban university, VCU's people and programs literally and figuratively blend into the cultural fabric of its surrounding neighborhoods and the broader region. Therefore it is critical that the university work collaboratively with its contiguous communities to develop mutually-beneficial relationships through various community outreach programs.

Neighborhood Outreach

The DCE employs a full-time neighborhood outreach director to work closely with the community. This position originated through the previously mentioned COPC grant through HUD in 1998, and has been sustained by the university since then. Currently, the director works with the five surrounding neighborhoods and in partnership with the VCU Neighborhood Team. With liaisons from each of the surrounding neighborhoods, this team strives to share information and resources, pursue common goals and develop activities that enhance the communities. They meet regularly to facilitate communications between university and neighborhood leadership in order to align and connect efforts and voice needs and opportunities. Additionally, they participate with other community members in the annual VCU Neighborhood Forum that is hosted by VCU’s president and is open to the public.

Mary and Frances Youth Center. The Mary and Frances Youth Center, opened in 2007, maintains two private tennis courts and classrooms designed for youth programming and youth-centered training. In partnership with the The United Way of Greater Richmond and Petersburg, the Center also manages the implementation of the Youth Program Quality Intervention (YPQI), a quality improvement process for out-of-school-time service providers across the region. Utilizing the David P. Weikart Center for Youth Program Quality system, the process encourages and supports education and human service leaders to adapt, implement and scale best-in-class, research validated quality improvement systems to advance child and youth development (Mary and Frances Youth Center, 2015).

VCU AmeriCorps Program. The DCE has also hosted the VCU AmeriCorps Program, the longest-running and largest AmeriCorps program in Virginia, for the past two decades. The VCU AmeriCorps Program has a literacy focus with the goal of helping improve the academic skills of students attending Richmond Public Schools. The Program provides VCU students an opportunity to make a difference in local communities through a commitment of one year of service.

Community-Engaged Teaching/Learning

Community-engaged teaching connects students and faculty with activities that address community-identified needs through mutually beneficial partnerships that deepen their academic and civic learning (VCU Community Engagement Terms and Definitions, 2013). The first cohort of faculty was trained in service learning, one example of community-engaged teaching/learning, in 1998 and has since become one of the university's signature pedagogies. The Office of Service Learning was established within the DCE with the hiring of its current director in 2008, and is responsible for increasing the number of high-quality service learning courses for undergraduate and graduate programs. The DCE also led the development of ASPiRE (Academic Scholars in Real Environments)—a living-learning program promoting community engagement through academic coursework and co-curricular experiences. The mission of VCU ASPiRE is to enrich and deepen students' understanding of their capacity to create positive change in communities and address critical societal needs through long-term sustainable partnerships (VCU ASPiRE, 2015).

The Office of Service Learning is guided by the VCU Service Learning Advisory Council, composed of faculty, staff, students and community members who have expertise in service learning pedagogy and are committed to making a positive difference in the community. This council meets twice a year to oversee the implementation of the Service-Learning Office's strategic plan and to provide the Service-Learning Office staff with guidance and advice. Annually, all council members give presentations within their academic units to increase their colleague's knowledge and awareness of service-learning at VCU.

Community-Engaged Research

Community-engaged research (CEnR) is a collaborative process between the researcher and community partner that identifies the assets of all stakeholders and incorporates them in the design and conduct of the different phases of the research process (VCU Community Engagement Terms and Definitions, 2013). The goals of CEnR are to create and disseminate knowledge and creative expression, while contributing to the discipline and strengthening the well-being of the community. The DCE's Office of Community-Engaged Research was established in 2012. Under the full-time direction of a faculty member, the office works in collaboration with other units to support and advance CEnR activities across VCU's schools, centers, and institutes. A major goal of this office is to stimulate collaboration, identify synergy, remove barriers and broadly promote the science of CEnR.

Institutional research. The DCE's Office of Community-Engaged Research is also responsible for institutional research related to university-wide community engagement efforts. It is therefore responsible

for developing infrastructure to identify and assess the impact of community engagement activities within the DCE and across the university, as well as the university's impact on its surrounding community. Included in this responsibility is the management and evaluation of the Council for Community Engagement (CCE) grants program and VCU's annual application to the President's Higher Education Community Service Honor Roll.

Cross-Unit Entities. While the DCE organizes its work internally around outreach, teaching/learning, and research, it also facilitates two cross-unit bodies, each charged with supporting and promoting community engagement. These two entities are the Council for Community Engagement and the Federation for Community-Engaged Research.

Council for Community Engagement

In 2006, the DCE partnered with the Office of the Senior Vice President for Health Sciences, which oversees the academic medical campus and center, to form the Council for Community Engagement (CCE). The CCE is comprised of appointed representatives from all schools and colleges, as well as key support units, research centers and institutes. Each CCE member is charged with supporting and promoting community engagement within their home units

The CCE helps the DCE to promote collaboration and coordination of engagement activities across the university by facilitating the exchange of information and resources across units and campuses. As an illustration of the value placed on engagement across the university, the CCE is co-chaired by the vice provost for community engagement and associate vice president for health sciences, student initiatives and inclusion. Under their direction, the CCE (1) builds and maintains a network of liaisons across units, (2) receives and disseminates information and resources that promotes and supports community engagement, (3) gathers information from the community on critical needs and opportunities, (4) recognizes accomplishments of university-community partnerships, and (5) assists in the coordination of events designed to engage the VCU community with community partners to address community-identified needs. Currently the work of the CCE is organized in under three standing CCE committees: Grants and Gifts, Awards and Recognition, and Community Connections.

Grants and Gifts Committee. The CCE's Grants and Gifts Committee administers funds to encourage engagement and to initiate innovative collaborative programs and research that address community-identified needs. This and other grant making programs are described later in our discussion of how the DCE addresses barriers to engagement.

Awards and Recognition Committee. The CCE's Awards and Recognition committee helps bring attention to the community engagement activities of VCU faculty, staff and students. The committee oversees the nomination, selection and celebration of outstanding university-community partnerships through the annual Currents of Change awards program. Established in 2005, these awards are given in the categories of teaching, research, outreach and student-initiated. Recognizing outstanding university-community partnerships serves to publicly honor community-engaged programs at VCU and as a stepping-stone to external awards and grant funding. For example, VCU won the prestigious C. Peter Magrath University Community Engagement Award in 2014 for its Pharmacist Collaborative Care and Outreach in the Community program—a program led by the School of Pharmacy that received the Currents of Change Award in 2010.

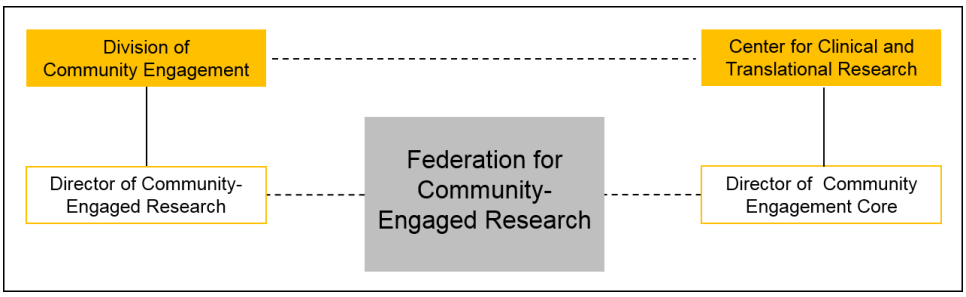
Community Connections Committee. The CCE Community Connections Committee creates the bridge between the CCE and the community. The committee develops and oversees service opportunities for VCU employees and actively promotes the use of community service leave (CSL). In accordance with state policy, twelve-month VCU employees are granted up to sixteen hours per year of paid CSL to

provide volunteer services to eligible community-based agencies. Additionally, the committee collects VCU employees' CSL stories and pictures to use for news articles on the DCE's and university's website.

Federation for Community-Engaged Research

VCU also has a separate cross-unit entity to specifically support community-engaged research. The Federation for Community-Engaged Research is charged with promoting internal alignment of CEnR activities at VCU. The Federation is comprised of senior representatives from many VCU schools, centers and institutes with high levels of CEnR, including the schools of Medicine, Nursing, Education, Social Work and the Arts as well as the Office of the Provost. The Federation is co-chaired by the DCE's director of community-engaged research and the director of the community engagement core of VCU's NIH funded Center for Clinical and Translational Research (CCTR). The Federation's organizational structure is displayed in Figure 2.

Figure 2: Federation for Community-Engaged Research



Create a Vision

In order for change efforts to have direction, a clear vision must be created with defined strategies for achieving that vision. The vision presents a picture of the future that is relatively easy to communicate, appeals to stakeholders, and goes beyond numbers and data. A clear vision elucidates the general direction for change by simplifying hundreds or thousands of more detailed decisions and motivating individuals to take action in the right direction. It also coordinates the actions of those individuals (Kotter, 1996).

One way that complex organizations like VCU create a vision for multiple small units is to develop a strategic plan. As previously described, the DCE was established to support and advance community engagement as specified in the 2006 strategic plan, VCU 2020. Soon after the arrival of the new president, Dr. Michael Rao, VCU launched its current strategic plan, *Quest for Distinction*, in 2011. This gave even greater prominence to community engagement and helped to maintain a sense of urgency and vision.

Quest for Distinction strengthens VCU's commitment to community engagement by explicitly committing to becoming a national model for community engagement – one of four strategic planning themes. Under this theme, VCU's goals are to (1) Expand community-engaged scholarship and service learning, (2) Create university-community partnerships with a focus on the key targeted areas of K-12 educations (with a focus on middle school), access to health and economic development, and (3) Provide strategic leadership in addressing sustainability challenges through curricular and service innovations and green facilities and operations. In 2015 *Quest for Distinction* was recalibrated, with community engagement remaining a primary theme (Table 1).

Table 1

VCU's refocused themes and goals 2015-17

Theme III Become a national model for community engagement and regional impact
Goals and strategies: 1. Advance focused and strategic university-community engagement that addresses critical needs and opportunities in the region a. Leveraging university strengths and assets and address community-identified needs and opportunities b. Ensuring all students have access to innovation/entrepreneurial pathways that support regional economic development, cultural vitality or community well-being 2. Leverage the efforts of our students, faculty and staff to enhance, integrate and disseminate community-engaged scholarship, student service-learning opportunities and outreach a. Embed, support and promote community engagement within university cultures, practices and structures

Vision Alignment

In 2013, the DCE developed its own strategic plan to align with that of the university. The planning process included a review of similar units in peer institutions, particularly their structure and functions. In addition, input was gathered from nearly 100 university staff, faculty, administrative leaders and partners through interviews and input sessions. Five broad goals for the DCE were identified: (1) Develop, demonstrate, research and disseminate high-quality community engaged outreach programs, (2) Develop, implement, research and disseminate high-quality community engaged learning experiences, (3) Support rigorous community-engaged research that advances disciplinary and interdisciplinary knowledge and contributes to the well-being of communities, (4) Develop, implement, research and disseminate the DCE Model of Excellence for University-Community Partnerships, and (5) Develop and align human and fiscal resources that support innovative programs and new initiatives that reflect the DCE Strategic Plan. This process also yielded updated mission and vision statements and operating principles (Table 2).

Table 2

Division of Community Engagement Vision, Mission and Operating Principles

DCE Vision VCU is a community of engaged citizens, working together, changing lives.
DCE Mission To mobilize university-community partnerships that generate innovative solutions to societal challenges and prepare the engaged citizens of tomorrow.
DCE Operating Principles 1. To value and respect the knowledge and expertise that exists within communities. 2. To support collaborative university-community partnerships built on trust and reciprocity. 3. To seek out, engage, and value diverse perspectives and experiences that forge practical and innovative solutions. 4. To advance and disseminate new knowledge and best practices through community engaged scholarship. 5. To develop and adopt a model of best practices in community engagement – The DCE Model of Excellence for University-Community Partnerships.

Each program within the DCE and the CCE then created logic models to coordinate with the goals of the strategic plan and provide a clear purpose with measurable outcomes. As a result, the DCE and CCE shared a unified vision for community engagement that aligned with the larger university's vision and strategic plan.

Communicate the Vision

A vision that is only understood by a few people cannot lead to transformation. Similarly, transformation is impossible without the help of others. Thus, credible efforts utilizing multiple communication vehicles must be employed to convey the new vision and strategies to others (Kotter, 1996). A high level of consistent and clear communication of the vision is necessary for others to develop a common understanding and develop a shared sense of a desirable future (Kotter, 1995). In turn, these common understandings can help motivate and coordinate efforts that lead to transformation.

The vision of VCU as an urban, research university that prioritizes community engagement as a means to achieve its mission and positively impact communities is a consistent message, both internally and externally. For instance, the value of engagement is found across university's web presence and is a

reoccurring theme in presidential blog posts and university-wide announcements (blog.president.vcu.edu/). The DCE's website, community.vcu.edu, is featured as one of only six direct navigation portals on VCU's main website. This location gives it prominence among over 600 VCU websites.

The DCE serves as a model and consultant for best practices in communicating internally and externally about the division's and university's engagement activities. The DCE website, social media, print materials and other communications provide opportunities and support for units across the university to integrate university-community partnership language and vision into their own communications and operations. Similarly, the DCE has provided training so that others are exposed to best practices. The DCE's news blog provides stories and snapshots of university-community partnership activity across the university and encourages units to share their community-engaged stories in order to elevate the importance of community engagement at VCU. To establish a common language, the DCE, CCE and the Office of Planning Decision Support (OPDS), the university's institutional research unit, established VCU's official community engagement terms and definitions, which are included in university's glossary of terms. [For more information on the development of the community engagement terms and definitions, see Holton, V., Jettner, J. F., Early, J. L., & Shaw, K. K. (2015).]

Finally, the DCE promotes the use of engagement language in all aspects of university operations. For example, VCU's recruitment of potential students, faculty and staff notes that "We seek and support students who demonstrate intellectual curiosity, community engagement and out-of-the-box thinking" (Undergraduate Admissions, 2015) and "We take pride in our…engagement with the communities we serve…" (About VCU, 2015). This may help to establish a community-engaged foundation for VCU's identity even with someone's first impression of the university. Beginning with this initial exposure to VCU's engagement vision, the DCE then purposefully cultivates a continuum of opportunities and supports that shape approaches and expectations for teaching, learning, outreach and service among all students, faculty and staff. In short, the DCE fosters the expectation that community engagement is central to one's experiences at and with VCU. This, in turn, necessitates that the university to actively promote and remove obstacles to engagement.

Empower Others to Act on the Vision

According to Kotter (1996), even when urgency is high, a guiding coalition has been created, and a collective vision has been well communicated, many barriers may still exist to implementation. These barriers inhibit employees from carrying out the vision. The purpose of this stage in the change process is to empower a broad base of people to take action on the vision by removing as many barriers as possible. Here we will focus on DCE's efforts to mitigate or eliminate structural barriers, skills barriers, and systems barriers.

Removing Structural Barriers. Structural barriers stem from an organization's existing structure, particularly in terms of the structure's ability to support the vision once implemented. Faculty and staff constitute the most significant portion of the university's organizational structure. Recruitment and hiring practices shape their composition.

Hiring practices can influence perceptions of an organization's vision, as well as recruit potential employees who are committed to the realization of the organization's vision. When filling leadership positions within the DCE, such as program or office directors, the DCE has preferred to hire individuals with earned doctorates. This practice both lends credibility to and legitimizes the offices within the university context in two ways. First, this qualification preference or requirement signals that VCU values these positions insofar as it must financially support higher salaries associated with terminal degrees. Second, the doctorate requirement signals that the directors have expertise in that area and are able to

advance the scholarship associated with their respective fields, which allows the DCE to position itself as a leader in engagement.

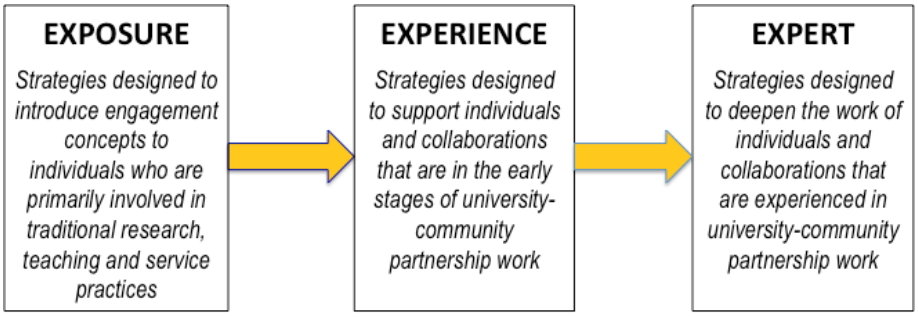
More broadly, VCU prominently displays its designation as community engaged by Carnegie in its job advertisements for leadership positions. By highlighting its community-engagement status in these advertisements, VCU communicates to potential employees that it (1) values and practices engagement, and (2) would be a good fit for potential employees who themselves value engagement. The effect of these practices has been positive, with a record of successful leadership hires who value and advance community engagement.

*Removing Skills Barriers***.** Empowering others to act on the vision ensures that as many people possible are equipped with the skills they need to follow through, and to be able to do so with some degree of autonomy and expertise. This type of empowerment requires that skill, or competency, building opportunities be provided by the organization on a regular and ongoing basis. The DCE has employed a continuum of competency-building opportunities as a key strategy to promote its vision of high-quality, high-impact community-engaged scholarship. These opportunities exist to ensure the university and its community partners are equipped to fulfill the DCE's vision of engagement.

The DCE views competency-building opportunities as falling along a continuum of exposure, experience and expertise (see Figure 3), which allows for the progressive professional development of VCU's faculty, staff, students and community partners. Community-engaged competencies can be developed through (a) individual skill-building opportunities that are both broadly available and targeted towards certain individuals, (b) learning networks and mentorships that make additional assistance available as well as promote interdisciplinary work, and (c) readily available guidance (Klein & Sorra, 1996). Aligned with the DCE's grounding in academic affairs, the DCE primarily targets its competency-building activities towards faculty and staff, with fewer opportunities for students and community partners.

Figure 3

DCE Continuum of Support Strategies



Learning Networks and Skill-Building Opportunities. To move individuals along the competency-building continuum, the DCE convenes people virtually and in-person to build learning networks and skills around topic areas pertinent to engagement. Skill-building opportunities (e.g. workshops and trainings) provide specific opportunities for participants to increase their knowledge in certain topic areas. At the same time, participants in skill-building activities often develop learning networks with their peers. These networks, ideally comprised of diverse members with varied levels of interest in and experience with the topic area skill-building opportunities, enrich learning by providing feedback, support, and guidance to peers. While opportunities for creating learning networks are sometimes lacking at academic institutions (Israel et al. 1998), the DCE has considered its role of convening others as a strategic approach to introducing and

refining community-engaged scholarship competencies in order to empower others to act on and move the DCE's engagement vision forward.

Interest Groups and List-serves. The DCE operates multiple listservs as a means of connecting with university and community partners. These listservs utilize email as a communication mechanism to build awareness, help facilitate potential collaborations, provide information on efforts to support and encourage engagement activities, and elicit suggestions to further deepen the work of university-community partnerships. Combined, these listservs reach over 1,200 members across the university. Additionally, the CEnR listserv is currently in the process of expanding its communication format to include a blog page with a public forum.

Annual Institute & Workshops. The DCE, along with the Center for Clinical and Translational Research, hosts VCU's annual Community Engagement Institute. The Institute helps faculty members, community partners, and graduate students to develop a basic understanding of community engagement. Participants are exposed to service learning and community-engaged research presentations, workshops, and networking opportunities. This annual, week-long event is offered free of charge to approximately 50-70 individuals.

Similarly, the DCE offers short workshops throughout the year that address a wide range of topics. These workshops have focused on competency related to community-engagement in general, as well as topic areas specific to service-learning and CEnR. For example, workshops related to partnership development for effective community engagement have focused on how to identify and develop partnerships, how to engage in community-university partnerships across one's career, and conflict resolution. Workshops related to service learning have included topics on the development of reflection activities and the syllabi and preparing students for service learning. CEnR workshops have been given related to CEnR grant search strategies, specific CEnR methodologies, and issues related to conducting ethical research.

Faculty Learning Communities and Faculty Fellows. The DCE co-sponsors a variety of opportunities for faculty to engage in learning as a cohort. Employing both faculty learning community (FLC) and faculty fellows models, the DCE has offered cohort experiences for faculty to collaboratively learn together, document what they have learned, and share their gained knowledge with VCU at large. Depending upon the nature of the topic addressed by the cohorts, the DCE has worked with co-sponsors from other VCU units to provide stipends for faculty participants.

Faculty Mentoring Programs. Faculty mentoring programs offered by the DCE provide guidance and support to faculty members who are developing or teaching new service-learning courses. Mentoring programs pair faculty mentees one-on-one with mentors who are experienced in service-learning pedagogy. The service learning mentor program is voluntary, with no stipend paid to either mentees or mentors. In partnership with VCU's Office of Research and the Center for Clinical and Translational Research, the DCE is developing a similar program for pairing less experienced community-engaged researchers with faculty with more experience.

Readily-available guidance. In order to build and maintain competence in engagement activities, resources to guide effective engagement endeavors must be offered and readily available at an institutional level (Calleson, Jordan, & Seifer, 2005). Employees must know where to turn for technical assistance, tools, and strategies for operationalizing the ideals of community-engaged activities within an academic institution. Guidance documents, bibliographies, and videos have been developed to provide permanent reference resources. These have been developed in collaboration with other units, and include topics relevant to partnerships (e.g. finding community partners, principles of engagement), service learning (e.g. what is service learning, incorporating service learning into a syllabus) and CEnR (e.g. what is CEnR, compensation of community partners, FAQs about CEnR and the IRB).

The DCE stores these resources in Scholars Compass, an open access publishing platform that hosts the intellectual output of VCU's academic, research, and administrative communities (http://scholarscompass.vcu.edu). Its goal of providing wide and stable access to VCU's scholarly products aligns well with the DCE's goal of ensuring a readily available and widely accessible collection of engagement guidance documents. The DCE, therefore, worked closely with the University's library to support the implementation of this online repository of materials. The DCE continues to populate the repository by regularly updating it with publications, scholarship, presentations, infographics, and videos developed within the DCE as well as materials from the Community Engagement Institute.

Courses. The DCE has offered several courses under a Community Studies designation. These courses are offered to both undergraduate and graduate students and develop student's knowledge, skills and abilities working in and with communities outside of the academy. There are also courses to develop students as service-learning teaching assistants. Through these courses, teaching assistants develop new skills, work closely with faculty, develop relationships with community leaders and participate in a wide variety of community initiatives. More recently the DCE has offered a doctoral-level, open-access course that explores the philosophy and techniques of CEnR using a connected learning framework (http://rampages.us/communityengagedresearch/).

Removing Systems Barriers

Systems barriers to change emerge when the existing systems and processes within an organization do not support the vision. Systems must therefore be in place to reinforce the idea that fulfilling the vision is not only expected, but will be supported and rewarded by the organization.

Promotion & tenure. Professional reward structures, manifested in higher education largely through promotion and tenure policies, reinforce institutional vision by explicitly outlining the types of activities expected, supported and rewarded by the institution and socializing faculty members to the values of the institution (Pelco & Howard, 2015). Some academic institutions do not regard community-engaged scholarship as equivalent to other categories of academic scholarship and achievement in their promotion and tenure strategies (Ahmed, et al., 2004). This presents as a major barrier to encouraging community engaged work by faculty, especially those seeking tenure. Thus, an important strategy for validating community-engaged scholarship is to explicitly recognize this work in promotion and tenure policies.

In 2011, VCU began the process of reviewing and revising its university promotion and tenure policies. The provost charged an ad hoc committee to 1) assess and highlight best practices in higher education regarding promotion and tenure; 2) review current VCU guidelines to address dated materials and accuracy; and 3) suggest revisions to bring policies in line with the new strategic plan, including the stronger emphasis on community engagement. The DCE organized presentations exposing administrators to community-engaged scholarship, teaching and service, and retained an external expert consultant to work with key campus stakeholders around topics of community-engaged activity, including meeting with the deans to help them understand the nature and role of community-engaged scholarship within their disciplines. In May of 2013, a new university promotion and tenure policy was approved which explicitly includes the recognition of community-engaged research, teaching, and service as acceptable approaches to scholarship at VCU. The work to revise individual academic school- and unit-level policies to align with the university-level policy is almost complete.

Intramural funding. When offered as intramural grants, institutionally supported seed grants are effective incentives for faculty to partner with community members. These seed grants provide immediate gains for furthering the institutional vision, as well as long-term benefit. Past research has shown that faculty awarded these grants are more successful in obtaining other grants compared to those who are not

awarded seed funding (Zuiches, 2013). Institutional support is also critical for successful partnerships with high levels of sustainability (Chadwick & Pawloski, 2007). In an evaluation of two seed grant programs at VCU, Leisey, Holton, and Davey (2012) found that grant funded projects had positive benefits for faculty, students, and community partners and were associated with enhanced service delivery, high-quality learning experiences, and published community-engaged scholarship. As such, the DCE has endeavored to ensure that intramural funding to support engagement activities is regularly available.

As mentioned above, the CCE oversees a grant making program with an annual funding pool of $100,000. Grantees receive one-year awards of up to $20,000 that support interdisciplinary university-community programs, or initiate new university-community partnerships, or continue the development of long-standing collaborations. Grants are intended to yield community-engaged scholarly products and to leverage external funding. The DCE provides administrative support for this program, including a yearly evaluation of its impact. In partnership with the CCTR, the DCE supports a CEnR Pipeline to Proposal Program through which CEnR Partnership Development awards up to $10,000 are intended to specifically support building and supporting research partnerships. Recipients of the Partnership Development grant are invited to apply for additional intramural funding through either the CCE community-engagement grants or through the CCTR's Endowment Fund. The CCTR's Endowment Fund provides individual research awards up to $50,000 and multi-school research awards up to $130,000 for health sciences research. Additionally, the DCE manages and awards Travel Grants in the amount of $1,000 to support the scholarship and professional development of service-learning instructors.

Plan For and Create Short-Term Wins

While major change takes time, Kotter asserts that most employees need to see compelling evidence within twelve to twenty-four months that transformational efforts are producing expected results (Kotter, 1995). Thus, it is recommended that short-term wins be systematically planned for and created. Short-term wins help to maintain the momentum necessary for the renewal of efforts required to implement the long-term changes necessary for real transformation to occur (Kotter, 1995).

Recognizing and rewarding organizational actions that enable the vision is one way to create short-term wins. The DCE has helped VCU to leverage both internal and external award opportunities. Internal awards and recognition communicate to organizational members that community engagement is valued, respected, and celebrated (see earlier section on the Council for Community Engagement for a description of the internal rewards opportunities). External awards also communicate the value of community engagement efforts while creating a sense of pride for the organization and its members. Additionally, external awards also convey VCU's efforts to a broader audience.

VCU has been recognized by several national entities that recognize community engagement. VCU was among the first cohort of institutions recognized as community-engaged by the Carnegie Foundation in 2006 and was reclassified in 2015—with the DCE leading the application process each cycle. VCU is one of only 54 universities to be designated by the Carnegie Foundation as "Community Engaged" with "Very High Research Activity." Also in 2014, again with DCE's leadership, VCU was admitted to the President's Higher Education Community Service Honor Roll for the eighth consecutive year and is one of 121 schools nationwide that earned the recognition of Honor Roll with Distinction. It was the second consecutive year for VCU to be named to the Honor Roll with Distinction.

Each year the DCE releases annual reports to celebrate the work of the DCE. This report highlights the "outstanding community engagement of VCU faculty, students, and staff" (Division of Community Engagement 2015, 1). The report outlines successes from the annual Community Engagement Institute and spotlights Community Engagement Grant and Currents of Change awardees. The annual report also

highlights annual outcomes for efforts within ASPiRE and each of its outreach programs, as well as in the areas of service-learning, neighborhood outreach, and community-engaged research. The report is distributed broadly to both internal and external stakeholders.

Another way to recognize and advance organizational vision is to plan for visible performance improvements that can be measured and evaluated (Kotter 1995). To that end, the DCE has led the development and implementation of infrastructure to identify, track and assess VCU's community engagement activities and impact (see Holton, Jettner, Early, & Shaw, 2015; Holton, Early, Jettner & Shaw, 2015). Additionally, the DCE collaborated with the OPDS to apply an anchor dashboard framework to use as a reference in the broader conversation about maximizing VCU's positive impact on our community (Holton, Jettner, & Shaw, 2015). These efforts have enabled the DCE, in partnership with the OPDS and others, to launch two visible displays of information. The online community engagement data dashboard (www.community.vcu.edu) includes and describes community-engagement activities across the university by year and unit. Additionally, the DCE is leading the development of a partnership map that displays all the partner organizations (VCU and community-based) and partnerships by geographic focus, activity, topic focus area and VCU unit (http://communitynetwork.vcu.edu/partnerMap). Finally, in collaboration with the OPDS, the DCE has launched a task force to further develop the community engagement data infrastructure and ensure that the information is used to support strategic decision-making.

Consolidate Improvements and Produce Still More Change

Leaders of successful efforts use the credibility afforded by short-term wins to take on larger challenges (Kotter, 1995). This might include developing new programs that can continue to implement the vision (Kotter, 1995). These programs reinvigorate the change process, and might even be larger in scope than earlier projects. Additionally, successful leaders tackle systems and structures that have not yet been considered, or are not consistent with the transformation vision (Kotter, 1995).

The DCE is a dynamic unit that leads the development of university-wide infrastructure. It has a strong record of incubating programs until they are self-sustaining. One such example is the Partnership for Nonprofit Excellence (PNE), an independent non-profit that helps to build the capacity and enhance the impact of other non-profits in the region. Three of the PNE's four programs were initially created and housed for several years under DCE. These include (1) ConnectVA, a one-stop communication network linking individuals with ideals, information and resources, (2) HandsOn Greater Richmond, a service that matches people and their interests to meaningful volunteer opportunities that create positive change in Central Virginia, and (3) Nonprofit Learning Point (NLP), a program that offers affordable classes, coaching, and programs for professional and leadership development for the nonprofit community.

The DCE also helps existing, successful projects and programs to improve. For example, as noted earlier, most professional development opportunities, such as the Community Engagement Institute, have targeted faculty and staff members or students. Upcoming CE Institutes will be designed for the explicit purpose of introducing university and community partners to one another to create opportunities for future work together. Organized opportunities for shared interest exploration and initial partnership development activities will be deliberately orchestrated throughout the event.

Another opportunity for expanding the purpose of the CE Institute is to begin to move away from promoting the compartmentalized community-engagement work of faculty, and towards a more integrated concept of "community-engaged scholars" at VCU. Faculty members have traditionally been identified as those who teach service-learning or conduct CEnR, but not necessarily as having expertise in multiple domains of community-engaged work. In the future, the CE Institute will be designed as a springboard to support faculty who are interested in multiple domains of community engagement. University-based

participants, including graduate students, will co-learn the founding principles of community engagement alongside community members. Topics addressed might include foundational topics that apply to any manner of community-engaged work to include initiating and sustaining partnership, techniques for successful collaborations, and the importance of community engagement. These foundational topics will also be developed and presented as online learning opportunities, ideally as open source content. Once the CE Institute has concluded, participants will have the opportunity to continue taking learning modules, in either face-to-face or online formats, to build their community engagement competence, culminating in earning a community engagement certification. This curricular revision aligns with a national trend towards the development and recognition of integrated community-engaged faculty.

Institutionalize the New Approach

According to Kotter, "change sticks when it becomes 'the way we do things around here,' when it seeps into the bloodstream" of the entire organization (Kotter, 1995, p. 67). Once this kind of transformation occurs, practices that were once considered 'new' become rooted in organizational culture, including its members' norms of behavior and shared values, and operate as a powerful social force (Kotter, 1996; Kotter, 1995). In other words, deep institutionalization occurs when the vision is embraced by all organizational members and units. VCU actively seeks to achieve this stage, and, with DCE's leadership, is in the process of implementing several initiatives to deepen its institutionalization of community engagement. We conclude by highlighting three examples of these efforts.

Attract and Retain Individuals Expecting Engagement. By taking steps towards embedding engagement throughout the university culture and practices, VCU will achieve true institutionalization of community engagement, manifested in its ultimate goal of VCU being largely recognized as the "best place" for engagement. In other words, faculty will recognize VCU as the best place to conduct community-engaged scholarship, students will recognize VCU as the best place to learn about community-engaged scholarship, and community partners will recognize VCU as a positive ally that benefits the community.

Establish Strategic, Focal Efforts. VCU is also exploring ways to leverage its strengths and resources in a way that aligns intentionally with community-identified needs and opportunities. One approach is to anchor, or embed, the values of engagement into institutional practice. This builds from the concept of "anchor institutions" which recognizes the organization itself as a powerful actor, and the role it can play as an economic and cultural driver in community well-being (Axelroth & Dubbs, 2010). VCU is currently exploring how its values of engagement are embedded within many of its institutional practices such as procurement, real estate development and hiring through the application of an anchor framework to measure VCU's impact (Holton, Jettner & Shaw, 2015) and participating in the larger national conversations with HUD's Anchor Task Force and the Democracy Collaborative. The concluding section on the future of the DCE describes another approach it is considering to establish strategic, focal efforts.

Ensure Consistent Recognition for Community-Engaged Work. VCU continues to consider how to best ensure recognition of engagement work for the purposes of promotion and tenure. While official university policy recognizes community-engaged research, teaching, and service as valued approaches to scholarship, individual departments and units continue to develop their capacity for considering such work in their promotion and tenure practices. To ensure that the changes in promotion and tenure policy impacts the assessment of all faculty at VCU, a national expert has been invited to engage the university in critical conversations about the role of community-engaged scholarship in the academy as a whole, and specifically in the review of faculty for promotion and tenure.

The Future of DCE's Role in Deepening and Extending the Institutionalization of Community Engagement

As VCU approaches the 10-year anniversary of the DCE, it is a time for reflection on the past as well as intense planning for the future. Using Kotter's framework for change, this case study highlights the role of the DCE within VCU in institutionalizing the value of community engagement. Next we briefly reflect on the current infrastructure before considering the upcoming challenges that the DCE hopes to address that will be important for fulfilling the university's mission and values. Welch and Saltmarsh (2013) conducted a review of the infrastructure of over 100 community engagement centers across institutions that received the Carnegie community engagement designation in 2010. Based on this review, the DCE has the essential components of a community engagement center as identified by other center directors: budgeted institutional funds, administrative support, programming staff, faculty development, faculty leadership/buy in, student leadership/decision making, assessment mechanism/procedures, full-time administrator, academic affairs reporting line, database/tracking system, adequate office space, define/designate courses, fund-raising mechanisms, communication/outreach, transportation coordination/policy, cross-campus collaboration, and course development grants.

These components will provide the ongoing infrastructure and support that will enable the DCE to continue to deepen and extend the institutionalization of community engagement. However, it is important to note that opportunities to enhance the division's infrastructure continue to exist. For instance, as public universities are facing an ever-increasing need to generate revenue, the DCE is exploring ways to garner additional grant funding to support community engagement efforts through its office as well as across the university. Consistent with Welch and Saltmarsh's (2013) findings on the expanding role of engagement centers, the DCE is also assuming a greater role in risk management, which is requiring the development of expertise in a new area. For example, in collaboration with the university council and office of compliance, the DCE has led the development of an administrative policy regarding minors on campus. This policy addresses issues such as mandatory reporting of child abuse and neglect; background checks, training, and supervision of faculty, staff, students, and volunteers involved in youth programs; and registering and tracking of all youth programs and activities on campus. To enhance awareness of and compliance with this policy the DCE developed an interactive online training that overviews the policy, assesses understanding through situational quizzes, and provides support through downloadable forms, templates, and contact sheets.

Finally, the DCE continues to explore systematic and ongoing mechanisms for genuinely engaging community members in honest conversation about the challenges they face. Moreover the DCE would like to facilitate opportunities for university and community members to collectively work together to meet those challenges. This type of engagement has traditionally emerged through approaches such as the establishment of advisory boards or inviting community members to join existing university committees (Field 2002). While these approaches can be meaningful, they often operate in uncoordinated silos. Such disparate efforts make it difficult to deeply engage in university-wide work that is high-impact and mutually benefits the community and university.

The DCE would therefore like to aid VCU in a new, university-wide approach that would align its university-based expertise and resources with community-based expertise and resources to identify and address critical needs and opportunities in the region. Ideally, this effort will bring together cross-discipline faculty, students, and community members to collectively target their work at a community-identified priority. The DCE envisions this effort as occurring on a university- and school/college-level as well as engaging individual faculty, staff, students and alumni. An enhanced focus such as this would help VCU deepen its impact in key areas, as well as provide opportunities for faculty, staff and students to engage in high-impact research and teaching/learning.

To achieve this goal, the DCE, along with the university, must first contend with many questions such as:

1. What is the best mechanism for identifying priority issues to address?
2. How can such an effort be coordinated across VCU's complex institution and Richmond's complex region?
3. How might this effort connect with other university efforts to ensure that the engagement is truly institutionalized?
4. How might this effort connect with other community-based work already underway?
5. What is the optimal way to engage students directly and indirectly in this approach?

The DCE is currently exploring best models and practices for this approach to focused, deep engagement. While such an approach is a challenging undertaking, the DCE is prepared to lead and support the university in deepening and extending its engagement.

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Volunteer Program Assessment at the University of Nebraska at Omaha: A Metropolitan University's Collaboration with Rural and Spanish-Speaking Volunteers

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Abstract

The Volunteer Program Assessment at UNO (VPA-UNO), a faculty-led student group, partners with nonprofit and governmental agencies to provide free assessments and consultations to enhance volunteer engagement, organizational commitment and retention. Three recent initiatives are discussed representing an intentional effort of a metropolitan university to extend love of place to love of state through outreach efforts to rural volunteers and to promote inclusivity to Spanish-speaking volunteers by translating the VPA assessment into Spanish.

Purpose

The purpose of this paper is to provide a case example of volunteer efforts of students participating in the Volunteer Program Assessment at the University of Nebraska at Omaha (VPA-UNO) to make their community a better place. The initiatives described demonstrate how students and faculty at a metropolitan university can provide much needed service to the community while at the same time enhancing student professional development and civic-mindedness. This narrative will first provide a context for VPA-UNO's efforts, highlighting the important role of UNO and the Omaha community in supporting meaningful collaborations between students with the community. Second, VPA-UNO's process will be described along with client and student outcomes. Next, we will describe VPA-UNO's effort to extend love of place to love of state through outreach efforts to rural volunteers and to promote inclusivity among Spanish-speaking volunteers. Finally, these highlighted VPA-UNO projects will be reviewed, noting key findings and underscoring the reciprocal benefits accrued to both the clients and to VPA-UNO through these collaborations.

Importance of Place

The importance of place cannot be under-emphasized as UNO nurtures a university culture that through policy and action promotes student-centeredness, academic excellence, and community engagement Specifically, UNO administration at all levels support curricular and co-curricular programming efforts that encourage and support relationships between students and community partners. Furthermore, the establishment of the UNO Barbara Weitz Community Engagement Center has reaffirmed UNO's commitment to engagement, highlighting the importance of facilitating meaningful collaboration, by bringing community partners directly onto the UNO campus. The building provides free space for campus and community events, as well as office space for thirty-three community and university partners. VPA-UNO is one of the university partners housed in the Community Engagement Center, benefiting from this collaborative space within a supportive metropolitan university culture.

Community Problem Addressed

A major problem confronting our communities is the struggle of nonprofit organizations to recruit and retain volunteers who are critical to their success and sustainability. Nonprofit organizations have experienced a 25 percent growth rate within the last decade (Urban Institute, 2014), which has positively influenced society by advancing charitable causes, defending human rights, relieving the distressed, and preventing cruelty to vulnerable populations. With the downturn of the economy leading to budget cutbacks and an increase in demand for services (DeVita, 2012), nonprofit organizations depend heavily on volunteers now more than ever.

National trends in volunteering paint a disturbing picture of an increasing gap between the need and the availability of volunteers. In 2012 alone, volunteers contributed 15.2 billion hours of work and saved $296.2 billion to nonprofits (Blackwood, Roeger, & Pettijohn, 2012), yet only 25 percent of Americans volunteered at least once, the lowest volunteer rate since the Bureau of Labor Statistics began collecting volunteer data in 2002 (Bureau of Labor Statistics, 2014). Further alarming is the relatively low percentage of young adults volunteering, with those between the ages of twenty and twenty-four being least likely to volunteer (Bureau of Labor Statistics, 2014).

At the local level, Omaha, Nebraska is ranked first among the fifty-one largest metropolitan areas for community service (Corporation for National and Community Service, 2013). However, the 35.4 percent of Omaha citizens who volunteered between 2011 and 2013 fell far short of the needs of nonprofit organizations serving those in the community. Thus, despite Omaha's relatively high level of volunteering compared to national norms, volunteer recruitment, engagement and retention remain top priorities.

VPA-UNO's Response to Volunteer Challenges

The primary goal of VPA-UNO is to serve governmental agencies and nonprofit organizations that utilize volunteers by providing a high-quality online assessment of volunteers and consultations to help organizations know how to best enhance volunteer engagement, commitment and retention. VPA-UNO is one of six Volunteer Program Assessment (VPA) chapters in the United States. VPA began in the fall of 2009 at the University of North Carolina at Charlotte by Dr. Steven Rogelberg with the support of his graduate students, Joseph Allen and Daniel Bonilla. In June of 2013, Dr. Joseph Allen joined Dr. Lisa Scherer at UNO, and VPA-UNO was created. Since the start of VPA-UNO in June 2013, VPA-UNO has served over eighty organizations and benefited more than 33,500 volunteers across the United States. Many of these organizations have received VPA-UNO services annually across multiple years, and the diversity of the organizations and the community issues they address is considerable. As a result of this broad spectrum, Scherer (2014) developed a taxonomy of twelve different volunteer contexts to organize the community efforts of VPA-UNO, consisting of the following areas: (a) youth mentoring and development, (b) arts and entertainment, (c) police, fire and EMT support, (d) eldercare, (e) medical, health, and well-being (f) sustainability, (g) global and international services, (h) religion and spirituality, (i) animal welfare, (j) legal and advocacy, (k) literacy and education, and (l) poverty.

The VPA-UNO process is streamlined to minimize the time investment of its nonprofit clients. The volunteer coordinator or executive director invests approximately three hours to perform the following functions: (a) signs a letter of commitment, (b) completes an online screening questionnaire for background information on the organization and its volunteers, (c) emails the web link to the VPA-UNO assessment to volunteers accompanied by explanatory emails provided by VPA-UNO, and (d) attends a face-to-face or technology-mediated consultation with the team based on analyses of the assessment results. The VPA-UNO survey assessment includes quantitative and qualitative feedback from the

volunteers. Further, clients' quantitative feedback is accompanied by information regarding how their results compare with data annually aggregated from the six VPA chapters, thus providing them with a national benchmark. Analysts synthesize this information to serve as the basis for the consultation report and the recommendations. Clients repeat the VPA-UNO process annually to monitor their progress in improving their volunteer experiences and ultimately their engagement, commitment and retention.

Through this process, VPA-UNO's clients have the opportunity to get an inside look at the organization's volunteer program from the perspective of their own volunteers. The results of the survey reveal how their volunteer program compares to other volunteer programs across the nation. National norms have been created for specific non-profit areas, such as animal welfare and volunteer police programs. Variables that are measured include volunteers' satisfaction with communication by the organization, volunteers' engagement levels, what constraints the volunteers face in their roles, and demographic information such as volunteer tenure, employment status, number of hours worked per month, and frequency of volunteering. Non-profit organizations can use the information provided by VPA-UNO to highlight the programs successes and inform business decisions to improve organizational effectiveness and volunteer productivity.

Love of Place = Love of Nebraska

Because VPA-UNO is the only VPA chapter in the state, the program serves non-profit organizations across the state of Nebraska. We recognize that there are many organizations in Nebraska that serve both rural and urban areas, and many non-profit organizations exist in rural areas. Volunteers are necessary in rural communities and a great resource especially to areas that may have less access to resources. Therefore, VPA-UNO has made a commitment to serve rural as well as urban clients in order to provide them with resources to maximize non-profits' impact through their volunteer workforces.

Three VPA-UNO Initiatives to Reach Underserved Populations in Nebraska

Three initiatives were pursued to target rural Nebraska and Spanish-speaking volunteers. Rural Nebraska was the focus of two projects, with the Nebraska Court Appointed Special Advocates (CASA) Association and 4-H of Nebraska partnering with VPA-UNO, and both efforts assessing volunteers across the entire state. As no VPA assessment initiatives among VPA-USA chapters had ever explicitly compared results for urban versus rural volunteers, the results of these two projects highlighted commonalities and differences between these two groups. The Spanish-speaking project is ongoing and includes both urban and rural Spanish-speaking populations and included translating the VPA-UNO assessment into Spanish. Results and insights offered to the nonprofit clients as well as lessons learned by the VPA-UNO team will be highlighted for each project to further emphasize the reciprocal benefits of these collaborations.

Background for Rural Initiatives

Rural communities face distinct challenges, including low employment growth and population decline (ERS, USDA, 2014). Nationally, rural employment growth remained stagnant since the 2007 recession; from 2010 to 2014 employment grew by only 1.1 percent in rural America, compared with 5 percent in urban areas. Two-thirds of non-metro counties experienced population loss from 2010 to 2013 due to outmigration, low birth rates, and an aging population. Many young adults leave rural America to attend college and remain in urban areas due to the substantially greater pay rates for college graduates in urban versus rural areas.

Beyond these barriers faced by rural communities, a shortage of volunteers, inconsistent volunteer infrastructure, and high prevalence of informal volunteering (Points of Light Foundation, 2004) is particularly problematic. Rural families experience isolation and poverty issues, such as lack of transportation, affordable and reliable child care, health care, and living wage jobs, which hinder their ability to engage in volunteer activities. Rural communities tend to lack resources, collaboration, and investment in rural volunteer organizations, thereby impeding the capability for these organizations to thrive. Further, the out-migration of young people in particular is straining the number of volunteers available and threaten the economic viability of many rural communities. To elucidate, 80 percent of students in rural Nebraska rated their hometown as an average or above average place for a young person to live, yet barely half picture themselves living in the area in the future, even if career opportunities are available (Nebraska Community Foundation, 2015).

Although urban organizations experience many of the same challenges regarding access and capacity, all indicators suggest that rural organizations tend to experience these hindrances at a greater magnitude.

VPA-UNO Collaboration with the Nebraska Court Appointed Special Advocates (CASA) Association

The Nebraska CASA volunteer represented one of our two state-wide clients. CASA volunteers interview foster children and families, review police and child welfare reports, and advise the court on decisions regarding placement all while remaining a stable adult figure in troubled youth's lives. Nationwide, there are nearly 1,000 CASA programs in forty-nine states with more than 76,000 volunteers. The Nebraska CASA Association consists of 656 Nebraskan volunteers advocate for over 1,500 abused and neglected children in the twenty-two local Nebraska CASA programs. Because over 2,000 children in Nebraska still desperately need an advocate, CASA's goal is to retain and recruit volunteers and VPA-UNO has helped by providing improvement feedback directly from volunteers. All twenty-two Nebraska CASA programs, which serve thirty-eight counties, participated in the free VPA-UNO volunteer engagement survey. Analyses were conducted to identify meaningful similarities and differences between rural and urban programs. Specifically, the analyses focused on how the Omaha and Lincoln urban areas compared with the rest of the state. Thus, the urban programs included the Douglas, Sarpy, and Lancaster county programs and rural programs comprised of the remaining nineteen counties. Using this classification, the urban category included ninety volunteers and the rural group included 104 volunteers. Both urban and rural volunteers were mostly college-educated females. Urban volunteers tended to be younger, more racially diverse, and were more likely to have an advanced degree, whereas rural volunteers were more likely to be retired and to have more years volunteering with CASA.

Results: What Nebraska CASA Learned from VPA-UNO. Based on VPA-UNO assessment data, t-tests were used to compare CASA volunteers with all VPA volunteers in the U.S. and to compare CASA volunteers in urban and rural contexts. All data are presented in Table 1. Compared to national norms, CASA volunteers in both urban and rural contexts were at or above national norms for the following dimensions: satisfaction with paid staff, satisfaction with communication from the organization, and a high perception of voice (e.g., extent to which volunteers perceived they were "heard" when communicating to higher levels of management). In contrast, CASA volunteers in both contexts reported less competence and higher burnout compared to volunteers in other contexts across the U.S.

Although urban and rural CASA volunteers shared many similarities, they differed in some key areas. T-tests confirmed that the ratings for burnout, organizational constraints, and satisfaction with the volunteer coordinator and other volunteers were statistically significantly different between the two groups. Specifically, burnout levels were substantially higher for rural volunteers, meaning that they felt more emotionally drained and frustrated by assignments than urban volunteers. Second, rural volunteers

reported slightly more constraints than urban volunteers. Third, rural volunteers reported even higher satisfaction with their volunteer coordinator than their urban counterparts, whereas urban volunteers were more likely than rural volunteers to report higher satisfaction with paid staff. The open-ended responses confirmed the pattern of results for satisfaction with coordinator and satisfaction with paid staff. , Rural volunteers were more likely to list the director or volunteer coordinator as one of the top three strengths, whereas urban volunteers were more likely to list paid staff more generally as a top strength. Fourth, the most striking difference between the two groups were the ratings of satisfaction with other volunteer colleagues; rural ratings were much lower than urban ratings. However, this result is less surprising when considering that 85 percent of CASA rural volunteers reported their organization hosted social gatherings to promote volunteer interactions compared with only 62 percent of urban volunteers.

Table 1

Strengths and growth areas relative to national norms and differences for urban and rural Nebraska CASA volunteers.

CASA Strengths Relative to National Norms	VPA-USA National Norm	Urban CASA	Rural CASA
Perception of Voice	54%	78%	83%
Satisfaction with Paid Staff	79%	93%	92%
Satisfaction with Volunteer Coordinator	86%	87%*	91%*
CASA Growth Areas Relative to National Norms			
Competence	92%	82%	80%
Burnout	3%	5%*	11%*
Differences in Rural Versus Urban CASA Volunteers			
Satisfaction with Other Volunteers	84%	67%*	84%*
Organizational Constraints	6%	1%*	3%*

Note: * indicates a significant difference between urban and rural volunteers at the $p < .05$ level.

Recommendations to CASA Nebraska were based on the observed similarities and differences observed between rural and urban volunteers. Because both urban and rural volunteers noted a critical need for more volunteers, VPA-UNO recommendations focused on marketing efforts targeted to different age groups and volunteer location. Because urban volunteers were more likely to list a need for increased interactions with other volunteers, the urban CASAs were encouraged to provide more opportunities for volunteers to socialize and become better acquainted with one another—adding social time following or

prior to required training and hosting celebratory events was suggested. Due to rural volunteers concerns regarding the perceived lack of communication from court and other agencies (e.g., Department of Health and Human Services, guardian ad litems) to them, it was recommended that the CASA local and state-wide board examine methods for enhancing communication and determine accountability mechanisms to ensure better connections and cooperation between CASA volunteers with child welfare and court employees to better serve the children in need.

Results: What VPA-UNO Learned from CASA Volunteers. In addition to providing the survey results to CASA, the students working on this project learned about the Nebraska CASA Association and better understand the role of CASA volunteers in children's lives. For example, prior to this research the team did not realize that over 2,000 children in Nebraska still needed a volunteer advocate. Although they may receive paid representation from a guardian ad litem, these professionals are often overwhelmed with cases and rely on CASA volunteers who are able to provide a more individualized experience with the child. The dire need for CASA volunteers across the state, in both rural and urban Nebraska was sobering, highlighting the importance of volunteer recruitment and retention efforts. Finally, through this research, the students witnessed the incredible dedication of CASA volunteers to the organization's mission. Results clearly indicated the volunteers identified with the children they were helping and took their role very seriously.

VPA-UNO Collaboration with the 4-H of Nebraska

The second rural VPA-UNO outreach project focused on 4-H of Nebraska. VPA-UNO has supported 4-H of Nebraska, which empowers youth to reach their full potential across ninety-three counties. 4-H programs across the nation have served youth for over 100 years through partnering young people with adult leadership. Their symbol is the four-leaf clover, and the leaves represent four H's: Head, Heart, Hands, and Health. 4-H approaches youth development by teaching practical skills such as first aid, woodworking, fitness, and gardening, as well as life skills such as serving others, critical thinking, and managing change. This vibrant youth mentoring program is offered in all ninety-three counties in Nebraska and is served by 12,000 volunteers. Statewide, they reach more than 140,000 youth each year, with one in three age-eligible youth in Nebraska participating in a program.

Results from urban and rural volunteers were assessed to compare and contrast the samples and assess differences between the two groups. We found that urban volunteers reported significantly higher satisfaction with their contribution to the organization, higher satisfaction with their volunteer colleagues, higher satisfaction nature of their volunteer work, and greater feelings of competence compared to their rural volunteer counterparts. Because these factors drive volunteer engagement, organizational commitment, and ultimately retention, it is critical to consider specific, targeted approaches to volunteer management in rural versus urban volunteer contexts. Possible explanations for these differences in addition to implications for research and practice will be discussed.

In partnership with the Nebraska Extension Office, data from 4-H volunteers from ninety-three counties in Nebraska were collected. Urban volunteers were considered to be any volunteers serving in Cass, Douglas, Lancaster, Sarpy, Saunders, Seward, or Washington counties, with rural volunteers classified as serving in all other counties. Rural volunteers made up the majority of the sample with four-hundred and three volunteers responding from rural counties and fifty-three volunteers responding from urban counties. Urban volunteers were 83 percent female and 17 percent male, with 77 percent of volunteers between the ages of forty-one and sixty. Similarly, rural volunteers were 82 percent female and 18 percent male, but with a greater proportion of younger volunteers, as only 60 percent of volunteers were between the ages of forty-one and sixty.

Results: What 4-H of Nebraska Learned from VPA-UNO. The VPA-UNO team compared the results for the Nebraska 4-H volunteers with national VPA norms for all volunteers in addition to comparing and contrasting results for urban and rural volunteers. T-tests were used to examine these differences and all results are reported in Table 2. Consistent with national norms, 4-H volunteers in all contexts reported a similar level of constraints, recognition, satisfaction with contribution, and satisfaction with the nature of the work. Differences between national volunteer norms and 4-H volunteers were revealed for satisfaction with paid staff and satisfaction with volunteer colleagues, with 4-H volunteers reporting significantly greater satisfaction than the national volunteer sample. In contrast, responses from 4-H volunteers concerning satisfaction with communication and role clarity were both slightly lower than national norms.

Regarding the comparisons between urban versus rural 4-H volunteers, some key differences emerged despite many similarities. Specifically, urban volunteers reported feelings of greater competence and higher levels of engagement than rural volunteers. However, rural volunteers reported experiencing slightly higher levels of role ambiguity than urban volunteers. Other significant differences included that urban volunteers felt more satisfied with their contribution to the organization, more satisfied with their volunteer colleagues, and more satisfied with the nature of their volunteer work.

To further examine differences in the sample, open-ended responses were evaluated to identify trends. The main strengths reported by volunteers serving in urban areas included positive relationships among volunteers and generally enjoying their volunteer work. The most salient growth areas indicated by volunteers were a desire for more training and a pressing need for more volunteers. Responses from rural volunteers were also examined more closely, with rural volunteers reporting that the greatest strength of the organization was the mission itself. That is, they were drawn to the organization and continued to stay because of its focus and commitment to developing youth. Main growth areas reported by volunteers included that they needed more resources to complete their volunteer jobs, they desired increased communication from the organization, and they, like their urban counterparts, felt a desire for additional training opportunities.

Table 2

Strengths and growth areas relative to national norms and differences for urban versus rural 4-H volunteers in Nebraska

	VPA-USA National Norm	4-H Urban	4-H Rural
Nebraska 4-H Strengths Relative to National Norms			
Satisfaction with Paid Staff	79	83	82
Satisfaction with Other Volunteers	84	93*	87*
Nebraska 4-H Growth Areas Relative to National Norms			
Role Ambiguity	84	82	74
Satisfaction with Communication	80	74	75

Differences in Urban Versus Rural 4-H Volunteers			
Perception of Competence	92	94*	83*
Role Ambiguity	84	82	74
Satisfaction with Contribution	93	94*	90*
Satisfaction with Other Volunteers	84	93*	87*
Satisfaction with Nature of Work	95	96*	93*

Note: * indicates a significant difference between urban and rural volunteers at the $p < .05$ level.

These results provide the basis for further assessment to 'drill down' and examine not only why rural volunteers reported greater difficulty fulfilling their volunteer roles, but also what can be done to improve the experiences of both urban and rural volunteers in Nebraska. Specific recommendations to assist all volunteers with 4-H of Nebraska included: (a) to help volunteers feel more confident in their roles, it is recommended that greater consistency in training opportunities, both individualized and general, be offered to all volunteers, (b) due to the many diverse and dynamic roles of volunteers serving 4-H, it is recommended that some flexibility in the training structure be kept, as a 'one-size-fits- all' approach is not realistic, and (c) to address volunteer communication concerns, it may help to use multiple forms of communication to keep volunteers informed (e.g., e-mail, newsletters, social media).

Results: What VPA-UNO Learned from 4-H Volunteers. Partnering with 4-H of Nebraska provided students with opportunities to learn not only about consulting, but also about similarities and differences in urban and rural volunteers. Some of the specific lessons students learned focused on volunteer needs and motivations. First, volunteers serving 4-H clubs tend to be incredibly skilled and are passionate about sharing their knowledge with youth. They are devoted to developing young people and in spite of constraints, continue to volunteer at a high rate to facilitate learning in their communities. A prevalent issue facing volunteers in 4-H is recruitment. That is, the recruitment of more volunteers to help out is especially needed in urban areas. Although rural volunteers cited that they would welcome more volunteers into 4-H, it was identified as less of a concern. Finally, 4-H volunteers on average find a high degree of meaningfulness in the work they do. Although comprised of women and men, the majority of 4-H volunteers have children participating or who have participated in the organization in the past, and enjoy volunteering in particular because it allows them to spend time with their children.

VPA-UNO Collaboration with Nebraska Spanish-Speaking Volunteers

Translation of the VPA-UNO survey into Spanish was pursued to better serve any nonprofit organization with Spanish-speaking volunteers, regardless of urban or rural location. Of the 62.8 million people who volunteered last year, 15.5 percent of them were Hispanics (Bureau of Labor Statistics, 2014). Though many among this group are bilingual, many still struggle with English and other prefer to talk, read and write in their native tongue. Thus, to be inclusive and to give voice to this large group of volunteers, VPA-UNO felt it imperative to start providing a Spanish alternative to the English VPA-UNO assessment.

The VPA-UNO Spanish translation team consisted of three undergraduate student analysts, who spoke various dialects of Spanish. Students met twice each week for five weeks, first translating the survey into

Spanish and resolving discrepancies. The survey was then retranslated into English, students meeting again to resolve discrepancies. The translation process was supervised by the faculty advisor and a graduate student assistant director to maintain the integrity of the survey meaning. To further validate the translation process, two Spanish-speaking experts were consulted outside of UNO to provide insight and check the survey for accuracy.

Two nonprofit organizations from rural Nebraska that use Spanish-speaking volunteers to better serve the Spanish-speaking community are the Platte Valley Literacy Association (PVLA) and the Community Center for Hispanics (El Centro Hispano Comunitario), located in Columbus and Schuyler, rural cities that have seen a 10 percent increase in the number of Spanish speakers in their community over the last ten years. The PVLA provides citizenship classes, family and adult literacy classes, Spanish-language classes, and English as a Second Language classes. Their mission is to improve literacy in their community. They utilize Spanish-speaking and bilingual volunteers to work as interpreters, teaching assistants, and care for children. El Centro helps Spanish-speaking immigrants find an affordable path to citizenship by providing services at low costs to obtain the services they need. In order to provide these services, they rely on volunteers who are able to communicate in Spanish. As many volunteer organizations across the country, PVLA and El Centro participated in the VPA-UNO process in order to target their efforts going forward, ensure volunteer satisfaction, and improve volunteer retention.

Results: What VPA-UNO Learned from Spanish-speaking Volunteers and from the Translation Process. During both the survey translation and the ongoing data collection, several lessons emerged, highlighting the need for more targeted volunteer research. First, Spanish-speaking volunteers were more likely to participate in informal volunteering, which includes participating in activities that directly affect their family and friends, such as school or church functions. They are committed to helping their communities, but do not consider their experiences assisting other community members to be 'volunteer work'. Thus, clarifying the definition of volunteerism was an essential first step in order to properly survey Spanish-speaking volunteers. During translation, three Spanish-speaking undergraduate analysts worked together to translate the survey. Although all three students spoke Spanish, the diversity of Spanish dialects quickly became apparent as students worked to reconcile differences and improve question clarity. Finally, when administering the survey to organizations with large populations of Spanish-speaking volunteers, we discovered that although many volunteers speak Spanish, the number of bilingual volunteers serving these organizations is increasing, and some Spanish-speaking volunteers actually preferred to take the survey in English.

Data collection from Spanish-speaking volunteers based on the VPA-UNO assessment continues, but discussions and interviews with Spanish-speaking volunteers and their leaders have also mirrored trends in the literature. Consistent with VPA-UNO's qualitative findings, Safrit and Lopez (2001) found that volunteering among Hispanic Americans was driven by multiple factors including the influence of family, friends, community, and personal satisfaction and growth. Other themes emerging from VPA-UNO discussions are the importance of inclusivity and engagement of Spanish-speaking people to promote volunteering and civic engagement. For example, Nesbit and Brudney (2010) found that engagement of young people, particularly Hispanic and African-Americans was associated with increased volunteering, civic and political engagement, and interest in a career in government or nonprofit service. Similarly, a recent study by Bortree and Waters (2014) found that racial and ethnic inclusivity predicted the enhanced quality of volunteer relationships and a greater willingness to engage in future volunteerism.

Respectful dialogues between VPA-UNO and partners with Spanish-speaking volunteers and/or those serving Spanish-speaking clientele are ongoing to better appreciate their perspective. Though this quest is never really a stage one passes through, VPA-UNO's continued willingness to listen and try to better serve their needs have consistently resulted in positive steps towards greater understanding and collaboration.

Conclusion

VPA-UNO continues to dialogue with community partners in both urban and rural contexts and embraces a mission of respect for diversity and inclusivity. Though the VPA-UNO assessments and consultations with nonprofit and governmental agencies are effective tools for improving volunteer engagement and retention, the team has learned that the most sophisticated technologies and metrics cannot supplant the importance of building relationships based on trust and reciprocity. Moreover, VPA-UNO's goals of helping our community and enhancing deep knowledge cannot be realized without the support of a vibrant metropolitan university such as UNO.

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