Vol. 16 No. 2
2012

# Journal of Higher Education Outreach & Engagement

a publication of the Office of the Vice President for Public Service & Outreach
in collaboration with the Institute of Higher Education
The University of Georgia

# Journal of Higher Education Outreach & Engagement

## Publisher

**University of Georgia**

Office of the Vice President for
Public Service and Outreach
Jennifer Frum
Vice President

Institute of Higher Education
Libby V. Morris
Director, and
UGA Vice Provost

### Editor

Trish Kalivoda

### Library Support

Andy Carter

### Publication Assistants

Win Blair  Julia Mills
Katie Fite  Drew Pearl

# Journal of Higher Education Outreach & Engagement

Volume 16, Number 2, 2012

ISSN 1534-6102

# Table of Contents

*Journal of Higher Education Outreach and Engagement*

## Projects with Promise

© *Journal of Higher Education Outreach and Engagement*, Volume 16, Number 2, p. 1, (2012)
 ISSN 1534-6104

## *From the Editor . . .*

Faculty members are the lifeblood of any college or university. A core mission for university leadership is to protect, encourage, and support faculty so that they can fulfill their variety of roles (e.g., engaged teaching, research, and outreach; mentoring; institutional service). Support for faculty must be holistic, multidimensional, and career-stage appropriate. The *Journal of Higher Education Outreach and Engagement* (the *Journal*) is an example of a faculty development activity, which when combined with other activities (e.g., cohort-based programs, learning communities, awards, workshops, seed grants), leads to a comprehensive, career-span approach to maximizing the personal and professional development of the faculty corps.

### The *Journal of Higher Education Outreach and Engagement* as a Faculty Development Platform

The *Journal* was established to provide faculty and future faculty (graduate students) a publication venue for articles that advance theory and practice related to the still often overlooked work that faculty do to connect their scholarship, and that of their students, to the needs of communities (broadly defined). The University of Georgia (UGA), a public, land-grant, research university, is the founding and current home of the *Journal*. Its Office of the Vice President for Public Service and Outreach funds the *Journal* because its leadership believes that university-community engagement is a core mission of all colleges and universities (not just land-grant universities), and that faculty need a publication mechanism to disseminate research about their engaged scholarship and about the scholarship of engagement. While today there are minimal direct expenses associated with the *Journal* thanks to the generous support of UGA's library, which hosts the Open Journal System (the web-based platform for the online, open access format of the *Journal*), state appropriated funds support the time dedicated to the production of the *Journal* by the editor, staff, graduate assistant, and undergraduate intern. In short, UGA is committed to helping faculty members across the globe advance their university-community endeavors. By doing so, UGA has become a thought leader for the contemporary and evolving civic mission of colleges and universities.

### Career-Span Faculty Development.

As editor since 2009, I have observed that many faculty members seeking to publish in the *Journal* are unsure how to write about their university-community engagement work. Therefore, we instituted a new category called "projects with promise." In this issue, we are publishing three articles in this new category. We hope the category will help faculty members that believe that they are "on to something" with a university-community engagement activity, have taken initial steps to think about how to assess impact, have preliminary data, and have gleaned best practices or lessons learned from that data. A second new category launched in 2011 is "dissertation overviews," which will be succinct descriptions of dissertation research methods. The purpose of this category is to share quantitative, qualitative, and mixed method assessment methods that readers can learn from as they design studies to measure the impact of their university-community engagement activities. We will publish our first dissertation overviews in 2014, Volume 17. Thus, the *Journal* itself is evolving as a faculty development tool to better meet the needs of faculty and future faculty.

## The Content of 16(2): A Faculty Development Focus

Many of the articles in this issue speak directly to faculty development; others do so indirectly. In this issue, the first article discusses barriers and supports for faculty members who use service-learning as a teaching tool. The second article speaks to the preparation of future faculty. It describes a program to socialize graduate students in best practices for conducting university-community engagement activities. The third article outlines strategies for faculty members to use in building university-community relationships with diverse cultural groups.

Three essays in this issue will also be helpful to faculty. One presents innovative digital ways for faculty to disseminate their research findings, making those findings available to a broader audience (i.e., beyond an academic audience). A second essay, also focused on technology, looks at the evolution of service-learning in an online-course environment. A third introduces the reader to "relational dialectics" as a framework for thinking about the tensions that inevitably occur in university-community relationships.

The three inaugural project with promise articles explore the impact of nascent service-learning-based programs: one in urban agriculture, and one using a science shop model to match

community needs to university expertise. The third examines how service-learning activities can cultivate student leadership development.

The three book reviews in this issue give a historical context for service-learning and civic engagement. They speak to the symbiotic relationship between leadership from the top and grass-roots faculty efforts to meet higher education's civic mission. In particular, a supportive leadership is critical for providing institutionally funded faculty development related to university-community engagement. The three books are

*From Command to Community: A New Approach to Leadership Education in College and Universities* (2011, Tufts University Press, University Press of New England, which is supported by a consortium of colleges and universities) was edited by Nicholas V. Longo and Cynthia M. Gibson. Longo is an associate professor of public and community service studies at Providence College. Gibson is a senior fellow with the philanthropic initiative, and has experience with civic engagement activities for youth and with managing nonprofit organizations. One of the contributing authors to the book is Edward Zlotkowski (co-author on the third book reviewed in this issue), who writes about service-learning and student leadership. The book was reviewed by Mark Brennan, an associate professor of agricultural and extension leadership at The Pennsylvania State University.

*Collaborative Leadership in Action* (2010, Teachers College Press) is by Shelley B. Wepner and Dee Hopkins, and was reviewed by Kai Schafft, an associate professor of education at The Pennsylvania State University. Wepner is dean of the School of Education, Manhattanville College in Purchase, New York. Hopkins is dean of the College of Human Resources and Education at West Virginia University.

*Higher Education and Democracy: Essays on Service-Learning and Civic Engagement* (2011, Temple University Press). The book is edited by John Saltmarsh, director of the New England Resource Center for Higher Education at the University of Massachusetts, Boston, and Edward Zlotkowski, professor of English and media studies at Bentley University in Waltham, Massachusetts. The review is by Patti Wharton-Michael, an assistant professor at the University of Pittsburgh at Johnstown.

In summary, colleges and universities are only as good as their faculty. To inculcate values of and activities for civic engagement, higher education administrators must support and encourage their faculty. Readers of this issue can glean a variety of ideas to do just that.

## The *Journal of Higher Education Outreach and Engagement* as a Student Development Platform

Since 2009, the *Journal* has been fortunate to have the able help of graduate student Andrew (Drew) Pearl. After earning music performance degrees from Vanderbilt University (B.M.) and the University of New Mexico (M.M.), Drew came to the University of Georgia to begin the masters in public administration program, where he was selected for a graduate assistantship in the Office of the Vice President for Public Service and Outreach. He credits his work with the *Journal* as providing him with an ideal supplementary education to what he was receiving in the classroom. After completing the public administration program, Drew continued at UGA. He is now a Ph.D. student in the Institute of Higher Education, where his areas of research interest include the institutionalization of public service, outreach, and engagement at colleges and universities. Drew believes that his work with the *Journal* has directly influenced his choice to continue his education and has shaped his areas of interest.

In 2011 at The Pennsylvania State University (Penn State), Jennifer Boop began working with Associate Editor Ted Alter to manage the book review section of *Journal*. Jennifer prepared the letters and the books to be sent to identified reviewers. Once the book reviews were completed, she supported Ted in the editing process, ensuring his edits were incorporated, before reviews were returned to reviewers for revision and then sent to us at UGA. Jennifer graduated in May 2012 with a degree in agribusiness management with a minor in human development and family studies. She now works with Penn State's Cooperative Extension in Union County, Pennsylvania as the 4-H Program Educator.

This summer (2012) two undergraduate students will fill the post of book review support for Professor Alter. Grace Emmerling is a sophomore in Penn State's Schreyer Honors College. She is double majoring in economics, and community, environment and development. Grace is looking forward to developing communication, editing, and management skills in her work with the *Journal*. Kathryn Ortbal is also enrolled in the Schreyer Honors College

at Penn State. She is majoring in community, environment, and development as well as working within the Honors College to complete an integrated graduate and undergraduate degree within five years. She is interested in entrepreneurship development in rural communities.

In 2011, Charles (Win) Blair joined the *Journal*'s production staff as a University of Georgia undergraduate student intern. Win assisted in the editing and layout of manuscripts for publishing, as well as designed marketing and presentation materials. The experience exposed him to the field of research as well as to the academic journal publication process. He reported that working with the *Journal* was especially helpful when he did his own senior-year funded research, examining the role that information plays in consumer purchase decisions. After graduating from UGA in May 2012 with a degree in consumer economics, Win began working on a master of marketing research degree in UGA's Terry College of Business.

From the stories of these five students, readers can see that the University of Georgia's sponsorship of the *Journal of Higher Education Outreach and Engagement* is a faculty development mechanism as well as a means of inculcating the values of civic participation, and engaged scholarship in students – both undergraduate and graduate.

In closing, sincere thanks to all those who make the *Journal* possible including our associate editors, editorial board members, guest reviewers, and especially our production experts, Julia Mills and Katie Fite whose good humor and dedication make working with the *Journal* a pleasure and an honor.

With warmest regards,
*Trish Kalivoda*, Editor
June 2012

# Research Articles

© *Journal of Higher Education Outreach and Engagement*, Volume 16, Number 2, p. 9, (2012)
 ISSN 1534-6104

# *Voices from the Trenches: Faculty Perspectives on Support for Sustaining Service-Learning*

Kristina T. Lambright and Allison F. Alden

## Abstract

Using data collected from three colleges, the authors examine how faculty members view the level of support for service-learning at their respective institutions. There is variation among the institutions in perceived instructor and administrator support for service-learning, availability of support services, and attitudes regarding consideration of service-learning in personnel review processes. The authors also explored the degree to which individual instructors have been able to create and sustain service-learning opportunities for their students and found important differences among the colleges. The findings have implications for efforts to sustain service-learning at both faculty and institutional levels.

## Introduction

Several scholars have highlighted the crucial role that faculty play in implementing and sustaining service-learning at colleges and universities *(Bringle & Hatcher, 1995, 1996; Driscoll, 2000; Furco, 2002a; Holland, 1999)*. Because implementation of service-learning involves curricular reform, success of efforts to sustain service-learning largely depends on individual instructors *(Billig, 2002; Bringle, Hatcher, & Games, 1997)*. In fact, a key measure used to determine the degree of service-learning institutionalization within a college or university is whether a critical number of faculty members choose to integrate service-learning into their courses *(Furco, 2002b; Holland, 2006)*. There has been considerable interest in studying efforts to sustain service-learning programs at colleges and universities. Research has specifically examined institutional commitment to service *(Ward, 1996)*, models for institutionalization *(Bringle & Hatcher, 1996; Casey & Springer, 2006; Mercer & Brungardt, 2007)*, mechanisms for institutionalization and their impact on community partners *(Stater & Fotheringham, 2009; Stoecker & Tryon, 2009)*, institutional support structures *(Hinck & Brandell, 2000)*, and organizational factors influencing the institutionalization of service-learning *(Bringle & Hatcher, 2000; Holland, 1997)*. Faculty members' views on service-learning sustainability, however, are not as well understood.

Using data from three colleges, the authors build on existing research and offer insights on faculty perspectives regarding service-learning's sustainability. This investigation examined how faculty members view the level of support for service-learning at their institutions. Also explored is the degree to which individual instructors at the three colleges have been able to create and sustain service-learning. Finally, the implications of the investigation's findings for efforts to sustain service-learning at the institutional and faculty levels are considered.

## Service-Learning Sustainability and Innovation Adoption

The term "sustainability" has been used extensively within the literature on service-learning. The service-learning literature offers few attempts to define sustainability either conceptually or operationally; however, according to Billig *(2002)*,

> Sustainability is similar to institutionalization and typically refers to an innovation that endures over time. Sustainability often involves the ability to maintain or increase program efforts by building constituencies; creating strong, enduring partnerships; generating and leveraging resources; and identifying and securing funding sources that are available over time. *(p. 247)*

Today, in service-learning literature, sustainability has become nearly synonymous with *institutionalization (Billig, 2002)*. Most discussions focus on the degree to which different forms of community engagement, including service-learning, are valued by universities and how they are integrated into institutions *(e.g., Butin, 2006; Cuban & Anderson, 2007; Kramer, 2000)*. When distinctions are made in the literature between institutionalization and sustainability, the former requires formal organizational structures, while the latter can involve both formal and informal activities *(Billig, 2002)*. The investigation reported in this article focused on sustainability, recognizing that a faculty member's service-learning efforts may or may not be associated with any formal organizational structures or initiatives.

As highlighted in her definition of service-learning sustainability, Billig *(2002)*, like other scholars in the service-learning literature *(McKay & Rozee, 2004; Zlotkowski, 2000)*, views the adoption of service-learning as an instructional innovation. Drawing on the more general literature on innovations in higher education,

an "instructional innovation" may be defined as any change in teaching practice that, "although it may have been tried before in other settings, is new to the individual or group directly involved in the innovation process" *(Lane, 2001, p. 14)*. Faculty enjoy considerable autonomy within their own classrooms *(Ikenberry, 1972)*, so decisions to use instructional innovations are largely made by individual instructors. In order for service-learning to be sustainable at the campus level, individual instructors must demonstrate a commitment to using this instructional innovation.

Kozma *(1985)* identifies several characteristics of instructional innovations in higher education that offer a framework for understanding service-learning as an instructional innovation. Three key characteristics that Kozma has recognized included that: (1) most instructional innovations are not adopted; (2) instructional innovations reflect the attitudes and beliefs of the adopting faculty; and (3) instructional innovations require time and support to be effectively implemented. Studies examining the adoption of a variety of instructional innovations offer empirical support for these characteristics *(Clark, 1993; Foertsch, Millar, Squire, & Gunter, 1997; Friedman, 1982; Penberthy & Millar, 2002)*. In the next section, the authors draw on the service-learning literature to apply the characteristics of instructional innovations as identified by Kozma. The goal was to better understand the context for faculty efforts to sustain service-learning.

## Understanding the Context for Faculty Efforts to Sustain Service-Learning

Consistent with Kozma's *(1985)* assertion that adoption of instructional innovation is atypical, there is evidence that the number of faculty adopting service-learning is still limited. According to Campus Compact's 2009 annual membership survey, an average of 6% of member institutions' corps of faculty offered service-learning courses *(Campus Compact, 2009)*. Moreover, respondents in a survey of 105 Campus Compact institutional members reported that both campus administrators and students "value" service-learning more than faculty do *(Hinck & Brandell, 2000)*. Similarly, in her case study of five higher education institutions in Montana, Ward *(1996)* found that senior administrators tended to be more supportive of service-learning initiatives than faculty members.

Applying another characteristic identified by Kozma *(1985)*, faculty attitudes and beliefs often influence whether they will implement service-learning. Faculty members adopting service-learning

frequently believe this innovation improves student learning, benefits the community, and helps them fulfill their professional responsibilities *(Abes, Jackson, & Jones, 2002; Banerjee & Hausafus, 2007; McKay & Rozee, 2004)*. Faculty identify student learning outcomes as the most important reason among these beliefs motivating them to adopt service-learning *(Abes et al., 2002; Banerjee & Hausafus, 2007)*.

Corresponding to the third characteristic of instructional innovations identified by Kozma *(1985)*, time and support are needed in order to effectively implement service-learning. Barriers hindering faculty efforts to implement and sustain service-learning include concerns relating to time, logistics, and funding *(Abes et al., 2002; Banerjee & Hausafus, 2007; Holland, 1999; Stanton, 1994 Ward, 1996)*. Faculty must spend considerable time forming community partnerships, recruiting students, and managing course curricula. Release time to develop service-learning courses offers a mechanism for addressing time management concerns *(Abes et al., 2002)* and can serve as an incentive for a faculty member to use service-learning. Funding is another important incentive and is needed to pay for the direct costs of service-learning projects (e.g., travel, preparation of professional materials; *Ward, 1996)*.

In addition, support by campus personnel has been identified as a key resource for encouraging faculty members to engage in service-learning activities *(Forbes, Wasburn, Crispo, & Vandeveer, 2008)*. For instance, campus support services, including centralized offices *(Bringle & Hatcher, 1996, 2000; Bringle et al., 1997)*, can assist faculty in managing the logistical challenges of service-learning. Another source of support is encouragement from campus administrators. The value campus administrators place on service-learning is positively associated with the value faculty place on service-learning *(Hinck & Brandell, 2000)*. The support that faculty members receive from other faculty members is also critical *(Abes et al., 2002; Banerjee & Hausafus, 2007; Bringle et al., 1997)*. The first generation of faculty adopting service-learning at an institution can help recruit a second generation of faculty by participating in faculty development activities, by writing about their experiences in a disciplinary monograph or journal, and by making service-learning a focus of their research *(Bringle et al., 1997)*. Ideally, the adoption of service-learning will be a self-perpetuating process with the initial adoption of service-learning by core faculty on a campus facilitating the subsequent adoption of service-learning by other campus faculty *(McKay & Rozee, 2004)*.

Finally, personnel review processes that value service-learning are an important source of support *(Bringle et al., 1997; Holland, 1997;*

*Levine, 1994)*. Unfortunately, on many campuses, instruction is not weighted as heavily as scholarship and publication in personnel review processes *(Hannan & Silver, 2000; Lane, 2001; Tierney, 1997)*. Faculty members are often actively discouraged from investing their time in a new instructional method *(Foertsch et al., 1997; Hannan & Silver, 2000; Lane, 2001; Tierney, 1997)*. Consistent with this, one of the most widely identified barriers to faculty use of service-learning is the lack of rewards and recognition for this method within personnel review processes *(Abes et al., 2002; Banerjee & Hausafus, 2007; Forbes et al., 2008; Holland, 1999; Ward, 1996)*. However, recent empirical evidence suggests that a tenure and promotion process may not deter as many faculty from engaging in service-learning as scholars previously believed *(Abes et al., 2002; Banerjee & Hausafus, 2007)*. Abes et al. *(2002)* specifically found that only faculty at research universities viewed lack of recognition for service-learning in personnel review processes as a deterrent.

## Research Method

The purpose of this study was to learn about service-learning sustainability from a faculty perspective. The authors examined how faculty members view the level of support for service-learning at their respective institutions by focusing on formal and informal sources, including

- the institutional context for service-learning;
- incentives for using service-learning;
- instructor support, administrative support, availability of support services; and
- the value placed on service-learning in personnel review processes.

Also explored was the degree to which individual instructors were able to create and sustain service-learning opportunities for their students.

To answer the research questions, the authors studied three colleges located in the northeastern United States. These institutions were selected because of their ongoing collaboration on projects funded by Campus Compact. The names of the three colleges have been changed in order to protect the confidentiality of the institutions and study participants. The colleges varied in their size, student population, mission, and culture. College A is a publicly funded doctoral research university, College B is a community college, and College C is a small, private Christian college. Table 1 summarizes key characteristics of the three colleges.

**Table 1. Summary of Key College Characteristics**

| Characteristic | College A | College B | College C |
|---|---|---|---|
| **Number of instructors** | 889 | 418 | 35 |
| **Number of students** | 14,668 | 6,625 | 310 |
| **% of graduate students** | 20 | 0 | 0 |
| **% of Caucasian students** | 44 | 87 | 87 |
| **% of full-time students** | 93 | 64 | 70 |
| **% of in-state students** | 80 | 91 | 80 |

The close proximity of the three colleges within a small city has greatly influenced the degree to which they have communicated and collaborated. Many faculty members at College B received at least part of their education at College A. In addition, some College B adjunct instructors have full-time employment at College A, and a number of College B faculty members and administrators serve as adjunct instructors at College A. All three institutions have co-sponsored community activities.

The three college partners collaborated on three funded grants sponsored by Campus Compact. The first two grants focused on increasing the number of faculty members teaching service-learning courses, increasing the number of students engaged in community-based learning, and building the capacity to support these efforts on the three campuses. Grant funds supported faculty seminars on service-learning, access to conferences, and service-learning mentoring. The third grant funded the investigation reported in this article. The authors of this article co-directed the third project and participated in activities of the first two grants.

## Data Collection and Analysis Methods

The data sources used in this study included a survey of instructors, interviews with campus administrators and instructors, and printed and electronic documents. Institutional review board approval was obtained for the data collection protocol. In the data collection process, the authors primarily focused on learning about individual instructors' views and experiences. This information was then aggregated to assess service-learning sustainability on the three campuses from a faculty perspective.

Using a modified version of the service-learning definition developed by Abes et al. *(2002)*, this study defined service-learning as a form of experiential education in which students participated in an organized service activity that meets identified off-campus

community needs and is connected to course content and specific learning outcomes with structured reflection during class time. This definition was provided to all survey and interview participants.

## Survey of instructors.

The survey utilized closed-ended questions. Instructors were asked to indicate their level of agreement on a Likert scale with statements relating to

- their attitudes toward service-learning;
- the extent to which instructors in their department, instructors outside their department, and campus administrators were supportive of service-learning;
- the availability of support services and funding for service-learning; and
- the value placed on service-learning in personnel review processes.

In addition, instructors answered questions about aspects of their implementation of service-learning, such as

- the number of times they had taught a semester-long class with a service-learning component;
- the type of service-learning courses they had taught;
- the number of service-learning projects that they had been involved with that lasted two or more semesters;
- the number of community organizations they had partnered with and the roles that their community partners had played in their service-learning projects;
- the receipt of release time and/or funding to support their service-learning activities;
- the relevance of service-learning to their research agenda; and
- the factors that would encourage them to continue using service-learning.

## The survey instrument sample.

The administrators, staff, and faculty members familiar with service-learning policy and practices on all three campuses were asked to identify instructors who they knew had used or were

using service-learning as a teaching technique. In total, 52 service-learning instructors were identified: 31 at College A, 15 at College B, and 6 at College C. In the first electronic survey wave at Colleges A and B, instructors in the service-learning sample were asked to provide the names of other instructors they knew were currently teaching or had taught service-learning courses. Instructors in the service-learning sample at College C were not asked to do this because all six of College C's full-time instructors were identified as using service-learning. An additional seven instructors were identified as using service-learning at College A through this snowball sampling technique, and they were sent surveys. The survey was also sent to 92 randomly selected instructors at Colleges A and B in order to assess whether more instructors were using service-learning than were initially identified.

In total, 151 surveys were distributed via e-mail, and 84 usable surveys were received (46 from the service-learning sample and 38 from the random sample), representing an overall response rate of 56%. Seven instructors in the random sample at College A and four instructors in the random sample from College B indicated that they had taught at least one course with a service-learning component. The responses of these 11 instructors were added to the service-learning instructors sample for data analysis. The responses of the other instructors from the random sample were excluded. In summary, data analysis was based on characteristics of 57 survey respondents.

The survey revealed several key characteristics of the respondents who had taught at least one service-learning course:

- 63% were female;
- 77% were Caucasian;
- 53% were tenured, 33% were untenured and not on a tenure track, and the remaining 14% were untenured and on a tenure track;
- the respondents had been teaching in higher education for an average of 16 years; and
- nearly 30% belonged to a department within the social and behavioral sciences; the remainder (approximately 70%) taught in other disciplines.

**Table 2. Comparison of the Characteristics of the Study Sample and Instructor Population by Institution**

| Characteristic | College A | | College B | | College C | |
|---|---|---|---|---|---|---|
| | Study Sample | Instructor Population | Study Sample | Instructor Population | Study Sample | Instructor Population |
| % (Number) Female | 65% (24) | 41% (366) | 56% (9) | 47% (197) | 60% (3) | 50% (3) |
| % (Number) Caucasian | 75% (27) | 79% (706) | 81% (13) | 93% (388) | 80% (4) | 83% (5) |
| % (Number) Tenured/Tenure Track | 70% (25) | 55% (490) | 81% (13) | 31% (130) | 0% 0 | 0% 0 |
| % (Number) Social & Behaviroal Sciences | 25% (9) | 18% (164) | 31% (5) | 18% (76) | 40% (2) | 33% (2) |

## Interviews with campus administrators and instructors.

Two sets of interviews were conducted. First, key individuals who had administrative responsibilities and were familiar with service-learning structures, practices, and policies at their respective institutions were interviewed. In addition to having administrative responsibilities, 5 of the 14 individuals also instructed service-learning courses. Participants in these interviews were asked about faculty implementation of service-learning; faculty incentives for engaging in service-learning; centralized support capacity; the strategic plan and goals for advancing service-learning; service-learning's relationship to other campus-wide efforts; and the institutionalization of service-learning on their campus. Interview questions were based on Furco's *(2002b)* rubric for assessing the institutionalization of service-learning in higher education. In total, 14 individuals participated in the first set of interviews.

The second set of interviews was conducted with 8 instructors who had been identified during the first set of interviews as providing campus leadership for service-learning. Interviewees were from a variety of disciplines and included instructors who taught primarily undergraduate students, as well as instructors at College A who taught primarily graduate students. Interviewees were asked about faculty implementation of service-learning; faculty incentives for engaging in service-learning; the extent to which instructors in their department, instructors outside their department, and campus administrators were supportive of service-learning; the relevance of service-learning to their research agenda;

the role of their community partners in their service-learning projects; and their plans to use service-learning in the future.

### The interview process.

At the beginning of the 45-minute interviews, confidentiality was guaranteed. The interviews were audio recorded, transcribed, and coded. Initial codes were developed based on the questions included in the two interview protocols. This list of codes was then revised and augmented through an inductive process based on analysis of the interview transcripts. Detailed definitions of each code were developed in order to ensure consistent usage. Coded interview data was analyzed using QSR NVivo v. 7.0. Both memoing *(Miles & Huberman, 1994)* and pattern-matching *(Yin, 2009)* were used as part of the data analysis process.

### Document analysis.

A document analysis was conducted on print and electronic documents at the three colleges. Documents were collected through searches of each institution's website. Interviewers also asked participants in the first set of interviews to identify documents and websites that provided information about service-learning and other forms of experiential education at their respective campuses. Examples of documents reviewed included strategic plans, mission statements, annual reports, committee descriptions and minutes, personnel review process guidelines, and personnel procedures. The authors used the documents to assess the extent to which the three colleges had formal policies specific to service-learning or formalized plans for achieving campus-wide goals related to service-learning.

## Findings

The findings examine how faculty members view the level of support for service-learning at their respective institutions and explore the extent to which service-learning has been sustained at the three colleges. According to the findings, the level of support for service-learning activities as perceived by faculty was quite similar in some respects across the campuses, but differed in others. On all three campuses, there were minimal financial incentives and limited opportunities for course releases. On the other hand, perceptions regarding instructor support, administrative support, availability of support services, and the value placed on service-learning in personnel review processes varied. There was

also variation in the extent to which service-learning had been sustained at the three colleges. This section begins with descriptions of the institutional contexts for service-learning at all three institutions. Following this, the perceived level of support for service-learning activities at each institution is detailed in the following areas: incentives for using service-learning, instructor support, administrative support, availability of support services, and the value of service-learning in personnel review processes. This section concludes by discussing the extent to which individual faculty members at the three institutions have been able to create and sustain service-learning opportunities for their students. The key findings are summarized in Table 3. Both the survey and interview data were considered when making the rating determinations in Table 3.

**Table 3. Perceptions of Current Supports for Service-Learning by Institution**

| | College A | College B | College C |
|---|---|---|---|
| **Availability of Financial Incentives** | Limited (supported primarily by external funding) | Limited (supported primarily by external funding) | Limited (supported primarily by external funding) |
| **Availability of Course Releases** | Limited (supported primarily by external funding) | Very limited (supported by institutional resources) | Not available |
| **Instructor Support** | Moderately positive within departments/ limited outside departments | Strongly positive within departments/ moderately positive outside departments | Strongly positive |
| **Administrative Support** | Moderately positive | Moderately positive | Strongly positive |
| **Availability of Support Services** | Moderate | Moderate | Limited (but available services highly valued) |
| **Value of Service-Learning in Personnel Review Processes** | Valued negatively/ neutral | Neutral | Neutral |

## The institutional context.

College A is a publicly funded doctoral research university with approximately 11,500 undergraduate and 3,000 graduate students. It was the only institution with considerable research expectations for tenure-track and tenured faculty. Service-learning had been implemented for several years, but only a small number of instructors had used it. In a few departments, a number of instructors used it, while in most departments, service-learning was limited.

Based on the size of the sample for this study's survey, approximately 5% of instructors were involved in service-learning at College A. However, the percentage of instructors who were involved in service-learning may have been higher, given that 7 out of the 26 respondents in the randomly selected non-service-learning sample indicated that they had taught at least one semester-long course with a service-learning component.

A handful of campus staff performed some tasks supporting instructor service-learning efforts, in addition to their other responsibilities. These staff worked for different programs in various campus locations, and there was little coordination among these programs. As described by one interviewee,

> There's no official rule that everybody has to go through this person, and I would say there are pieces of this [service-learning] all over campus. Like there's a person that's supposed to coordinate service-learning, there's a person that coordinates volunteer efforts, there's a person that coordinates internships, there's a person with a title that is coordinator of experiential education. And they're all in different departments and they all do a specific piece.

Interviewees indicated that a significant percentage of campus service-learning activities were not filtered through any of the campus programs tasked with supporting instructor service-learning efforts. This is consistent with our observation in the sampling process that service-learning leaders at College A appear to be unaware of a significant portion of the faculty using service-learning on their campus. Interviewees also reported that staff charged with some responsibility to support service-learning had very little, if any, authority to influence the advancement of service-learning on the campus.

Serving over 6,000 students, College B is a community college. As at College A, instructors had been using service-learning for several years, and there were small pockets of faculty involved in service-learning scattered throughout the campus. In the words of one administrator, "They're very individually committed people. But they're all over our campus." Based on the size of the sample for this study's survey, approximately 4% of instructors were involved in service-learning at College B. However, the percentage of instructors who were involved in service-learning may have been higher, given that 4 out of the 12 respondents in the randomly selected

non-service-learning sample indicated that they had taught at least one semester-long course with a service-learning component.

There was minimal coordination of campus service-learning activities. One faculty member received 6 hours of release time per week to coordinate civic engagement activities. He still taught nine credit hours per semester and spent just 5% to 10% of his time coordinating service-learning and other community engagement activities. Otherwise, there was no campus coordinating agent or support staff for service-learning at College B.

College C is a private Christian college. It is considerably smaller than either College A or B, with approximately 300 students. Unlike Colleges A and B, where faculty had used service-learning for many years, College C had adopted it only within the last 2 years. Full-time instructors had enthusiastically embraced this innovation, and all six had used service-learning. Part-time instructors had not yet integrated service-learning into their classes, but there was an interest among administrators in encouraging them to do so. Service was integral to the mission of College C as a Bible college, which may help explain the rapid diffusion of service-learning among full-time faculty. In the words of an instructor,

> We've basically just been encouraged, especially to think about our educational goals and the fact that this [service-learning] fits with who we are trying to be as an institution, that trains people to think beyond themselves, that trains people to think about how we can help systems and individuals and families in our society. . . . So it's really been encouraged along the lines of a value to us given our mission as an institution.

Based on the document analysis, none of the three institutions had formal policies specific to service-learning or formalized plans for achieving campus-wide goals related to service-learning. Also as evidenced by the interviews and document analysis, there were no campus-wide mechanisms at the three institutions for monitoring the quality or quantity of service-learning.

### Incentives for using service-learning.

The incentives for instructors to engage in service-learning activities at all three institutions were primarily intrinsic rather than extrinsic. Only 41% of survey respondents had received any funding to support their service-learning activities, and just 12% had received release time. Consistent with this, only a handful

of survey respondents agreed that campus funding for service-learning activities is available, as illustrated in Table 4. Table 4 details the level of agreement survey respondents expressed in response to several statements regarding campus support for service-learning. Response information is broken down by institution.

**Table 4. Survey Results Regarding Perceptions of Current Supports for Service-Learning Efforts by Institution**

| | College A | College B | College C |
|---|---|---|---|
| **Campus funding for Service-learning activities is available.** | | | |
| % (number) disagree/strongly disagree | 31.4% (11) | 56.3% (9) | 40.0% (2) |
| % (number) neither agree nor disagree | 51.4% (18) | 31.3% (5) | 40.0% (2) |
| % (number) agree/strongly agree | 17.1% (6) | 12.5% (2) | 20.0% (1) |
| | 99.9% total | 100.1% total | |
| **Other instructors in my department are supportive of service-learning.** | | | |
| % (number) disagree/strongly disagree | 11.1% (4) | 6.3% (1) | 0% (0) |
| % (number) neither agree nor disagree | 27.8% (10) | 18.8% (3) | 20.0% (1) |
| % (number) agree/strongly agree | 61.1% (22) | 75.0% (12) | 80.0% (4) |
| | | 100.1% total | |
| **Other instructors outside my department are supportive of service-learning.** | | | |
| % (number) disagree/strongly disagree | 5.6% (2) | 6.3% (1) | 0% (0) |
| % (number) neither agree nor disagree | 55.6% (20) | 31.3% (5) | 0% (0) |
| % (number) agree/strongly agree | 38.9% (14) | 62.5% (10) | 100% (5) |
| | 100.1% total | 100.1% total | |
| **Campus administrators are supportive of service-learning.** | | | |
| % (number) disagree/strongly disagree | 8.3% (3) | 12.6% (2) | 0% (0) |
| % (number) neither agree nor disagree | 30.6% (11) | 43.8% (7) | 0% (0) |
| % (number) agree/strongly agree | 61.1% (22) | 43.8% (7) | 100% (5) |
| | | 100.2% total | |
| **Support services for instructors interested in service-learning are available on this campus.** | | | |
| % (number) disagree/strongly disagree | 20.0% (7) | 33.3% (5) | 0% (0) |
| % (number) neither agree nor disagree | 40.0% (14) | 26.7% (4) | 0% (0) |
| % (number) agree/strongly agree | 40.0% (14) | 40.0% (6) | 100% (5) |
| **Service-learning activities are valued in performance reviews and/or the tenure and promotion process on this campus.** | | | |
| % (number) disagree/strongly disagree | 47.2% (17) | 18.8% (3) | 0% (0) |
| % (number) neither agree nor disagree | 41.7% (15) | 56.3% (9) | 75.0% (3) |
| % (number) agree/strongly agree | 11.1% (4) | 25.0% (4) | 25.0% (1) |
| | | 100.1% total | |

*Respondents indicated the extent to which they agreed with the statements above.*

*Note: Totals may differ from 100% due to rounding.*

Although only limited funding and release time was available, more than three-fifths of the survey respondents at each institution indicated that both of these incentives would encourage them to continue to use service-learning, as shown in Table 5. Survey respondents were asked to rate the level of their agreement with statements describing different factors that would encourage them to continue to use service-learning. The results to this series of questions are reported in Table 5 and, as in Table 4, response information is broken down by institution.

**Table 5. Survey Results Regarding Perceptions of Current Supports for Service-Learning Efforts by Institution**

| | College A | College B | College C |
|---|---|---|---|
| **Funding to support service-learning activities.** | | | |
| % *(number) disagree/strongly disagree* | 5.6% (2) | 12.6% (2) | 0% (0) |
| % *(number) neither agree nor disagree* | 16.7% (6) | 18.8% (3) | 0% (0) |
| % *(number) agree/strongly agree* | 77.8% (28) | 68.8% (11) | 100% (5) |
| | 99.1% total | 100.2% total | |
| **Release time to support service-learning activities.** | | | |
| % *(number) disagree/strongly disagree* | 8.3% (3) | 20.0% (3) | 0% (0) |
| % *(number) neither agree nor disagree* | 30.6% (11) | 13.3% (2) | 0% (0) |
| % *(number) agree/strongly agree* | 61.1% (22) | 66.7% (10) | 100% (3) |
| **Support from other instructors in my department.** | | | |
| % *(number) disagree/strongly disagree* | 5.6% (2) | 0% (0) | 0% (0) |
| % *(number) neither agree nor disagree* | 33.3% (12) | 56.3% (9) | 40.0% (2) |
| % *(number) agree/strongly agree* | 61.1% (22) | 43.8% (7)<br>100.1% total | 60.0% (3) |
| **Support from instructors outside my department.** | | | |
| % *(number) disagree/strongly disagree* | 8.3% (3) | 0% (0) | 0% (0) |
| % *(number) neither agree nor disagree* | 55.6% (2) | 68.8% (11) | 0% (0) |
| % *(number) agree/strongly agree* | 36.1% (13) | 31.3% (5)<br>100.1% total | 100% (5) |
| **Support from campus administrators** | | | |
| % *(number) disagree/strongly disagree* | 5.7% (2) | 6.3% (1) | 0% (0) |
| % *(number) neither agree nor disagree* | 25.7% (9) | 18.8% (3) | 0% (0) |
| % *(number) agree/strongly agree* | 68.5% (24)<br>99.9% total | 75.0% (12)<br>100.1% total | 100% (5) |
| **Campus support services for instructors interested in service-learning.** | | | |
| % *(number) disagree/strongly disagree* | 5.7% (2) | 6.3% (1) | 0% (0) |
| % *(number) neither agree nor disagree* | 31.4% (11) | 18.8% (3) | 0% (0) |
| % *(number) agree/strongly agree* | 62.9% (22) | 75.0% (12)<br>100.1% total | 100% (5) |
| **Consideration of service-learning in performance reviews and/ or tenure & promotion process** | | | |
| % *(number) disagree/strongly disagree* | 8.6% (3) | 12.5% (2) | 0% (0) |
| % *(number) neither agree nor disagree* | 31.4% (11) | 31.3% (5) | 25% (1) |
| % *(number) agree/strongly agree* | 60.0% (21) | 56.3% (9)<br>100.1% total | 75% (3) |

*Respondents indicated the extent to which they agreed the following factors would encourage them to continue to use service-learning.*

*Note: Totals may differ from 100% due to rounding.*

Instead of initially being motivated by financial incentives or release time, 10 of the interviewees reported that instructors became involved in service-learning because of its educational value. Instructors believed that their students benefit from the opportunity to apply course knowledge in a real-life setting. As described by one instructor,

> I think it's [service-learning is] so valuable for the students. In any service based profession it is one thing to have knowledge, but to have the skills and disposition to be good at it and to sustain it is something that I don't believe they can learn in a classroom. I think they have to be embedded, they have to see why these are crucial elements.

Five interviewees also reported that instructors become engaged in service-learning activities in order to benefit the community. In the words of one of the instructors interviewed,

> I am completely committed to this community. I chose to move back here as an adult after living somewhere else, to say no, this is the place where family, education, it all comes together. So I feel really committed to helping this community.

Consistent with comments in the interviews:

- 95% of survey respondents agreed or strongly agreed that service-learning was a valuable pedagogical tool,
- 91% of survey respondents agreed or strongly agreed that it was important for students on their campus to participate in service-learning,
- 77% of survey respondents agreed or strongly agreed that it was important for students in their discipline to participate in service-learning, and
- 96% of survey respondents agreed or strongly agreed it was important for colleges and universities to work with communities to help them solve problems.

### Instructor support.

Instructors at Colleges B and C generally felt other instructors supported their service-learning activities. Attitudes were more mixed at College A, as shown in Table 4. More than three-fifths of survey respondents at each institution believed that instructors within their departments were supportive of service-learning. Slightly more than 60% of instructors surveyed at College B and all instructors surveyed at College C believed that instructors outside their department were supportive of service-learning. On the other hand, less than 40% of instructors surveyed at College A viewed instructors outside their departments as supportive. According to one instructor from College A,

> I don't think we have a real good infrastructure for faculty to really . . . share ideas about what works and what doesn't work. So I haven't had any formal contact or informal contact really, with other faculty about the service-learning projects outside of our college [in the university]. Within the college, yes, but not beyond [to the university].

The small Campus Compact grants helped facilitate the development of informal mentoring systems among instructors at Colleges B and C, which were sustained even after grant funding ended. These mentoring systems provided instructors new to service-learning the opportunity to learn about this method, receive advice on how to structure projects, and brainstorm solutions to problems they were experiencing. Furthermore, one interviewee at College C indicated that the informal mentoring system helped facilitate the spread of service-learning on his campus. As described by this instructor, "I think from colleague to colleague we've talked about how we've implemented these ideas . . . so it [service-learning] just has spread because we've shared in these discussions together." In contrast, though mentors were also assigned to interested faculty at College A, a comparable sustained informal mentoring system did not develop as a result of Campus Compact funding.

Four interviewees indicated that having a mentor would be extremely valuable for instructors new to service-learning. One instructor commented,

> I think the best advice I could give was have somebody experienced there to help you problem solve

> along the way. I think it [implementing service-learning for the first time] can seem overwhelming. . . . a lot of it is just putting the pieces together. And once it's in place, I think you find the success with it.

While having a mentor was highlighted in many interviews as useful for new service-learning instructors, instructor support, particularly from those outside the department, may not necessarily play a critical role in encouraging instructors to continue to use service-learning. At College B, less than a third of survey respondents indicated that support from other instructors in their department would encourage them to sustain service-learning efforts, as shown in Table 5. In addition, less than 40% of respondents at Colleges A and B agreed that support from instructors outside their department would encourage them to continue to use service-learning.

### Administrative support.

Perceptions of administrative support for service-learning varied across the three campuses. College C administrators were perceived as the most supportive. Reflecting this, all College C survey respondents either agreed or strongly agreed that campus administrators were supportive of service-learning, as indicated in Table 4. In addition to interviewees' general belief that there was administrative support, one senior administrator in particular was viewed as a champion for service-learning at College C. He initiated College C's involvement with Colleges A and B on the Campus Compact projects. He also individually recruited and strongly encouraged instructors to try service-learning, providing personalized encouragement and initial guidance. According to another administrator from College C, this senior administrator "has been the driving force behind all this [service-learning]."

Perceptions of administrative support for service-learning were more moderate at College A. Reflecting this, approximately 60% of College A survey respondents indicated that campus administrators were supportive of service-learning, as illustrated in Table 4. Several interviewees reported that senior administrators were publicly supportive of service-learning activities and had given service recognition awards for these activities. In addition, a question on service-learning had recently been added to the provost's annual faculty report. However, a number of interviewees also noted that sustaining service-learning efforts had not been a high priority for

senior administrators. In the words of one senior administrator, this reflects

> the ambivalence [senior administrators] feel about pulling faculty away from their primary research obligations. To the extent that we were using our resources to lure our faculty away from their research activities . . . if we were rewarding them financially or any other way, course reductions or whatever, for doing service-learning . . . [senior administrators] fear that they would then not get tenure or if they were already tenured that they would cease to be making the desired . . . contribution to our mission as a research university.

College B administrators were perceived as the least supportive. According to Table 4, only 44% of College B survey respondents agreed that campus administrators were supportive of service-learning. Although a few past and current administrators were verbally supportive, there had not been any successful administrative efforts to sustain service-learning at College B. Adding to uncertainty about administrator priorities, several high-level administrators had left College B recently, and the individuals filling these positions had been appointed on an interim basis. In describing the current environment at College B, one interviewee commented,

> Some of the deans are in interim positions. And they're saying, "How can we do anything until things are clear?" . . . Some people who are in an interim position . . . believe in it [service-learning] but they also have to find out what's going to happen once the new administration is in place.

Although the level of administrative support varied by institution, there was general agreement that support from campus administrators can serve as a key source of encouragement for faculty using service-learning. Based on the data reported in Table 5, more than two-thirds of survey respondents indicated that support from campus administrators would encourage them to continue to use service-learning. This finding was consistent across all three institutions.

### Support services.

Colleges A and B offered a moderate level of support services; support services were more limited at College C. According to Table 4, 40% of College A survey respondents indicated that

support services for instructors interested in service-learning are available. At College A, a few instructors had received training as part of the Campus Compact projects. In addition, campus offices had occasionally sponsored workshops on service-learning. College A was the only institution where any campus staff had responsibilities related to supporting instructor service-learning efforts. But as noted, the efforts of these staff persons were not well coordinated. Several interviewees indicated that instructors were often unaware of available support services. One interviewee from College A commented,

> I think they [support services at College A] are fragmented plus there's big gaps. . . . For instance if you're a student and you want to do a service-learning course . . . where do you go? If you're a faculty and you want to do a service-learning course . . . who do you go to? It's not outlined in a scheduled manner where . . . people know exactly what steps they have to take so it's very fragmented and . . . a lot of pieces are missing.

A few College B faculty had also participated in trainings funded by Campus Compact, and the campus office responsible for providing instructional support had periodically offered service-learning workshops. Though not centralized, the informal mentoring networks that had emerged at College B as a result of the Campus Compact projects provided another source of support. As at College A, 40% of College B survey respondents believed service-learning support services were available on their campus (Table 4).

Of the three institutions, College C offered the most modest level of support services. The only support services cited in the interviews were the handful of trainings funded by the Campus Compact grants and the informal mentoring networks emerging among instructors. Despite the limited nature of support services, all College C survey respondents agreed that service-learning support services were available on their campus, as shown in Table 4. These findings suggest that available support services, although not extensive, were viewed as extremely valuable. The informal mentoring networks may have been especially effective at College C because of the campus's small size. In the words of one instructor,

> Being a small college has its advantages. And that's one of them . . . we do share a lot. We share a heartbeat and a

> passion for the work that we do. And we're close enough to each other that we can share a lot of ideas, a lot of encouragement to try some new things.

The support services available at all three institutions, particularly those involving coordination of service-learning activities, could be expanded. Our survey results suggest that further investments in support services could help sustain service-learning efforts. More than 60% of survey respondents at each institution indicated that availability of campus support services would encourage them to use service-learning in the future, as shown in Table 5.

### Personnel review processes.

Reflecting their different missions, the three institutions emphasized different activities in their personnel review processes. Colleges B and C focused on teaching, while College A focused on research activities. As evidenced by the document analysis and interviews, none of the institutions addressed service-learning in personnel review policies.

Opinions regarding the value of service-learning in personnel review processes varied. Most interviewees at Colleges B and C either (1) were unsure how service-learning was considered or (2) believed it was not seriously considered in personnel review processes. One instructor from College B who did not believe service-learning activities were seriously considered at his college commented, "Nothing has ever been embedded in any protocols that would suggest that either a tenure recommendation or a promotion application would be influenced by your having done any service-learning." Consistent with interview findings, Table 4 indicates approximately 56% of College B survey respondents and 75% of College C survey respondents neither agreed nor disagreed that service-learning activities are valued in personnel review processes.

Instructor attitudes regarding the value of service-learning in personnel review processes were more negative at College A. Like instructors at Colleges B and C, many College A instructors were neutral regarding the value of service-learning in personnel review processes. But unlike those at the other two institutions, almost half of College A survey respondents disagreed that service-learning activities were valued, as shown in Table 4. The greater prevalence of negative attitudes may reflect that College A was the only institution with considerable research expectations for tenure-track and tenured faculty. Several interviewees indicated

that service-learning results in instructors having less time to spend on research, which discourages instructors at College A from getting involved in service-learning activities. According to one instructor at College A,

> It takes a lot of time and energy to coordinate with community agencies, to know your community, to be out in your community. It takes a lot of time and energy to help students get the knowledge that they need to function effectively in the community. And I think that those skills are not rewarded by the university. . . . They reward research. . . . If you have a system where it's [service-learning is] really well integrated then it would be easy to research it and publish it and fulfill university expectations. But unless you can figure out how to integrate that yourself, there's nobody on the campus that's helping you do that.

Capturing the same sentiments, another College A instructor reported,

> When I was serving on the university personnel committee, there were cases that would come up when a faculty member was really contributing a lot of time . . . to different kinds of service-learning activities. And the general discussion on those candidacies often focused on needing to shift their attention from that kind of work to more traditional teaching and research activity. So there was really a community sense on that committee that people who engage in service-learning in a big way were really taking away time from the activities that they should have been focusing on.

When asked what advice she would give an instructor new to service-learning, one College A instructor bluntly replied that she would tell them to avoid service-learning if their goal was to become a tenured faculty member at College A. This instructor indicated that she had decided to take a non-tenure-track position in order to avoid worrying that she would not be able to meet the university's research expectations. In fact, 86% of survey respondents from College A were either not in a tenure-track position or had already received tenure.

The study findings suggest that consideration of service-learning in personnel review processes can influence whether

faculty sustain service-learning efforts. As shown in Table 5, a majority of those surveyed from all three institutions indicated that consideration of service-learning in personnel review processes would encourage them to continue using service-learning.

## Service-learning sustainability.

Community partners played a sustained, vibrant role in service-learning at all three institutions. More than 75% of survey respondents at each institution indicated that community partners have had input in the development and implementation of their service-learning projects. Based on the interviews, the specific responsibilities of community partners varied according to the service-learning project's content. For example, one of the interviewees had her students serve as mentors to at-risk youth. In this case, the community partner identified the at-risk youth, helped match the youth with mentors, and developed a schedule for the mentors. Another interviewee who taught management classes had her students act as consultants to different community organizations. Community partners involved in these initiatives helped the student consultant teams with project selection and oversaw the teams. The majority of survey respondents at each institution also indicated that community partners have provided them with feedback about their projects and that they have maintained communication with community partners following project completion.

Although most survey respondents reported that community partners actively participated in their service-learning projects, community partners were not necessarily closely involved in course instruction. The level of involvement of community partners as course instructors varied considerably across the three institutions. At College C, 80% of survey respondents regarded community partners as co-instructors, while less than half of the survey respondents at both Colleges A and B believed that their community partners played this role. One of the instructors interviewed from College A specifically indicated that he was interested in having community partners play a more active role in the classroom and commented,

> What I would love to do is involve community partners in the classroom as part of the education experience so that there would be a real breakdown of students versus community partners and where the whole activity would be one of engagement and quality between students, community partners, and the faculty member.

Two other interviewees reported that they would like to develop more formalized mechanisms for community partners to provide feedback about their experiences with service-learning projects in order to deepen the partners' involvement.

In addition to providing information on the role community partners play in service-learning projects, the survey offers insights into the depth of instructor involvement in service-learning activities at the three institutions. Although only a small percentage of all faculty members were currently involved in service-learning at Colleges A and B, the survey results indicated that these individual instructors have demonstrated a sustained commitment to service-learning. The majority of survey respondents from Colleges A and B had taught a semester-long class with a service-learning component four or more times and had partnered with at least four community organizations as part of their service-learning activities. Moreover, roughly 61% of College A survey respondents and 38% of College B survey respondents had been involved in projects that lasted two or more semesters. Reflecting the fact that service-learning is relatively new at College C, only one survey respondent from this institution had taught four or more service-learning courses. However, given the strong support for service-learning among instructors and administrators at College C, there was also potential for a sustained commitment at this institution in the future.

## Discussion

Using a case study approach, we assessed service-learning's sustainability at three colleges from the perspective of faculty members. We specifically investigated instructors' views on support for service-learning at their respective institutions and the extent to which individual faculty members have demonstrated a sustained commitment to service-learning. At all three institutions, there were limited financial incentives for instructors to adopt service-learning, and the few available financial incentives were primarily funded by external sources, rather than through institutional resources. In addition, the three colleges offered minimal opportunities for course releases. There was greater variation among institutions, however, in perceived faculty and administrative support, as well as in the availability of support services. Perceived faculty and administrator support for service-learning was strong at College C but more moderate at Colleges A and B. On the other hand, Colleges A and B had a moderate level of support services, while support services were more limited at College C. Views on

the value of service-learning in personnel review processes also varied. The attitudes of instructors at College A regarding consideration of service-learning in personnel review processes were more negative than those at Colleges B and C. Finally, there were differences in the extent of instructors' success in creating and sustaining service-learning opportunities for their students. Service-learning was a relatively new instructional tool at College C. In contrast, a small number of instructors at both Colleges A and B had used service-learning for a number of years. Although service-learning was not a widespread practice at either College A or B, the individual instructors with service-learning experience demonstrated a sustained commitment to this pedagogical approach.

This study's research design offers some important advantages. The mixed methods approach yielded rich qualitative data that provided insights into the survey findings. The interview format may have made it easier to discuss some sensitive issues involved in this study because interviewers could personally guarantee informants' confidentiality.

## Limitations of the Study

Although this study's research design has some benefits, it also has limitations. The generalizability of the findings may be limited because the study focused solely on service-learning's sustainability at three institutions located in the same geographic region. However, since the three colleges serve very different populations, concerns about external validity may be minimized.

## Implications for Future Research

The study findings have several important implications. First, the case studies are consistent with other research and illustrate that context matters. Religious institutions may be particularly receptive to service-learning due to the emphasis many of these institutions place on service. This may help explain the rapid diffusion of service-learning among full-time faculty at College C. At religious institutions, service-learning may be one of many mechanisms used to help students serve surrounding communities. These findings are consistent with research by Holland *(1997)* indicating that institutions with a religious affiliation demonstrate higher levels of institutional commitment to service more quickly than their secular counterparts. College C's small size may have also helped facilitate the rapid diffusion of service-learning on this campus. Future research should continue to explore the impact that

both religious affiliation and institutional size may have on service-learning implementation.

In addition, context matters when considering how faculty view the value placed on service-learning activities in personnel review processes. College A was the only institution where a large percentage of instructors disagreed that service-learning was valued in personnel review processes. It was also the only institution where faculty had substantial research expectations. These findings, which correspond with conclusions by Abes et al. *(2002)*, suggest that personnel review processes may more likely be viewed as a barrier to sustaining service-learning efforts at institutions where research productivity is prioritized. More research is needed on whether the extent to which personnel review processes are viewed as a barrier to service-learning varies across different types of institutions. According to Bloomgarden and O'Meara *(2007)*, it will be easier for faculty who link community-based projects with their research and teaching to sustain their community activities. Research universities interested in promoting service-learning may want to assist faculty in integrating service-learning with their research agenda, so that these activities ultimately lead to publication. Institutions that implement different strategies encouraging faculty to incorporate service-learning into their research should carefully track the efficacy of these strategies and publish the results on this research in order to enhance knowledge about best practices.

## Faculty-Level Recommendations

Also based on this study's findings, institutions may want to encourage mentoring relationships to provide support to instructors new to service-learning. While none of the institutions in this study had an effective campus-wide coordination mechanism, informal mentoring networks among instructors had developed at both Colleges B and C. Many interviewees indicated that mentors can serve as valuable information resources and help with problem solving. Scholars have emphasized the importance of having a centralized office for coordinating service-learning activities *(Bringle & Hatcher, 1996, 2000; Bringle et al., 1997)*. However, supporting an effective centralized coordinating unit requires a substantial institutional monetary investment. When institutional resources are not available for centralized coordination, these findings suggest that informal support, such as the development of mentoring relationships, may effectively fill some of the void left by a lack of formal support services. This strategy may be particularly viable at smaller colleges where the environment is more intimate and coordination across different academic departments is less complicated.

## Recommendations for Institutional Responses

Although faculty support was identified as particularly helpful for instructors new to service-learning, it may be less important for veteran service-learning instructors. Instead, we identify supportive campus administrators as a key factor encouraging instructors to continue their service-learning efforts. Public declarations promoting service-learning, however, are not sufficient to convince many instructors that campus administrators are truly supportive and that their use of this teaching approach will be rewarded. At the one institution where there was a consensus among instructors that campus administrators were encouraging, one campus administrator had served as a champion for service-learning. He played a central role in securing grant funding and personally supported instructors in their service-learning activities.

In addition to support from campus administrators, we found that campus support services can motivate instructors to continue to use service-learning. However, the *presence* of support services does not necessarily mean that faculty members know they are available. Many instructors at College A were unaware of available support services, suggesting that some institutions may need more effective dissemination of information. Universities interested in encouraging the use of service-learning may want to specifically focus on providing support services that educate faculty on how to most effectively present their service-learning activities in personnel review processes. Other important institutional factors encouraging instructors to sustain their service-learning efforts identified by this research include providing funding and release time to support service-learning activities and valuing service-learning in personnel review processes.

## The Importance of Individual Instructor Commitment

Finally, our findings have implications regarding the support necessary to implement service-learning, as well as instructional innovations in general. As highlighted in our conceptual framework, Kozma *(1985)* emphasizes that instructional innovations reflect the attitudes and beliefs of the adopting faculty and require support to be effectively implemented. Our findings are generally consistent with Kozma's assertions; however, our study does suggest that individual instructors who are ideologically committed to a particular instructional innovation like service-learning may be able to demonstrate a sustained commitment to that innovation, even absent a high level of institutional support. Support for

service-learning could be strengthened in a variety of areas at Colleges A and B. Nonetheless, the vast majority of survey respondents at these two institutions believed that service-learning offers valuable educational benefits and that it is important for colleges to work with communities to help them solve problems. Reflecting their ideological support for service-learning, many instructors among the small cadre of faculty who use service-learning at Colleges A and B had taught several service-learning courses and had been involved in service-learning projects that lasted multiple semesters. Many instructors had also worked closely with community partners to design and implement service-learning projects.

Among instructors using service-learning at Colleges A and B, the lack of institutional support did not seem to inhibit their sustained commitment to this innovation. However, it is unknown how many other instructors at these two institutions had been discouraged from using service-learning at least partially due to the lack of institutional support. In the future, will more faculty become involved with service-learning at these institutions, or will instructor involvement plateau without the influx of additional resources and support? More research is needed on how individual instructor commitment to service-learning can be translated into strong commitment at an institutional level. A greater understanding of these processes will be valuable to institutions interested in creating environments conducive to sustaining service-learning.

## Conclusion

This article presents the results of an examination of faculty views of support for service-learning at their respective institutions. Past research on service-learning institutionalization has tended to focus on larger research universities. The institutions included in this study varied in their size, mission, and culture. This article suggests that organizational characteristics can influence faculty members' experiences with service-learning. Specifically, religious affiliation, institutional size, and institutional emphasis on research may influence efforts to sustain service-learning. The findings also suggest that informal support such as mentoring faculty new to service-learning can complement more formalized forms of institutional support. Finally, our findings highlight the critical role that individual instructor commitment can play in sustaining service-learning.

## References

Abes, E. S., Jackson, G., & Jones, S. R. (2002). Factors that motivate and deter faculty use of service-learning. *Michigan Journal of Community Service Learning, 9*, 5–17.

Banerjee, M., & Hausafus, C. O. (2007). Faculty use of service-learning: Perceptions, motivations, and impediments for the human sciences. *Michigan Journal of Community Service Learning, 14*, 32–45.

Billig, S. H. (2002). Adoption, implementation, and sustainability of K-12 service-learning. In A. Furco & S. H. Billig (Eds.), *Service-learning: The essence of the pedagogy* (pp. 245–267). Greenwich, CT: Information Age Publishing.

Bloomgarden, A. H., & O'Meara, K. A. (2007). Faculty role integration and community engagement: Harmony or cacophony? *Michigan Journal of Community Service Learning, 13*, 5–18.

Bringle, R., & Hatcher, J. (1995). A service-leaning curriculum for faculty. *Michigan Journal of Community Service Learning, 2*, 112–122.

Bringle, R., & Hatcher, J. (1996). Implementing service learning in higher education. *Journal of Higher Education, 67*, 221–239.

Bringle, R. G., & Hatcher, J. A. (2000). Institutionalization of service learning in higher education. *The Journal of Higher Education, 71*, 273–290.

Bringle, R. G., Hatcher, J. A., & Games, R. (1997). Engaging and supporting faculty in service learning. *Journal of Public Service and Outreach, 2*, 43–51.

Butin, D. W. (2006). Disciplining service learning: Institutionalization and the case for community studies. *International Journal of Teaching and Learning in Higher Education, 18*(1), 57–64.

Campus Compact. (2009). 2009 annual membership survey results: Executive summary. Retrieved from http://www.compact.org/wp-content/uploads/2008/11/2009_CC_Annual_Survey_Exec_Summary.pdf

Casey, K. M., & Springer, N. C. (2006). Ancillary to integral: Momentum to institutionalize service-learning and civic engagement. In K. M. Casey, G. Davidson, S. H. Billig, & N. C. Springer (Eds.), *Advancing knowledge in service-learning: Research to transform the field* (pp. 207–222). Greenwich, CT: Information Age Publishing.

Clark, T. (1993). Attitudes of higher education faculty toward distance education: A national survey. *The American Journal of Distance Education, 7*, 19–33.

Cuban, S., & Anderson, J. (2007). Where's the justice in service-learning? Institutionalizing service-learning from a social justice perspective at a Jesuit university. *Equity & Excellence in Education, 40*, 144–155.

Driscoll, A. (2000). Studying faculty and service-learning: Directions for inquiry and development. *Michigan Journal of Community Service-Learning, Special Issue*, 35–41.

Foertsch, J., Millar, S. B., Squire, L., & Gunter, R. (1997). *Persuading professors: A study of the dissemination of educational reform in research institutions*. Washington, DC: National Science Foundation's Directorate of Education and Human Resources, Division of Research, Evaluation, and Communication.

Forbes, B. A., Wasburn, M. A., Crispo, A. W., & Vandeveer, R. C. (2008). Teaching service-learning: What's in it for faculty at research universities. *Journal of Higher Education Outreach and Engagement, 12*, 29–44.

Friedman, C. P. (1982). Factors affecting adoption of instructional innovations: An example from medical education. *Research in Higher Education, 16*, 291–302.

Furco, A. (2002a). Institutionalizing service learning in higher education. *The Journal of Public Affairs, 1*, 39–68.

Furco, A. (2002b). *Self-assessment rubric for the institutionalization of service-learning in higher education*. Berkeley, CA: University of California.

Hannan, A., & Silver, H. (2000). *Innovating in higher education: Teaching, learning, and institutional cultures*. Buckingham, UK, and Philadelphia, PA: The Society for Research into Higher Education and Open University Press.

Hinck, S. S., & Brandell, M. E. (2000). The relationship between institutional support and campus acceptance of academic service learning. *American Behavioral Scientist, 43*, 868–881.

Holland, B. (1997). Analyzing institutional commitment to service: A model of key organizational factors. *Michigan Journal of Community Service Learning, 4*, 30–41.

Holland, B. A. (1999). Factors and strategies that influence faculty involvement in public service. *Journal of Public Service and Outreach, 4*(1), 37–43.

Holland, B. A. (2006). *Levels of commitment to community engagement, characterized by key organizational factors evidencing relevance to institutional mission* [Matrix]. Retrieved November 9, 2007, from http://www.henceonline.org/resources/institutional

Ikenberry, S. (1972). The organizational dilemma. *Journal of Higher Education, 43*, 23–34.

Kozma, R. B. (1985). A grounded theory of instructional innovation in higher education. *The Journal of Higher Education, 56*(3), 300–319.

Kramer, M. (2000). *Make it last forever: The institutionalization of service learning in America*. Washington, DC: Corporation for National Service.

Lane, J. L. (2001). *Teaching and learning innovations in higher education: Faculty perceptions of sustainability* (Unpublished doctoral dissertation). The Pennsylvania State University, University Park, PA.

Levine, M.A. (1994). Seven steps to getting faculty involved in service learning: How a traditional faculty member came to teach a course on "voluntarism, community, and citizenship." *Michigan Journal of Community Service Learning, 1*, 110-114.

McKay, V. C., & Rozee, P. D. (2004). Characteristics of faculty who adopt community service learning pedagogy. *Michigan Journal of Community Service Learning, 11*, 21–33.

Mercer, D.K., & Brungardt, C. (2007). Case study: Institutionalizing service-learning at Fort Hays University. *National Civic Review, 96*, 52-54.

Miles, M. B., & Huberman, M. A. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Penberthy, D. L., & Millar, S. B. (2002). The "hands-off" as a flawed approach to disseminating innovation: Lessons from chemistry. *Innovative Higher Education, 26*, 251–270.

Stanton, T. (1994). The experience of faculty participants in an instructional development seminar on service-learning. *Michigan Journal of Community Service Learning, 1*, 7-20.

Stater, K. J., & Fotheringham, E. (2009). Mechanisms for institutionalizing service-learning and community partner outcomes. *Journal of Higher Education Outreach and Engagement, 13*, 7–30.

Stoecker, R., & Tryon, E. A. (2009). *The unheard voices: Community organizations and service learning*. Philadelphia, PA: Temple University Press.

Tierney, W. G. (1997). Organizational socialization in higher education. *The Journal of Higher Education, 68*, 1–16.

Ward, K. (1998). *Addressing academic culture: Service-learning, organizations, and faculty work*. In R. Rhoads & J. Howard (Eds.), *Academic service learning: A pedagogy of action and reflection* (pp. 73–80). San Francisco, CA: Jossey-Bass.

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage Publications.

Zlotkowski, E. (2000). Service learning and the engaged department: A strategy with many uses. In Ann F. Lucas (Ed.), *Leading academic change: Essential roles for department chairs* (pp. 195–214). San Francisco, CA: Jossey-Bass.

## About the Authors

**Kristina T. Lambright** is an assistant professor of public administration at Binghamton University's College of Community and Public Affairs. Her research interests include service-learning, engaged scholarship, contracting, monitoring social service delivery systems, and organizational performance. Lambright earned her bachelor's degree from Dartmouth College and her master's degree and Ph.D. in public administration from Syracuse University.

**Allison F. Alden** is the founding director of Binghamton University's Center for Civic Engagement. Her research interests include organizational collaborations, community development, service-learning, and engaged scholarship. Alden earned her bachelor's degree in Anthropology, her master's degree in Social Studies Education, and her Ed.D. in theory to practice from the school of education at Binghamton University.

# Appendix 1. Survey Instrument

For the purposes of this survey, service-learning is defined as:

A form of experiential education characterized by ALL of the following conditions: student participation in an ORGANIZED SERVICE ACTIVITY that meets identified OFF-CAMPUS COMMUNITY NEEDS and is connected to COURSE CONTENT and SPECIFIC LEARNING OUTCOMES with STRUCTURED REFLECTION DURING CLASS TIME (modified definition from Abes, Jackson, and Jones, 2002).

For questions 1–10, please indicate the extent to which you agree with the statements below using the following scale:

1 = Strongly disagree
2 = Disagree
3 = Neither agree nor disagree
4 = Agree
5 = Strongly agree

**For all survey respondents.**

| | | | | | |
|---|---|---|---|---|---|
| 1. Service-learning is a valuable pedagogical tool. | 1 | 2 | 3 | 4 | 5 |
| 2. It is important for students ON THIS CAMPUS to participate in service-learning. | 1 | 2 | 3 | 4 | 5 |
| 3. It is important for students IN MY DISCIPLINE to participate in service-learning as part of their training. | 1 | 2 | 3 | 4 | 5 |
| 4. It is important for colleges and universities to work with communities to help them solve problems. | 1 | 2 | 3 | 4 | 5 |
| 5. Other instructors IN MY DEPARTMENT are supportive of service-learning. | 1 | 2 | 3 | 4 | 5 |
| 6. Instructors OUTSIDE MY DEPARTMENT are supportive of service-learning. | 1 | 2 | 3 | 4 | 5 |
| 7. Campus administrators are supportive of service-learning. | 1 | 2 | 3 | 4 | 5 |
| 8. Support services for instructors interested in service-learning are available on this campus. | 1 | 2 | 3 | 4 | 5 |
| 9. Campus funding for service-learning activities is available. | 1 | 2 | 3 | 4 | 5 |
| 10. Service-learning activities are valued in performance reviews and/or the tenure and promotion process on this campus. | 1 | 2 | 3 | 4 | 5 |

11. How relevant is service-learning to your research agenda?

☐ Not at all relevant
☐ Somewhat relevant
☐ Very relevant
☐ Not applicable

12. How many times have you taught a semester-long class with a service-learning component?

- ☐ 0
- ☐ 1-3
- ☐ 4-6
- ☐ 7-9
- ☐ 10 or more

13. What is your faculty rank?

- ☐ Full professor
- ☐ Associate professor
- ☐ Assistant professor
- ☐ Adjunct professor
- ☐ Lecturer/instructor

14. What is your tenure status?

- ☐ Tenured
- ☐ Untenured, on tenure track
- ☐ Untenured, not on tenure track

15. In which academic discipline do you currently teach?

- ☐ Humanities
- ☐ Social & behavioral sciences
- ☐ Physical & biological sciences
- ☐ Math, engineering, computer science, technology
- ☐ Business
- ☐ Social work, education, human ecology, agriculture
- ☐ Arts
- ☐ Health professions
- ☐ Religious instruction
- ☐ Other

16. At which institution do you currently teach?

- ☐ College A
- ☐ College B
- ☐ College C

17. How many years have you been teaching at the college/university level? _____

18. What is your gender?

☐ Male
☐ Female

19. What is your race/ethnicity? Please select one.

☐ African-American
☐ American Indian/Alaskan Native
☐ Asian/Pacific Islander
☐ Caucasian
☐ Hispanic
☐ Multiracial
☐ Other

**Only for instructors who taught a service-learning course.** Only individuals who selected a choice other than "0" for question 12 were asked the following survey questions.

20. What types of course have you taught that fit our definition of service-learning? Check all that apply.

☐ Practicum
☐ Capstone project
☐ Internship
☐ Other type of course
☐ Other (please specify)

21. How many service-learning projects have you been involved in that have lasted TWO OR MORE SEMESTERS?

☐ 0
☐ 1-3
☐ 4-6
☐ 7-9
☐ 10 or more

22. How many community organizations have you partnered with as part of your service-learning activities?

☐ 0
☐ 1-3
☐ 4-6
☐ 7-9
☐ 10 or more

23. What funding have you received to support your service-learning activities? Please check all that apply.

☐ I have never received funding to support my service-learning activities.
☐ College/university funding
☐ External funding

24. Have you received release time to support your service-learning activities?

☐ Yes
☐ No

For questions 25–29, please indicate the extent to which you agree with the statements below using the following scale:

1 = Strongly disagree
2 = Disagree
3 = Neither agree nor disagree
4 = Agree
5 = Strongly agree

| | | | | | |
|---|---|---|---|---|---|
| 25. My community partners have had input in the DEVELOPMENT of my service-learning projects. | 1 | 2 | 3 | 4 | 5 |
| 26. My community partners have had input in the IMPLEMENTATION of my service-learning projects. | 1 | 2 | 3 | 4 | 5 |
| 27. I regard my community partners as co-instructors in my courses with a service-learning component. | 1 | 2 | 3 | 4 | 5 |
| 28. My community partners have provided me with feedback about my service-learning projects following project completion. | 1 | 2 | 3 | 4 | 5 |
| 29. I have maintained communication with my community partners following completion of the service-learning projects in which the partners were involved. | 1 | 2 | 3 | 4 | 5 |

# Appendix 2. First Interview Protocol

*Faculty Implementation*

1. How widespread is the practice of service-learning among the faculty on this campus? Provide specific examples.
2. Which faculty members provide leadership for service-learning on the campus?

*Faculty Incentives*

3. In what ways are faculty encouraged and/or rewarded by the campus for engaging in service-learning?
4. How seriously are community-based learning and service-learning activities considered in the review, promotion, and tenure or performance/contract reviews of faculty? Provide specific examples.
5. To what extent do "official" campus policies for promotion, review, and tenure or performance/contract reviews address service-learning?

*Centralized Support Capacity*

6. What is the coordinating agent for service-learning on the campus?
7. What percentage of all service-learning activities on the campus are coordinated, monitored, and/or filtered through this coordinating agent?
8. In terms of the status of their position, how much authority does the service-learning staff have to influence the advancement and institutionalization of service-learning on the campus?
9. What formal policies exist on your campus regarding service-learning? Provide specific examples.

*Macro-Level Anchors*

10. What are the primary components of the strategic plan for advancing service-learning on this campus?
11. What are the short- and long-range goals for service-learning on this campus?
12. With which campus-wide efforts is service-learning connected?

*Institutionalization of Service-Learning*

13. How is service-learning financially supported on this campus? What are the sources of funding (hard money, soft money, etc.)?
14. How have the chief administrators supported the advancement and/or institutionalization of service-learning on this campus? Provide specific examples.
15. How is the quality of this campus's service-learning activities monitored?

*Follow-up for Document Analysis*

What documents, websites, or other sources can you recommend that provide some explanations and details that may pertain to service-learning on your campus?

# Appendix 3. Second Interview Protocol

1. How did you first become involved in service-learning?

2. How widespread is the practice of service-learning among the faculty on this campus?

3. In what ways are faculty encouraged and/or rewarded by the campus for engaging in service-learning?

4. How supportive of service-learning are other instructors in your department? Provide specific examples.

5. How supportive of service-learning are instructors outside of your department? Provide specific examples.

6. How supportive of service-learning are campus administrators? Provide specific examples.

7. To what extent are support services available on this campus for instructors interested in service-learning?

8. Have you received funding to support your service-learning activities? If so, from where did you receive this funding and how much funding did you receive? To what extent did this funding encourage you to continue to use service-learning?

9. Have you received release time to support your service-learning activities? If so, how much release time? How was it paid for? To what extent did this release time encourage you to continue to use service-learning?

10. How seriously are community-based learning and service-learning activities considered in the review, promotion, and tenure or performance/contract reviews of faculty? How does this impact faculty decisions to participate in service-learning?

11. Explain the relevance of service-learning to your research agenda.

12. Describe the role that your community partners have typically played in your service-learning projects. How, if at all, would you like to expand the role of your community partners?

13. Do you plan to continue to use service-learning in the future? Why or why not?

14. (Only for faculty planning to continue to use service-learning in the future) What, if anything, might prevent you from using service-learning in the future?

15. What advice would you give regarding service-learning to a new faculty member just starting out? Why?

© *Journal of Higher Education Outreach and Engagement*, Volume 16, Number 2, p. 47, (2012)
 ISSN 1534-6104

# *The Impact of a University-Based School Science Outreach Program on Graduate Student Participants' Career Paths and Professional Socialization*

Sandra L. Laursen, Heather Thiry, and Carrie S. Liston

## Abstract

Drawing on professional socialization theory, this study examined how immersive experiences as science outreach educators in K-12 schools influenced the career paths and professional identities of science and engineering graduate students. Semi-structured interviews with 24 outreach program alumni revealed that school outreach experiences provided three important elements of professional socialization: specialized knowledge and skills needed to succeed in the profession; direct involvement with the profession's activities, colleagues, and personal meanings; and personal investment in the role and status of the profession. Outreach involvement exerted different patterns of influence on career paths. For some students, outreach participation confirmed career intentions, and provided knowledge and skills needed to succeed in the chosen path. For others, participation facilitated a change in career direction by providing low-risk opportunities to explore an alternate career and discover new career options.

## Introduction

The role of science and engineering graduate students in university outreach and community engagement has received increased attention in the United States. Three parallel trends in higher education influence this heightened attention. First, within the science, technology, engineering, and mathematics (STEM) disciplines, national leaders have called on scientists to improve the quality of science education, and strengthen public science literacy by engaging with schools and citizens *(e.g., Alberts, 1991; Colwell & Kelly, 1999)*, and federal science agencies have incorporated this expectation into their granting mechanisms *(e.g., NSF, 2003; NASA, 2008)*. In response to these prompts, scientists and educators have developed programs and partnerships to reach children and adults, and universities and research institutes have established outreach offices and staff positions to carry out these activities *(Dolan, 2008; Franks, McDonnell, Peach, Simms, & Thorrold, 2006)*.

Concern about graduate education is a second relevant trend. Calls for graduate education to better respond to the needs of both doctoral students and society have issued from several quarters *(e.g., CPSMA, 2000; COSEPUP, 1995; Greene, Hardy, & Smith, 1996; Golde & Walker, 2006)*. Research documents gaps between the preparation that graduate students receive and the demands of their future careers *(Golde & Dore, 2001; Smith, Pedersen-Gallegos, & Riegle-Crumb, 2002; Nyquist et al., 1999)*. National initiatives recommend that graduate students have the opportunity to develop and recognize transferable skills, prepare for a variety of careers, and develop scholarly interests that address societal needs *(e.g., Gaff, Pruitt-Logan, & Weibl, 2000; Walker, 2004; Weisbuch, 2004)*. For future faculty, this includes preparing for teaching and outreach roles as well as for research and creative work.

A third trend is the movement surrounding community engagement of universities. As traced by Sandmann *(2008)*, the notion of "engagement" was initially a reframing of how universities could meet historical commitments to society. Campus leaders called for bidirectional reciprocity in universities' work with communities, rather than one-way extension of university resources from "gown to town." Recognizing that, to succeed, this commitment must also align with faculty values and university rewards systems, scholars and leaders have articulated a vision for outreach and engagement as scholarly expression that integrates research, teaching, and service.

To date, little attention has been given to how these three developments may join forces. As O'Meara and Jaeger *(2006)* point out, links between national conversations about higher education's public mission and graduate education have been inadequate. Nonetheless, they note, graduate students' involvement in outreach and engagement promotes their professional growth as they learn skills, deepen and apply their knowledge, and make meaningful connections. Further, the university is obligated to prepare faculty and students to carry out its civic mission. Yet the research focus of universities where most graduate education is conducted tends to privilege individualism over collaboration, specialization over breadth, and basic over applied research *(O'Meara & Jaeger, 2006)*. Faculty reward structures emphasize research and external funding over other paths to excellence, sending conflicting messages about the importance of the university's public mission. As graduate students are socialized in this environment, these values are thus perpetuated.

A decade ago, these three trends converged in the National Science Foundation's (NSF's) Graduate Teaching Fellows in K-12 Education program (GK-12 program). The GK-12 program aimed to help graduate students acquire professional skills; to enhance STEM learning and instruction in schools; to strengthen and sustain partnerships between K-12 and STEM higher education; and to make these activities routine *(NSF, 2007)* Thus, the intent was not just to support the education of individuals, but to have lasting institutional impact on both university-community collaboration and STEM graduate education. GK-12 projects have documented benefits to graduate fellows, K-12 teachers, and schoolchildren *(Gilmer, Granger, & Butler, 2005; Mitchell et al., 2003; Stamp & O'Brien, 2005; Thompson, Collins, Metzgar, Joeston, & Shepherd, 2002; Trautmann & Krasny, 2006)*. But whether GK-12 programs have made a lasting impact on their institutions or on patterns of graduate education is unknown. Also of interest is the longer-term impact on graduate student participants: How does this experience change their career outlook and career choices? For those who later become faculty, what is the influence on their practices in teaching, outreach, or mentoring of graduate students?

In this article, the authors consider the convergence of these disciplinary, educational, and public service goals in a university outreach program that offers science education enrichment to K-12 students through classroom visits by trained science and engineering graduate students. The study examines both short-term outcomes of graduate students' participation in the outreach program, and the influence of participation on their later career trajectories. Drawing on professional socialization theory, the authors show how the outreach program socializes graduate students into teaching and engagement roles for scientists that were not otherwise available in their degree programs. In contrast to most studies of graduate student socialization, which focus on formal degree programs, this study examines an extra-departmental program.

## Conceptual Framework

As theoretical underpinning, the authors looked to the framework of Weidman, Twale, and Stein *(2001)* on graduate student socialization, based on Thornton and Nardi's framework for role acquisition *(1975)*. Professional socialization includes development of the knowledge, skills, beliefs, and values that prepare new Ph.D.s to enter the profession *(Weidman et al., 2001)*. Individuals learn not only the formal policies and rules of their profession, but

also shared informal expectations and norms *(Schutz, 1970)*. Thus professional socialization is a "ritualized process that involves the transmission of culture" *(Tierney & Rhoads, 1993, p. 21)*; a two-way, adaptive process by which both individuals and the profession are influenced.

Through socialization processes, science graduate students are enculturated into their disciplines, the values shared by their specific fields and academic work at large, and the broader values of science, which bear upon their persistence, success, and career outcomes. Weidman and colleagues *(2001; Weidman & Stein, 2003)* describe three core elements of graduate socialization: (1) acquisition of knowledge and skills; (2) involvement in the professional role as a practicing novice; and (3) investment, which includes commitment to the role, adoption of its expectations, and professional sponsorship. Cognitive dimensions of the professional role—knowledge and skills—may be transmitted through formal instruction and are often explicit in departmental goals, while affective and integrative dimensions are more implicit and are transmitted through informal processes such as interpersonal interactions and general climate.

Antony *(2003)* criticizes socialization theory for the assumption that, to succeed, an individual must adopt the profession's norms and values—perhaps replacing her own. He argues that compliance with a narrow set of professional norms is not required for socialization to benefit the individual and the profession. He gives the example of a group of African American doctoral students who had mastered knowledge and skills in their field: students who continued to pursue an academic career had learned "how to navigate the normative expectations of the field without co-opting their own values," while

> those students who were socialized to believe that the field's norms and values needed to be adopted in order to succeed felt a great amount of cognitive and emotional dissonance. This ultimately led these students to assume that an academic career was not for them, and that the personal sacrifices one needed to make in order to attain an academic career were insurmountable and unacceptable. *(p. 374)*

## An Outreach Program That Has an Impact on the Professional Development of Graduate Students

This section describes an outreach program as background for its role in graduate student career preparation. The Science Squad is sponsored by the Biological Sciences Initiative, an externally funded outreach program at the University of Colorado Boulder. Each year the Science Squad consists of four to six graduate students from STEM fields related to biomedical science, who visit K-12 school classrooms to lead inquiry-based science lessons.

Selected in a rigorous application process, the graduate students participate in the Science Squad instead of working as teaching assistants, while continuing their dissertation research. Each member works with program staff to create four presentations in his or her scientific field that emphasize hands-on, inquiry-based activities consistent with current best practices in science instruction *(Olson & Loucks-Horsley, 2000)*. Because the presentations are short in duration and offered to a range of grades, schools, and school districts, they are not aligned to any single curriculum or set of district standards, but in practice teachers match them to their classroom learning goals through their topical and scheduling choices *(Laursen, Liston, Thiry, Sheff, & Coates, 2004)*. Program advertising specifies the range of grade levels suited to each presentation, and members are coached on how to modify the presentations to meet different developmental levels.

Throughout the school year, Science Squad members typically offer these presentations two days a week, usually visiting several classes at one school each day. Thus the program provides both an intensive teaching experience to Science Squad members and a science enrichment experience for about 15,000 K-12 students and 270 teachers annually. Seeking to encourage minority students and girls to enter science, Science Squad members prioritize underserved schools, typically reaching a population that is 46% minority and 56% female. Science Squad members are selected to serve as role models for all students, and many teachers explicitly use the program with that aim.

From its conception in 1990, the Science Squad was viewed as outreach to local K-12 schools, antedating both the GK-12 program and Boyer's *(1990, 1996)* articulation of "engagement" as scholarly application of university expertise to community needs. Yet the Science Squad offers strong mutual benefit to both the school and university participants, consistent with the bidirectional reciprocity

implied by the term "engagement" *(Sandmann, 2008)*. Further details about the program are given elsewhere *(Laursen, Liston, Thiry & Graf, 2007; Laursen et al., 2004; Laursen, Thiry, & Liston, 2005)*.

## Assessing the Impact of Science Squad Participation on Graduate Students

This study sought to assess the positive or negative outcomes to Science Squad members of participating in the Science Squad, and to understand how these outcomes arose. Based on anecdotal evidence and on literature suggesting that teaching skills and interests are often undersupported in graduate school *(Golde & Dore, 2001; Smith et al., 2002)*, the authors were particularly interested in the role of Science Squad in socialization, and how immediate outcomes, such as growth in knowledge or skills, might influence participants' later career interests, decision making, and success. A qualitative interview approach was chosen to explore program outcomes and processes broadly. Retrospective sampling enabled participants to reflect on how their careers had or had not been influenced by participation.

The study procedures were approved by the University of Colorado at Boulder Human Research Committee. As external evaluators, the authors were not responsible for running the Science Squad and had no stake in the program outcomes. They consulted with the program developers about the program's design, history, and hypothesized or desired outcomes.

## Study Participants

The sample of Science Squad members was drawn from a total of 34 alumni participants between 1992 and 2002. The researchers located contact information for 28 of these, and interviewed the 24 alumni who responded, during 2003–2004. Given the time span of participation, the interviews captured both recent and longer-term, retrospective views. The program was stable in organization, and alumni from different years reported similar activities and outcomes. Members recalled a surprising level of detail and traced aspects of their current careers back to their time in the Science Squad. Thus, despite time variations, corroboration among members' reports lends validity to the findings.

The sample of 20 women and four men reflects the historical gender makeup of the program. Most members were white. However, as two male interviewees were Latino, 22 of 24 interviewees were from gender or ethnic groups generally

underrepresented in science. Combinations of individual demographic details are omitted to protect confidentiality.

Members from biology, anthropology, engineering, and geography departments participated for one to six semesters; multiyear participation contributes to the low total head count despite the 10-year span of the sample. Most members joined the Science Squad as graduate students; a few were postbaccalaureate or postdoctoral scientists. All expressed high initial interest in teaching; many had prior experience with youth in informal and experiential education. Members were motivated to join by their enjoyment of teaching and desire to improve their teaching skills; by altruistic reasons; by a desire for a change of pace from their research work; and by a need for financial support for their graduate studies, though none reported funding as a sole motivation.

## Data Collection

Semi-structured, in-depth interviews were guided by an ethnographic approach grounded in methodological traditions from sociology, anthropology, and social psychology. Members described their current career situation and, retrospectively, their participation in the Science Squad and its relation to their graduate studies. Science Squad members described their education and career paths and career decision-making processes. Interviewers probed how Science Squad members perceived the benefits to themselves, students, and teachers in the program; their evidence for these benefits; and how these were achieved. In addition, the interviewers asked about participants' motivations to join the program and their experiences with it, including difficulties or costs, and invited their advice to program staff. The protocols were flexible to enable following up on interviewees' comments; later interviews incorporated some new issues that emerged in earlier interviews. Interviews of 45–70 minutes were conducted by two interviewers, most often by telephone; they were recorded and transcribed verbatim. Laursen et al. *(2007)* report findings on student and teacher benefits, including data from separate teacher interviews.

## Data Analysis

Two approaches to data analysis were used. First, short-term outcomes of Science Squad participation were analyzed using simple thematic coding, as detailed in Laursen et al. *(2007).* Second, to analyze Squad members' career paths, the emphasis of this article, a narrative inquiry approach was applied. This approach focuses on

the stories respondents tell to make sense of their experiences, and recognizes that people construct and interpret past events to "create a plot from disordered experience" *(Riessman, 1993)*. Although interviewees did not typically reveal their educational and career path in strict chronological order, the authors reconstructed a "career narrative" from each interview by gathering and re-sequencing all career-related observations. For many respondents, the resulting narrative included detailed accounts of their career paths and the reasoning behind their choices, including current thinking and retrospective statements about past intentions.

Each career narrative was then divided into short segments identifying key decision points and career-related intentions or actions. By aligning these segments according to temporal and thematic commonalities, similarities and differences in decision points and actions could be discerned across the set of narratives. The authors could identify patterns in the sequence of events, attribution of cause and effect, or results of decision-making. These commonalities often became apparent only after examining the narratives in matrix form, where shared patterns of change appeared in how a career choice emerged from individuals' otherwise varied accounts of their career trajectories.

Member checks were conducted during interviews, when interviewees were asked to respond to points made by others, and by e-mail follow-up, when respondents were invited to comment on a summary of the study findings and offered copies of the reports and publications. Several respondents validated the findings or expanded on some points from their own experience; none disputed any conclusions.

## Findings

Data analysis focused on the elements and processes of professional socialization that affected the career paths of Science Squad alumni. In addition to the knowledge, skills, and beliefs gained from Science Squad participation, these socialization elements include the norms and values communicated to participants by faculty and peers in their departments. In this section, the authors

- report the career-related benefits of participation in the Science Squad as identified by participants themselves;
- describe values and beliefs communicated by departmental faculty members and peers to Science Squad members;

- report participants' career outcomes; and
- describe the influence of Science Squad participation on the graduate students' career paths.

## Career-Related Benefits of Participation in the Science Squad

Members reported several outcomes of their participation in the Science Squad *(Laursen et al., 2007)*. This report emphasizes the career relevance of these gains as socialization outcomes. At least 20 of the 24 interviewees reported gains in each of four categories:

1. Teaching, communication, and management skills
2. Understanding of issues related to education and its social context
3. Personal development
4. Career skills

### Teaching, communication, and management skills.

Participants reported considerable gains in teaching skills, which they viewed as valuable both for educators and for other professions requiring scientific communication. In explaining scientific ideas to varied audiences, members strengthened their own conceptual understanding and learned to make impromptu adjustments to meet audience needs. Participants reported learning to use interactive, inquiry-based teaching approaches; gained practical skills in lesson planning, materials selection, and classroom management; and began to develop an individual philosophy and style of teaching. One participant, now a middle school teacher, commented,

> Going into a new classroom every time . . . I learned a variety of ways to keep the kids on task and directed, . . . a lot of ways to present different ideas, to try to reach as many kids as possible. So I think it helped me figure out what my teaching style was. It shaped what my management style was going to be. . . . And that's definitely how I try to run my classroom now, doing a lot more inquiry-based [teaching]—rather than lecturing or just talking to the kids, letting them figure out stuff on their own.

The process by which participants developed these skills also made the skills transferable. Repeating and refining a presentation under varying conditions built strong, general teaching skills that could be applied later at the K-12 or university level. The chance to "try the same package again and again, to just try different angles" yielded more feedback and faster improvement than teaching a course once a year. Other school- and university-based activities also fostered growth: observing classrooms; interacting with teachers over lunch; troubleshooting and debriefing with Science Squad colleagues; and individual coaching and conversing with Biological Sciences Initiative staff in monthly meetings. These activities combined experiential learning with opportunities to reflect.

Science Squad members described how these gains applied broadly in their later work. One attributed her high university course evaluations to teaching skills honed on the Science Squad; an outreach professional described her success in "translating science in the Science Squad spirit." Outside the classroom, participants used similar approaches to help people understand science that affected their daily lives, as this environmental engineer commented:

> Sometimes I get to go to homeowners' meetings and explain what our engineering project is going to do. . . . I think it's incredibly important that I don't use jargon, that I can communicate to normal people about their water or their wastewater. . . . These are people who aren't as schooled in engineering as you are . . . [so] how best can you explain this or help them discover, by you leading them on to think along a certain path?

## Understanding of education in context.

A second type of benefit reported by Science Squad members was growth in understanding education and its social context: student learning and development; inequities in educational access; the articulation between K-12 and higher education; and the work of teachers and schools. Gains in understanding came through working with diverse populations of students and teachers. Previously, said one member, now a college professor, "I didn't realize the implications of cultural differences in the classroom . . . how those issues could impact day-to-day classroom activities." She gave a specific example of realizing a certain classroom behavior

was not just a trait of a "good" student but culturally shaped, so she had learned "not to attach so much to that behavior, and those expectations."

Some gained a more comprehensive view of education as a system. Visiting so many schools, one member noted, "I learned a lot about what makes schools work and what makes them not work; why one teacher is enjoying their job and another one isn't." This had practical benefit, giving her "better questions to ask" in job interviews. An outreach specialist described how knowledge of schools helped her to design effective programs.

### Personal development.

Personal gains included growth in confidence and intrinsic rewards of feeling that one's work benefits others. Confidence gains were not general gains in self-esteem, but specific to the work at hand—confidence to communicate science to others, manage a classroom, or "see myself as a scientist"—thus providing assurance and opening up new possibilities for future careers. "I was absolutely comfortable going into any teaching situation and being able to teach—I mean, just off the top of my head without being familiar with the students or the setup," said one member of her faculty job interviews.

Many members also reported intrinsic emotional benefits—"warm fuzzies," as one put it. They valued collegial relationships with their Science Squad cohort and the Biological Sciences Initiative staff, and felt gratified to see students learning and enjoying science.

> It was a big traveling experiment, and kids lit up. And kids would come up after class and they'd say "Oh, man . . . we've been in here for a year and we've never done three days of experiments just like that." They were like, "I can't believe science is so fun. I hated this until you." [laughs] . . . Every now and then everybody needs some sort of positive feedback about what kind of a human being they are.

Sometimes these emotional benefits made up for the "humbling experience" of graduate school. "It was a nice antidote to the lab, where everyone gets judged by their publications and their productivity," said one member. "It's kind of nice to see . . . some excitement, and awe."

### Career skills.

Finally, Science Squad members who had entered careers at the time of the interview (about two thirds of the sample) described concrete career benefits. Some carried specific career resources to their jobs: they reused teaching materials, disseminated innovative lessons, and used their networks to establish new outreach programs. Job search benefits included enhanced résumés and interviewing skills, and a greater ability to evaluate job opportunities. Those seeking faculty positions found that Science Squad experience was taken to prove their aptitude and interest in teaching.

> I think [Science Squad] figured favorably in my being hired. . . . People took it to mean that I was interested in . . . in being part of a community rather than just at a university. . . . And I think that's how I couched it, that not only had I done work within the strict confines of jobs that I had held, but I had also tried to . . . use my education in other ways.

Cumulatively, Science Squad experience amounted to an intensive teaching practicum, where members could develop and apply their ideas in real teaching situations, then analyze and discuss them afterward. Members gained knowledge and skills that helped them to work effectively both during Science Squad service and in their later careers. Their personal and emotional gains—confidence as science teachers, pride and pleasure in their work—reflect a growing sense of identity as teaching professionals. Together, these gains addressed both cognitive and affective elements of socialization, through mechanisms including formal training, experiential learning, and observation of other professionals.

## Departmental Context: Responses from Faculty and Peers to Science Squad Involvement

Science Squad members reported only a few negative aspects to their outreach participation: difficulties with time, travel, and organization in getting to schools *(Laursen et al., 2007)*. More relevant to socialization were negative responses to their Science Squad participation from graduate advisors, other faculty, or peers in their departments, examples of which were reported by 19 of 24 interviewees. Members described receiving both overt and implicit messages that teaching was lower in status than research, and that K-12 teaching was even lower than university teaching, and they

perceived that some colleagues neither understood nor valued their choices *(Thiry, Laursen, & Liston, 2007)*.

Negative reactions from peers and other faculty have primarily emotional impact, because these people have only indirect roles in a student's career development. But research advisors play a crucial, gatekeeping role in dissertation and career progress *(Fox, 2000, 2003; Lovitts, 2001)*. Thirteen Science Squad members described their research advisor as generally supportive of their plans, and eight said their research advisor was negative about either Science Squad participation or its longer term career implications. Seventeen members described negative reactions from other faculty or peers.

The most supportive advisors were described as backing their students' individual decisions about career and educational goals, whether or not they agreed with them.

> I knew people in my department who were like, "Yeah, sounds really cool, but there's no way I'd be able to do it." Not because, personally, they couldn't do it, but because they wouldn't be allowed to do it, which is kind of a shame. . . . I happened to be fortunate enough to work with somebody who was a little more lenient and flexible with my particular education plan.

Many advisors raised concerns about the time commitment of joining the Science Squad. Supportive advisors might bring up legitimate concerns about time management or research progress, but were perceived to value outreach, to understand their student's interest, and to weigh its merits against short-term costs of participation. Such views were seen as exceptional.

> He said, "Do what you want to do, but you know it's not gonna help you get done any sooner." [laughs] I mean, he supports me as a person, fortunately. He's a little different than most of the people in my field. But he said he had concerns about it interfering with my work, and me getting done in a timely manner—my degree taking five years instead of four.

In contrast, non-supportive advisors were perceived to value research time over any potential benefits of outreach to the participant or to society at large. While advisors' overt statements addressed time concerns, members heard a covert message that working on the Science Squad was a distraction from the real work of research.

> Member: I think he thought it would be a drag on my time, and my job was really to do my lab work and write my thesis. And I saw it as very much in line with my overall preparation, and I don't think this time detracted from my lab work or writing my thesis.
>
> Interviewer: But it sounds like, overall, your advisor had a somewhat negative impression of the Science Squad?
>
> Member: I think he'd have a negative impression of anything that took me outside the engineering building.

Science Squad members perceived some department members as indifferent to their career goals. Noted one, "They were training me to be a researcher and that's what was interesting and . . . that was pretty much it." Others felt their seriousness was questioned: "I think there are several professors that probably think it's the ones that aren't good enough to make it in science that would do Science Squad."

But not all departmental reactions were negative. In departments where funding was scarce, the Science Squad assistantships were prestigious. Some colleagues valued members' efforts to communicate their discipline: "They appreciated that kids out in the world were getting some botany. . . . It doesn't show up on TV a whole lot." Most scientists are glad to see "kids get excited about science," said another—they don't "want to be bothered with a bunch of zoo-ey high school kids, but they're fine if other people want to." Others saw advisors' views become more positive as they learned about the program and saw it benefiting their advisee—a reminder that socialization is bidirectional, such that graduate students can influence their departments as well as vice versa *(Weidman et al., 2001)*.

Whether or not members' perceptions are accurate records of actual faculty views is not the point. Rather, the data illustrate how interpersonal interactions and departmental climate contribute to graduate student socialization. Our interviewees understood messages from department members about the value of teaching and outreach—positive, negative, or indifferent. They had already reflected on and interpreted these messages, and in some cases acted in response to them: Few were surprised when the interviewer asked about others' response to their outreach activity. When students joined the Science Squad, the "informal or hidden

role expectations which 'arise and are transmitted by interactions with others'" became more visible *(Antony, 2003, p. 361, citing Thornton & Nardi, 1975)*.

## Career Outcomes Reported by Science Squad Participants

Data on career outcomes reflect varying intervals after participation in the Science Squad, with a larger number of participants from later years. Early participants had established careers, while more recent participants were in postdoctoral or other temporary positions, or were still completing graduate training. Despite this variability, patterns emerged. First, Science Squad members were highly trained in science. At the time of the interview, 19 of 24 interviewees held or were completing a Ph.D. in science or engineering, and four more had pursued other advanced degrees in scientific or technical fields (M.S., M.D., M.P.H.). No Science Squad member had "left science." Each of the 24 worked in a science- or engineering-related field, although two were unemployed at the time of the interviews.

Second, many Science Squad members were employed as educators. Of 24 interviewees, eight worked in higher education (five in tenure-track positions), and six worked with K-12 education as science outreach educators, teachers, or professional tutors. This represents 58% of the total sample, and 82% of those who had completed their graduate training. This is well above the national proportion of graduate-trained life scientists (28%) who cite teaching as their primary work activity *(NSF, 2006)*. Table 1 shows the initial career outcomes of interviewees, grouped by career type.

**Table 1: Initial Career Outcomes of Science Squad Interviewees (reported in 2004)**

| Career in higher education (n = 8) | Career in K-12 education or outreach (n = 6) | Completing training, planning career (n = 7) | Other or undetermined careers (n = 3) |
|---|---|---|---|
| Tenure-track teaching position = 5 | Outreach professional = 4 | Tenure-track position in higher education = 3 | Work outside education = 1 |
| Non-tenure teaching position = 3 | K-12 teacher or tutor = 2 | K-12 education or outreach position = 2 | Unemployed = 2 |
| | | Work outside education = 2 | |

As described in a previous section, Science Squad members encountered the expectation that working with K-12 education would derail their careers and deny them prestigious tenure-track academic positions. This expectation was unfounded, as 29% of Science Squad members who had completed their education became tenure-track faculty members, a proportion indistinguishable from the percentage (32%) of all biological science Ph.D.s who became tenure-track faculty in the same period *(NSF, 2001)*. Their choices of faculty positions, however, did emphasize education, as the quotations below illustrate.

> My first focus is the subject matter, and then my second focus is, I really enjoy communicating it with people. And so I have decided to take a job that is 60% teaching, and that fits me very well.

> I would ideally like to get a tenure-track position at a school that's primarily undergraduate teaching, but where I can do research with my undergraduates, and still do some publishing. But not a Tier 1 research university, where it's a pressure-cooker state, "publish or perish" situation. . . . Doesn't really fit my personality.

The desire to combine multiple interests was common in members' career aspirations, as reflected in their integrative language.

> [My position involves] a blend of teaching and research, so that the faculty here who have tenure-track jobs are evaluated on their teaching first, the research second, and then their service—and they're all excellent teachers here. But they do have time to do research and they do get a lot of research done. It's a nice mix.

> I chose [this university] because . . . there was already outreach work going on here. And I think that's important to give back into the community, and because they value that—they value the balance, and the person.

Several Science Squad alumni who became college faculty had specialized in teaching non-science majors. "I teach introductory environmental science now, because I'm good at it," one reported. "They want to attract majors; they don't let people who don't have

any teaching skills teach this course." Others incorporated outreach into their faculty work, promoting science to young people, or recruiting minority high school students into science.

> Volunteerism is important to me. And I choose my volunteerism to look like outreach to kids, 'cause that's what I enjoy. . . . Most of those students didn't even know what an engineer was . . . and had no concept of that as something that they could become—let alone a scientist or biologist or whatever. It's important for students to have those role models, and to understand that there are opportunities.

Like the college educators, the K-12 educators had chosen positions where they "could make a difference." One chose to teach middle school, where students commonly lose interest in science. Another chose "the worst-performing school in the state . . . that could be shut down at any day." Members outside education also cited the career relevance of their educational interests.

In 2010, the authors followed up with interviewees using internet searches and e-mail. They positively identified each study participant, and determined their current or recent (within 12 months) career status. Figure 1 compares the 2004 distribution of careers with the 2010 distribution.

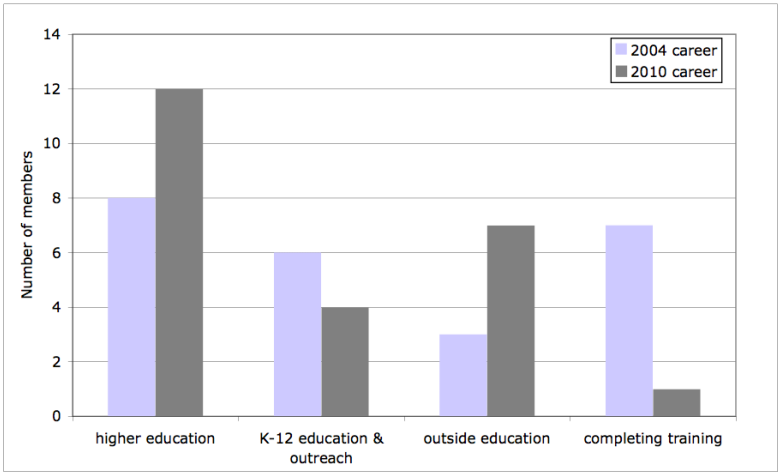



**Figure 1: Career Outcomes for Science Squad Alumni, 2004 and 2010**

From the 2010 data, the authors drew several conclusions.

- **Predicted educational paths were largely stable.** Of the seven still pursuing training in 2004, all had finished their degrees (including three Ph.D.s, one M.P.H., one M.D.). Two postdocs had acquired permanent positions. One had taken a third postdoctoral research position, and another had returned to school to earn a doctorate of pharmacy.
- **Persistence in science or engineering careers continued from 2004 to 2010.** In 2010, only three of the 24 alumni were now in non-science careers, including jewelry designer, fitness coach, and writer.
- **Work in education careers also persisted from 2004 to 2010.** In 2010, 18 alumni worked in K-12 or higher educational organizations. Sixteen held positions that involved some teaching. Non-education careers included physician, pharmacist, and engineer.
- **Science Squad alumni who sought tenure-track positions in higher education had them.** In 2010, seven (29%) were in tenured or tenurable positions. Of the others in higher education, two held teaching positions with employment security; two were instructors with renewable contracts; and one was a university research administrator. Between 2004 and 2010, one participant had left a tenure-track faculty post for a non-tenure-track instructorship.
- **Some career changes did occur.** Family and personal considerations were prominent explanations by those who made career changes. But nine of 17 Science Squad alumni who had entered careers in 2004 were still in the same careers or positions in 2010.

In sum, across the sample and over time, a strong commitment to education is evident in participants' career choices. Joining the Science Squad did not initiate interest in education, but, by their own reports, had reinforced members' interest, built professional skills, and amplified the importance of education in their careers.

## Influence of Science Squad Participation on the Graduate Students' Career Paths

Comparison of the "plot lines" of Science Squad members' career paths showed relationships among life events, their career consequences, and participants' explanations of their decisions. These relationships helped reveal whether and how participation in the Science Squad influenced career decision-making. Two significant patterns of influence together apply to most of the participants in the sample.

## The "Strategists": Confirmation and Enhancement of an Existing Career Path

One pattern appeared in the career paths of nine Science Squad members, denoted the "strategists." For these nine, Science Squad participation confirmed their current career path and enhanced their preparation for the intended career. They entered graduate school with a particular career goal and used the Science Squad experience strategically to reinforce and validate their original career plans, build skill sets, and enhance résumés.

Most strategists entered graduate school planning to pursue teaching and research as faculty members. These goals were in some ways normative for science Ph.D. students, but less so in their emphasis on teaching-oriented institutions. Consistent with their plans, the strategists succeeded in obtaining faculty posts. Of the nine strategists, six were in tenure-track positions or seeking them from postdoctoral positions. A seventh was still in school, and two (a K-12 teacher and an engineer) did not want tenure-track positions.

This group is "strategic" because they anticipated in advance, and valued in retrospect, the ways that Science Squad experience furthered their career development. "I think the Science Squad got me the set of interviews I got," said one. "I thought at the time it would be, and I think it did prove to be more valuable to me in my career goals." Forethought is evident in their language.

> I was unsure whether I'd be able to explain scientific topics to non-science people . . . and I really thought it was an important skill. And I really had to fight my advisor on that—he was like, "Oh, nobody'll care." . . . But I think it's important, and I think that it helps me do a better job in my job.

> I thought, "Well yeah, Science Squad sounds like a neat way to turn, to get a bigger, a broader diversity of teaching experience—interact with people with all kinds of different backgrounds, different ethnic and racial backgrounds, different educational experiences, small schools, big schools, inner city, suburban. . . . And you know, it'll look good on my résumé to have done some more different things."

Though members anticipated benefits, in no case were their motivations strictly instrumental. Genuine interest in teaching and a desire to serve the community were widely expressed, co-existing with a pattern of strategic thinking about how Science Squad could help them to achieve multiple goals. Consistent with these aims, the strategists joined the Science Squad late in their graduate careers, after they were independent in research and preparing to finish their degrees, which all did. Most participated for only 1 year. Although the intrinsic benefits of participation were ongoing, a year of experience supplied the desired skills and résumé enhancement, but longer involvement would offer diminishing returns and possible risk, as this speaker suggested.

> If I went through my graduate program having taught primarily for the Science Squad, I don't think I would have been able to obtain the job [I have now]. . . . [T]hey would have said, "Well, okay, he's got all this research, but he's been teaching high school level." . . . Those things were not going to be rewarded and they're not rewarded still.

## The "Seekers": Clarification and Change

The second type of career influence was more dramatic: For 11 of 24 interviewees, serving on the Science Squad stimulated clarification and change of career path. Science Squad experience opened, closed, or clarified career options under consideration. Because they often used the Science Squad to explore career possibilities, these members are termed the "seekers."

Like the strategists, most of the seekers entered graduate school with a specific career goal: "I was going to be a professor. I don't think I'd narrowed it down [to] a research institution or a liberal arts institution, but I definitely had this image of myself being a professor." But when they joined the Science Squad, they were

actively reconsidering their initial plan. Some were deterred by the work environment or lifestyle they saw as accompanying an academic career, while others recognized a lack of fit to their own strengths. "It was very clear to me after my . . . postdoc that I hated research, but what was completely unclear to me was what I wanted to do instead. And this was a big black hole mystery."

For the seekers, joining the Science Squad was a low-risk opportunity to explore a career alternative in teaching: "I was interested in seeing what it would be like to teach in schools, and Science Squad enabled me to do that without going to do a teaching degree," said one. As members' language reflects, the opportunity to explore was timely.

> I still was reluctant to give up the research academic track, so I decided . . . that I would basically take a year . . . and do the Science Squad . . . and spend the rest of my time looking at what opportunities were out there. And by the end of that year, I realized that I was actually very happy doing outreach work, and that I was okay with giving up the academic research path and devoting myself to a different career path instead.

The crucial pattern among the "seekers" is their growing dissatisfaction with previous career plans together with their use of Science Squad to explore another option. Demographic patterns also distinguish seekers from strategists. At the time of the interviews, seven of 11 were in early stages of graduate work, and fewer eventually completed a Ph.D. Their career questions arose early and prompted exploration before they committed more time to graduate study, so they adjusted their educational path if a doctorate was not needed for their new career goals.

### Factors influencing seekers' search for alternate careers.

As they considered careers, seekers reported a mix of "pushes" away from research, "pulls" toward teaching, and geographic and family considerations: "I really liked the topics that I was studying, but it wasn't compelling enough to be my lifelong career . . . Science Squad just fit with my goals, and also my abilities." Another member shared a list of well-defined reasons for leaving research, but had many remaining questions: "I knew I liked the teaching much better than the research. That was very clear. But where I was gonna teach, how I was gonna teach, whether teaching was really it,

wasn't clear." She could draw on ample experience to evaluate her fit to a research career, but had little basis for evaluating teaching careers.

Science Squad experience also prompted reflection on personal aptitudes and preferences.

> I think I realized in some ways how unhappy I was in my graduate program by doing the Science Squad. I realized that I could do something that was work and have fun doing it and really be excited about it and have a passion for what I was doing, that I had sort of lost in the midst of doing my Ph.D. research.

> What I recognized, partially through my experience, was that I wasn't interested in pursuing an academic career in a university, as a tenure-track faculty. And so, subsequent to being in the Science Squad, then I made different choices—I mean originally, I had been in the program to get a Ph.D. After being in the Science Squad, I realized I didn't have any interest in finishing a Ph.D. I knew that I liked outreach programming a lot more than I liked academic science, and so that gave me the clarity to understand that I needed to finish with a Masters and pursue my interests in a different way. So, you know, again, I don't think that my—it wasn't due to the Science Squad, it was just me recognizing something about myself.

This speaker's comment shows that the influence of Science Squad in her career thinking was not one of simple cause and effect. Already disinclined toward the academic careers promoted in her department, she was able to discern her preferences by contrasting Science Squad work with research. Such reflection was common among our interviewees.

For seven of 11 seekers, Science Squad participation clarified their career options in a positive way, showing them new career paths. Four alumni moved into professional outreach roles. By observing the Biological Sciences Initiative staff, they had seen that scientists could earn a living as educators, "doing good work and . . . using their Ph.D.s well." A fifth person became a middle school teacher: "In the first two months, I decided that I definitely wanted to get in the classroom. . . . [Then] it really helped me narrow down exactly where I wanted to teach." Two, still in graduate school, were

considering college teaching or professional outreach as well as research careers; both testified that the former were new career ideas spurred by Science Squad participation.

The other four Science Squad members reported negative clarification, as each ruled out a career in K-12 teaching, based on firsthand experience. This was not a poor outcome, but useful knowledge for the individual, from which other career ideas might emerge.

> I give those people [high school teachers] a lot of credit, but I couldn't do it again. . . . Working with teachers is a better level for me.

> It helped me decide that I don't have any interest in being a middle school or high school teacher . . . something that I had kind of contemplated [earlier]. . . . But it also made me much more comfortable with teaching in general, and so more interested in maybe teaching at the college level, which I hadn't given as much thought to before.

Again, both pushes away from and pulls toward careers were evident in members' reasoning. One member was attracted to teaching as seemingly more family-friendly than research, but did not find teaching a good fit. Exposure to school realities—"I was overwhelmed more than inspired"—led another to reject a career in K-12 teaching. Trying it out had settled the matter and set her on an alternate path toward a now-tenured faculty career.

## Other Science Squad Members: Also Benefiting

In different ways, both strategists and seekers took active advantage of the Science Squad to proactively explore career options and develop expertise in their chosen paths *(Thiry et al., 2007)*. In addition to the nine strategists and 11 seekers, four Science Squad members reported career benefits, but no particular influence on their career path. There is no reason to expect that everyone's career path will be influenced by participation—indeed, it is remarkable that so many were.

# Discussion

From this study, the authors conclude that Science Squad participation helped to socialize members as scientist-educators

in multiple ways. They gained knowledge, skills, and beliefs that enhanced their professional preparation. Their participation also provoked responses from departmental peers and faculty that communicated disciplinary values and norms associated with this career path. For some, Science Squad participation provided socialization into the practices of scholarly engagement as university faculty. Each of these socialization processes is discussed below.

## Socialization of Graduate Students into the Professional Role of Scientist as Educator

Graduate students are simultaneously socialized into the role of graduate student, the academic profession, and a specific discipline or field *(Austin & McDaniels, 2006)*. Here we refer to socialization into the profession of scientist. These interviewees had pursued graduate education driven by their interest in science or engineering; most remained in these fields. Teaching let them share their enthusiasm for science, develop skills, combine multiple interests, encounter new places and people, and "give back" to their communities. As interviewees traced their journeys through graduate school and the Science Squad, the question with which they grappled was whether the role definition of scientist could encompass primary work in science education.

Their journeys can be interpreted in terms of socialization theory, as outreach participation provided all three elements of professional socialization identified by Weidman et al. *(2001)*. Becoming a Science Squad member was an intensive experience of *involvement* in the professional role of scientist as educator. Science Squad members took on real and meaningful responsibilities and interacted with other science education professionals as colleagues. In the schools, each represented her or his discipline to pupils and teachers. As Weidman and colleagues note, professional role identification arises from involvement in the role and thinking about the personal meaning of participation in that role.

Through a combination of training, collegial conversation, and immersive experience, Science Squad members reported substantial *acquisition of knowledge* and skills relevant to scientific careers in or out of education. Novices must develop the cognitive knowledge and skills needed to perform a professional role *(Weidman et al., 2001)*—thus this element of socialization is entwined with involvement. They must also develop affective knowledge, such as awareness of norms for the role and realistic self-assessment of their own ability to perform it. Science Squad members' reports emphasize cognitive knowledge and skill gains, but their statements

about confidence and reward also indicate affective knowledge gains, including both self-awareness and others' affirmation of their ability to perform the role.

Responses from advisors and department members to Science Squad participation more indirectly communicated values and norms about the relative status of teaching, research, and outreach. Interviewees reported resisting some dismissive attitudes that they encountered. Some people "wondered why I was involved with that program as opposed to sticking to the normal path—but that rarely stops me from doing these sorts of things anyway," said one. Rather, members took pride and pleasure in their work and felt they were contributing something meaningful. These attitudes signal their *investment* in teaching by "commit[ting] something of personal value such as time, alternative career choices, self-esteem, social status, or reputation" *(Weidman et al., 2001, p. 17)*. By contrasting these experiences with research and articulating their own beliefs about outreach and teaching, Science Squad members clarified their personal values and came to see themselves as scientists who worked in teaching. Thus even negative responses to their choices were helpful in clarifying their investment in this career path.

In sum, although members held high pre-existing interest and investment in science careers involving education and communication, Science Squad participation added value by providing substantial experiences of all three elements of socialization.

## Differential Outcomes of Socialization as Scientist-Educators

The distinct traits of the strategists and seekers reflect differences in graduate students' socialization needs. With their career goals clearly in mind, strategists did not see adequate opportunity to develop desired teaching and communication skills within their degree program *(Thiry et al., 2007)*. They proactively sought out the Science Squad as a way to meet these needs, timing their participation to coordinate with their research agenda and limiting it to derive maximum return on investment. For these students who envisioned a future scientific identity that combined research, teaching, and outreach, Science Squad involvement provided missing knowledge and skills, and confirmed their prior investment in that identity.

Seekers, however, were actively questioning the professional identities presented by their graduate program. Rejecting certain aspects of the proffered life or work, they too were proactive in seeking alternative uses of their skills and interests. For them, the

greatest impact of Science Squad participation was affective, as they disinvested in a previous career identity and reinvested in a different kind of science career. This was at minimum reassuring, and often decisive. Whether or not they ultimately pursued a career resembling their Science Squad experience, members valued the opportunity to test their aptitude and interest firsthand. Interacting with Biological Sciences Initiative staff was often important for seekers, who saw them as role models of possible future careers in outreach.

Seekers and strategists may also differ in how they saw the need to conform *(Antony, 2003)*. Seekers generally resisted the hierarchy of values about teaching and research that they understood from their departments—like Antony's group who, believing they had to adopt prevailing values, were more likely to reject the faculty profession altogether. In contrast, strategists may have been more able to adopt certain values and ignore others, and thus to enter the profession without feeling they had been compromised.

## Socialization into the Practices of Outreach and Engagement

These findings highlight how participation in an outreach program can enhance graduate students' growth as educators. What about their development as professionals in outreach and engagement? On this point our data are more sparse but suggest generally positive influences. First, four Science Squad members became outreach professionals. These individuals share roles and personal traits with "boundary spanners," people who broker university-community engagement through their ability to build and hold the trust of community members *(Weerts & Sandmann, 2008)*. Boundary spanners are usually academic staff rather than faculty and commonly have backgrounds as advocates and practitioners; several of the Biological Sciences Initiative staff fit this categorization. For some members, Science Squad provided important exposure to non-faculty outreach careers in academic settings.

Moreover, among Science Squad members who became faculty, several described outreach work as a significant part of their job: "I feel like I can do the research that I've come to enjoy, and do the teaching that I really enjoy, and yet also participate in promoting science to younger people." In several respects, Science Squad members resemble faculty who are highly involved in service, engagement, or engaged scholarship: Many are women and people of color *(Antonio, Astin, & Cress, 2000; Colbeck & Michael, 2006; Vogelgesang, Denson, & Jayakumar, 2010)* who see their professional

identity as interdisciplinary, synthetic, or integrative *(Colbeck & Weaver, 2008)*. This likely reflects both members' predispositions and their enhanced capabilities, interests, and values following Science Squad participation.

The contributions of extra-departmental campus activities may be omitted from visions of engaged graduate education that center on formal degree requirements *(e.g., O'Meara, 2008)*. Yet participation in non-departmental outreach is elective and individualized, which imbues it with personal meaning. These findings support an inclusive view of the sources of professional socialization both on and off campus, in which campus outreach programs may be allies in bolstering graduate education. Indeed, the socialization offered by extra-departmental programs may be especially crucial for those pursuing career paths not fully sanctioned by their departments.

## Implications for the Practice and Spread of Science Education Engagement in Universities

The Introduction described three strands in higher education that do not routinely cross paths: scientist involvement with education, graduate education of scientists, and community engagement of universities. Yet in the Science Squad program, these strands come together synergistically. It has been reported that STEM disciplines participate less often in engagement activities *(Vogelgesang et al., 2010)*, but surveys of faculty may not capture the work of non-faculty specialists who, like the Biological Sciences Initiative's permanent staff, are crucial "boundary spanners" *(Weerts & Sandmann, 2008)*. Our data do expose some messages about the value of engagement that circulate in STEM departments and that may assist or hinder the uptake of community engagement concepts in STEM disciplines.

One way to overcome these barriers is to identify synergies between the goals of scholarly engagement and the motivations of existing science outreach programs such as "broader impact" of research grants. Like other authors *(Buchanan, Baldwin, & Rudisill, 2002; deKoven & Trumbull, 2002)*, we find this work to be scholarly in many respects. Science Squad members applied their disciplinary expertise to making knowledge relevant and meaningful to non-expert audiences. They took a scholarly approach to teaching through observation, practice, reflection, and discussion and could readily articulate how their scientific interests connected to their communication and education roles. Such work should thus be easily integrated into university goals for community engagement. But so far, the language and ideas of "engagement" have not

penetrated far into the community involved in science outreach. Perhaps graduate students themselves offer the bridge, in carrying university expertise to the community in ways that powerfully enhance their own educational experiences and future careers.

## Conclusion

This study suggests that an intensive experience as a science outreach educator can provide graduate students with three important elements of socialization into the profession of scientist-educator:

1. specialized knowledge and skills needed to succeed as a scientist-educator;
2. direct involvement with the profession's activities, colleagues, and personal meanings; and
3. personal investment in the role and status of the profession.

The relative importance of these three elements, and how they played into later career choices, differed among students. For some students, outreach participation confirmed their career intentions and provided the knowledge and skills needed to succeed in that path. For others, participation facilitated a change in career direction by providing a low-risk opportunity to explore an alternate career and, sometimes, discover new career options in science.

The evidence from this study highlights how this type of socialization benefits individuals. Collateral effects are also evident within the university. Scientists' involvement with education is amplified both in the present and throughout their careers. Participation also enhances the education of scientists, developing skills and capacities useful in academic or non-academic careers. The Science Squad provides one model by which universities can pursue this type of win/win strategy.

## Acknowledgments

The authors thank Science Squad alumni for their participation in the study, and for their interest in and commentary on the findings. The Biological Sciences Initiative at the University of Colorado Boulder supported this work through a grant from the Howard Hughes Medical Institute.

## References

Alberts, B. M. (1991). Elementary science education in the United States: How scientists can help. *Current Biology, 1*(6), 339–341.

Antonio, A. L., Astin, H. S., & Cress, C. M. (2000). Community service in higher education: A look at the nation's faculty. *The Review of Higher Education, 23*(4), 373–398.

Antony, J. S. (2003). Reexamining doctoral student socialization and professional development: Moving beyond the congruence and assimilation orientation. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 17, pp. 349–380). New York, NY: Agathon Press.

Austin, A. E., & McDaniels, M. (2006). Preparing the professoriate of the future: Graduate student socialization for faculty roles. In J. C. Smart (Ed.), *Higher Education: Handbook of theory and research* (Vol. 21, pp. 397–456). Dordrecht, the Netherlands: Springer.

Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate.* Princeton, NJ: Princeton University Press.

Boyer, E. L. (1996). The scholarship of engagement. *Journal of Public Service and Outreach, 1*(1), 11–20.

Buchanan, A. M., Baldwin, S. C., & Rudisill, M. E. (2002). Service learning as scholarship in teacher education. *Educational Researcher, 31*, 30–36.

Colbeck, C. L., & Michael, P. (2006). Individual and organizational influences on faculty members' engagement in public scholarship. In R. A. Eberly & J. R. Cohen (Eds.), *Public scholarship* (New Directions for Teaching and Learning, No. 105, pp. 17–26). San Francisco, CA: Jossey-Bass.

Colbeck, C. L., & Weaver, L. D. (2008). Faculty engagement in public scholarship: A motivation systems theory perspective. *Journal of Higher Education Outreach and Engagement, 12*(2), 7–32.

Colwell, R. R., & Kelly, E. M. (1999). Science learning, science opportunity. *Science, 286*, 237.

Commission on Physical Sciences, Mathematics, and Applications (CPSMA). (2000). *Graduate Education in the Chemical Sciences: Issues for the 21st Century: Report of a Workshop.* Washington, DC: National Academies Press.

Committee on Science, Engineering, and Public Policy (COSEPUP). (1995). *Reshaping the graduate education of scientists and engineers.* Washington, DC: National Academies Press.

deKoven, A., & Trumbull, D. J. (2002, September). Science graduate students doing science outreach: Participation effects and perceived barriers to participation. *Electronic Journal of Science Education, 7*(1). http://www.scholarlyexchange.org/ojs/index.php/EJSE/article/viewArticle/7696.

Dolan, E. L. (2008). *Education outreach and public engagement.* New York, NY: Springer.

Fox, M. F. (2000, Spring/Summer). Organizational environments and doctoral degrees awarded to women in science and engineering departments. *Women's Studies Quarterly, 28*, 47–61.

Fox, M. F. (2003). Gender, faculty, and doctoral education in science and engineering. In L. Hornig (Ed.), *Equal rites, unequal outcomes: Women in American research universities* (pp. 91–109). New York, NY: Kluwer Academic/Plenum Publishers.

Franks, S., McDonnell, J., Peach, C., Simms, E., and Thorrold, A. (2006). *EPO: Education and public outreach: A guide for scientists.* Rockville, MD: The Oceanography Society. Retrieved September 25, 2010, from http://www.tos.org/epo_guide

Gaff, J. G., Pruitt-Logan, A. A., & Weibl, R. A. (2000). *Building the faculty we need: Colleges and universities working together.* Washington, DC: Association of American Colleges and Universities.

Gilmer, P. J., Granger, D. E., & Butler, W. (Eds.). (2005). *Science graduate students in K-8 classrooms: Experiences and reflections.* Tallahassee, FL: Southeast Eisenhower Regional Consortium for Mathematics and Science Education, Florida State University.

Golde, C. M., & Dore, T. M. (2001). *At cross purposes: What the experiences of today's doctoral students reveal about doctoral education.* Philadelphia, PA: Pew Charitable Trusts.

Golde, C. M., & Walker, G. E. (Eds.). (2006). *Envisioning the future of doctoral education: Preparing stewards of the discipline, Carnegie essays on the doctorate.* Stanford, CA: Carnegie Foundation for the Advancement of Teaching.

Greene, R. G., Hardy, B. J., & Smith, S. J. (1996). Graduate education: Adapting to current realities. *Issues in Science and Technology, 12*, 59–66.

Laursen, S., Liston, C., Thiry, H., & Graf, J. (2007). What good is a scientist in the classroom? Participant outcomes and program design features for a short-duration science outreach intervention in K-12 classrooms. *CBE-Life Sciences Online 6*, 49–64.

Laursen, S., Liston, C., Thiry, H., Sheff, E., & Coates, C. (2004). *Evaluation of the Science Squad program for the Biological Sciences Initiative at the University of Colorado at Boulder: I. Benefits, costs, and trade-offs* (Report to Biological Sciences Initiative). Boulder, CO: University of Colorado at Boulder, Ethnography & Evaluation Research.

Laursen, S., Thiry, H., & Liston, C. (2005). *Evaluation of the Science Squad program for the Biological Sciences Initiative at the University of Colorado at Boulder: II. Influence of Squad participation on members' career paths* (Report to the Biological Sciences Initiative). Boulder, CO: University of Colorado Boulder, Ethnography & Evaluation Research.

Lovitts, B. E. (2001). *Leaving the ivory tower*. Lanham, MD: Rowman and Littlefield.

Mitchell, J., Levine, R., Gonzalez, R., Bitter, C., Webb, N., & White, P. (2003). *Evaluation of the National Science Foundation Graduate Teaching Fellows in K-12 Education (GK-12) Program.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL, April 21–25, 2003. Retrieved from ERIC database. (ED478204)

NASA. (2008, April). *Explanatory guide to the NASA Science Mission Directorate education & public outreach evaluation factors* (Version 3.0). Retrieved August 30, 2010, from http://science.nasa.gov/media/medialibrary/2010/03/31/SMD_EPO_Guide3_April08.pdf

National Science Foundation. (2003). *Merit Review Broader Impacts criterion: Representative activities.* Retrieved August 30, 2010, from http://www.nsf.gov/pubs/2003/nsf032/bicexamples.pdf

National Science Foundation (NSF), Division of Science Resources Statistics. (2001). *Survey of doctorate recipients.* Retrieved September 17, 2010, from http://www.nsf.gov/sbe/srs/nsf04312/sectb.htm

National Science Foundation (NSF), Division of Science Resources Statistics (2006). *Characteristics of doctoral scientists and engineers in the United States: 2003* (NSF 06-320). Arlington, VA: U.S. Government Printing Office.

National Science Foundation (NSF). (2007). *NSF Graduate Teaching Fellows in K-12 Education (GK-12)*, (NSF 09-549). Retrieved September 18, 2010, from http://www.nsf.gov/pubs/2009/nsf09549/nsf09549.htm

Nyquist, J. D., Manning, L., Wulff, D. H., Austin, A. E., Sprague, J., Fraser, P. K., Calcagno, C., & Woodford, B. (1999). On the road to becoming a professor: The graduate student experience. *Change, 31*(3), 18–27.

Olson, S., & Loucks-Horsley, S. (Eds.). (2000). *Inquiry and the National Science Education Standards: A guide for teaching and learning.* Washington, DC: National Academies Press.

O'Meara, K. (2008). Graduate education and community engagement. In C. L. Colbeck, K. O'Meara, & A. E. Austin (Eds.), *Educating integrated professionals: Theory and practice on preparation for the professoriate* (New Directions for Teaching and Learning, No. 113, pp. 27–42). San Francisco, CA: Jossey-Bass.

O'Meara, K., & Jaeger, A. J. (2006). Preparing future faculty for community engagement: Barriers, facilitators, models, and recommendations. *Journal of Higher Education Outreach and Engagement, 11*(4), 3–26.

Riessman, C. K. (1993). *Narrative analysis* (Qualitative Research Methods Series, Vol. 30). Newbury Park, CA: Sage Publications.

Sandmann, L. R. (2008). Conceptualization of the scholarship of engagement in higher education: A strategic review, 1996–2006. *Journal of Higher Education Outreach and Engagement, 12*(1), 91-104.

Schutz, A. (1970). *Alfred Schutz on phenomenological social relations,* H. R. Wagner (Ed.). Chicago, IL: University of Chicago Press.

Smith, S. J., Pedersen-Gallegos, L., & Riegle-Crumb, C. (2002). The training, careers, and work of Ph.D. physical scientists: Not simply academic. *American Journal of Physics, 70,* 1081–1092.

Stamp, N., & O'Brien, T. (2005). GK-12 partnership: A model to advance change in science education. *BioScience, 55*(1), 70–77.

Thiry, H., Laursen, S. L., & Liston, C. (2007). (De)Valuing teaching in the academy: Why are underrepresented graduate students overrepresented in teaching and outreach? *Journal of Women and Minorities in Science and Engineering, 13*(4), 391–419.

Thompson, S. L., Collins, A., Metzgar, V., Joeston, M. D., & Shepherd, V. (2002). Exploring graduate-level scientists' participation in a sustained K-12 teaching collaboration. *School Science and Mathematics, 102*(6), 254–265.

Thornton, R., & Nardi, P. M. (1975). The dynamics of role acquisition. *American Journal of Sociology, 80*(4), 870–885.

Tierney, W. G., & Rhoads, R. A. (1993). *Enhancing promotion, tenure and beyond: Faculty socialization as a cultural process.* Washington, DC: George Washington University.

Trautmann, N., & Krasny, M. (2006). Integrating teaching and research: A new model for graduate education? *BioScience, 56*(2), 159–165.

Vogelgesang, L. J., Denson, N., & Jayakumar, U. M. (2010). What determines faculty-engaged scholarship? *The Review of Higher Education, 33*(4), 437–472.

Walker, G. E. (2004). The Carnegie Initiative on the Doctorate: Creating stewards of the discipline. In D. H. Wulff, A. E. Austin, & Associates (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty* (pp. 236–249). San Francisco, CA: Jossey-Bass.

Weerts, D. J., & Sandmann, L. R. (2008). Building a two-way street: Challenges and opportunities for community engagement at research universities. *The Review of Higher Education, 32*(1), 73–106.

Weidman, J. C., & Stein, E. L. (2003). Socialization of doctoral students to academic norms. *Research in Higher Education, 44*(6), 641–656.

Weidman, J., Twale, D., & Stein, E. (2001). *Socialization of graduate and professional students in higher education: A perilous passage?* (ASHE-ERIC Higher Education Research Report, Vol. 28, No. 3). San Francisco, CA: Jossey-Bass.

Weisbuch, R. (2004). Toward a responsive Ph.D.: New partnerships, paradigms, practices, and people. In D. H. Wulff, A. E. Austin, & Associates (Eds.), *Paths to the professoriate: Strategies for enriching the preparation of future faculty* (pp. 217–235). San Francisco, CA: Jossey-Bass.

## About the Authors

**Sandra L. Laursen** is co-director of Ethnography & Evaluation Research at the University of Colorado Boulder, an independent research unit specializing in studies of education and career paths in science, engineering, and mathematics. In addition to research and evaluation studies of science education, she has worked in science outreach and conducted professional development for scientists engaged in education. Laursen earned her bachelor's degree from Grinnell College and her doctorate from the University of California, Berkeley.

**Heather Thiry** is a research associate with Ethnography & Evaluation Research at the University of Colorado Boulder. She has conducted research and evaluation studies on the underrepresentation of women and minorities in science, technology, engineering, and mathematics (STEM) disciplines, the professional socialization of graduate students, and pedagogical reform initiatives in STEM education. Thiry earned her bachelor's degree from Macalester College, her master's degree from California State University, Hayward, and her doctorate from the University of Colorado Boulder.

**Carrie S. Liston** is an associate at Evaluation & Research Associates, in Lynnwood, Washington, a not-for-profit organization specializing in the evaluation of programs supporting STEM equity, informal and formal education, and teacher professional development. Liston earned her bachelor's degree from Occidental College and her master's degree from the University of Colorado Boulder.

© *Journal of Higher Education Outreach and Engagement*, Volume 16, Number 2, p. 79, (2012)
 ISSN 1534-6104

# *University-Community Partnerships: Bridging People and Cultures in an HIV/AIDS Health Intervention in an African American Community*

Maxine Seaborn Thompson, Rachel Head, R.V. Rikard, Carlotta McNeil, and Caressa White

## Abstract

As universities become more involved in real-world problems that affect racial and ethnic communities, university members are identifying strategies to effectively work with culturally diverse community partners. The Communities and Health Disparities Project described in this article is an example of collaborative scholarship that engages the university, a community-based organization, and members of the African American community. The purpose of the project was to develop a culturally tailored toolkit to correct misinformation about HIV/AIDS. In this article, the authors identify five strategies for building relationships across diverse cultural groups: connecting with cultural insiders, building collegiality, developing shared aims and goals, recognizing diverse skills and expertise, and sustaining commitments. The authors provide a conceptual framework that integrates the Freirian philosophy and the scholarship of engagement.

## Introduction

Today, the public service missions of universities are gaining interest from within and outside the academy *(Kezar, Chambers, & Burkhardt, 2005)*. Discussion about the public service mission focuses on the relevance of academic research for addressing the pragmatic needs of communities and practitioners *(Aronson & Webster, 2007; Sandmann, 2008)*. Boyer notes that the "scholarship of engagement means connecting the rich resources of the university to our most pressing social, civic, and ethical problems" *(1996, pp. 19–20)*. Engaged scholarship is emerging as a way of bridging the gap between university research and solutions to real-world problems *(Weerts & Sandmann, 2008)*. For example, the HIV/AIDS epidemic in the African American community is a "social, economic, and moral problem" that fits Boyer's engaged scholar paradigm *(Aloisi & Kennedy, 2001, p. 81)*. The Communities and Health Disparities Project at North Carolina State University (NC State) is an example of university engaged

scholarship oriented toward developing a culturally tailored HIV/AIDS toolkit to correct misinformation about the epidemic in the African American community *(Baur, 2010; Nielsen-Bohlman, Panzer, & Kindig, 2004)*.

The Communities and Health Disparities Project is a collaboration of three groups: the Alliance of AIDS Services–Carolina (the Alliance) Prevention, Education, and Testing team; African American community members; and faculty members and graduate students in the sociology department at NC State. The overall goal of this pilot project is to raise the level of awareness about HIV/AIDS in the African American community through culturally sensitive peer educator training intervention workshops.

## Pilot Project Challenges

Connecting with the African American community to implement the pilot project presents unique challenges. First, African Americans express distrust of university and medical researchers because of fear of being used or harmed in scientific research *(Braunstein, Sherber, Schulman, Ding, & Powe, 2008)*. This lack of trust may stem from a general distrust of mainstream society *(Smith, 2010)* or a history of unethical medical research such as the Public Health Service Tuskegee Syphilis study *(Jones, 1993; Reverby, 2009, 2011)*. Whatever the source of the distrust, its consequence is that fewer African Americans participate in health prevention programs. Second, there is strong adherence to the norm of silence in the African American community *(Laurencin, Christensen, & Taylor, 2008)*. The deep cultural understandings that underlie such norms, beliefs, and behaviors, including those related to HIV/AIDS, may not be accessible to social scientists who are outsiders; furthermore, health-oriented prevention programs may not be culturally appropriate because of these norms *(Kreuter & Haughton, 2006; Resnicow, Baranowski, Ahluwalia, & Braithwaite, 1999)*.

Third, previous research demonstrates that communication is least inhibited when respondents and researchers are of the same race or ethnicity *(Johnson & Parsons, 1994)*. In the present case, race or ethnicity is salient, as the research setting is the local African American community. Cultural differences tied to race or ethnicity have a substantial impact when community members are asked questions about their sexual behavior *(Davis, Couper, Janz, Caldwell, & Resnicow, 2010; Moorman, Newman, Millikan, Tse, & Sandler, 1999)*. The authors represent the racial diversity of the project team. The Alliance team members, including the fourth and fifth authors, are

African American. The primary investigator of the project and first author and one of the university members are African American. The remaining university members are White, including the second and third authors. The White graduate students who participated in the project were interested in engaged scholarship and public sociology as well as learning how to implement a culturally sensitive HIV/AIDS intervention for the African American community. Therefore, this project provided a learning opportunity for graduate students to work under the mentorship of an African American principal investigator and with African American community partners (the Alliance) who have diverse professional expertise and experience working with diverse racial and ethnic communities.

This article focuses on strategies for building a partnership between engaged scholars (university members) and public health practitioners in a community nonprofit organization. The authors discuss their lessons learned, which may help other university members work with culturally diverse community partners. They begin by describing the university context and the community context. They then provide an overview of the pilot project's design and implementation. They discuss how the cultural bridging strategies built a relationship between the Alliance (the community professionals) and the engaged scholars (university members). In doing so, they identify the challenges of building relationships across different cultural backgrounds and professional perspectives. Next, they discuss the major product from their efforts, the HIV/AIDS toolkit. Participants in a focus group evaluated the cultural appropriateness of the toolkit for the African American community. The focus group feedback provided a short-term evaluation of the collaborative process. Finally, the authors conclude by reviewing the five strategies used in the project for bridging cultural divides for both academic and community partners and providing suggestions for their implementation.

## The University Context

North Carolina State University (NC State) is a research-extensive land-grant university with extension offices in all 100 counties of North Carolina. As a land-grant university, NC State is well situated to respond to the needs of urban and rural communities in the state. Former NC State Chancellor Marye Anne Fox initiated a task force on outreach, extension, and engagement in 1999. The task force identified ways the university could respond to the people of North Carolina, particularly the needs of diverse communities, as

a consequence of the economic, environmental, social, and public health damage from Hurricanes Floyd *(1999)* and Dennis *(2005)* in eastern North Carolina *(First White Paper, 1999)*. Two subsequent task force committees presented ideas and recommendations for focusing the university's intellectual competence and organizational resources toward sustaining optimal outcomes for the state and the southern region *(Crowling, 2005; Scholarship of Engagement Task Force, 2010)*. As a result, NC State initiated several institutional change efforts to support increased emphasis on the scholarship of engagement:

- creation of an Office of Vice Chancellor of Extension, Engagement and Economic Development;
- creation of the Collaborative for Research on Engagement, and the Institute for Nonprofits;
- integration of the scholarship of engagement with research and teaching; and
- implementation of competitive SEED Grants to support the design of community-based projects in collaboration with community partners.

In 2008, faculty members and graduate students in the Department of Sociology and Anthropology, in collaboration with the Alliance, secured a SEED Grant to develop a culturally tailored health literacy toolkit with North Carolina's African American communities.

## The Community Need

In 2006, the Centers for Disease Control *(CDC, 2006)* identified the Southeast as the epicenter of AIDS deaths in the United States. State health statistics indicate that knowledge about sexually transmitted infections, including HIV and AIDS, is a critical health need for North Carolinians *(NC State Center for Health Statistics, 2007)*. In 2005, North Carolina ranked sixth in the nation for the proportion of African Americans living with AIDS *(CDC, 2006)*. The rate of HIV infection for African Americans was more than 8 times that for Caucasians. Wake County, the site of the pilot project, ranks 12$^{th}$ of 100 counties in North Carolina in the number of HIV cases *(North Carolina State Center for Health Statistics, 2009)*. Most new cases of HIV are transmitted heterosexually *(CDC, 2006)*, and African American women represent the fastest growing group of newly diagnosed HIV patients (36% of new HIV cases). According to state surveillance reports, the rate of new HIV infections is increasing among

young adults, especially among African American males. In their review of 735 surveillance records examining new HIV diagnoses in men aged 18 to 30 living in 69 North Carolina counties, Hightow et al. *(2005)* found that 84% were college men and 87% of the college men were African American. In short, there was a clear need to develop an HIV/AIDS prevention and intervention program tailored to the unique risks among African Americans.

## The Pilot Project: An Overview of the Alliance of AIDS Services–Carolina (The Alliance)

The Communities and Health Disparities Project began as a pilot project

- to develop a culturally tailored HIV/AIDS health literacy toolkit;
- to train African American community members to be peer educators; and
- to build community engagement through peer educators sharing HIV/AIDS health information with neighbors, friends, and family members.

Figure 1 illustrates the overall design and phases of the project. Building and sustaining authentic community partnerships is illustrated in Phases I and II. Phase III involves administration and evaluation of the project.

## Phase I

The Alliance is a nonprofit organization funded by the United Way of America (a network of community organizations) that provides comprehensive, skill-based, and ongoing education about HIV and other sexually transmitted infections to members of diverse communities. The Alliance serves people living with HIV/AIDS and their loved ones and caregivers as well as members of their communities. The Alliance's Prevention, Education, and Testing program provides free HIV information, group education, and individual pre- and post-HIV-test counseling.

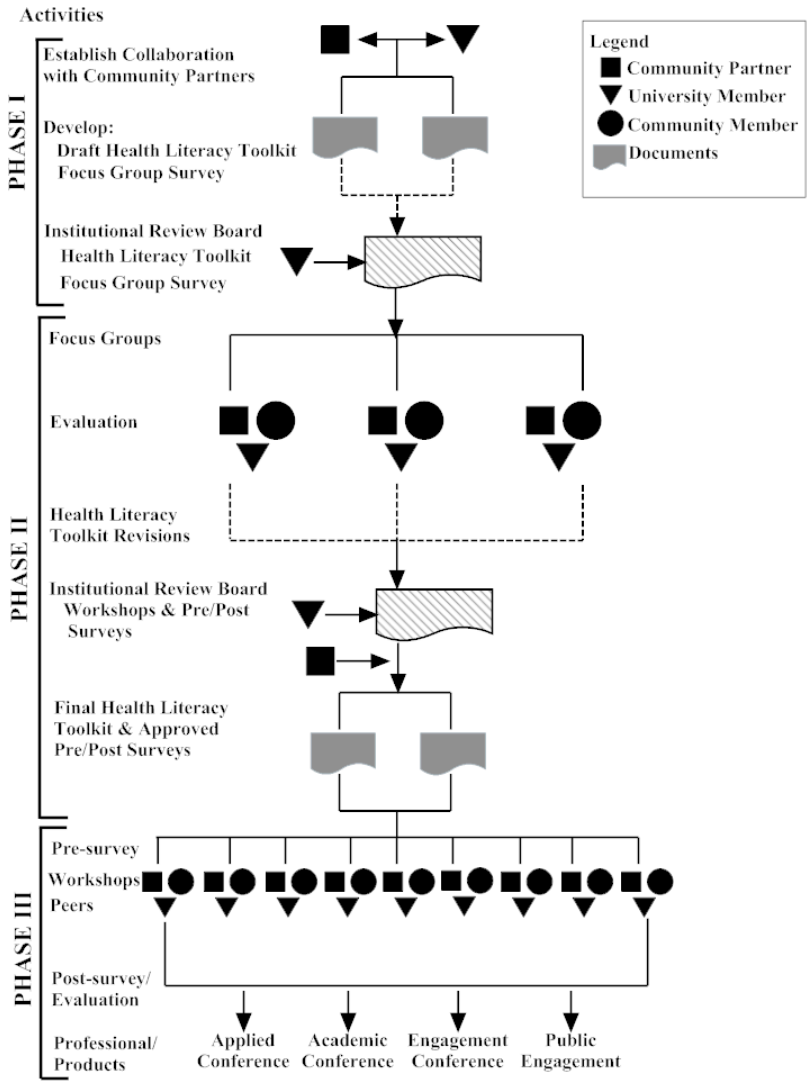



**Figure 1. Community and Health Disparities Project Design**

In Phase I, the Alliance and university members established a collaboration to develop the culturally tailored HIV/AIDS toolkit. The Alliance and university members developed an initial draft of a toolkit based on HIV/AIDS information from the CDC, the North Carolina Office of Minority Health, and the North Carolina Center for Health Statistics. Working with community volunteers, the Alliance recognized the need to tailor health information to the target audience, African Americans. Culturally tailored health information reflects a group's norms, values, practices, way of life,

and meanings *(Kreuter, Lukwago, Bucholtz, Clark, & Sanders-Thompson, 2003)*. The African American community, however, is considerably diverse, reflecting individuals' varying levels of commitment to cultural beliefs and values. Therefore, culturally tailored health messages must be designed to use a variety of approaches that capture both the shared culture and the diversity within a community *(Kreuter et al., 2003)*. The information in the HIV/AIDS toolkit is designed to be readable and usable for youth and adults, parents with children, men who have sex with men, and persons in the faith community.

## Phase II: African American Community Members

In Phase II, the authors conducted three focus groups with African American community members to evaluate three aspects of the HIV/AIDS toolkit: substantive content (understandings of the causes and treatment of HIV/AIDS), cultural appropriateness of information, and visual appeal. Each focus group met at NC State's main campus on Saturday afternoons in January, February, and April of 2009. The focus group participants gave feedback on whether the toolkit would be serviceable and usable in the community. Participants engaged in conversations about social and cultural issues that affect the risk of HIV infection. The authors revised the HIV/AIDS toolkit based on information gleaned from the focus group sessions. The Institutional Review Board at NC State reviewed and approved revisions to the toolkit, the focus group protocol, and pre- and post-surveys developed to evaluate the peer education workshop.

## Phase III

Phase III of the project involved recruiting community members for peer educator workshops, administering pre- and post-surveys to the peer educators, and evaluating the project. The premise of a peer education intervention strategy is that individuals from local communities can serve as role models and information providers within their respective networks *(Latkin, 1998; Latkin, Forman, Knowlton, & Sherman, 2003)*. The peer education intervention strategy has been used successfully by others to influence a range of health behaviors, including sexual behaviors, violence, and substance use *(Sloane & Zimmer, 1993)*.

## The Pilot Project's Philosophical Underpinning: Freirian Philosophy

Paulo Freire's *(1970)* pedagogical philosophy and problem-posing method served as the guiding framework for the project. Freire's pedagogical philosophy emphasizes empowering members of marginalized communities through cooperative learning. This focus was directly applicable to the pilot project's goal: to empower African Americans by giving them health information about HIV/AIDS. It is difficult, however, to reach the goal of empowerment when confronted with cultural differences that can produce apathy or mistrust. Power differences in traditional teacher-student roles often lead to passive learning among students (for example, students listening to the teacher; *Freire, 1970*). In addressing community health problems such as HIV/AIDS, however, it is important for community members to become change agents rather than to be passive students. The Freirian technique of problem-posing engages community members through questions that may not necessarily have answers (e.g., "Why do you think the rates of HIV are so high among African Americans?"; *Wallerstein & Bernstein, 1988*). Community members are encouraged to reflect on these questions, explore how their everyday lives and common experiences are related to HIV/AIDS, share knowledge, and form an action plan.

Figure 2 illustrates a conceptual framework for integrating the Freirian pedagogy philosophy with collaborative engagement. The bidirectional arrows represent the continuous flow of communication *(Sandmann, 2008)*. Phase I of the model reflects an ongoing dialogue among the African American community members, the Alliance members, and the university members to collectively discover barriers to HIV/AIDS prevention *(see Minkler & Cox, 1980; Smith-Maddox & Solórzano, 2002 for additional examples)*. In the second phase of the model, the barriers to HIV/AIDS prevention are represented through language and visual images in the HIV/AIDS health literacy toolkit. Barriers to and opportunities for preventing the spread of HIV are highlighted during the peer education workshops through videos, role-playing, and visual devices. The materials, for example, show how to correctly use both a male and a female condom. The third phase involves all participants taking action to address the spread of HIV in the African American community by empowering peer educators. For example, peer educators share information about HIV/AIDS and contact and service information (HIV testing information) for the Alliance and other HIV/AIDS organizations.

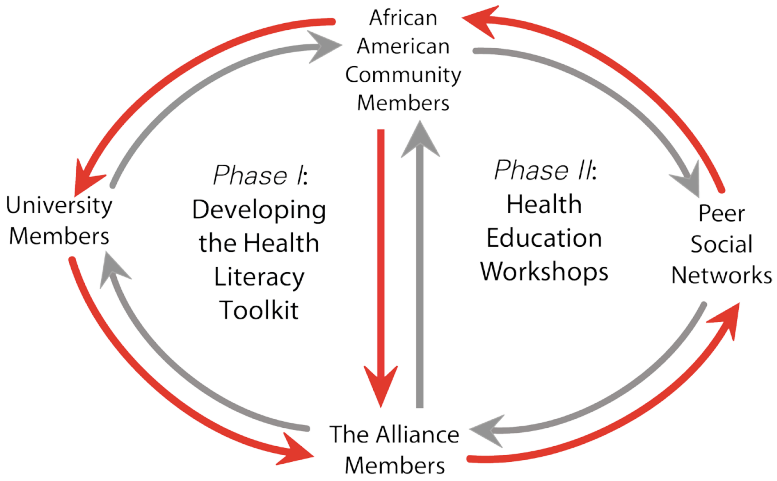



**Figure 2. Integrating Freirian Pedagogical Philosophy and the Scholarship of Engagement**

## Strategies for Bridging Cultural Divides

During the Communities and Health Disparities Project, the authors identified five strategies to help overcome these cultural divides between community partners and university members. The bridging strategies are not steps in a process but are guidelines for working with community partners. In the following sections, we elaborate on the strategies and how they unfolded during the implementation of the Communities and Health Disparities Project.

## Strategy I: Connecting with Cultural Insiders

A key strategy for addressing cultural diversity is to connect with cultural insiders. Paulo Freire's *(1970)* pedagogical philosophy emphasizes knowing the cultural context and the historical and psychosocial processes that underlie a social problem. Discovering and learning the cultural context is essential for university members to identify barriers to safe sex and HIV/AIDS knowledge. HIV-related stigma, discrimination, homophobia *(Brooks, Etzel, Hinojos, Henry, & Perez, 2005)*, HIV conspiracy beliefs *(Bogart & Thorburn, 2005)*, and mistrust *(Smith, 2010)* are barriers to HIV/AIDS prevention among African Americans. Culturally tailored health messages address HIV-related social biases as well as the unwritten social norms and cultural scripts for sexual behavior *(MacLachlan, 1997)*. Outreach programs that do not consider cultural context are rarely successful or sustainable *(Meade, Menard, Martinez, & Calvo, 2007)*.

The Alliance team members, as cultural insiders, have a well-established relationship with the African American community. The Alliance recognizes the importance of integrating African American cultural values and health information for relaying HIV/AIDS prevention information. For example, social responsibility is an important cultural value in the African American community. Social responsibility emphasizes the importance of communal relationships rather than individuality *(Halbert et al., 2007; Nobles, 1991)* and is manifested through concern for others, family security, respect for traditions and elders, and cooperation *(Jagers & Mock, 1995; Nobles, 1991; White & Parham, 1990)*. Previous research reveals that African Americans attach greater importance to family values *(Landrine & Klonoff, 1995)* than do Whites, Latinos, or Asians. Moreover, regular family contact *(Parker & Calhoun, 1996)*, extended family households *(Hays & Mindel, 1973; Landrine & Klonoff, 1996)*, and shared family practices are more important to African Americans than to Whites or other racial and ethnic groups *(Lozoff, Wolf, & Davis, 1984; Mandansky & Edelbrock, 1990)*.

The social responsibility theme is included throughout the health toolkit to motivate peer educators to share information with friends and family members. To promote the idea of social responsibility, the Alliance and university members identified the message of then presidential candidate Barack Obama from the 2008 Democratic Convention: Individual Responsibility + Mutual Responsibility = Social Responsibility. The message of social responsibility urges community members to take proactive steps to know one's HIV status, to share HIV test results with sexual partners, and to practice safe sex to protect the individual and the community.

Fear and social stigma also contribute to the prevalence of misinformation about HIV/AIDS in the African American community. An earlier draft of the toolkit included language such as "AIDS is a killer disease" and "AIDS is a 'serial' killer." Sensational themes are frequently part of the mass media's coverage of HIV/AIDS in the African American community *(Russell, 2006)*. According to the Alliance, however, facts and statistics from credible sources (such as the CDC) are more important to community members than sweeping generalizations. The Alliance felt strongly that sensational themes are not appropriate, as demonstrated by this conversation about the toolkit:

> Male Alliance team member: Do y'all believe statements like "AIDS is a killer disease" and "AIDS is a serial killer"?

> Research team member: We thought members of the community would identify with Reverend Jackson's comment as he was referring to the disparities in HIV infection rates.

> Female Alliance team member: Using statements like "AIDS is a killer disease" will incite more panic. People with HIV are living longer now than in the 1980s and 1990s due to the many different HIV medications . . . . And most people die from AIDS-related illnesses, not AIDS. Take out the word 'killer' and use the word HIV, not AIDS. The title should read "HIV in the Black Community."

> Male Alliance team member: Make sure to avoid sweeping statements because that will also create misinformation. Instead of statements like "a few years ago," restate the exact number of years or year of the information. People in the community want to know the source of information—and give them a way to access the information. I'd suggest taking out the footnotes and putting the references in the text, and add something like "for more information on X go to Y."

Moreover, use of sensational themes promotes fatalistic attitudes (e.g., "we're all going to die of something"). Consistent with the suggestions of the Alliance, the project avoided emotion-laden language to create HIV/AIDS awareness *(Randolph & Viswanath, 2004; Witte & Allen, 2000)*. Most important, the toolkit includes culturally appropriate language, situations, and visual displays as themes for medical concepts and terminology. The toolkit provides "how to" example conversations to help peer educators talk with their friends and family about HIV/AIDS myths and misperceptions, barriers to safe sex practices, sexually transmitted infections as gateway diseases for HIV infection, knowing one's status, and the need for repeat HIV testing.

## Strategy II: Building Collegiality

Building relationships or collegiality depends on developing personal relationships between university members and community partners. Shared and equal participation, open communication, and trust develop over time. The key for the engaged scholar is to ground his or her research in the reality of community

practitioners during the problem formulation stage *(Van de Ven, 2007)*. The early stages of the current collaboration focused on getting to know each other and building trust. During this initial phase, university members were not sure whether the project would move forward because most of the interactions and conversations were informal. At the same time, the Alliance members withheld their full commitment until they reached an interpersonal level of comfort. This took time and many meetings among the project members. The collaboration solidified after a lunch meeting between the primary investigator and the Alliance's prevention, education, and testing director, as this comment demonstrates:

> Director: We like you, Dr. X, and we're going to help you with the project.
>
> Dr. X: That's great! Let's not be formal. I feel more comfortable if you call me [*first name*].

The director's comment includes two significant details. First, the partnership with the Alliance depended on making a relational connection. In other words, a mutual personal investment had to occur before the partnership could move forward. Second, the formality of courtesy titles (such as "doctor" and "professor") within the African American community is well established *(Cai, Wilson, & Drake, 2000)* as a form of social recognition and respect. Removing the use of professional titles in conversations avoids hierarchical lines of communication and builds trust.

Who travels and where to meet are decisions that reinforce acceptance and respect. To avoid any expressions of academic dominance, the university members met at the Alliance's office during times that fit the Alliance team's schedule. The Alliance and university members rotated providing snacks during project meetings. During the informal gatherings around food, the teams shared stories about their backgrounds and experiences. It was also an important time to learn about the Alliance's outreach program and experiences in the community. Furthermore, meeting at the Alliance office and during the team's working hours ensured that the Alliance team members were paid, which was a consideration because the project did not have resources to compensate the Alliance team for their efforts. Respect for the Alliance team's values and expectations early in the collaboration established the groundwork for building a supportive collegial working relationship.

## Strategy III: Developing Shared Goals and Aims

Engaged scholarship requires involving community stakeholders in deciding which goals and aims to pursue *(Sandmann & Thornton, 2008)*. Sharing goals and aims is also a form of accountability to partners, because collaborators must both be aware of and attend to each other's interests. In some instances, accountability may require reorienting the project aims or goals (or both) to negotiate the needs of one or more partners. The outcomes or products from the collaboration, however, should always be mutually beneficial.

In the case of the Communities and Health Disparities Project, the Alliance's organizational mission matched the research team's goal for peer education training. Developing a comprehensive, culturally tailored HIV/AIDS health toolkit had an added value for the Alliance because the toolkit could be used in volunteer training and education outreach programs. In accordance with peer education intervention strategy, the toolkit recognizes the importance of social influence and cultural diffusion of norms. For example, the "How To" section in the toolkit contains practical information for Alliance volunteers to use when discussing HIV/AIDS with different social groups, such as persons in the faith community, the elderly, and teenagers.

## Strategy IV: Identifying Complementary and Diverse Skills

To highlight its collaborative nature, the scholarship of engagement emphasizes and draws on the complementary skills and diverse areas of expertise of the respective groups *(Sandmann & Thornton, 2008)*. Neither community partners nor university members should act as passive recipients of information. Further tension may arise between the partners when participation is masked in tokenism. For example, an engaged scholar might assume that community partners are not committed to the scientific rigor of the research process or knowledgeable about theory and methods of evaluation. Conversely, community partners might assume that researchers are primarily interested in collecting data and other information and lack an understanding of how the reality of everyday living connects to the problem *(Boyer, 1996)*.

During this project, both the Alliance and the research team recognized mutual expertise and acknowledged expertise or knowledge limitations. Our ability to do so was particularly facilitated by the team's sensitivity to what a successful integration of perspectives entailed. In one of the early meetings, the Alliance

director was careful to discuss the wording of an initial draft of the HIV/AIDS health toolkit. Noting her hesitancy in making suggestions, one of the university members said, "You are the experts. We are here to learn from you and need your ideas to help make our project a success." Elevating the community partner's skills and expertise over those of the university members contributed to the partner's investing in the project and to sustaining the partnership.

## Strategy V: Sustaining the Collaboration

Sustaining an engagement partnership is instrumental to a long-term relationship between a university and community partners *(Brown et al., 2006)*. For the most part, limited funding of the pilot project presented serious challenges to sustaining the project for the long term. Strengthening the partnership in the short term became our immediate goal. We approached sustaining the partnership as an ongoing process by careful attention to open and honest communication, trust and respect, and shared aims and goals *(Israel et al., 2006)*. These efforts were undergirded by our joint ownership of the health literacy toolkit, collaborative presentations at professional meetings, joint publications, and shared recognition of our work through public venues. Our short-term successes of presenting papers from our work at professional meetings reinforced a commitment from members of both teams. The positive payoffs of our efforts stemming from these joint activities led to a mutual interest in identifying strategies for continuing this initiative and planning future and potential projects. Participation in the public activities sponsored by the Alliance (such as the AIDS Walk, Pride Festival, and World AIDS Day) and private donations to programs such as the AIDS Awareness license plate project are examples of our participation in other activities that contributed to building momentum as a team and deepening the partnership.

A personnel change at the Alliance was one threat to sustaining our partnership. One of the key members of the Alliance team accepted a position at a local university that suited her talents as a community coordinator of an AIDS research team. Nevertheless, she remained linked to the team and participated in implementing and planning the workshops and collaborating on joint professional presentations. In the end, the change in personnel did not threaten the partnership but instead reflected that a sustainable relationship had developed.

## Assessment: Connecting with the African American Community

According to McNall, Reed, Brown, and Allen *(2009)*, partnership outcome measures are rare and studies of the relationship between partnership characteristics and outcomes are even scarcer (for a review see *Granner & Sharpe, 2004*). However, Harper and colleagues argue that a partnership is successful if the intervention is acceptable and responsive to community needs and norms *(Harper, Bangi, Sanchez, Doll, & Pedraza, 2009; Miller, 2010; Miller & Campbell, 2006)*. Therefore, the success of the partnership was evaluated based on the feedback from community members who participated in focus groups. Three focus groups were conducted in 2009 to evaluate the HIV/AIDS toolkit.

### The Assessment Questions

Participants provided feedback to a series of open-ended semistructured questions. The questions focused on the visual appeal and amount of information as well as raising HIV awareness. Examples of design and information questions included: *Are there any sections you found most useful? Are there sections that are least useful? Is the booklet [toolkit] user-friendly? How would you use this document?* Assessment questions posed as problems provided an opportunity for participants to examine the impact of HIV in their community: *Why do you think African Americans have higher rates of HIV infection? Who is most at risk for getting HIV? Do you think African American churches try to raise HIV awareness? Since there is no cure for HIV—what can we do to stop the spread of HIV? What are some reasons that people do not get tested for HIV?* The open-ended format during the focus groups provided flexibility to explore knowledge of HIV in the African American community.

### The Sample

Using a snowball sampling method, members of the African American community were recruited to participate. To be eligible, respondents had to self-identify as African American and as 18 years of age or older. Participants were recruited through

- announcements in bulletins at African American churches;
- fliers distributed in Southeast communities of a large metropolitan city in North Carolina;
- public service announcements on a public access television station;

- announcement postings on social networking sites (e.g., Facebook, Craigslist), and an e-billboard system at a large state university; and
- fliers distributed on local college campuses.

Twenty-four African American community members participated in the three focus groups. Participants ranged from 18 to 65 years of age; nine of the focus group participants were male and 15 were female. To maintain participants' confidentiality, the university IRB guidelines limited the personal information to gender and age, and a pseudonym was to be offered to each participant. All participants declined to use pseudonyms.

## Data Collection Methods

Each 90-minute focus group session was video recorded. During the focus group discussion, the authors matched the race of university members with African American community participants. The two African American university members (the primary investigator and graduate student) were present during each focus group; one facilitated the focus group discussion, and the other operated the video recording equipment and took detailed observational notes. Each participant received $20 for participating. Focus group participants reviewed and contributed critical reflections on the initial draft of the toolkit.

## Data Analysis

A modified style of grounded theory *(Strauss & Corbin, 1990)* was employed by incorporating Freire's *(1970)* focus on emergent themes. Grounded theory offers a systematic approach to data analysis that stresses comparison, verification, and the "grounding" of theory in data *(Strauss & Corbin, 1990)*. Freire *(1970)* emphasized that through problem-posing, community members can identify emergent themes and collectively develop plans of action to change community problems.

# Findings

Data from the focus groups form the basis of the findings to assess the success of the collaboration between the Alliance and university members. The findings confirm the central themes presented in the toolkit (e.g., cultural appropriateness and social responsibility) as well as revealing points of disagreement in message framing. The data provide evidence that the Alliance and NC State's university members produced an authentic toolkit

that reflects the HIV/AIDS concerns in this particular African American community.

## Cultural Appropriateness of the Toolkit for the African American Community

Some of the cultural themes and message framing included in the toolkit resonated well with the focus group participants. Overall, focus group participants felt that the design and layout of the toolkit would appeal to members of their community. One participant commented, "I think it's appealing because you're focusing toward African Americans. You have African Americans on the cover. So, it's more appealing to you." Another participant thought that the inclusion of pictures of Barack Obama being tested for HIV would encourage other African Americans to also get tested.

Participants felt that specific sections of the toolkit provided information that would help members of the African American community understand whether they are at risk of becoming HIV/AIDS infected, and what they can do to protect themselves. For example, focus group members noted that the toolkit provided useful, easily accessible information that dispelled myths and misperceptions about HIV and AIDS in the African American community. Reflecting this sentiment, one female participant stated:

> I think in the African American community for a long time it's been gay people or people who use drugs who are the most at risk but to see . . . that it's everyday people that can become infected with HIV and AIDS and just to really see that information here would help a lot of people to understand they are at risk. It's not just a particular population of people who are using drugs or are in the gay/lesbian community.

The focus on social responsibility also appealed to the focus group participants. The participants' comments echoed the importance of concern for one's family and community. For example, one male participant commented:

> My reason [for getting an HIV test] would be the fact that it doesn't just affect you. It affects your family and your future partners and then your kids too. Your kids being the biggest part because you know they don't have a choice if they are your kid. So that would be my biggest reason for knowing if I am [HIV] positive.

## Social Responsibility

The Alliance of AIDS Services–Carolina has a strong faith-based program. Faith ministries in the area provide food drives and host meetings, trainings, and support groups for persons living with AIDS. However, focus group participants perceived the church as a barrier to promoting safe sex behavior, and as resistant to sexual expression *(Ward, 2005)*. The limited role of the church in promoting HIV/AIDS prevention was an unexpected finding. Several focus group participants suggested that the "gatekeeping" role of the church hinders the promotion of HIV health information. As one female participant asserted, there is a need to impart HIV/AIDS knowledge to members of the faith community:

> You know there are a lot of people that are on the "down low." You have churchgoing, God fearing women who [are] being infected but nobody wants to talk about it. It's nothing to be ashamed of. If that's what you choose to do, then [you should] go ahead and do that; but you need to be safe about it.

A male participant noted that disapproval from the church community about sex, in general, is a barrier to discussions about HIV/AIDS or safe sex:

> The main problem with the churches is that the stigma starts as soon as they find out you're having sex. As soon as you start having sex, there's like a brick wall. They don't want to talk to you. They don't want to deal with you afterwards. They don't want to deal with the aftereffects. You have to get past the whole myth that if you're in church you're not having sex. You have to get past that because it happens.

A female participant continued:

> Regardless of what goes on, we're still a people that are churched; whether you go every Sunday, we are still church-bound. And, for a lot of us, whatever the church says, that's what it is. And so you have some pastors and some churches that will preach hell and brimstone and the fire coming down, you turn into a pillar of salt, they [pastors] won't discuss it in real terms. As far as AIDS is concerned, the fire and brimstone and God's condemned you. But you [church] don't talk to them about what's really going on in the community. So if you go to

> church and that's all you hear, why would I say anything to anybody?

Focus group participants also felt that the "How to Talk About HIV/AIDS" section of the toolkit for persons in the faith community would be helpful in addressing these issues *(see Leong, 2006)*. This section included information on sensitive points in conversations with persons of faith, including how to show respect for denominational differences, how not to challenge religious beliefs, and how to avoid stereotypes about people who attend church.

## Message Framing

Focus group participants found some aspects of message framing in the toolkit culturally appropriate and useful; however, there were also aspects that they questioned. Notably, they challenged the focus on the African American community and expressed concerns that this focus might perpetuate negative stereotypes of African Americans. Another critique concerned the use of fear-based messages to encourage safer sex practices. Many focus group participants favored the use of fear-based messages, while the Alliance members adamantly opposed such tactics.

### Racial awareness or racial targeting?

Although the majority of focus group members agreed that HIV/AIDS is a leading health problem in their communities, some participants raised concerns that the HIV/AIDS toolkit focused too heavily on the epidemic among African Americans. One male participant pointed out:

> You don't want someone to read it and be like "I don't want to have sex with Black girls because they have STDs. I should go for a White girl 'cause they don't have HIV."

This statement underscores focus group participant concerns of perpetuating negative stereotypes about African American female sexual behaviors. Another male participant made a point about the racial boundaries of friendship groups:

> If our goal is to empower our peers, we don't want to exclude our peers. We don't want to make it seem like well, if we give them the booklet, then they have to be the same color as us or if we give them the booklet we're giving it to them because of . . . race. It's because we want to be educated.

This participant questioned the assumption that intimate relationships in the African American community are solely intra-racial. More important, the statement points to the heterogeneity in the community's friendship groups.

Based on these types of focus group comments, the Alliance and research team members re-examined the implicit link among race, stereotypes, and sexual health in the toolkit. University members then revised the document so that it represented the association between race and HIV prevalence by reference to race as a marker of health problems rather than a cause *(NC State Center for Health Statistics, 2007)*. The authors also incorporated into the toolkit the following statement:

> **Myth:** Since HIV is a problem in the African American community, I don't need to worry about getting it from someone who isn't Black.
>
> **Fact:** Although HIV is more common in the African American community than it is for other racial groups, persons of any race can have HIV. It's not who you are, but what you do.

## Fear mongering or telling it like it is?

As stated earlier, the Alliance members were adamant that the authors remove emotion-laden language from the toolkit, as they felt that it promotes fear and misinformation. Several focus group participants, however, expressed the feeling that without such language, some members of the African American community would not take HIV seriously or would view sexually transmitted diseases too lightly. Participants argued that to have an impact, it is necessary to reinforce the reality that there is no cure for AIDS. One focus group participant commented, "I think sometimes scare tactics may be the best tactics." Another participant pointed this out:

> The issue that I have with is that they [teenagers] take it [STD and HIV infection] as a joke. Chlamydia—get a pill. Gonorrhea—get a shot. . . . When you talk of STDs, I'm talking 12 through 17 [year olds]; when you say you could get a disease well, you know, all I got to do is go to the clinic and get a pill. They're [teenagers] not thinking or taking it [STD infection] seriously. How this

> [infection] affects your body. I have a 19-year-old neighbor who thinks, and she's relatively intelligent, that it [STD infection] will never happen to me. [The neighbor] Got two STDs while she was pregnant. . . .You gotta hit 'em first page. BAM! This will kill you!

The same female participant indicated that she used fear tactics with her son:

> You know what I told my son? Your thing [penis] gonna fall off. If you don't use a condom, two or three, your thing gonna fall off! It's gonna rot! My daughter, I said, it [vagina] will shrivel all up. He [the son] took it seriously when I said your thing could fall off.

The Alliance members had extensive experience and knowledge about HIV/AIDS and sexually transmitted diseases, and they believe that scare tactics do more harm than good. For example, using two condoms, as the participant argued, is not effective and more likely will fail. The Alliance members and university members considered the community members' perspective, but decided to avoid fear-based messages that potentially promote misinformation.

## Conclusion

The pilot project goals were to raise the level of awareness of HIV/AIDS in the African American community in North Carolina and, through raising such awareness, to encourage behaviors that will benefit the community (e.g., safe sex practices, HIV testing). Although the HIV/AIDS epidemic in the African American community represents a type of social and moral problem for the engaged scholar under Boyer's paradigm *(Aloisi & Kennedy, 2001)*, cultural mistrust of scientific research, and the norm of silence about sexual topics, presented unique challenges for engaging members of the African American community in this HIV/AIDS intervention project. From this pilot project, the authors affirmed five strategies for successfully collaborating with community partners, as previously described. Table 1 lists the strategies for implementing a collaborative partnership, provides reflections by the authors from their pilot project experience, and gives suggestions for readers who may want to test these strategies in their university-community projects.

**Table 1. Critical Reflections on University-Community Projects**

| Cultural Bridging Strategies | Reflections from Pilot Project | Suggestions for the Reader |
|---|---|---|
| 1. Connect with cultural insiders. Know the community | The social context is important. A community is not geographically bound. Community members are not homogenous. | What are the values and norms of the local community? What are the practical realities? What are the behaviors that support the norms and values? Who are the key players and carries of culture? |
| 2. Build collegiality by building trust and mutual respect. | The partnership is an untested relationship; trust and mutual respect grow over time. | A priority for a collaborative team: Begin early, and maintain open and clear communication throughout. |
| 3. Develop shared goals and aims with community partners. | The overarching goal of the project was to increase awareness of HIV/AIDS. The university members and the Alliance members had to prioritize other organizational objectives. | Listen. Use open and direct communication. Define mutual goals that are practical and obtainable. Allow for revisions of the original goals and serendipity. |
| 4. Identify complementary skills and diverse areas of expertise (i.e., practice bidirectional reciprocity). | The university members and the Alliance members integrated ideas about the workshop agenda. | Determine the objectives of the project that require particular areas of expertise. Focus on the project goals. University members must relinquish the traditional academic researcher role. |
| 5. Sustain a collaborative relationship by working toward mutually beneficial outcomes. | The pilot project participants worked toward shared outcomes (e.g., joint authorship on journal articles and professional presentations; university member particpation in Alliance-sponsored community events.) | Discuss the successes and problems of the partnership as a team. Include partners' comments in grant reports. Identify next steps based on current outcomes. |

## The Nonprofit Organization

The Alliance members and the university members mutually benefited from the collaboration project. As cultural insiders, the Alliance members offered invaluable knowledge of the African American community to the university members. They provided direction on where to begin and how to make contact with the community. In addition, the Alliance's affiliation lent credibility, making the project and toolkit more likely to be viewed as useful by members of the African American community. The benefits for the Alliance included the health toolkit, which can be used in its volunteer training programs, and increased visibility for its outreach efforts. In addition, the Alliance and research team members were co-presenters at three professional conferences, and are working as coauthors on journal manuscripts.

## The University Members

The most valuable experience in building the partnership for the university members was trusting others with aspects of the

project, including the contents of the toolkit and peer education curriculum. In academic research, investigators typically have control of the project from beginning to end. Building collegiality through reversal of the student-teacher role can be a humbling experience. Following the lead from partners who are cultural insiders requires releasing academic competitiveness and embracing cooperation. Through the project, a team of majority White graduate students led by an African American faculty mentor and by African American community partners had the opportunity to learn how to do research that benefits a local community where the majority of participants have a different racial background.

The traditional research model in the academy is a lone entrepreneur model: The researcher works in his or her office, has complete control of the research process, and engages the community through public presentations. The scholarship of engagement paradigm, however, is a collaborative model in which decisions are shared and are guided not only by theoretical concerns but by public concerns. Negotiating the project's objectives to meet the aims and goals of all partners was a challenge that required readjustments and moving outside the researchers' typical comfort zone.

Moreover, the benchmarks for success in the scholarship of engagement were unclear. University faculty members often do not know how to evaluate community engagement research or value engagement research as scholarship *(Driscoll & Sandmann, 2001; O'Meara & Jaeger, 2006)*. This was relatively true for this team, but we found that with diligence, evaluation is possible. Some of the activities essential to the scholarship of engagement—such as building relationships with community partners, recruiting and maintaining the interest of community participants, and producing products that are useful to the community—do not figure clearly in the evaluative equation for faculty productivity within the academy. However, each activity is integral to success in building and sustaining collaborative engagement projects in the community.

How to maintain the balance of accountability to the needs of the partners and the community was another challenge, particularly when concerns of meeting discipline-based definitions of scholarship are omnipresent. In addition, the intensity and time investment to accomplish the project were greater than expected. Underestimating the time to establish the dialogue with the partners, time for design and development of the toolkit, and time management of the research task and process required adjustment and flexibility throughout the project.

In summary, the Alliance and university members laid a foundation for continuing their work toward goals of research-based HIV/AIDS health intervention. Together they plan to submit grant proposals to the National Institutes of Health and the CDC to continue the project. Their future research efforts will include pre- and post-assessments, and a long-term evaluation of the impact of HIV/AIDS health intervention activities on community members.

## References

Aloisi, R., & Kennedy, P. (2001). HIV: Opportunities for faculty engagement. *Journal of Higher Education Outreach and Engagement, 6*(3), 79–87.

Aronson, K. R., & Webster, N. (2007). A model for creating engaged land-grant universities: Penn State's engagement ladder model. *Innovative Higher Education, 3*(5), 265–277.

Baur, C. (2010). *National Action Plan to Improve Health Literacy*. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion.

Bogart, L. M., & Thorburn, S. (2005). Are HIV/AIDS conspiracy beliefs a barrier to HIV prevention among African Americans? *Journal of Acquired Immune Deficiency Syndromes, 38*, 213-218.

Boyer, E. (1996). The scholarship of engagement. *Journal of Public Service and Outreach, 1*(1), 11–20.

Braunstein, J. B., Sherber, N. S., Schulman, S. P., Ding, E. L., & Powe, N. R. (2008). Race, medical researcher distrust, perceived harm, and willingness to participate in cardiovascular prevention trials. *Medicine, 87*(1), 1–9.

Brooks, R. A., Etzel, M. A., Hinojos, E., Henry, C. L., & Perez, M. (2005). Preventing HIV among Latino and African American gay and bisexual men in a context of HIV-related stigma, discrimination, and homophobia: Perspectives of providers. *AIDS Patient Care and STDs, 19*(11), 737–744.

Brown, R. E., Reed, C. S., Bates, L. V., Knaggs, D., Casey, K. M., & Barnes, J. V. (2006). The transformative engagement process: Foundations and supports for university-community partnerships. *Journal of Higher Education Outreach and Engagement, 11*(1), 9–23.

Cai, D. A., Wilson, S. R., & Drake, L. E. (2000). Culture in the context of intercultural negotiation: Individualism-collectivism and paths to integrative agreement. *Human Communication Research, 26*, 591–617.

CDC. (2006). *Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. 2006 Disease Profile*. Centers for Disease Control and Prevention http://www.cdc.gov/nchhstp/publications/docs/2006_disease_profile_508_final.pdf

Crowling, E. (2005). Recommendations for enhancement of the commitment of NC State to serving the people of North Carolina. www.ncsu.edu/.../FirstWhitePaperonExtensionandEngagement--RecommendationsandAddendum.doc

Davis, R. E., Couper, M. P., Janz, N. K., Caldwell, C. H., & Resnicow, K. (2010). Interviewer effects in public health surveys. *Health Education Research, 25*(1), 14–26. doi:10.1093/her/cyp046

Driscoll, A., & Sandmann, L. R. (2001). From maverick to mainstream: The scholarship of engagement. *Journal of Higher Education Outreach and Engagement, 6*(2), 9–19.

First White Paper. (1999). *Recommendations for enhancement of NCSU's commitment to serving the people of North Carolina*. www.ncsu.edu/.../FirstWhitePaperonExtensionandEngagement--RecommendationsandAddendum.doc

Freire, P. (1970). *Pedagogy of the oppressed*. New York, NY: Continuum.

Granner, M. L., & Sharpe, P. A. (2004). Evaluating community coalition characteristics and functioning: A summary of measurement tools. *Health Education Research, 19*(5), 514–532.

Halbert, C. H., Barg, F. K., Weathers, B., Delmoor, E., Coyne, J., Wileyto, E. P., . . . Malkowicz, S. B. (2007). Differences in cultural beliefs and values among African American and European American men with prostate cancer. *Cancer Control, 14*(3), 277–284.

Harper, G. W., Bangi, A. K., Sanchez, B., Doll, M., & Pedraza, A. (2009). A quasi-experimental evaluation of a community-based HIV prevention intervention for Mexican American female adolescents: The SHERO's program. *AIDS Education & Prevention, 21*(Supplement B), 109–123.

Hays, W. C., & Mindel, C. H. (1973). Extended kinship relations in Black and White families. *Journal of Marriage and Family, 35*(1), 51–57.

Hightow, L. B., MacDonald, P. D. M., Pilcher, C. D., Kaplan, A. H., Foust, E., Nguyen, T. Q., & Leone, P. A. (2005). The unexpected movement of the HIV epidemic in the southeastern United States: Transmission among college students. *JAIDS: Journal of Acquired Immune Deficiency Syndromes, 38*(5), 531–537.

Israel, B. A., Krieger, J., Vlahov, D., Ciske, S., Foley, M., Fortin, P., . . . Palermo, A. (2006). Challenges and facilitating factors in sustaining community-based participatory research partnerships: Lessons learned from the Detroit, New York City and Seattle urban research centers. *Journal of Urban Health, 83*(6), 1022–1040.

Jagers, R. J., & Mock, L. O. (1995). The communalism scale and collectivistic-individualistic tendencies: Some preliminary findings. *Journal of Black Psychology, 21*(2), 153–167.

Johnson, T., & Parsons, J. (1994). Interviewer effects on self-reported substance use among homeless persons. *Addiction Behavior, 19*, 83–93.

Jones, J. (1993). *Bad blood: The Tuskegee syphillis experiment*. New York, NY: Free Press.

Kezar, A. J., Chambers, A. C., & Burkhardt, J. C. (2005). *Higher education for the public good: Emerging voices from a national movement*. San Francisco, CA: Jossey-Bass.

Kreuter, M. W., & Haughton, L. T. (2006). Integrating culture into health information for African American Women. *American Behavioral Scientist, 49*(6), 794–811.

Kreuter, M. W., Lukwago, S. N., Bucholtz, D. C., Clark, E. M., & Sanders-Thompson, V. (2003). Achieving cultural appropriateness in health promotion programs: Targeted and tailored approaches. *Health Education & Behavior, 30*(2), 133–146. doi:10.1177/1090198102251021

Landrine, H., & Klonoff, E. A. (1995). The African American Acculturation Scale II: Cross-validation and short form. *Journal of Black Psychology, 21*(2), 124–152.

Landrine, H., & Klonoff, E. A. (1996). Traditional African-American family practices: Prevalence and correlates. *Western Journal of Black Studies, 20*(2), 59-62.

Latkin, C. (1998). Outreach in natural settings: The use of peer leaders in HIV prevention among injecting drug users' networks. *Public Health Reports, 111*, 151–159.

Latkin, C., Forman, V., Knowlton, A., & Sherman, S. (2003). Norms, social networks and HIV-related risk behaviors among urban disadvantaged drug users. *Social Science and Medicine, 56*, 465–476.

Laurencin, C. T., Christensen, D. M., & Taylor, E. D. (2008). HIV/AIDS and the African-American community: A state of emergency. *Journal of the National Medical Association, 100*(1), 35–43.

Leong, P. (2006). Religion, flesh, and blood: Recreating religious culture in the context of HIV/AIDS. *Sociology of Religion, 67*(3), 295–311.

Lozoff, B., Wolf, A. W., & Davis, N. S. (1984). Cosleeping in urban families with young children in the United States. *Pediatrics, 74*(2), 171–182.

MacLachlan, M. (1997). *Culture and health*. New York, NY: Wiley.

Mandansky, D., & Edelbrock, C. (1990). Co-sleeping in a community of 2- and 3-year-old children. *Pediatrics, 86*, 1987–2003.

McNall, M., Reed, C. S., Brown, R., & Allen, A. (2009). Brokering community-university engagement. *Innovative Higher Education, 33*(5), 317–331.

Meade, C., Menard, J., Martinez, D., & Calvo, A. (2007). Impacting health disparities through community outreach: Utliizing the CLEAN look (Culture, Literacy, Education, Assessment, and Networking). *Cancer Control, 14*(1), 70–77.

Miller, R. L. (2010). Developing standards for empirical examinations of evaluation theory. *American Journal of Evaluation, 31*(3), 390–399.

Miller, R. L., & Campbell, R. (2006). Taking stock of empowerment evaluation. *American Journal of Evaluation, 27*(3), 296–319.

Minkler, M., & Cox, K. (1980). Creating critical consciousness in health: Applications of Freire's philosophy and methods to the health care setting. *International Journal of Health Services, 10*(2), 311–322.

Moorman, P., Newman, B., Millikan, R., Tse, C.-K., & Sandler, D. (1999). Participation rates in a case-control study: The impact of age, race, and race of interviewer. *Annals of Epidemiology, 9*(3), 188–195.

NC State Center for Health Statistics. (2007). *Running the numbers: Selected data related to health literacy in North Carolina*. Raleigh, NC: North Carolina Medical Journal.

Nielsen-Bohlman, L., Panzer, A. M., & Kindig, D. A. (Eds.). (2004). *Health literacy: A prescription to end confusion*. Washington, DC: The National Academies Press.

Nobles, W. (1991). African philosophy: Foundations for Black psychology. In R. Jones (Ed.), *Black Psychology*, 47-63. Berkeley, CA: Cobb and Henry.

North Carolina State Center for Health Statistics. (2009). SCHS and ethnic minority health data and publications. Retrieved from http://www.schs.state.nc.us/SCHS/

O'Meara, K., & Jaeger, A. J. (2006). Preparing future faculty for community engagement: Barriers, facilitators, models, and recommendations. *Journal of Higher Education Outreach and Engagement, 11*(4), 4–26.

Parker, K. D., & Calhoun, T. (1996). Predictors of life satisfaction among Black Americans. *Western Journal of Black Studies, 20*(3), 134–139.

Randolph, W., & Viswanath, K. (2004). Lessons learned from public health mass media campaigns: Marketing health in a crowded media world. *Annual Review of Public Health, 25*, 419–437.

Resnicow, K., Baranowski, T., Ahluwalia, J., & Braithwaite, R. (1999). Cultural sensitivity in public health: Defined and demystified. *Ethnicity & Disease, 9*(1), 10–21.

Reverby, S. M. (2009). *Examining Tuskegee: The infamous syphillis study and its legacy*. Chapel Hill, NC: The University of North Carolina Press.

Reverby, S. M. (2011). "Normal exposure" and inoculation syphilis: A PHS "Tuskegee" doctor in Guatemala, 1946–1948. *The Journal of Public History, 23*(1), 6–28.

Russell, S. (2006, August 15). Black leaders call for more HIV testing: Disease disproportionately affects African American women. *San Francisco Chronicle*. Retrieved from http://www.avert.org/hiv-african-americans.htm#refs

Sandmann, L. R. (2008). Conceptualization of the scholarship of engagement in higher education: A strategic review, 1996–2006. *Journal of Higher Education Outreach and Engagement, 12*(1), 91–104.

Sandmann, L. R., & Thornton, C. H. (2008). The bridging scholarship. *Journal of Higher Education Outreach and Engagement, 12*(3), 223–229.

Scholarship of Engagement Task Force. (2010). Integrating learning, discovery, and engagement through the scholarship of engagement: Report of the Scholarship of Engagement Task Force North Carolina State University. Retrieved from http://www.ncsu.edu/extension/documents/SET2010.pdf

Sloane, B., & Zimmer, C. (1993). The power of peer health education. *Journal of American College Health, 41*, 241–245.

Smith, S. S. (2010). Race and trust. *Annual Review of Sociology, 36*(1), 453–475. doi:10.1146/annurev.soc.012809.102526

Smith-Maddox, R., & Solórzano, D. G. (2002). Using critical race theory, Paulo Freire's problem-posing method, and case study research to confront race and racism in education. *Qualitative Inquiry, 8*(1), 66–84.

Strauss, A., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Thousand Oaks, CA: Sage.

Van de Ven, A. H. (2007). *Engaged scholarship: A guide for organizational and social research*. New York, NY: Oxford University Press.

Wallerstein, N., & Bernstein, E. (1988). Empowerment education: Freire's ideas adapted to health education. *Health Education & Behavior, 15*(4), 379–394.

Ward, E. G. (2005). Homophobia, hypermasculinity and the US Black church. *Culture, Health and Sexuality, 7*(5), 493–504.

Weerts, D. J., & Sandmann, L. R. (2008). Building a two-way street: Challenges and opportunities for community engagement at research universities. *The Review of Higher Education, 32*(1), 73–106.

White, J. L., & Parham, T. A. (1990). T*he psychology of Blacks: An African-American perspective*. Englewood Cliffs, NJ: Prentice Hall.

Witte, K., & Allen, M. (2000). A meta-analysis of fear appeals: Implications for effective public health campaigns. *Health Education & Behavior, 27*(5), 591–615.

## About the Authors

**Maxine Seaborn Thompson** is an associate professor in the Department of Sociology and Anthropology at North Carolina State University. Her research examines health disparities and the consequence of major life stressors—including discrimination, financial strain, and skin tone bias—for mental and physical health, self-esteem, and self-efficacy. Thompson earned her bachelor's degree and master's degree in sociology from Memphis State University and her doctoral degree in sociology from the University of Wisconsin, Madison.

**Rachel Head** is a doctoral candidate in the Department of Sociology and Anthropology at North Carolina State University. Her research interests include health disparities, the unequal distribution of stress experiences, coping strategies, and social support. Her research currently focuses on how racial discrimination, immigration, and religious involvement may influence mental and physical health. Head earned her bachelor of science in sociology from Missouri State University and her masters of arts from The University of Oklahoma.

**R.V. Rikard** is a doctoral candidate in the Department of Sociology and Anthropology at North Carolina State University. His research interests include health disparities, health literacy and communication, rural health care, spatial inequality, and aging. Rikard earned his bachelor's degree in anthropology and his master of arts in social science from Appalachian State University.

**Carlotta McNeil** is the deputy executive director of the Alliance of AIDS Services–Carolina. She has worked in public health with local and county governments, nonprofits, and the private sector for more than 14 years. McNeil earned her bachelor of science in health education from North Carolina Central University.

**Caressa White**, formerly with the Alliance of AIDS Services–Carolina, now supervises the Community Health Promoter Program at UNC–Chapel Hill. Her research examines bridging community-based participatory research and traditional research to address the lack of participation of underrepresented populations in clinical research. She also has investigated the Black church and HIV, with an emphasis on linking spirituality in the design, implementation, and evaluation of faith-based initiatives. White earned her bachelor's dgree in health education from North Carolina Central University and master's degree in adult education and training from the University of Phoenix.

# Reflective Essays

*Hiram E. Fitzgerald, Associate Editor*
*Michigan State University*

© *Journal of Higher Education Outreach and Engagement*, Volume 16, Number 2, p. 109, (2012)
 ISSN 1534-6104

# *A University Library Creates a Digital Repository for Documenting and Disseminating Community Engagement*

William A. Miller and Marilyn Billings

## Abstract

Digital repositories are new tools for documenting the accumulated scholarly work produced at academic institutions and disseminating that material broadly via the internet. Digital repositories support all file types and can be adapted to meet the custom design specifications of individual institutions. A section for community engagement initiatives was created within ScholarWorks@UMass Amherst, the digital repository for University of Massachusetts Amherst. Collected materials can provide a comprehensive record of partnerships, results, and products that advance institutional goals while facilitating the development of individual academic portfolios. This innovative application of library science allows community engagement to be appropriately valued as the central organizing component of diverse academic activities.

## Introduction

Mutually beneficial relationships with community partners create diverse opportunities for dynamic and compelling research, teaching, and public service. Finding ways to adequately document and disseminate the work that is accomplished in the context of community partnerships presents an ongoing challenge for many faculty and institutions. The activities associated with engagement, and the various results or products generated, are diverse and often transcend what is routinely captured by traditional institutional mechanisms. Advances in the field of library science offer new ways to document information on community engagement and can assist in the formulation of mechanisms and policies that will allow this work to be more broadly disseminated and more consistently valued.

## Assessing and Tracking Engagement

In higher education, teaching is typically measured by the number of courses an instructor carries and the total student credit hours. Course evaluations allow students to provide consistent information on teaching quality. Research expertise and

productivity are understood in terms of external dollars obtained, and the type and number of scholarly publications generated. Assessing engagement, however, presents a number of unique challenges. Engagement activities differ in their nature, scope, and scale across disciplines. Holland *(2009)* notes that when the fundamental basis for the engagement work is collaborative and the results must meet the needs of both institutional and community partners, devising ways to measure this work can be complex and confusing. Assessment is nonetheless essential, as any institution should understand what its faculty members and professional staff are doing, and document and communicate engagement efforts in effective ways.

Many instruments designed to help administrators and institutions assess engagement are diagnostic tools. These tools frequently take the form of checklists, or matrices that look broadly at institutional practices and policies. They may be employed episodically, for example, in the context of internally focused assessments or strategic planning exercises that provide insight into how deeply engagement has penetrated into an institutional culture and how to expand institutional capacity over time *(Furco & Miller, 2009)*. To gain a more detailed understanding of the activities and partnerships faculty and staff are involved with, and to provide broad, consistent access to that information, routine and systematic institutional tracking of engagement is required.

Implementing an effective tracking system requires dedicated leadership that demonstrates institutional commitment to engagement. The documentation framework for the Carnegie Foundation's community engagement classification asks whether an institution "maintains systematic campus-wide tracking or documentation mechanisms to record and/or track engagement in community" *(Carnegie Foundation for the Advancement of Teaching, 2009)*. This item appears in the "required documentation" section, and institutions must therefore answer affirmatively in order to be eligible for the classification.

A review of materials submitted by the 2008 applicants for the Carnegie community engagement classification helps to illustrate the significant variation in the types of mechanisms institutions maintain to document engagement activities *(Campus Compact, 2009)*. For example, California State University, Fresno described mechanisms that capture the number of hours students devote to service-learning and the estimated economic impact of their work. Arizona State University, Emory University, and University of Wisconsin maintain institutional databases with information on

specific campus-community partnerships. These databases *(http://community.asu.edu/database/; http://gigi.oucp.emory.edu/communitypartnerships/eidb/query/overview.php; http://searchwisconsinidea.wisc.edu/)* include public search interfaces, accessible via the internet. Other institutions, such as DePaul University, Bates College, and the University of Vermont, describe more decentralized approaches to tracking engagement, deploying systems at the level of individual colleges, offices, or centers. Decentralized approaches may allow for mechanisms that are better tailored to specific kinds of initiatives or partnerships, but may make it more difficult to aggregate information into coherent or comprehensive institutional portraits.

A comprehensive mechanism for tracking engagement across an entire institution is employed at Michigan State University. The Outreach and Engagement Measurement Instrument routinely captures information on the amount of time faculty members devote to community partnerships, the issues addressed, and the external funding obtained to support their work. Each faculty member uses password-protected access to report information that can then be used by administrators for planning and accreditation as well as for communicating with a diverse range of university leaders and the public. The system enables the development of statements that illustrate the collective investment of faculty members in projects and partnerships that address problems throughout the state and region. The information is also used to identify compelling stories that can be more richly profiled in magazines, newsletters, and other promotional materials *(Fitzgerald et al., 2009)*.

## Faculty Motivations

Institutional mechanisms for documenting and disseminating information about community engagement are potentially powerful resources that can be designed in a variety of ways to advance diverse institutional goals. Different members of a university community may seek to promote awareness about engagement and generate increased public support for this type of work, but it is important to appreciate individual faculty motivations for documenting and disseminating their own engagement activities and how those motivations may be distinct from some of the broader institutional reasons for tracking, aggregating, and sharing this information. Faculty members are necessarily concerned with building and maintaining a portfolio of individual work that demonstrates disciplinary expertise. For many faculty members, this includes establishing a reputation and a record of effective engagement with community partners that may be closely interwoven

with their research and teaching. Most institutional assessment tools and tracking mechanisms are not designed or easily adapted to assist faculty in documenting their work in ways that adequately capture the depth and complexity of their engagement expertise and the linkages to scholarship.

## Digital Scholarship

Through advances in library science, new opportunities are emerging for the documentation and dissemination of outreach and engagement that can enhance institutional assessment and tracking while supporting the development of individual faculty portfolios. Recent advances in electronic communication are challenging traditional norms and standards for how knowledge is created and disseminated. As emerging methods for sharing scholarly information become firmly established, the potential exists to create mechanisms that support more consistent documentation and broader dissemination of engaged scholarship.

The traditional role of the library in the academic enterprise has generally been one of disseminating the results of academic work through the acquisition of books and journals, and by providing a physical location for the exploration and review of the products of academic scholarship. Librarians have partnered with faculty members to build and maintain teaching and research resources in either print or electronic form. Librarians create subject guides and other standard gateways for library resources and provide bibliographic and information literacy instruction for students.

## A Challenge to the Status Quo

The rising costs associated with scholarly publications present academic libraries with a growing challenge. In the 1980s, academic journal costs began to increase dramatically, far exceeding the average rate of inflation. The median annual journal cost rose more than 100% between 1986 and 1992, and a total of 227% between 1986 and 2002. The median cost of monographs also increased, rising by 75% over that 16-year period *(Kyrillidou & Young, 2003)*. In short, libraries must spend more than previously to maintain their scholarly collections. The increases have been especially dramatic for journals, with the amount paid to maintain serial collections increasing 374% between 1986 and 2008 *(Kyrillidou & Bland, 2009)*. Over time, the function of university libraries in particular, and the role of academic institutions in general, will be undermined by the financial unsustainability of systems for providing access to the results and products of research and scholarship.

As publishing costs grow, academic library collections may shrink unless new models for managing and disseminating scholarly products are adopted. Open access publishing offers a promising solution. According to Suber *(2004)*, the term *open access* refers to materials available via the internet that can be accessed free of charge and that are free of most copyright and licensing restrictions. Open access for scholarly publication is realized through open access journals and digital repositories. Open access journals maintain academic editorial boards and offer internet access to peer-reviewed scholarship with a specific disciplinary or conceptual focus. Their primary distinction from traditional academic journals is that neither individual users nor institutions are charged for access. An online directory *(http://www.doaj.org/)* lists more than 1,000 open access journals that are currently published in the United States. A digital repository is a publicly accessible system created and maintained by an academic institution for documenting the creative and scholarly work produced at that institution, and for disseminating that material broadly via the internet. Harvard University *(http://dash.harvard.edu)*, Massachusetts Institute of Technology *(http://dspace.mit.edu)*, and the University of California system *(http://escholarship.org/)* are examples of the many academic institutions that now maintain digital repositories for the accumulated work of their faculty, staff, and students.

As open access publication makes the academic work of faculty members more widely and more easily accessible, it seems likely that materials published in this manner will be cited more frequently by the scholarly community. A correlation between open access publication and increased scholarly citation was first observed in the field of computer science *(Lawrence, 2001)*. More recently, Antelman *(2004)* confirmed this association in four other disciplines (philosophy, electrical engineering, political science, and mathematics). In that analysis, the increased citation frequency of open access materials, compared to those with restricted access, ranged from 45% in philosophy to 91% in mathematics. Similar results were observed in an investigation focused on astrophysics *(Kurtz et al., 2004)* and by a team that considered 10 different academic disciplines *(Hajjem, Harnad, & Gingras, 2005)*.

## Changes in Intellectual Property Practices

Open access publishing necessitates a careful consideration of who holds the legal rights to scholarly materials. The extent to which authors retain rights to their scholarly works when they are acquired by publishers varies widely. Many librarians currently

assist faculty members in retaining the rights to their own scholarly materials so they can be published in traditional formats as well as in digital repositories or on other publicly accessible websites. As electronic data storage becomes commonplace, fewer scholarly materials will be designated "out of print." Within this context authors should understand and negotiate the rights to their scholarly materials prior to publication. Several high-profile institutions, including Harvard University and Massachusetts Institute of Technology, have passed formal resolutions recommending that faculty members deposit their academic papers into a publicly accessible institutional repository, and that they pursue agreements with publishers that will allow these materials to remain there indefinitely. The Scholarly Publication and Academic Resources Coalition *(2007)* has developed educational resources for authors as well as addendum templates to attach to publisher agreements that allow authors to retain the right to distribute their own works more openly.

University libraries are proactively advancing digital scholarship. Broad campus conversations, however, are needed to consider the value of new dissemination mechanisms and for developing and implementing policies that meet the needs of individuals and institutions. By participating in these discussions and working with university librarians, campus engagement leaders can help ensure that mutually beneficial relationships with community partners, and the results or products generated, are appropriately considered as part of an institution's intellectual output.

## A Digital Repository for Community Engagement

Operating a digital repository that can accommodate the accumulated intellectual output of an institution's faculty, staff, and students requires significant planning and adherence to conventions. A joint task force of the Research Libraries Group and the National Archives and Records Administration has identified best practices, and created guidelines for storing content and accessing collections via digital repositories *(RLG-NARA Task Force on Digital Repository Certification, 2007)*. The guidelines include policies and procedures for the acquisition of content, access, staffing, and disaster and recovery planning. The guidelines also serve as a certification framework applicable to academic institutions, national libraries, and digital archiving services that are privately operated or not affiliated with larger academic or municipal entities.

## Software Applications for Digital Repositories

A software application, typically hosted by a private vendor, facilitates access to a digital repository by those who will post materials, and those who maintain the collections. The software vendor will often train library staff and provide ongoing technical support. The software applications have standard templates that are adapted to an institution's typical scholarly products (e.g., manuscripts, book chapters, student dissertations). Institutions can also request custom modifications or can create parameters for unique content and materials that will be collected to represent the accumulated intellectual output of an institution's faculty, staff, and students.

## An Example at the University of Massachusetts Amherst

In 2009, the University of Massachusetts Amherst (UMass Amherst) created a section for community engagement within ScholarWorks@UMass Amherst, the institution's digital repository. This section of the repository, which is open and accessible to the public at http://scholarworks.umass.edu/engagement, was created by the University Outreach Division in collaboration with UMass Amherst Libraries shortly after the institution was granted the Carnegie community engagement classification designation. The effort was initiated, in large measure, to address key areas for institutional improvement identified while developing the documentation for this designation. It was intended specifically as a means to improve institutional mechanisms for tracking and reporting activities and impacts associated with community engagement initiatives.

In attempting to document community engagement within a digital repository, there are few standards or conventions to rely upon. Creating a clear structure and attendant guidelines was therefore important, and required innovation. For example, information in the community engagement section of ScholarWorks@UMass Amherst is organized so that all materials and products are presented in the context of specific partnership initiatives. For each initiative, the lead investigator develops a brief narrative description of the primary goals or questions, the methods and activities, and the anticipated outcomes or products. These short narratives should contain an explanation of how community partners are included in the specification of each separate element. The lead investigator also identifies collaborators and geographic locations associated with each partnership. Identifying distinct projects is

particularly important for large, complex, or sustained partnerships encompassing separate initiatives that operate independently and have individual goals or time frames.

The materials and products associated with community engagement are diverse. Digital repositories support all file types (e.g., text, photos, video). Primary materials can be posted along with any number of supplemental materials (e.g., data sets, detailed graphics, transcripts, popular press, technical reports) to help convey a more accurate and thorough account of the activities and the results. Course syllabi, as well as student activities and projects, can also be posted to document the provision, quality, and impact of community-based teaching. Materials in the community engagement section of ScholarWorks@UMass Amherst must be posted under one of three headings: teaching; research, creative, or professional activities; or outreach and public service. These categories conform to general elements in the university's mission statement, and to the three specific areas of faculty responsibility identified in the current faculty contract *(University of Massachusetts, 1976)* and in the annual review process. This structure underscores the notion that community engagement generates activities and products related to all areas of the institution's mission, and in all domains of faculty responsibility.

An implementation team that included librarians and university outreach staff was charged with facilitating the process of populating the community engagement section of ScholarWorks@UMass Amherst. The team considered 15 "representative partnerships" originally identified when the university was assembling the documentation for its Carnegie community engagement classification application. Ten partnerships were selected, and the campus leader for each was contacted. Eight of the 10 participated in a pilot phase of uploading materials to the community engagement section of the repository.

The implementation team collaborated with members of the pilot group, helping individuals access the system, assemble primary documents and supporting files, develop narrative descriptions, and post or remove content. Rather than create new content, individuals more often relied on existing materials that were modified so initiatives could be presented in a relatively clear and consistent manner. When pilot members attained a degree of autonomy working with the system, materials could still be reviewed by members of the implementation team, a process facilitated through automatic e-mail notifications that are generated whenever new content is posted. The implementation team

solicited detailed feedback from the pilot group on the perceived benefits and limitations of the system. Investing the time needed to prepare and post materials was the most consistent challenge. On the other hand, users appreciated the variety of file types that were supported and the ability to post materials that would reach other scholars as well as collaborators, policymakers, practitioners, and the general public.

University Outreach staff and librarians expected the community engagement section of ScholarWorks@UMass Amherst would establish a dedicated institutional archive of university-community partnerships that would allow faculty to build their individual portfolios while creating greater institutional capacity to demonstrate the scope and value of work with external partners. Staffing for the initiative was redirected, however, when the Outreach Division at UMass Amherst was eliminated early in 2010. It is clear that the community engagement section of the repository will be very difficult to maintain and impossible to expand without the benefit of dedicated staffing.

## Summary and Implications

Recognizing the collaborative potential between emerging library technology and community engagement is a significant innovation. Community engagement activities posted and stored in a digital repository present opportunities for advancing institutional goals. At larger institutions especially, simply grasping the multitude of disparate and disconnected ways that faculty, staff, and students work with external partners is a formidable task. Capturing detailed information on community engagement in a repository can serve as a fundamental step toward effective demonstration of collective impact. Moreover, the information may be used in support of strategic planning, public relations, fund raising, or when convening faculty or regional partners.

For example, information on community engagement collected in a digital repository could supply evidence for a Carnegie Foundation community engagement classification designation application. Depending on the specific design parameters of the repository, an institution could assemble a list of representative partnerships and a record of courses that incorporate community-based learning, and draw from an archive of scholarly products associated with outreach and partnership activities.

## Potential Barriers and Opportunities

Robust participation would require substantial investments of time and effort by faculty or staff to organize and post materials. Faculty with experience and expertise in community engagement may respond positively to new methods for establishing a scholarly or professional record of materials and products that lack well-defined mechanisms for documentation and dissemination. This includes materials often referred to as "gray literature" that vary by discipline, such as conference papers and presentations, technical and research reports, government publications, curriculum guides or other teaching materials, working papers, and creative presentations or performances *(Sulouff, Bell, Briden, Frontz, & Marshal, 2005)*. In addition, the algorithms applied in search engines such as Google and Google Scholar prioritize information located within institutional repositories because they are deemed credible sources *(Vaidhyanathan, 2008)*. Appearing at the very top of a list of internet search results supports broader access and exposure for faculty scholarship and disciplinary expertise.

The extent of participation by faculty will likely depend to a large degree on the institutional context. At University of Massachusetts Amherst, the vice-provost for outreach and the director of libraries directed significant staff time to the implementation team that designed the community engagement section of ScholarWorks@UMass Amherst and managed the pilot phase. The work of the implementation team, however, proceeded largely without direct input or involvement from academic or administrative leaders, and there was no attendant campus conversation that considered the value of the initiative or how it reflected institutional priorities. The focused participation of colleges and academic departments could have served to identify appropriate disciplinary practices or expressions of engaged research and teaching and the kinds of products these activities generate. This level of input would inform guidelines for individual usage and help ensure that time investments were commensurate with potential rewards. With attentive academic and administrative leadership, a digital repository for community engagement could not only be appropriately positioned within the faculty reward structure, but could also serve as a catalyst or focal point for broad campus discussions and deliberations on the evolving nature of scholarship.

## Conclusion

Digital repositories have the potential to make complex information about engagement with community partners more visible, more valued, and more thoroughly understood. Existing institutional tracking mechanisms can support effective external marketing and communication. They fail, however, to capture adequate details. Digital repositories can facilitate the documentation and dissemination of engaged scholarship. The expanding community of engaged scholars can create portfolios of individual engaged work while also contributing to disciplinary knowledge.

A digital repository can be employed to establish a dynamic compendium of community partnerships that are central to the total intellectual output of an institution. The Community Engagement section of ScholarWorks@UMass Amherst was developed in the belief that it would help administrators track and report on external partnerships while also helping individual faculty and staff members establish an accessible public record. Without effective mechanisms for capturing the complexity and impact of work with external partners, this vital domain of academic activity is less likely to be adequately understood or sufficiently valued.

## References

Antelman, K. (2004). Do open access articles have a greater research impact? *College and Research Libraries News, 65*(5), 372–382. Retrieved from http://hdl.handle.net/10760/5463

Campus Compact. (2009). *Campus Compact features Carnegie Classification applications for civic engagement 2008*. Retrieved from http://www.compact.org /initiatives/carnegie-community-engagement-classification/

Carnegie Foundation for the Advancement of Teaching. (2009). *The Carnegie elective classification for community engagement 2010 documentation reporting form*. Retrieved from http:// classifications.carnegiefoundation.org/downloads/2010-Documentation-Reporting-Form-PREVIEW-v2.pdf

Fitzgerald, H. E., Farrell, P. A., Bargerstock, B. A., Van Egeren, L., Swierenga, S. J., & Casey, K. M. (2009). *Scholarship-focused outreach and engagement: Public scholarship, civic engagement, and campus-community partnerships* [PowerPoint presentation]. Retrieved from http://outreach.msu.edu/documents/Scholarship-FocusedOutreachEngagement_051109_web.pdf

Furco, A., & Miller, W. A. (2009). Issues in benchmarking and assessing institutional engagement. In L. R. Sandmann, C. H. Thornton, & A. J. Jaeger (Eds.), *Institutionalizing community engagement in higher education: The first wave of Carnegie classified institutions* (New Directions for Higher Education, pp. 47-54. San Francisco, CA: Jossey-Bass/Wiley Publishing.

Hajjem, C., Harnad, S., & Gingras, Y. (2005). Ten-year cross-disciplinary comparison of the growth of open access and how it increases research citation impact. *IEEE Data Engineering Bulletin, 28*(4): 39–47. Retrieved from http://eprints.ecs.soton.ac.uk/12906/

Holland, B. A. (2009). Will it last? Evidence of institutionalization at Carnegie classified community engagement institutions. In L. R. Sandmann, C. H. Thornton, & A. J. Jaeger (Eds.), *Institutionalizing community engagement in higher education: The first wave of Carnegie classified institutions* (New Directions for Higher Education, pp.85-98. San Francisco, CA: Jossey-Bass/Wiley Publishing.

Kurtz, M. J., Eichhorn, G., Accomazzi, A., Grant, C. S., Demleitner, M., Murray, S. S., Martimbeau, N., & Elwell, B. (2004). Worldwide use and impact of the NASA Astrophysics Data System digital library. *Journal of the American Society for Information Science and Technology, 55*. Retrieved from http://cfa-www.harvard. edu/~kurtz/jasist1.pdf

Kyrillidou, M., & Bland, L. (2009). *ARL statistics 2007–2008*. Washington, DC: Association of Research Libraries. Retrieved from http://www.arl.org/bm~doc/arlstat08.pdf

Kyrillidou, M., & Young, M. (2003). *ARL statistics 2001–02: A compilation of statistics from the one hundred and twenty-four members of the Association of Research Libraries*. Washington, DC: Association of Research Libraries. Retrieved from http://www.arl.org/bm~doc/arlstat02.pdf

Lawrence, S. (2001). Online or invisible? *Nature 411*(6837), 521. Retrieved from http://citeseer.ist.psu.edu/online-nature01/

RLG-NARA Task Force on Digital Repository Certification. (2007). *Trustworthy repositories audit & certification: Criteria and checklist*. Retrieved from http://www.crl.edu/sites/default/files/attachments/pages/trac_0.pdf

Scholarly Publication and Academic Resources Coalition. (2007). *SPARC's author rights initiative*. Retrieved from http://www.arl.org/sparc/author/index.shtml

Suber, P. (2004). *Open access overview*. Retrieved from http://www.earlham.edu/~peters/fos/overview.htm

Sulouff, P., Bell, S., Briden, J., Frontz, S., & Marshal, A. (2005, July/August). Learning about grey literature by interviewing subject librarians: A study at the University of Rochester. *C&RL News, 66*(7). http://hdl.handle.net/1802/1875

University of Massachusetts. (1976). *Academic personnel policy of the University of Massachusetts at Amherst, Boston, and Worcester, article IV, section 4.1*. Retrieved from http://www.umass.edu/provost/sites/umass.edu.provost/files/uploads/redbook.pdf

Vaidhyanathan, S. (2008, March 28). The Googlization of everything. *In Engaging the web for scholarship, pedagogy, and publication*. Symposium conducted at University of Massachusetts Amherst.

## About the Authors

**William A. Miller** is director of program development and assessment for the Massachusetts Center for Agriculture, a unit that includes University of Massachusetts Extension and the Massachusetts Agricultural Experiment Station. Miller earned his bachelor's degree in human development and family studies from Cornell University, his master's degree in human development and child study from University of Maryland, College Park, and his Ph.D. in human development and family studies from University of Wisconsin-Madison.

**Marilyn Billings** is a special initiatives librarian at the University of Massachusetts Amherst. She provides campus-wide leadership and education in scholarly communication. She is responsible for the management of the university's digital repository, ScholarWorks@UMass Amherst. Billings earned her bachelor's degree in biology and psychology from Bates College and her Master of Library and Information Science degree from the University of Rhode Island.

© *Journal of Higher Education Outreach and Engagement*, Volume 16, Number 2, p. 123, (2012)
 ISSN 1534-6104

# *E-Service-Learning: The Evolution of Service-Learning to Engage a Growing Online Student Population*

Leora S. Waldner, Sue Y. McGorry, and Murray C. Widener

## Abstract

E-service-learning (electronic service-learning)—a service-learning course wherein the instruction and/or the service occurs online—holds massive potential to transform both service-learning and online learning by freeing service-learning from geographical constraints and by equipping online learning with a powerful and much-needed tool to promote engagement. Students are increasingly pursuing their education online, yet few are exposed to service-learning in their online coursework. To remain relevant, service-learning must also go online. How do we transition service-learning from high-touch to high-tech? E-service-learning provides the answer. Through an extensive literature review, this article identifies four emerging types of e-service-learning endeavors and presents best practices. Armed with these best practices, we call on our colleagues to increasingly integrate e-service-learning into their online courses and to study the outcomes of such efforts to ensure the relevance of service-learning in the 21st century.

## E-Service-Learning: Breaking Through the Barrier

Service-learning is a powerful tool to promote student and civic engagement. Service-learning can produce important benefits for students (enhanced civic engagement and/or learning), the community partner (useful products), the instructor (service opportunities for tenure), and the university itself (positive community relations). Service-learning, however, risks being left behind as instructors increasingly transition to online learning platforms. Anecdotal observations of colleagues, even those highly committed to service-learning, suggest that some abandon their service-learning efforts when migrating to teaching online because they view the online medium as a barrier to service-learning.

In fact, online learning is a *facilitator* rather than a barrier to service-learning. E-service-learning holds the potential to transform both service-learning and online learning by freeing service-learning from geographical constraints, and by equipping online learning with a tool to promote engagement.

Thus, e-service-learning is not a mere pedagogical curiosity; rather, it is a key to the future of service-learning.

To break through the perceived barrier, this essay reviews the literature on the embryonic e-service-learning medium. Though the literature is sparse, four distinct types of e-service-learning have emerged, each with unique characteristics and outcomes. Potential best practices and limitations were culled from the literature review to inform those considering use of one of four types of e-service-learning.

## What is Service-Learning and E-Service-Learning?

### Service-Learning

Service-learning allows students to learn by doing, connecting theory with practice. It is a method of learning through active participation in organized experiences that meet community needs *(Perkins, 1994)*. Bringle and Hatcher *(1996)* defined service-learning as "credit bearing educational experience" in which students "gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility" *(p. 222)*. Service-learning involves course assignments that give students the opportunity to apply knowledge and skills taught in the classroom to projects that benefit the community. Service-learning evolved, in part, from core assumptions of the educational philosopher and theorist John Dewey *(1916, 1939)*, who advocated learning by doing.

Service-learning can produce benefits for the students, the community partners, the participating faculty members, and the university itself. Some scholars have identified positive impacts on academic learning *(Astin & Sax, 1998)*; the ability to apply knowledge in practical settings *(Kendrick, 1996)*; and the enhancement of critical analysis and other academic skills *(Eyler & Giles, 1999)*. Service-learning also provides an avenue for meaningful discipline-based faculty service. Eyler, Giles, Stenson, and Gray's *(2001)* literature review found numerous additional benefits, including personal outcomes, such as moral development or enhanced personal efficacy and leadership skills *(Astin & Sax, 1998)*, and social outcomes, such as a sense of social responsibility *(Mabry, 1998)*, commitment to service *(Eyler & Giles, 1999)*, and increased community involvement after graduation *(Astin, Sax, & Avalos, 1999)*.

Others have found enhanced career development and enhanced relationships with the institution, including stronger faculty relationships, as well as improved student satisfaction and increased

student retention *(Astin & Sax, 1998)*. Faculty benefits also have been identified, such as higher satisfaction with the quality of student learning *(Berson & Younkin, 1998)* and commitment to research *(Driscoll, Gelmon, Holland, & Kerrigan, 1996)*. Finally, community benefits such as community partner satisfaction, and development of useful products or services may occur *(Killian, 2004)*. The service-learning projects can enhance community relationships *(Driscoll et al., 1996)*.

## E-Service-Learning

As we define it, e-service-learning occurs when the instructional component, the service component, or both are conducted online. For example, students in an online grant-writing class might help write grant proposals for a nonprofit community partner. E-service-learning overlaps to some degree with the concept of service-eLearning, which was explored by Dailey-Hebert, Donnelli-Sallee, and DiPadova-Stocks *(2008)*. They describe service-eLearning as "an integrative pedagogy that engages learners through technology in civic inquiry, service, reflection and action" *(p. 1)*.

### The rationale for e-service-learning.

It is important to study and encourage e-service-learning because online learning has grown significantly in the last decade. The average annual growth rate of online enrollments in the United States between 2003 and 2009 was nearly 20% in higher learning institutions *(Allen & Seaman, 2009)*. In fact, in 2010, 63% of all traditional schools agreed that online education was critical to their future class offerings. Over 5.6 million students are currently enrolled in online courses with U.S. universities *(Allen & Seaman, 2010)*. These numbers indicate a 17% increase in online enrollment since 2008, and suggest that online learning will play a critical role in education in the future *(Allen & Seaman, 2009)*.

According to Allen and Seaman *(2010)*, the growth of the online student body has exceeded the growth of on-site students, with a 21% increase in online enrollment versus a less than 2% increase in on-site enrollment from 2008 to 2009. Nonetheless, e-service-learning remains rare. The pace of growth of service-learning offerings online has not kept pace with the growth of the online student population. Because few schools or instructors are using e-service-learning, the vast majority of online students do not receive the benefits of service-learning. Dailey-Hebert et al.

*(2008)* suggest that a movement to electronic-service-learning may force some service-learning practitioners to abandon their service-learning endeavors if they cannot transition successfully online.

## The benefits of e-service-learning.

E-service-learning is an ideal marriage of sorts because it overcomes limitations of both service-learning and online learning. E-service-learning frees service-learning from place-based access or geographical constraints. E-service-learning also overcomes what some consider a key limitation to online learning—a perceived lack of interaction.

Another benefit is access. Strait and Sauer *(2004)* note that "Because online students tend not to be the traditional age of on-campus students and usually work a 40-hour week in addition to going to school, access to a community partner can be a challenge" *(p. 1)*. Access to a community partner becomes a moot point in an online environment in cases where the service component occurs online. E-service-learning also can engage populations that otherwise may be unable to participate in a service-learning activity, such as the disabled *(Malvey, Hamby, & Fottler, 2006)*, rural populations, those without a higher education learning institution nearby *(Strait & Hamerlinck, 2010)*, or even shy or introverted individuals *(Seifer & Mihalynuk, 2005)*. When freed of place-based constraints, e-service-learning might include regional, national, or even global partners for service projects *(Malvey et al., 2006)*.

Malvey et al. *(2006)*, however, note that e-service-learning students "will likely miss out on the spontaneity and excitement of events by not being physically onsite" *(p. 191)*. Their concern is appropriate. If students conduct their service online, do they miss out on critical networking, organizational dynamics, and other learning experiences available to students conducting their service physically on site? Future studies should consider this and similar questions. Research should also be conducted to compare the outcomes of e-service-learning to those in traditional service-learning experiences, especially in areas related to performance differences in learning outcomes, civic engagement, professional development, and more.

## E-service-learning overcomes major online learning limitations.

Online learning is often plagued with a perceived lack of interaction and engagement *(Gaytan & McEwen, 2007; Hill, Song, & West, 2009; Muirhead, 2004; Swan, 2002)*. E-service-learning can

provide an antidote by enhancing engagement in online courses. Bennett and Green *(2001)* suggest that service-learning and online instruction can have a "symbiotic educational relationship" *(p. 491)* because an online course allows many individuals who could not otherwise come to class to engage in service-learning. Moreover, service-learning helps overcome the apparent limitation of online instruction, specifically, the "lack of opportunity to practice and demonstrate knowledge and skills, lack of opportunities to process these practical experiences with course instructors, and access to evaluate feedback as course material is transferred to practical application." Thus, they aptly note that "These perceived weaknesses may actually become course strengths when online instruction is combined with service-learning" *(p. 497)*.

Those who study online learning environments call for techniques to enhance engagement. E-service-learning answers this call. For example, Conrad and Donaldson *(2004)* found that success in online courses demands students be engaged in order to capitalize upon the learning opportunity, and to solidify student learning of concepts. In other words, students cannot simply log in to an online service-learning course and read a powerpoint, or log in and listen to audio files. The instructor must utilize course management software features effectively to actively engage students in the learning process and to engage students with others in the course. Conrad and Donaldson observed that key elements of engaged learning in an online course include students establishing their own learning goals, students teaming with others, and students exploring resources (whether online or elsewhere). Additionally, instructors must provide integrated multidisciplinary tasks that have real-world applications, as well as deliverables to "clients" so that students are connecting with external communities. Finally, continual performance-based assessment is critical to providing a comprehensive learning experience. E-service-learning addresses these elements by providing meaningful questions, by connecting to real-world issues, and by creating deliverables for the external community partner(s).

Lehman and Conceição *(2010)* note that self-reflection is critical to successful online learning. Self-reflection enables students to understand their role in the online environment while becoming intimate with project variables, owners, and recipients of the service-learning experience. Reflection is also an important aspect of the service-learning process because it enables students to connect thought and action while encouraging higher order thinking skills

such as analysis, comprehension, problem solving, and evaluation *(Rama, Ravencroft, Wolcott and Zlotkowski, 2000)*.

Mills *(2001)* provides an example of how to capitalize on reflection as a best practice for both service-learning and online learning. He discovered that quality reflection enables students to contemplate their own experience while simultaneously building and growing community with other students in the course. He utilized web-based journaling as a medium for feedback, encouragement, and questioning. Students are engaged on a daily basis, contemplating their own thoughts and actions as well as those of others. Not only does web-based journaling address student daily experience, it empowers students to create community by developing their own creative space, providing the quality reflection necessary for successful service-learning.

Horton *(2006)* encourages use of simulations and games to engage the online learner, followed by carefully designed assessments to measure learning outcomes. This technique fosters confidence and team-building among students. He explores the use of embedded online software to facilitate such simulations. Best practices such as these can readily be used in an e-service-learning course. For example, in a business e-service-learning experience, students working for a client organization could use an online simulation to act as business owners making decisions about service pricing and managing the capital to support their decision making.

In summary, e-service-learning can be mutually beneficial for service-learning and online learning. This mutual benefit dovetails well with the findings of technological pedagogical content knowledge *(Mishra & Koehler, 2006)* researchers whose framework focuses on the intersection of technological, pedagogical, and content knowledge to emphasize the new knowledge base that lies in the intersection (Figure 1). Teachers who can master that intersection will have more effective expertise than those whose excellence lies strictly in the content discipline, strictly in the pedagogy (e.g., service-learning), or strictly in the technology (e.g., online learning techniques). To break through the barrier and effectively transition to e-service-learning, instructors must master and strategically use the relationship between content, pedagogy, and technology. Exploiting this relationship can free service-learning from geographical constraints and equip online learning with a tool to promote engagement on multiple levels.

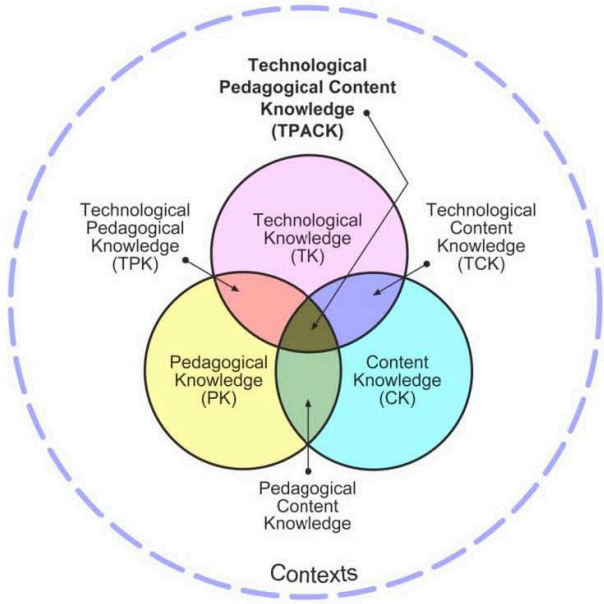



**Figure 1. The realm of technological pedagogical content knowledge. Reprinted courtesy of http://tpack.org/.**

## Literature Review

The authors organized the literature review with the intersection of service-learning and online learning literatures in mind (Figure 2). They used a three-pronged approach (Figure 3) by performing a peer-reviewed electronic database search using Proquest Central (an online research database with over 3,820 titles from 1971 onward); a targeted journal search using archives of 10 journals dedicated exclusively to service-learning and online learning; and a comprehensive Internet keyword search using Google and Google Scholar.

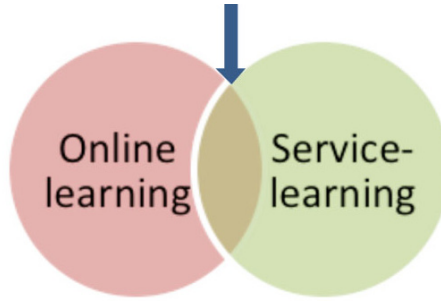



**Figure 2. The focus of the literature review.**

This strategy helped the authors to exhaustively comb the literature while overcoming the inherent indexing limitations of using a given electronic database.

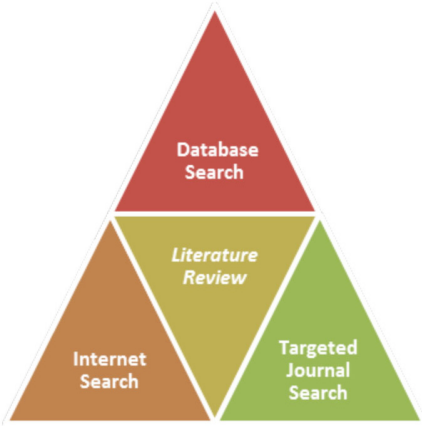



Figure 3. A three-pronged literature review.

## Inclusion Criteria for the Literature Review

Initially the authors hoped to utilize peer-reviewed articles exclusively. The sheer lack of articles on the topic, however, necessitated a broader Internet search. As the exploration continued, the search expanded to include anecdotal case studies, conference papers, webinars, and materials marginally related to e-service-learning. Materials that did not involve the intersection of online learning and service-learning were excluded. For example, articles about techniques to enhance teamwork in online classes were excluded because they did not involve service-learning.

## Search Process

The authors identified 14 search terms related to service-learning and online learning and used the terms as keyword searches in more than 20 combinations (see Figure 4). Each researcher searched the keyword combinations independently to maximize yield. Searches were limited to English-language resources.

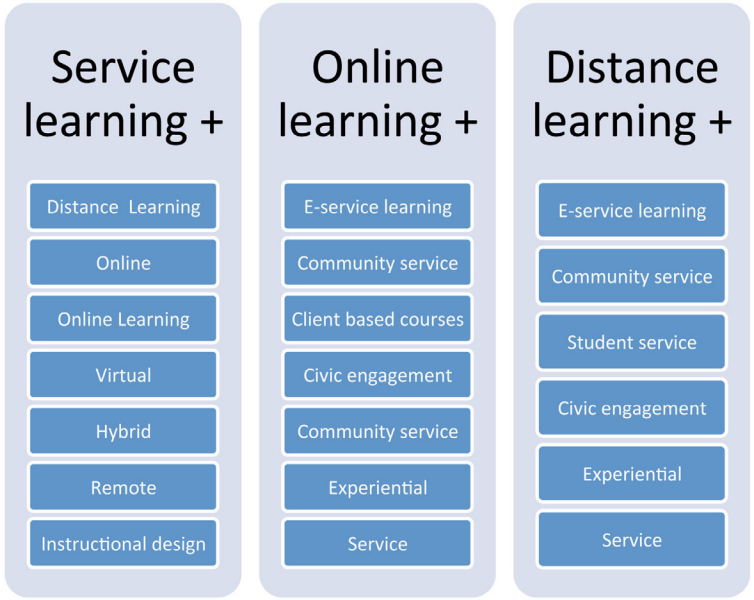



**Figure 4. Combinations of keywords used in search criteria.**

For the first phase of the literature review—the targeted journal search— the authors worked with two librarians to identify 10 journals dedicated primarily to either online learning (e.g., the *MERLOT Journal of Online Learning and Teaching*) or service-learning (e.g., the *Michigan Journal of Community Service Learning* (see the Appendix for a complete listing of the journals). The targeted journals were searched electronically using library databases. The researchers deployed a cross-search strategy, searching for service-learning keywords in the online learning journals, and online learning-related keywords in the service-learning journals. For journals not available electronically in the library databases, the authors did issue-by-issue searches of the digital archives where available on the journals' websites. In these cases, the researchers looked at the three most recent years of archive materials for each journal. The targeted journal search yielded only six relevant articles.

The second and third phase of the literature review—the internet search and Proquest Central peer-reviewed journal search—initially yielded hundreds of thousands of hits. These searches involved five stages:

- Stage 1. Use the keyword combinations to generate initial hits.

- Stage 2. Skim the hits for relevance.
- Stage 3. Open and peruse the material that met the inclusion criteria.
- Stage 4. Perform in-depth review of the resource to ensure relevance.
- Stage 5. Select and analyze core resources.

Stage 1 involved generating initial hits. Through the subsequent stages, the authors reduced the 100,000+ hits to 10 primary sources and one book related to e-service-learning. In Stage 2, investigators skimmed the first seven pages of each item searching for the relevant keywords. Stage 2 yielded approximately 1,260 resources. Stage 3, opening and perusing the material that met the inclusion criteria, yielded 320 resources. Stage 4 involved in-depth review to ensure relevance and yielded 74 resources. In the final stage, Stage 5, the investigators selected the core resources and carefully scrutinized them. The internet and ProQuest Central searches yielded 12 journal articles and one book.

Taken together, the targeted journal search yielded six articles, and the other two searches yielded 12 additional articles and a book. Thus, despite the liberal inclusion criteria, the three-phases of the literature review (targeted journal search, internet search, and ProQuest Central search) produced a total of 18 journal articles and a single book that could be considered primary sources genuinely related to e-service-learning.

## Limitations of the Literature Review

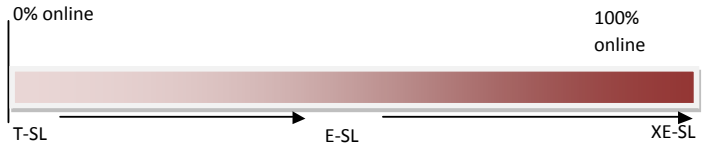
The key limitation of the literature review was the scarcity of literature related to e-service-learning. Since the search yielded few sources to examine, the authors were forced to treat sources of different quality and character equally (e.g., webinars and peer-reviewed journal articles), which will limit the generalizability of the identified best practices.

Hart *(1998)* suggests that it is not enough to merely find the literature. Rather, the true value of a literature review lies in characterizing and critiquing the literature. In this case, the literature review revealed little research on e-service-learning, and few peer-reviewed articles on the subject. Moreover, the resources located were largely anecdotal in nature. No rigorous cross-course studies of e-service-learning techniques and outcomes were located. Thoughtfully designed studies, both qualitative and quantitative, are needed to further understand and validate e-service-learning

outcomes. Future research should assess whether e-service-learning outcomes differ from traditional service-learning outcomes based on demographics (e.g., age, gender, race).

## An Emerging E-Service-Learning Typology

Traditional service-learning, with both the instruction and service on site, is relatively well-studied and understood. At the other end of the spectrum (Figure 5) lies extreme e-service-learning, with 100% of both the instruction and service online *(Waldner, McGorry, & Widener, 2010)*. The nascent forms of e-service-learning that lie between the extremes of traditional service-learning and extreme e-service-learning have been neither characterized nor rigorously studied.




*T-SL: traditional service-learning; E-SL: e-service learning; XE-SL: extreme e-service-learning*
*Source: Waldner et al., 2010.*

**Figure 5. The continuum of service-learning.**

The literature review suggested that e-service-learning generally occurs in a hybrid model, with some aspect of instruction and/or service occurring online. The typology shown in Figure 6 provides a starting point for characterizing different forms of service-learning. The literature review revealed four types of e-service-learning: Hybrid Type I (service fully on site with teaching fully online), Hybrid Type II (service fully online with teaching fully on site), Hybrid Type III (a blended format with instruction and service partially online and partially on site), and extreme e-service-learning (100% of the instruction and service online). Users should be sensitive to these differences among the four types, because each type features different products, partners, and limitations.

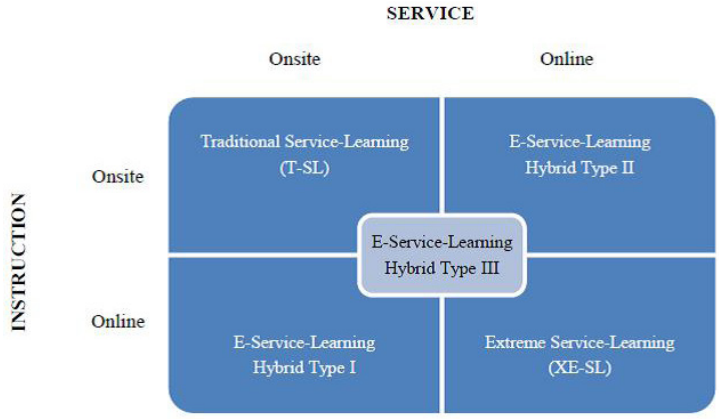



Figure 6. Types of e-service-learning.

## Type I (Hybrid) E-Service-Learning: Instruction Online, Service on Site

In Hybrid Type I, the class is conducted fully online and the service is conducted on site. For example, Bennett and Green's *(2001)* online sport management course introduced the students via phone or e-mail to their respective community partners. Students selected from several opportunities identified by the instructor and local and regional contacts (e.g., recreation directors, athletic directors, university officials, area schools). Students engaged in approximately five hours of on-site service at a location specified by the community partners. All follow-up, reflection, and review of community partner satisfaction with the students' efforts occurred online.

Another example, the Service Oriented Field Experience, is described by Burton *(2003)*. In this case, the course was conducted online with the exception of a 10-day intensive group experience in Guatemala. Phase I of the course allowed students to design their intended service-learning project (e.g., a web page for sale of village goods over the internet, a review of health and medical conditions in a village). In the online learning component of Phase I, students were introduced to the community partner (a Guatemalan city) and were assigned specific service projects. In Phase II, the students traveled to Guatemala to conduct the service. In Phase III, the students returned home to finalize projects and to reflect upon their learning experiences.

## Type II (Hybrid) E-Service-Learning: Instruction on Site, Service Online

In Hybrid Type II e-service-learning, the course is conducted on site and the service is conducted fully online, usually with building online resources as the service component. For example, Mosley *(2005)* took the development of websites into the service-learning realm by requiring on-site students in her Web Design for Non-Profit Organizations course to create a website for the local school district. The course, offered through the School of Computer Science and Information Systems, required students to define a website mission and target user population, collect user requirements, design the web pages, perform usability testing, implement and manage the website successfully, and then reflect on the service experience.

Lazar and Preece *(1999)* incorporated service-learning into their information systems course in online communities by requiring students to develop online communities. Though the instruction was on site, the service was provided online through development of the online community (an online community is a group of people with similar interests who communicate using computer networks and software such as an electronic mailing list, chat room, bulletin board, etc.). Course objectives included understanding the social and technical issues contributing to successful online communities. Students chose a group that interested them and worked with community members from the group to form a partnership and to design the project. Examples of communities built included a Down syndrome advocacy group, an academic quiz bowl, and an anesthesiologist community.

## Type III (Hybrid) E-Service-Learning: Instruction and/or Service Partially on Site and Partially Online

In Hybrid Type III e-service-learning, instruction may be both on site and online, as may the service component. Strait and Jones' *(2009)* Each One Teach One program used an innovative combination of on-site instruction and online communication to provide mentoring at the Martin Luther King Science and Technology Magnet School in New Orleans, Louisiana. The program consisted of an online service-learning and mentoring program between students at Hamline University and Avalon High School in St. Paul, Minnesota, and students in Grades 5 through 9 at the New Orleans school. The Hamline and Avalon students were paired to

lead groups of students as a team. Initial contact occurred by phone as well as online. Subsequently, students traveled to New Orleans for a 10-day on-site service working session.

Killian *(2004)* experimented with classes that combined traditional face-to-face methods with online and service-learning. Phase I of the course occurred on site; Phase II involved service conducted online with online student/teacher interaction to facilitate coordination between the student groups and to maintain instructor oversight of the process. Students developed grant proposals, strategic plans, and best practices by doing online research. In Phase III, the students reconvened on site for presentation of the final product to the client. In this case, therefore, instruction and service transitioned from on site to online, and then back to on site.

Blackwell *(2008)* combined an on-site clinical experience with online and on-site instruction to provide students the opportunity to practice delivery of care to groups, and to practice holistic nursing care in a community-based nursing education program. Five of the credit hours occurred on site, and four were clinic based. The online course management system complemented the on-site instruction by allowing students to access syllabi, assignments, and laboratory outlines. For the service portion, students completed rotations in public health nursing (e.g., primary care clinics in public schools), community mental health nursing (e.g., psychiatric crisis units in a county health department), or long-term care.

Bemidji State University's teacher training program offered courses with on-site and online components to prepare teachers for service. The university partnered with the Minnesota Satellite and Technology Center, and a number of other groups, to develop a blended-technologies K-9 elementary education program for rural and urban students who could not attend a campus-based teacher education program. The program, called Distributed Learning in Teacher Education (DLiTE), featured weekend face-to-face classroom experiences with professors twice during the semester along with online instruction through an interactive course management system. The DLiTE curriculum included service-learning in four courses: Pedagogy, Language Arts I, Language Arts III, and Science Methods. For example, one Language Arts course required students to arrange individual e-service placements at organizations such as summer school programs and local libraries. One student in a library placement conducted a needs assessment on elementary science books and created a system to better introduce new books to local children. The project led to a 45% increase in the library's book check-out *(Strait & Sauer, 2004)*.

In a marketing course, McGorry *(2006)* tasked students with developing a marketing research plan for a local historical organization. Students met on site and online with the client throughout the semester. The course was conducted both online and in the classroom, so students were meeting with the instructor face-to-face at least once a week. Feedback from students indicated that they appreciated the face-to-face contact with both the instructor and the client. Students also indicated that the virtual chat sessions were important for maintaining productive client communication. McGorry noted that student performance in the course was not significantly different from that in other marketing research courses offered completely online or in the traditional face-to-face format.

## Type IV (Extreme) E-Service-Learning: Instruction and Service 100% Online

In extreme e-service-learning, both the course and service are conducted online. There is no on-site component *(Waldner et al., 2010)*. Examples discussed in Malvey et al. *(2006)* include a health care course that updated human resources policies and procedures for a not-for-profit acute care facility to ensure compliance with regulatory agencies. In the example, students first performed an audit of policies and procedures to assess regulatory compliance. Policies and procedures were posted online for students to review. Students then conducted interviews in chat rooms with senior and middle management staff. The students then presented their recommendations for revised policies and procedures on the discussion board. Malvey et al. also presented the example of a finance course that used a similar process to create a zero-based budget for a local county health department.

Hunter *(2007)* provides another description of 100% e-service-learning in an online marketing class in which undergraduate students developed marketing materials for a humane society in Alabama. Students were charged with conducting best practices research in marketing for a humane society, drafting deliverables, and creating finalized products. These final products included a brochure, a flier, a website, an advertisement for a holiday gift certificate, a template thank-you letter for pet adopters/donors, and a newspaper advertisement.

Waldner, Roberts, Widener, and Sullivan *(2011)* evaluated an extreme service-learning course that provided two valuable services, best practices research and a policy analysis for Fulton County, Georgia. The county had received a poor grade from the

Georgia Department of Community Health in regard to infant mortality. As part of their public policy course, the students researched best practices, and did a policy analysis on health disparity issues of concern to the county, such as infant mortality or childhood obesity. In this fully online course, students conferred with both the community partner and instructor using interactive real-time sessions in the course management system.

## Discussion

Each type of e-service-learning may lend itself to different types of products and outcomes. For example, Hybrid Type II (instruction fully on site and service fully online) seems to be restricted to one particular discipline: information technology courses, such as web design courses. Hybrid Types I and III often feature some aspect of travel for service. Extreme service-learning, with 100% of the service and instruction online, occurs in client-based courses *(Waldner & Hunter, 2008)*, with students producing a limited product, such as a grant or policy analysis for the community partner.

These different types of e-service-learning may have radically different service or course learning outcomes. For example, one might expect less civic engagement in the extreme service-learning, with its limited product delivery, than in Hybrid Type I e-service-learning where students conduct on-site service, and are, thus, more immersed in the agency or community setting. Conversely, extreme service-learning courses might promote more professional development (e.g., students' ability to list grant writing or policy analysis on their resumes) than Hybrid Type I courses that involve a small amount of service-learning. Each type of e-service-learning may also face different limitations and require different techniques to optimize service-learning outcomes.

## Best Practices for E-Service-Learning Courses

The literature review yielded 12 potential best practices related to technology, communication, and course design (Figure 7). Since the studies found in the literature review consisted primarily of anecdotal examples of a single course, cross-course studies will be needed to verify the usefulness of these techniques.

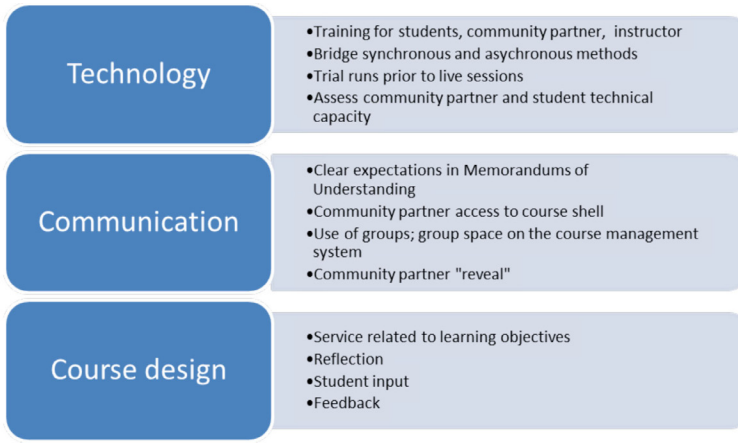



**Figure 7. E-service-learning best practices for technology, communication, and course design.**

## Technology: Training for Online Service-Learning

To maximize success in e-service-learning, training for all parties (instructor, students, the community partner, and the instructional design team) is critical. This applies not only to technology use, but also to service-learning best practices. Strait and Sauer *(2004)* observe that online learning is new for many faculty members, and conclude that these faculty members would benefit from online instructional technology techniques to maximize engagement. One example of such technology training is Virginia Tech University's Cyber-Serve Mini Grant program, which provides small grants to encourage integrating technology in service-learning *(Johnston, 1999)*.

Students may also require training in online service-learning techniques. Strait and Sauer *(2004)* suggest placing a special service-learning icon on the course home page to educate students about the service-learning process. They also note the importance of constructing distinct buttons on the course shell to avoid cognitive overload in students. Malvey et al. *(2006)* suggest that students and instructors need to have prior online course experience to maximize success, which implies that e-service-learning courses may not be appropriate as introductory courses. Malvey et al. further suggest that instructors specify equipment/software requirements, and assess student skills at the start of the course.

Community partner training is crucial for e-service-learning success, but may be complicated if the community partner and students use different software or hardware. Thus, it may be useful

to assess community partner capacity before starting a service-learning project online and to provide training if needed *(Seifer & Mihalynuk, 2005)*. The instructor and community partner should also test the technology prior to live sessions. It is also important to select a community partner that is open to technology *(Stoecker, Hilgendorf & Tryon, 2008; Waldner et al., 2010)*.

The success of e-service-learning relies on the instructional design or information technology team. Its standard practice of performing trial runs and technology tests also makes this team essential at the syllabus-development level *(Waldner et al., 2010)*. For these and other reasons, the instructional design team for the online course should be considered an integral fourth partner in the e-service-learning environment (Figure 8). Educating the instructional design team about service-learning may enhance buy-in and result in additional support. Traditional, on-site service-learning activities may also involve additional partners such as writing centers, technology resources, and library support, though instructors using on-site and online service-learning activities generally do not involve those services in course design to the extent of co-designing the syllabus for the course.

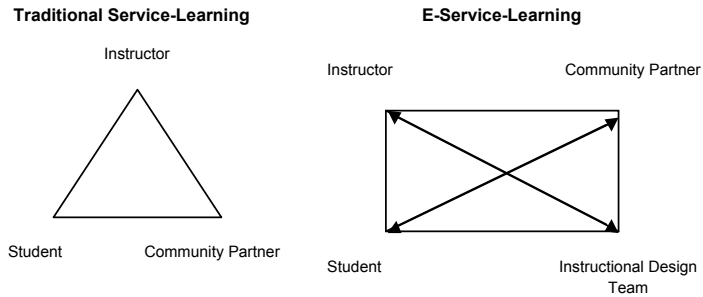



**Figure 8. E-service-learning involves more partners than traditional service-learning.**

Specific technologies used in e-service-learning include synchronous tools (e.g., audio and video teleconferencing), whiteboards, text-based chat rooms, and virtual classrooms. Asynchronous tools include internal course e-mail, discussion boards, bulletin boards, drop boxes, video streaming, and digital video production *(Malvey et al., 2006)*. Malvey et al. provide an example of a community partner using video streaming to give students a tour of the facility, introduce staff and students, initiate role-playing, and present background information on the problem to be solved. McGorry *(2006)* built proximity between students and

the community partner through chat sessions, discussion boards, e-mail, file exchange, and two-way visual meeting software. Hill and Harris *(2008)* utilized e-mail, discussion boards, group pages in the course management system, and word processing collaboration features (e.g., the Track Changes function in Microsoft Word). Strait and Sauer *(2004)* have suggested that technologies such as cell phone, wikis, online micro-blogging (e.g., Twitter), and holograms may play important roles in the future. Whatever the technology used, instructors must build a bridge between synchronous and asynchronous communications (e.g., archiving live video presentations for students in other time zones who cannot attend).

## Communication

For effective e-service-learning, communication expectations should be clearly established. Bennett and Green *(2001)* suggest that contracts between an instructor and community partner can determine objectives, assessment instruments, feedback, and communication. Memorandums of understanding (MOUs) between students and instructors (or students and community partners) also can be beneficial. For example, an MOU could stipulate that the community partner make a firm commitment to meet with the class at pre-specified times, and to provide prompt feedback *(Hunter 2007; Malvey et al., 2006)*. Ideally, the community partner would be given access to the online classroom as an active participant.

Parameters for informal communication should also be addressed at the outset of an e-service-learning activity. McGorry *(2006)* suggests briefing the community partner about student behaviors (e.g., that students may e-mail a few days before a project is due, expecting responses with 24 hours). Conversely, students need to understand that unexpected factors such as furloughs or reorganizations may cause a delay on the community partner's part.

Forming student groups within a course can encourage interaction. For example, Hunter *(2007)* assigned students to groups within her online course. The groups conducted a service-learning project through live chats, discussion boards, teleconferences, phone calls, and e-mails among themselves and the community partner. One student volunteered as team leader to coordinate the group work, and to serve as key contact person with the community partner. Lazar and Preece *(1999)* used groups as a peer review mechanism, noting that "involving students in intensive and frequent review of each other's projects is extremely successful. Not only were the final designs superior because of the feedback, but the students learned

more about usability testing" *(p. 26)*. Dividing a course's students into groups can also reduce demand on community partner time (for example, the community partner can provide input on a few group papers rather than numerous individual papers).

A "community-partner reveal" phase early in the course is also important to establish student engagement and promote active communication. The community partner is revealed to the students in a real-time videoteleconferencing session, and the students have the opportunity to learn about the project and ask questions. In McGorry's *(2006)* survey of e-service-learning students, respondents indicated that an initial real-time chat, or an on-site meeting with a community partner, was critical in developing rapport with the community partner, and for understanding issues to be addressed in the projects.

As Hunter *(2007)* and Tabor *(2007)* note, the professor who uses an e-service-learning activity needs to remain actively engaged from start to finish, maintaining high visibility on discussion board forums, and providing ample feedback on online course assignments. Though professors in a traditional service-learning environment must also remain engaged, Tabor *(2007)* notes that students need even more feedback for online components of a course since they lack the immediate response of a classroom environment. Establishing clear channels of communication between professor and students is critical to prevent disengagement and confusion.

## Course Design

In addition to the e-service-learning best practices related to technology and communication already described, instructors should also incorporate best practices from traditional service-learning courses. From their review of prior studies, Imperial, Perry, and Katula *(2007)* identified seven design principles to help facilitate success in traditional service-learning courses:

- explicit connections between the service activity and learning objectives,
- reflection,
- appropriate time commitment,
- student input,
- faculty commitment,
- perceptible impacts, and
- feedback loops.

These traditional service-learning course design principles are also relevant to e-service-learning courses. For example, the majority of e-service-learning courses found in the literature already incorporated reflection virtually through discussion board postings, blogs, or journals *(Hoover, Casile, & Hanke, 2008; Mills, 2001; Oravec, 2003; Strait & Sauer, 2004; Tabor, 2007)*.

Community-based service projects can serve as the foundation for an academic course, requiring students to apply formally acquired knowledge and skills to community problems and needs. Service-learning projects, however, must have clearly articulated learning objectives and address actual community needs, providing students with opportunities for ongoing guided reflection on their experiences through a combination of class discussions, writing, and presentations *(Eyler & Giles, 1999; Furco & Billig, 2002; Skinner & Chapman, 1999; Strage, 2004; Wilhite & Silver, 2005)*, whether the course is traditional service-learning or e-service-learning.

## E-Service-Learning Limitations

E-service-learning courses have unique limitations, including technology issues, challenges in sustaining communication and interaction, and added workload for the instructor.

### Technology

Lack of reliability in hardware or software represents the most significant limitation in e-service-learning instruction. As Malvey et al. *(2006)* bluntly note, "The technology that supports E-service-learning also may represent the biggest pitfall. Machines malfunction, and when the technology goes awry in an e-environment, the effect is exponential" *(p. 192)*.

In her study of online service-learning experiences, McGorry *(2006)* also noted that the majority of students had some contact with technical support due to server difficulties. Waldner et al. *(2010)* described encountering "bad techno-mojo" *(p. 843)*, or technical difficulties. Examples might include technical problems with sound feedback during live video teleconference sessions, or chatware freezing in the middle of a chat session. Student or community partner lack of compatible hardware or software may also be an issue *(Malvey et al., 2006)*. Many of these issues can be mitigated if there is an information technology support team. Information technology issues may diminish with future versions of software and hardware.

Inadequate technical and service-learning training of instructors, students, or community partners can also be a limitation of e-service-learning. Because e-service-learning fuses service and online learning, instructors must be competent in both service-learning and online teaching techniques. For this reason, Strait and Sauer *(2004)* recommend that instructors be proficient in online instruction before attempting to incorporate service-learning into their courses. Kahn et al. *(2008)* further suggest giving students a service-learning orientation at the start of the course. Community partners also need to be proficient in the technology in order to interact smoothly with students. To minimize technical issues, the instructional design team should help the instructor create training and orientation resources for both the students and the community.

## Communication

Establishing and maintaining effective communication can be challenging in e-service-learning courses since the participants do not interact face-to-face. For example, the online format may make the community partner less accountable to the students and/or the instructor. Hunter *(2007)* noted that the community partner failed to respond to student e-mails for clarification and refused to provide the promised product feedback, causing a palpable decline in class morale. The e-service-learning format may also make the students less accountable to the community partner compared to students doing service-learning activities in traditional courses. Real-time virtual sessions, however, can help build solid relationships between the students and the community partner. Clear memorandums of understanding between the community partner and instructor and/or between the students and community partner can prevent some of these issues.

Other communication barriers can occur in the group collaboration process, and through schedule conflicts *(Hunter, 2007; Killian, 2004)*. Solid instructional design, including group spaces on the course management system and virtual chat software, can help prevent this. Killian notes that backup communication and material delivery strategies are important in the event that the technology fails.

## Course Design: Instructor Workload

E-service-learning courses can require additional time and effort by the instructor, especially in coordinating with community partners. Extra duties may include arranging logistics, modifying

the online course to feature service-learning, and supervising course product development *(Waldner & Hunter, 2008)*. For example, Killian *(2004)* reported that e-service-learning courses required 25% more of her time compared to a traditional service learning course. E-service-learning courses also may increase student workload due to virtual meetings and product expectations.

Though e-service-learning presents unique limitations, these limitations can be overcome. Training of all participants cand minimize technological challenges. Solid course design and real-time synchronous virtual class sessions, along with clear discussion of expectations, can ease communication barriers. Instructors can address the additional student and instructor workload by explicitly acknowledging the student benefits of e-service-learning in terms of practical application and hands-on service.

## Conclusion

Online learning is not a barrier to service-learning; rather, it can be a facilitator. E-service-learning—the marriage of online learning and service-learning—holds the potential to transform both endeavors by freeing service-learning from geographical constraints and by equipping online learning with a tool to promote engagement. Thus, e-service-learning is not a mere pedagogical curiosity. Rather, it is key to the future of service-learning. Without e-service-learning, online students will be unable to experience the stellar benefits of service-learning, which range from civic engagement to enhanced learning outcomes.

The literature review presented in this essay identified four emerging types of e-service-learning. Each type can have different outcomes, limitations, and best practices. Instructors should be sensitive to those differences.

An analysis of the literature revealed best practices for instructors to consider when designing an e-service-learning course. Best practices include providing training for the parties involved; coordinating technology options with the community partner; drafting contracts and memorandums of understanding for students and community partners; scheduling pre-set meeting times to enhance communication; and implementing strategies to facilitate group interaction (e.g., creating team spaces on the course management system).

Though e-service-learning activities can work well, they have their own unique set of limitations. The technology that enables e-service-learning courses also entails limitations (e.g., failures

in hardware or software, gaps in technological capacity between community partners and the students or the instructor). Other key limitations include lack of technology training for the instructors, students, and/or community partners. Facilitating genuine and sustained communication between the community partner members and the students, and between the instructor and the students, can also pose challenges.

Future activities that will help advance e-service-learning pedagogy include studies to better understand e-service-learning outcomes, seed funding for e-service-learning development or research, and e-service-learning fellows programs for faculty. These and other activities will help break through the technology barrier in order to effectively transition to an online service-learning platform.

## Appendix: Titles in Targeted Journal Search

*Education, Communication and Information* (discontinued in 2005)

*International Journal of Instructional Technology and Distance Learning*

*Journal of Educational Media* (became *Learning, Media, and Technology* in 2004)

*Journal of Higher Education*

*Journal of Public Affairs Education*

*MERLOT Journal of Online Learning and Teaching*

*Michigan Journal of Community Service Learning*

*Quarterly Review of Distance Education*

*The American Journal of Distance Education*

*The Virginia Tech Service Learning Center* (before 2008)

## References

Allen, E. I., & Seaman, J. (2009). *Learning on demand: Online education in the United States, 2009*. Retrieved from Sloan Consortium website: http://sloanconsortium.org/publications/survey/learning_on_demand_sr2010

Allen, E. I., & Seaman, J. (2010). *Class differences: Online education in the United States, 2010*. Retrieved from Sloan Consortium website: http://sloanconsortium.org/publications/survey/class_differences

Astin, A. W., & Sax, L. J. (1998). How undergraduates are affected by service participation. *Journal of College Student Development, 39*(3), 251–263.

Astin, A. W., Sax, L. J., & Avalos, J. (1999). Long-term effects of volunteerism during the undergraduate years. *The Review of Higher Education, 22*(2), 187–202.

Bennett, G., & Green, F. P. (2001). Promoting service learning via online instruction. *College Student Journal, 35*(4), 491–497.

Berson, J. S., & Younkin, W. F. (1998). *Doing well by doing good: A study of the effects of a service-learning experience on student success*. Paper presented at the American Society of Higher Education, Miami, FL.

Blackwell, C. W. (2008). Meeting the objectives of community-based nursing education. In A. Dailey-Hebert, E. Donnelli-Sallee, & L. DiPadova-Stocks (Eds.), *Service-eLearning: Educating for citizenship.* (pp. 87-94). Charlotte, NC: Information Age Publishing.

Bringle, R. G., & Hatcher, J. A. (1996). Implementing service learning in higher education. *Journal of Higher Education, 67*(2), 221–239.

Burton, E. (2003). Distance learning and service-learning in the accelerated format. *New Directions for Adult and Continuing Education, 2003*(97), 63–72.

Conrad, R., & Donaldson, J. A. (2004). *Engaging the online learner: Activities and resources for creative instruction*. San Francisco, CA: John Wiley & Sons, Jossey-Bass.

Dailey-Hebert, A., Donnelli-Sallee, E., & DiPadova-Stocks, L. (2008). *Service-eLearning: Educating for citizenship*. Charlotte, NC: Information Age Publishing.

Dewey, J. (1916). *Democracy and education*. New York, NY: Simon and Schuster.

Dewey, J. (1939). *Theory of valuation*. Chicago, IL: University of Chicago Press.

Driscoll, A., Gelmon, J., Holland, B., & Kerrigan, S. (1996). An assessment model for service-learning: Comprehensive case studies of impact on faculty, students, community, and institutions. *Michigan Journal of Community Service Learning, 3*(1), 66–71.

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

Eyler, J., Giles, D. E., Jr., Stenson, C. M., & Gray, C. J. (2001). *At a glance: What we know about the effects of service-learning on college students, faculty, institutions and communities, 1993–2000: Third Edition*. Nashville, TN: Vanderbilt University.

Furco, A., & Billig, S. H. (2002). *Service-learning: The essence of the pedagogy*. Greenwich, CT: Information Age Publishing.

Gaytan, J., & McEwen, B. C. (2007). Effective online instructional and assessment strategies. *The American Journal of Distance Education, 2*(3), 117–132.

Hart, C. (1998). *Doing a literature review: Releasing the social science research imagination*. London, England: Sage.

Hill, S., & Harris, C. (2008). Service-eLearning and professional writing. In A. Dailey-Hebert, E. Donnelli-Sallee, & L. DiPadova-Stocks (Eds.), *Service-eLearning: Educating for citizenship*. (pp. 75-86). Charlotte, NC: Information Age Publishing.

Hill, J. R., Song, L., & West, R. E. (2009). Social learning theory and web-based learning environments: A review of research and discussion of implications. *The American Journal of Distance Education, 2*(1), 88–103.

Hoover, K. F., Casile, M., & Hanke, R. (2008). How discussion boards drive course concept mastery in service-eLearning. In A. Dailey-Hebert, E. Donnelli-Sallee, & L. DiPadova-Stocks (Eds.), *Service-eLearning: Educating for citizenship*, (pp. 59-74). Charlotte, NC: Information Age Publishing.

Horton, William. (2006). *E-learning by design*. San Francisco, CA: John Wiley & Sons.

Hunter, D. (2007). The virtual student/client experience. *Journal of American Academy of Business, 12*(1), 88–92.

Imperial, M. T., Perry, J. L., & Katula, M. C. (2007). Incorporating service learning into public affairs programs: Lessons from the literature. *Journal of Public Affairs Education, 13*(2), 243–264.

Johnston, S. N. (1999). Practicing community through technology. In J. Deramo (Ed.), *Best practices in cyber-serve: Integrating technology with service-learning instruction* (pp. 49–62). Blacksburg, VA: Virginia Tech Service-learning Center.

Kahn, H. E., Stelzner, S. M., Riner, M. E., Soto-Rojas, A. E., Henkle, J., Humberto, M. . . . Martinez-Mier, E. A. (2008). Creating international, multidisciplinary service-eLearning experiences. In A. Dailey-Hebert, E. Donnelli-Sallee, & L. DiPadova-Stocks (Eds.), *Service-eLearning: Educating for citizenship*, (pp. 95-108). Charlotte, NC: Information Age Publishing.

Kendrick, J. R. (1996). Outcomes of service-learning in an introduction to sociology course. *Michigan Journal of Community Service Learning, 3*(Fall), 72–81.

Killian, J. (2004). Pedagogical experimentation: Combining traditional, distance, and service learning techniques. *Journal of Public Affairs Education, 10*(3), 209–224.

Lazar, J., & Preece, J. (1999). Implementing service learning in an online communities course. In *14th Annual Conference International Academy for Information Management* (pp. 22–27). Charlotte, NC. Retrieved from http://www.google.com/url?sa=t&rct=j&q=Implementing+service+learning+in+an+online+communities+course.+In+14th+Annual+Conference+&source=web&cd=1&ved=0CCsQFjAA&url=http-%3A%2F%2Fciteseerx.ist.psu.edu%2Fviewdoc%2Fdownload%3Fdoi%3D10.1.1.92.8916%26rep%3Drep1%26type%3Dpdf&ei=kWaVT8qIBIPM6QHVuvWmBA&usg=AFQjCNEjyqr1w13S5wFGQSRxJi9iCHDYkw&cad=rja

Lehman, R., & Conceição, S. (2010). *Creating a sense of presence in online teaching: How to "be there" for distance learners*. San Francisco, CA: John Wiley & Sons.

Mabry, J. B. (1998). Pedagogical variations in service-learning and student outcomes: How time, contact and reflection matter. *Michigan Journal of Community Service Learning, 5*(1), 32–47.

Malvey, D. M., Hamby, E. F., & Fottler, M. D. (2006). E-service learning: A pedagogic innovation for healthcare management education. *Journal of Health Administration Education, 33*(2), 181–198.

McGorry, S. (2006). Eservice learning: Lifetime and career skill development. In *American Marketing Association Conference Proceedings*. Chicago: Summer vol. 17, p. 111.

Mills, S. (2001). Electronic journaling: Using the web-based, group journal for service-learning reflection. *Michigan Journal of Community Service Learning, 8*(1), 27–35.

Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record, 108*(6), 1017–1054.

Mosley, P. (2005). Redesigning web design. *Academic Exchange Quarterly.* Retrieved from http://csis.pace.edu/csis/data/comArchive/techReport216.pdf

Muirhead, B. (2004). Encouraging interaction in online courses. *International Journal of Instructional Technology and Distance Learning, 1*(6). Retrieved from http://www.itdl.org/journal/jun_04/article07.htm

Oravec, J. (2003). Blending by blogging: Weblogs in blended learning initiatives. *Journal of Educational Media, 28*(2–3), 225–233.

Perkins, D. F. (1994). Why community service and service learning? Providing rationale and research. *Democracy and Education, 9*(1), 11–15.

Rama D. V., S. Ravencroft, S. K. Wolcott, and E. Zlotkowski. (2000). Service-Learning Outcomes: Guidelines for Educators and Researchers. *Issues in Accounting Education. 15*(4), 656-689.

Seifer, S. D., & Mihalynuk, T. V. (2005). *The use of technology in higher education service-learning.* Retrieved from http://www.servicelearning.org/instant_info/fact_sheets/he_facts/use_of_tech/

Skinner, R., & Chapman, C. (1999). *Service-learning and community service in K-12 public schools*. Washington, DC: National Center for Education Statistics, U.S. Department of Education.

Stoecker, R., Hilgendorf, A., & Tryon, E. (2008). Incorporating technology in service-learning: A case study of appropriate use. In A. Dailey-Hebert, E. Donnelli-Sallee, & L. DiPadova-Stocks (Eds.), *Service-eLearning: Educating for citizenship*, (pp. 31-44). Charlotte, NC: Information Age Publishing.

Strage, A. (2004). Long-term academic benefits of service-learning: When and where do they manifest themselves? *College Student Journal, 38*(2), 257–261.

Strait, J., & Hamerlinck, J. (2010). *Service-learning in online courses webinar*. Retrieved February 9, 2010, from Center for Digital Civic Engagement website: http://cdce.wordpress.com/2010/02/10/service-learning-in-online-courses-webinar/

Strait, J., & Jones, J. (2009). *Each One Teach One program*. Retrieved May 20, 2010, from http://www.eric.ed.gov/ERICWebPortal/detail?accno=EJ853211

Strait, J., & Sauer, T. (2004). *Constructing experiential learning for online courses: The birth of e-service*. Retrieved May 20, 2010, from http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/ConstructingExperientialLearni/157274

Swan, K. (2002). Building learning communities in online courses: The importance of interaction. *Education, Communication and Information, 2*(1), 23–49.

Tabor, S. W. (2007). Narrowing the distance: Implementing a hybrid learning model for information security education. *Quarterly Review of Distance Education, 8*(1), 47–59.

Waldner, L., & Hunter, D. (2008). Client-based courses: Variations in service learning. *Journal of Public Affairs Education, 14*(2), 219–239.

Waldner, L., McGorry, S., & Widener, M. (2010). Extreme e-service learning (XE-SL): E-service learning in the 100% online course. *MERLOT Journal of Online Learning & Teaching, 6*(4), 839–851.

Waldner, L., Roberts, K., Widener, M., & Sullivan, B. (2011). Serving up justice: Fusing service learning and social equity in the public administration classroom. *Journal of Public Affairs Education, 17*(2), 209–232.

Wilhite, S., & Silver, P. (2005). Educating citizens vs. educating technicians: A false dichotomy for higher education. *National Civic Review, 94*(2), 46–54.

## About the Authors

**Leora S. Waldner** is an associate professor of public administration, and the site program coordinator of the Master of Public Administration program at Troy University's Atlanta site. Her research focuses on e-service-learning and environmental planning. Waldner earned her bachelor's degree from University of California at San Diego, and her master's degree and Ph.D. from University of California at Berkeley.

**Sue Y. McGorry** is professor of business and chair of business administration and marketing at DeSales University. She has been teaching online for over 15 years. McGorry earned her bachelor's degree in economics finance and French from the University of Scranton, and a Ph.D. in marketing and applied social research at Lehigh University. She completed postdoctoral work at the Massachusetts Institute of Technology.

**Murray C. Widener** is an assistant professor of public administration at Troy University. His research interests include service-learning, online teaching challenges, and public safety performance measures. Widener earned his bachelor's and master's degrees from Columbus State University, and his doctorate from the University of Alabama.

© *Journal of Higher Education Outreach and Engagement*, Volume 16, Number 2, p. 151, (2012)
 ISSN 1534-6104

# *Using Relational Dialectics to Address Differences in Community-Campus Partnerships*

Rebecca J. Dumlao and Emily M. Janke

## Abstract

Community and campus partners face inherent differences due to their distinct cultures, assumptions, practices, and constituencies. How partners handle the resulting tensions can impact how well the partnership functions. This article introduces relational dialectics as a framework to think about recurring tensions as natural and normal when partners span structural and cultural boundaries to work together. The authors show how three common dialectical tensions work in campus-community partnerships. Next, the ways in which partners can use learning conversations to gather detailed information related to the dialectical tensions are detailed. The authors then demonstrate different ways partners can manage the tensions, and they explain the potential impact(s) of each strategy on the partnership. Finally, the implications of relational dialectics for competency building, engagement practice, and research on community-campus collaboration are considered.

## Introduction

Campus and community partners come to their joint endeavors "from different worlds" *(Sandy & Holland, 2006, p. 30)*, making community engagement work complex and challenging *(Jacoby, 2003; Strand, Cutforth, Stoecker, Marullo, & Donohue, 2003)*. Differences between community and campus cultures, structures, norms, and expectations contribute to the complexity and challenges of community-campus partnerships *(Carriere, 2006)*.

When negotiated successfully, differences can be complementary and enhance partnerships *(Huxham & Vangen, 2005; Oliver, 1990)*. When handled poorly, differences can lead to negative consequences like hurt feelings, jeopardized outcomes, or wariness about future partnerships. Prins *(2005)* notes a "common but often-ignored reality of community-university partnerships" is that "tension and (potentially) conflict are inherent in partnerships" *(p. 57)*.

The Community-Campus Partnerships for Health *(2006)*, Higher Education Research Institute *(1996)*, the Kellogg

Commission *(2001)*, and Wingspread meetings *(Torres, 2000)* have all established guidelines for community-campus partnerships. Each encourages partners to focus on trust, mutual respect, reciprocity, common interests, regular communication, and long-term sustainability when working together. Despite these valuable guidelines, however, precise processes for collaboration are not well understood and remain a "black box" *(Thomson & Perry, 2006)*.

## Tensions in Boundary-Spanning and Collaboration

Collaboration across community and university "worlds" requires partners to span physical, relational, psychological, structural, and cultural boundaries *(Hayes & Cuban, 1997; Janke, 2008; Sandy & Holland, 2006)*. Faculty and community members must span boundaries to form and maintain partnerships for community-engaged research. Service-learning professionals or student leaders must cross boundaries. In all partnering, participants must address tensions from the differing norms, assumptions, cultures, and expectations that each brings to the partnership *(Carriere, 2006; Janke, 2008, 2009)*.

Specific differences that present challenges between university and community representatives are well documented. For instance, faculty members tend to see teaching, research, and service as their "private work" *(Battistoni, Gelmon, Saltmarsh, Wergin, & Zlotkowski, 2003)*; what and how they teach is largely within their purview. Faculty can think of themselves as experts that provide knowledge to the community *(Saltmarsh, Hartley, & Clayton, 2009)* and can fail to respect community knowledge *(Buys & Bursnall, 2007)* or to see community partners as peers *(Ellison & Eatman, 2008; Freeman, Brugge, Bennett-Bradley, Levy, & Carrasco, 2006)*. Faculty and other campus representatives can even see communities as "pockets of needs, laboratories for experimentation, or passive recipients of expertise" *(Bringle, Games, & Malloy, 1999, p. 9)* rather than seeing themselves as immersed in various communities and as integral members of those communities.

Community members often perceive their environment as distinct from the campus. Community partners tend to have shorter timetables for implementing and completing projects, as well as different notions about when, how, and with whom one should collaborate *(Sebring, 1977)*. Community leaders also want partnerships to directly affect their clients or enhance community capacities *(Sandy & Holland, 2006)*.

Successfully navigating differences is important to any relationship, but is especially crucial to promote the core tenets of reciprocity, mutual benefit, and long-term sustainability in a dynamic community-campus partnership. In this article, the authors introduce relational dialectics as a new, positive way to think about inherent tensions and differences between partners. They provide an overview of relational dialectics and dialectical tensions and explain their assumptions. They explore how three common dialectical tensions work in community-campus partnerships. They stress the importance of learning conversations to gather additional details from partners. Then, they detail strategies to manage dialectical tensions, including the most likely outcome(s) of each strategy for the partnership. Finally, they consider implications of relational dialectics for community-engaged scholarship and practice. The overall goal is to create greater awareness that framing differences as dialectical tensions—rather than as problems to be eliminated—can help readers think in new ways, respond effectively to differences, and sustain their partnerships over time.

## The Dynamic Nature of Community-Campus Partnerships

Partnerships between campus and community members occur at different levels: between organizations, between groups within organizations, and between individuals from the community and from the campus. Whether the partnerships are inter-institutional and contain formal memorandums of understanding or are interpersonal between two colleagues, "interactions between persons [are] crucial for establishing the character and capacity of the activities in a relationship that contributes to meeting each individual's goals as well as [to the] collective goals of individuals, groups, and networks" *(Bringle, Clayton, & Price, 2009, p. 14)*.

Even though partners represent institutions, the negotiations occur through person-to-person interactions that are dynamic *(Bringle & Hatcher, 2002)*. A community-campus partnership changes as partners get to know one another and explore their work and their identities *(Janke, 2009)*. Further, the actions, attitudes, and perceptions of individuals may greatly influence the outcomes of a relationship or partnership *(Huxham & Vangen, 2005)*.

Wood *(2007)* identifies "understanding and being comfortable with relational dialectics" as vital for building and maintaining a healthy relationship *(p. 219)*. Community-campus partners stand to

benefit by learning to understand and deal effectively with dialectical tensions that occur within their relationships.

## Overview of Relational Dialectics and Dialectical Tensions

Relational dialectics concern opposing tensions or connected opposites *(Sabourin, 2003)* that are normal in relationships. Dialectical tensions manifest as interdependent, mutually exclusive ideas reflecting the both/and nature of different perspectives rather than either/or thinking. Relational dialectics also emphasize the complexity of relationships and the richness of multiple systems of meaning held by the people involved in a partnership.

In complex relationships, differences can be seen as either positive or negative. Most often, however, such terms as "tension," "dilemma," or "negotiation" are cast in a negative light. If one experiences tension, encounters a dilemma, or is engaged in negotiation, a problem exists. Using dialectical reasoning, this adversarial perspective is replaced with the recognition that experiencing tensions is typical and inherent in any relationship, not necessarily negative. For example, each community-campus partner experiences conflicting possibilities: How much can I rely on this person now (e.g., a lot, very little)? How much information do I want to share, and on what topics at this point (e.g., everything, just some things)? Will my suggestion be appropriate for this relational situation (e.g., consistent, out-of-the-blue change)? In the most successful relationships, struggles related to dialectical tensions are addressed *(Altman, 1993)*.

Scholars from psychology, communication, human development, business, and health care have used relational dialectics to guide their research. Topics studied using dialectical approaches include friendship *(Rawlins, 1992)*, diverse families *(Sabourin, 2003)*, postmarital relationships *(Graham, 2003)*, stroke patients *(Palowski, 2006)*, organizational groups *(Erbert, Mearns, & Dena, 2005)*, global software teams *(Gibbs, 2009)*, and community health initiatives *(Medved et al., 2010)*. In addition, Kolb, Baker, and Jensen *(2002)* assert that a dialectical approach to conversational learning is central in experiential learning. Dialectics work through conversations that generate new ideas and concepts by increasing learners' awareness of a tension or paradox between two or more opposites *(p. 53)*. The new information adds to perspectives on social reality, fostering learning grounded in experience.

Relational dialectics have many applications in research and in educational practice. Community-campus partners can benefit from using dialectical thinking and response strategies to build partnerships that are collaborative, not combative.

## Key Assumptions of Relational Dialectics

Scholars have used different assumptions in developing approaches to studying relational dialectics, but in general have focused on the same underlying collaborative processes for interacting. To unpack important concepts related to dialectical tensions, we turn to relational dialectics theory, which focuses on interpersonal dyadic communication. Relational dialectics theory *(Baxter & Braithwaite, 2008; Baxter & Montgomery, 1996)* assumes that (a) relational life and relationships are characterized by change; (b) relational change is not linear but multidirectional, has many different possible meanings, and is never finished; (c) contradictions or dialectical tensions are inherent and fundamental in relational life; and (d) communication is central to organizing and negotiating relational dialectics that help each person (in a partnership to) constitute his or her social reality *(West & Turner, 2010, p. 204)*. Four core concepts are found in most dialectical scholarship: contradiction, change, totality, and praxis *(Baxter & Montgomery, 1996, p. 3)*.

### Contradiction.

Contradictions are human tendencies that are incompatible and mutually negate one another, but are essential to relationships. "Many oppositions, not just one, are likely to exist in relation to a given bipolar feature" *(Baxter & Montgomery, 1996, p. 9)*. For instance, different contradictions could coexist with certainty, yielding dyads such as certainty-unpredictability, certainty-novelty, certainty-mystery, or certainty-excitement *(p. 9)*.

For example, consider different certainty-related contradictions between a faculty member and a community partner engaged in service-learning. Early in their partnership work, the community partner might wonder about his or her roles and responsibilities when dealing with students (i.e., certainty-uncertainty tension). Discussion between the partners and/or written agreements could help address this tension and help the service-learning project proceed. Later on, however, a tension between certainty and unpredictability could be experienced when economic pressures make fewer financial resources available to the partners than expected. This new version of the tension (i.e., certainty-unpredictability)

would need to be discussed so partners could work together to decide how to proceed toward their service-learning goals with reduced funding.

## Change.

Change is also a core concept. Baxter and Montgomery *(1996)* say, "stability punctuates change, providing the baseline moments by which change is discerned" *(p. 10)*. Conville *(1991)* conceives relational change as operating via a helix or spiral, in which repetitive interactions concerning tensions occur at different levels or phases over time, reflecting the dynamic nature of the relationship. Recurring dialectical tensions that ebb and flow in a relationship can contribute to changes and growth in a partnership.

For instance, consider a community-campus partnership that starts out with relatively short, semester-long service-learning projects but gradually expands into a long-term community-based research and service initiative that addresses a complex community problem. Both the faculty member and community partner have likely developed well-established ways for working together. They have built a basis of trust and can draw from a set of common experiences and knowledge to relate to one another even when unwanted or unexpected issues arise. When this kind of change happens, the partnership has demonstrated growth, moving from being transactional toward becoming transformational *(see Bringle, Clayton, & Price, 2009; Clayton, Bringle, Senor, Huq, & Morrison, 2010; Enos & Morton, 2003)*.

## Totality.

Totality, another core concept in relational dialectics, emphasizes the idea that the social world is a series of interrelated contradictions where internal tensions occur between people in dyads, and external tensions occur when members of the dyad interact with (or represent) larger social units *(Rawlins, 1992; Wilson & Sabee, 2003)*. Altman *(1993)* refers to the tensions that occur when two people communicate as *interactional* and those due to organizational structures or policies that influence the partners as *contextual*.

To illustrate interactional and contextual tensions that can occur in the same relationship, recall the service-learning partnership detailed previously. Early on, the faculty member and the community partner may have experienced awkwardness and dissonance as they addressed any personality differences or diverging

expectations while talking about their intended work together. These experiences concern the certainty-uncertainty dialectic at an interactional level. However, when the two partners experience the loss of campus-based funding, the uncertainty-unpredictability tension stems from contextual-level changes as they face university-centered budgetary cutbacks. Thus, the totality of the partnership includes multiple interrelated contradictions that can come from internal as well as external sources.

### Praxis.

Finally, praxis refers to ways people respond to ongoing tensions, ranging from denial that a tension exists to conversations about total recalibration or transformation of the relationship *(Wilson & Sabee, 2003)*. Different responses have different levels of functionality for the relationship; some promote more positive outcomes than others. Relationships are constantly evolving as a result of how individuals respond to the tensions inherent in their interactions with others *(Baxter & Braithwaite, 2008; Baxter & Montgomery, 1996; West & Turner, 2010)*.

For example, in the service-learning example with funding loss, the partners could choose functional praxical responses by taking the attitude that "we will get through this together" and then using supportive communication to work toward solutions that are mutually beneficial. This approach, rather than focusing on one partner "getting what I want," is likely to lead to a stronger partnership.

Praxical choices, then, are more than momentary decisions about how to respond to the tensions experienced; the interaction response chosen helps establish the tone and overall interpersonal climate that can promote future positive (or negative) possibilities for the partnership. Wood *(2007)* says, "Interpersonal climate is the overall feeling or emotional mood between people" *(p. 214)*. Communication is the "primary influence" that shapes interpersonal climate *(p. 214)*. Thus, the praxical choices made to address dialectical tensions could influence the interpersonal climate in a community-campus partnership and potentially impact the sustainability of shared endeavors.

Notably, relational dialectics draw attention away from individuals to pose questions about competent relationships, groups, or interactions *(Wilson & Sabee, 2003, p. 29)*. Analyzing community-campus partnerships through the lens of relational dialectics calls attention to the spectrum of naturally occurring tensions that individuals experience as they navigate relationships.

## Three Dialectical Tensions in Community-Campus Relationships

Relational dialectics scholars consistently point out three dialectical tensions that occur in all relationships: a*utonomy-connection*, *novelty-predictability*, and *openness-closedness (Baxter, 1990; Brown, Werner, & Altman, 1998; Wood, 2007)*. These tensions are likely to (and in the experiences of the authors, do) exist in community-campus partnerships at both interactional and contextual levels. At the interactional level, tensions based on individual perceptions and behaviors come out in interactions. At the contextual level, tensions arise due to the organizational structures and cultures that shape the contexts in which the partners work.

**Table 1. Three Common Dialectical Tensions in Relationships**

| Dialectical Tension | Meaning: Pole 1 | Meaning: Pole 2 |
|---|---|---|
| Autonomy vs. Connection | Autonomy refers to independent actions by a single partner. | Connection refers to joint actions by both partners. |
| Novelty vs. Predictability | Novelty concerns doing something new. | Predictability concerns doing something in a familiar or routine way. |
| Openness vs. Closedness | Openness means freely sharing information. | Closedness means keeping information private. |

### Autonomy-connection.

The autonomy-connection tension occurs as partners struggle with functioning together or working separately. For example, at an interactional level a community partner might want a faculty member to attend a social event to benefit the agency. The faculty member might decline, wishing to spend limited non-work hours with family. This might lead the community partner to question the faculty member's commitment to the agency's overall mission rather than just to their joint project.

The autonomy-connection tension could also manifest contextually. For instance, the university review board might express concern at listing the community partner as a qualified member of the research team, with privileges including access to collected data. This university-centered issue could impact the partnership if the community partner wanted access to the data. Such structural concerns play out in partnership dyad conversations.

### Novelty-predictability.

In novelty-predictability tensions, partners struggle over responding creatively to a situation versus using well-established procedures. For example, a tension could occur when an enterprising campus staff member decides to contact community members using social networking for the first time (rather than by phone or e-mail). This change could contribute to unpredictability, as the community partner expects the existing modes of interaction and may be uncomfortable with the new approach (i.e., novelty).

At a contextual level, the novelty-predictability tension might occur in service-learning projects with students. For example, a faculty member may allow her college students to actively develop a curriculum for a tutoring program by creating new activities each semester. The faculty member would likely be comfortable with working regularly with new students on new projects; this is what she normally does in her teaching work. On the other hand, the community partner that facilitates the tutoring program may not want novelty. He normally establishes one program used throughout the year so that the tutors know what to expect; he can also count on predictable results. Organizational structures and related novelty-predictability tensions could become a conversation topic for these partners.

### Openness-closedness.

Issues with openness-closedness occur when partners struggle over whether to share information readily or to keep things private. Baxter *(2004b)* notes that openness can refer to self-disclosure of previously unknown information, but openness can also be defined as receptivity to different perspectives and a willingness to change one's own beliefs and attitudes. Dialogue is important not just to identify the tension that exists in the relationship (i.e., openness-closedness) but also to flesh out how each partner is experiencing it (i.e., as a need for more disclosure or, alternatively, as a need to develop receptivity to a different perspective).

Further, like the other tensions, openness-closedness can originate between the partners or because of something happening within one of their institutions or communities. At an interactional level, faculty members and community partners might differ on how much feedback to give a student working in the community. A faculty member might give detailed feedback, but a community partner might wonder if too much feedback about the need for extensive changes in the student's submitted project might prevent that student from doing future work with the agency.

At a contextual level, a community agency working with protected populations might have organizational rules or legal restrictions about sharing sensitive, private information on the people they serve with students or faculty. Alternatively, the openness-closedness tension could surface when a student becomes aware of sensitive information concerning physical abuse while working in the community, and then struggles over whether to share this information with the class as part of the classroom assignment. (Hopefully, the student would share this important information with the faculty member in charge and/or with the primary community partner so appropriate action could be taken.)

As these examples illustrate, the three common dialectical tensions can manifest themselves in community-campus partnerships in a variety of ways. Partners can potentially enact collaborative methods as they determine how to best address these differences.

## Learning Conversations About Dialectical Tensions

Recognizing the presence of a dialectical tension is an important first step to managing the effects of that tension on a partnership. The approach taken to address the differences matters greatly, however, and can lead toward collaboration, or not. Any partner (i.e., faculty member, student, community person) that takes a learning orientation is likely to explore the other partner's views and ideas rather than just to rely on his or her own perspective. Such a learning orientation is important for boundary spanners to practice, as they should be careful listeners who see connections, think holistically, and embody other personal characteristics that promote change and bring out the best in others *(Thomas, 2004, p. 7)*. Kolb et al. *(2002)* state that "dialectical inquiry aspires to holism through the embracing of differences and contradictions. . . . An inviting attitude about differences in opinion and perception is key to the process" *(p. 54)*. Similarly, Stone, Patton, and Heen *(1999)*, scholars associated with the Harvard Negotiation Project, recommend shifting one's perspective from proving a point or persuading the other to a learning conversation in which

> you want to understand what has happened from the other person's point of view, explain your point of view, share and understand feelings, and work together to figure out a way to manage the problem [tension or difference] and move forward. In so doing, you make it more likely that the other person will be open to being

> persuaded, and that you will learn something that significantly changes the way you understand the problem [tension or difference]. Changing our stance means inviting the other person into the conversation with us, to help us figure things out. *(pp. 16–17)*

Campus and community partners can benefit by taking a learning stance to understand the context and nuances of each person's position or perspective when dealing with differences.

Imagine, for instance, that a community partner is growing frustrated with what he sees as lack of contact from a female student to complete the service-learning work that would benefit the constituents of his agency. Although it might be easiest for him to assume that she is lazy or uncommitted, taking a learning stance would require him to withhold judgment and seek more information from the student (or faculty member). Asking questions about the student's challenges with the project as well as her personal context could yield valuable information regarding reasons for the delay. Such learned information could alleviate the frustration the community partner is experiencing and allow him to work with the student (and faculty member) to develop an alternate plan of action. In contrast, assuming that the student is lazy or uncommitted does not move the needed work forward and results in a poor service-learning experience for everyone involved.

As another example, think of a faculty researcher who is having difficulty contacting community interviewees for a community-based research project and finds himself annoyed with the community partner who agreed to facilitate introductions. Instead of assuming that the community partner is no longer committed to the project or does not value the research, the faculty member could start a learning conversation. He could talk with the community partner to gather specific details about what is happening and find out why she hasn't been making the introductions in the ways he expected. Then they could work together to address the research goals.

Wilson and Sabee *(2003)* point out that partners give life to the contradictions of personal relationships through communication *(see also Janke, 2008; Prins, 2005; Thomas, 2004)*. Conversations can uncover either obvious or under-the-surface areas of dialectical tension or can pinpoint differences to which community-campus partners need to be aware. Even so, different conversations may be needed to address specific concerns and to draw out varied kinds of information.

For instance, Stone, Patton, and Heen *(1999)* contend that difficult situations benefit from three types of conversations: the *what happened conversation*; the *feelings conversation*; and the *identity conversation*. The *what happened conversation* clarifies and finds out more when one or both partners have experienced an unexpected or unwanted situation. The feelings conversation uncovers information about each individual's internal response to a past situation, an ongoing issue, or even plans for the future. The *identity conversation* gets at the way each partner conceives of his or her personal identification with the collaboration. Each of these conversations could yield valuable information about dialectical tensions for the partners.

A what happened conversation might occur between a faculty member and a male student when the student fails to submit information to his group. The group research project is intended to provide needed information to the community partner. The faculty member might begin a learning conversation by saying, "I understand your part of the research project has not been completed. Can you tell me what happened?" Once the student answers, the faculty member could work with him to plan next steps for the research.

A feelings conversation might ensue when the faculty member shows up at an agreed-upon meeting time and location only to learn that the community partner is actually in another meeting and not available. The faculty member might assume the community partner does not value her time and the planning it takes for her to get away from campus. Their next conversation might proceed with the faculty member saying, "I missed you when I came out for our last meeting. I felt hurt and unappreciated when you didn't let me know that you had a change in plans. The time I have available to be off-campus is quite limited." After they discussed this further, the partners could come up with a way to update one another if there were unexpected changes so that they could both feel positively about the partnership and their work together.

An identity conversation might happen when the community partner finds out that the faculty member working with him on a service-learning project has been featured in the university's alumni newsletter. In the article, the faculty member described the service-learning project and praised the students but didn't mention the community partner. The community partner might confront the partner in a learning conversation by stating, "I saw the article on the service-learning work we've been doing together. It didn't mention me or my organization. I thought we were equal partners in this work, but that wasn't obvious in the

article." Then they could continue to share thoughts about their individual and partnership identities and make decisions about who would be included in future publications. *(See Janke 2008, 2009* for more on partnership identities.*)*

Another approach to learning conversations involves asking primarily *how* and *what* questions. Table 2 offers sample questions about the three common dialectical tensions to help community-campus partners carry on an important learning conversation. For example, partners can openly discuss what roles each takes (i.e., autonomy-connection), whether they want to try a new approach (i.e., novelty-predictability), or what types of information they expect to share with one another (i.e., openness-closedness).

**Table 2. Discussion Questions to Address the Tensions**

| Dialectical Tension | Topic/Issue | Discussion Questions |
|---|---|---|
| Autonomy vs. Connection | Partnership Definition & Interpersonal Relationship Boundaries | • How do we want to relate to each other?<br>• What roles/responsibilities do we each take now?<br>• What do we do together and what do we do separately?<br>• What level of connection is good for me/for you/for us in this situation? (or, at this time?) |
| Novelty vs. Predictability | Expectations of Partner & Partner Actions | • How do we define what to expect in this relationship?<br>• When do we stick to the way we did this before?<br>• When can we try a new approach?<br>• What level of predictability is best for me/for you/for us in this situation? (or, at this time?) |
| Openness vs. Closedness | Sharing Information & Managing Privacy | • How do we determine what information/ideas to share?<br>• What can we talk about? (What can't we talk about?)<br>• What information do I need/you need to do the work?<br>• What is the best way to share (or not) about this situation? |

Using inviting questions and having a learning conversation helps partners gather details to consider as they make strategic choices about how to address the dialectical tension(s) they experience.

## Strategies to Address Dialectical Tensions

After holding learning conversations, partners still need to consider praxical strategies or the "concrete ways by which people enact and respond to the contradictions" *(Wilson & Sabee, 2003, p. 31)*. Dialectical scholars point out that some responses are more productive for the relationship than others.

One unproductive strategy noted by Wilson and Sabee *(2003)* is denial that a contradiction exists. For example, a faculty member might not contact a known community partner (i.e., no connection) when conducting a needs assessment, and instead gather information independently (i.e., choose autonomy) from the community. The faculty member's choice could cause the relationship to lose vitality and also produce undesirable outcomes.

Another negative response to dialectical tensions is *disorientation*: one party sees relational contradictions as inevitable but negative, and feels trapped with little possibility of change. This partner does not respond to the contradiction and does not relate to the other party either. This approach can cause confusion and detachment between partners.

As an example, reconsider the student who did not complete his part of the group's project. He might be experiencing the autonomy-connection tension. That is, he knows he needs to do his research work for the group to be successful in the class (i.e., connectedness). However, he could be overwhelmed with work, assignments in other courses, and family obligations (i.e., autonomy/individual demands). If he assumes that there is no way to resolve this tension (i.e., disorientation), he might choose to ignore it by not communicating with his partners and not attending class. This praxical response keeps him confused and could contribute to confusion in his group (and with the faculty member and the community partner). The outcome for the relationships between the various partners caused by this student's praxical choice is negative and unproductive, though possibilities may still exist for the rest of the group to complete work and salvage the project.

These two negative response styles neglect collaborative ideals such as reciprocity, mutual respect, and regular sharing that are vital for community-campus partnerships. They also could produce negative consequences for individual partners and for the overall partnership.

More functional and collaborative possibilities for addressing dialectical tensions exist. In *spiraling inversion*, partners "sway back and forth between opposite poles of a dialectic over time" *(Wilson & Sabee, 2003, p. 31)*. For example, autonomy-connection can

function differently across the course of a partnership. At an early stage, partners may agree to weekly face-to-face meetings to forge a connection and get to know one another. Regular meetings may help establish individual roles as they define their joint work. Later on in the partnership, autonomy may predominate so that a phone call or e-mail may suffice for the partners to collaborate effectively. However, if a difficulty occurs, more contact (i.e., more connection) may again be required.

In *segmentation*, partners prioritize one dialectic pole for some topics or activities but the opposite pole for others. For example, recall the scenario in which a community partner wants the faculty member to attend many community activities (i.e., connection), but the faculty member does not want to attend them all (i.e., autonomy). A segmentation response would involve the partners' sitting down with a calendar and list of events, and choosing a specific kind of events that the faculty member would attend.

Another response to dialectical tensions called *balance* occurs when partners meet in the middle or compromise between two opposing alternatives. For example, the innovative campus staff person mentioned previously might work with the community partner to select both old and new ways to stay in touch. Monthly phone calls (i.e., predictable pattern) might be paired with a new electronic newsletter (i.e., novel approach). This would create balance along the novelty-predictability dimension.

In *recalibration*, or *reframing*, parties temporarily recast the differences so they are no longer seen as opposites. For instance, a faculty member and community partner might redefine predictability and novelty as complementary. They determine that daily predictable routines they complete while doing research interviews are "spiced up" when they laugh or delight in a unique story that was shared.

Multiple response strategies available to community-campus partners experiencing dialectical tensions are summarized in Table 3.

**Table 3. Dialectical Tensions—Response Styles and Outcomes**

| Response | Description | How It Works & Sample Thoughts (Autonomy/ Connection) | Potential Impact on the Relationship |
|---|---|---|---|
| Denial | Effort to obscure/deny contradiction by legitimizing one "pole" and excluding the other(s). | Don't talk about it. Ignore the tensions or work around them without addressing them.<br>"If I ignore this need to connect, maybe it will go away and I can do what is best for me." | Negative if it's the only response used; passive response; dominance of one "pole" can create exigence for the neglected ones. |
| Disorientation | Fatalistic attitude. Contradictions are viewed as negative and can't be changed. | Belief that the relationship isn't working well and cannot be changed or fixed.<br>"I want to keep my independence, but I also want to stay involved in the partnership; I can't do both . . . I'm trapped." | Negative if it's the only response used; passive response; likely produces lots of mixed messages and inconsistencies.<br>Creates anxieties and uncertainties. |
| Spiraling Inversion | Focused on time. One "pole" is dominant at a given time, but there is a shift to privilege the other(s) later. | Making a choice between two possibilities at one time, then choosing another possibility later, creating an "ebb and flow" or a spiral motion over time.<br>"Maybe we can work together throughout this semester, but go our separate ways during the next semester. Then we can come back and work together next year." | Functional if both partners can agree on the choices made. |
| Segmentation | Focused on a topic or activity. Parties create activity or topic domains for one possibility rather than other(s). | Choosing one "pole" or possibility in one set of circumstances or on one topic, but another possibility for other(s). Agree that certain topics or activities are "off limits" but others can be used.<br>"Let's work together when it comes to the brochure and flyers, but you go ahead and plan the rest of the event without me." "We can talk about what happens when you work with my students, but let's not talk about your frustration with X department at the university." | Functional if both partners can agree on the choices made. |
| Balance | All parts of the dialectical tension are legitimized at once, yet each one is only partly addressed. | Compromising or choosing a possibility "in the middle" of the seeming opposites.<br>"Let's agree that you will come and talk about your agency at one class meeting rather than attending every class." | Functional if both partners can agree on the choices made. |
| Integration | Respond fully to all tensions at once. | Finding a way to look at both possibilities in a positive way.<br>"I'll change my mindset away from being the expert when you come to my classroom so we can share roles as expert teachers—one from a discipline and one representing community expertise." | Functional if both partners can agree on the choices made. |
| Recalibration Or Reframing | Synthesize or transform so forces/ poles are no longer seen as oppositional. | Reframing or recasting the possibilities so they aren't seen as oppositional.<br>"We can be together when we go to the annual conference—you can present the agency results related to our work and I'll present a synopsis of my research with your organization." | Functional if both partners can agree on the choices made. |
| Reaffirmation | Accepts that tensions can't be reconciled, but celebrates the differences and tolerates the tension. | Celebrate the diversity of perspectives as representing "richness of relationships."<br>"Even though we differ substantially on how we see research, we can celebrate the successful completion of this project and anticipate working together in the future." | Functional if both partners can agree on the choices made. |

*Note. This reference chart builds upon the work presented by Baxter & Montgomery, 1996, pp. 60-66.*

As partners select praxical strategies to respond to the dialectical tensions they are experiencing, the likely outcomes of those actions can help partners decide which response is best for them individually and as a team.

## Implications

Relational dialectics provide a way to look inside the "black box" of collaboration to detail specific communication processes and strategies for addressing tensions common in community-campus relationships. Relational dialectics also provide new vocabulary to make sense of differences among partners. Unlike the term "conflict," which refers to incompatible goals that must be managed or resolved, dialectics offer a way to think about having differences co-exist. Dialogue offers different insights into how to "do" conflict collaboratively *(Baxter, 2004a, p. 13)*. Ultimately, dialectical thinking and related conversations set up conditions and processes necessary for partnerships to achieve the valued goals of trust, mutual respect, and reciprocity.

Indeed, relational dialectics theory and dialectical thinking more generally should encourage engagement practitioners and scholars to frame tensions between partners as natural, predictable, often observable, and changeable. This could involve a major shift in thinking for some. However, taking a win-win approach to partnerships means keeping the relationship in the forefront of one's mind, a powerful first step in developing greater competencies for collaboration by all those involved in community engagement.

Relational dialectics also allow partners to think about how they are constructing meanings about their partnership. Wilson and Sabee *(2003)* say "respect for multivocality requires the abilities to identify and comprehend multiple points of view (personal, relational, cultural) including those that differ from one's own lived experience" *(p. 34)*. In addition, partners can choose a "learning stance" to gather information and to carry out the "difficult conversations" advocated by Stone, Patton, and Heen *(1999)*. Also, "dialogue may be enhanced when participants use active-listening and negotiating skills" *(Wilson & Sabee, 2003, p. 34)*.

Thinking about alternative ways to construct meaning in a partnership, holding learning conversations, and choosing praxical responses are important tasks for all community-campus partners: students, faculty, community partners, and staff members. Educational trainings in these areas build capacities for partners to work better together.

Educators can also use Kolb et al.'s *(2002)* conceptualization of conversational learning to structure learning modules for students, and help them make sense of community-based research or service experiences. Students could do structured reflections that target dialectical differences and management strategies, promoting higher levels of learning (e.g., evaluation). Students could also develop multiple conversational skills to work through differences as they go outside the classroom into their communities.

The questions offered in Table 2 and the strategies listed in Table 3 are good places to start in developing competency-building workshops for campus and community partners. Community-campus participants might learn supportive ways to elicit more information, strategies to discern multiple perspectives on the same situation, techniques for carrying out various kinds of conversations, and flexible styles of communication to use as responses to dilemmas.

In addition, the expertise of scholars in psychology or communication could help partners gain greater "comfort with relational dialectics" *(Wood, 2007, p. 219)* by exploring different ways to look at relationships or at flexible means to communicate. Experts in conflict management or relational therapies could be called upon to help partners transform predominantly negative styles of interaction toward more collaborative and supportive approaches.

## Other Conceptual Frameworks for Dialectical Tensions

The relational dialectics theory developed by Baxter and Montgomery *(1996)* seems particularly salient for the scholarship of engagement; however, other frameworks exist. For instance, Brown et al. *(1998)* posit that all relationships involve three interdependent oppositional aspects that they label dialectical differences: engagement, affect, and regulation. These differences have to do with how the individual partners think about and act within the relationship.

*Engagement*, in this sense, refers to the degree of involvement, integration, and connection among people in a relationship. *Affect* involves positive and negative emotions/actions within a relationship. *Regulation* concerns making decisions or creating rules to guide a relationship. Scholars could use these dialectical tensions and the alternative framework to study community-campus partnerships and to determine what response strategies partners find work best.

For example, scholars could look at the level of involvement or depth of connection that each partner invests in the community engagement work ( i.e., Brown et al.'s engagement concept). The overall level of involvement between partners might serve as an indicator of their willingness to work together over time. Scholars could also look at the levels of affect experienced in a long-term community-campus partnership. Is the overall affect positive or negative? At various phases of the partnership, do partners experience different emotions? Scholars might use this kind of information to determine what conditions are most likely to promote an emotionally healthy partnership and a good interpersonal climate. Finally, researchers or practitioners could consider regulation. At various times in their partnerships, they could set up guidelines or principles that would guide different aspects of their collaborative work.

## Evidence in the Literature for Dialectical Tensions

Regardless of which dialectical framework is used, some dialectical tensions between community-campus partners are similar to those in other kinds of relationships, such as the three dialectical tensions we have explained in depth. However, other relational dialectics are context or situation specific. Scholars have identified unique sets of dialectical tensions for family members dealing with stroke *(Palowski, 2006)* or the death of a child *(Toller, 2005)*, in organizational team development *(Erbert, Mearns, & Dena, 2005)*, and even within a biotechnology-based alliance *(de Rond & Bouchikhi, 2004)*. Thus, dialectical tensions unique to partnerships focused on service-learning or community-engaged scholarship seem likely. Some evidence for such tensions can be found in the literature.

For instance, Stoecker and Tryon *(2009)* suggest viewing service-learning "as a dialectical organizational process" in which goals and outcomes for students may contradict those of the community partner *(pp. 7–8)*. Pinpointing those specific "dialectical organizational processes" could yield a set of contextual dialectical tensions consistently present in service-learning. Interestingly, recurring issues between service-learning students and community partners documented by Dumlao *(2009)* include community partner availability, length of student commitment, and depth of student work. These issues could reflect underlying dialectical tensions of autonomy-connection: long-term commitment to a project (community partner's perspective) versus short, semester-long commitment (student's perspective), and detailed work versus

superficial work (i.e., just get the assignment done) in service-learning partnerships. Dialectical tensions between mutually exclusive perspectives can provide challenges for partners both on campus and in the community.

As an alternate kind of example, consider a complex community engagement project with multiple universities and community organizations. The Boston area project reported conflict and tensions between the universities and their community organization partners as they addressed health disparities related to asthma. There was

> tension between the research mission and the delivery of service to the affected community. In its early development, HPHI [Healthy Public Housing Initiative] partners were vague about whether the project was primarily about research or primarily about service. When the tension between research and service manifested itself, the project leadership generally dealt with conflicting interests by allowing partners to advocate for preserving the pieces they valued. This created a relatively democratic debate in the project with little explicit clarity, negotiation or deep agreement. *(Freeman, et al., 2006, pp. 1018–1019)*

The Boston partnership experienced a contextual dialectical tension, research focus versus service focus, due to the divergent priorities of the universities and the community organizations. As Prins *(2005)* notes, "tensions may arise about partner roles, decision making, grant management, reward structures, diverging agendas, modes of work, mismatched timelines, forms of knowledge and status differences" *(p. 59)*. Thus, a variety of dialectical tensions exist in community-campus partnerships.

## Areas for Future Research

Community-campus partnerships and the communities they serve could benefit from research that explores dialectical tensions between partners in much greater detail. Considering relational dialectics in a general way is useful; however, additional scholarship could build engagement theory and add to our knowledge about ways to promote sustainable, collaborative partnerships.

Scholars could, for example, identify sets of dialectical tensions that warrant further attention in their engagement research or partnership practice. The examples detailed in this article are just

a beginning. Community and campus representatives experience different daily contextual and interactional factors. Their "different worlds" produce contextual dialectical tensions that can significantly affect the partners. Inherent differences between people also can contribute interactional dialectical tensions that influence the partnership.

Additionally, scholars could develop scales to measure different types of tensions, the severity or frequency of tensions, or partners' responses to tensions. Research could identify variations to shed light on how each partner experiences the dialectical tension in the same situation. Such measures would help describe, explain, or predict partnerships that have (or have not) developed partnership identities *(Janke, 2009)*, long-lasting commitments, or successful initiatives. They could also identify relationships that would benefit from professional intervention or additional training.

Potentially, dialectical thinking and research could help map patterns in partnerships that are better (or worse) for responding to change while maintaining a strong relationship bond. Existing engagement scholarship tells us that through communication, community-campus partners develop relationships that are transformational, transactional *(Enos & Morton, 2003)*, or even exploitative; relationships may shift between these types over time *(Bringle et al., 2009; Clayton et al., 2010)*. Future research could examine potential relationships among the types and ranges of dialectical tensions, response strategies, and the overall course of the partnership.

## Conclusion

Because relational dialectics allow for the interplay between stability and change processes in partnerships, they reflect reality in relational life and do not force scholars to choose between observing patterns and observing predictability *(West & Turner, 2010)* when they do research. Relational dialectics also shed light on ways to create partnerships intentionally so that they meet the needs and goals of both campus and community partners, focus on the relationship, and use collaborative communication processes. Most important, relational dialectics and dialectical thinking foster engagement initiatives that promote dynamic and positive changes in communities and encourage people to work together effectively.

## References

Altman, I. (1993). Dialectics, physical environments, and personal relationships. *Communication Monographs, 60*, 26–34. doi:10.1080/03637759376291

Battistoni, R., Gelmon, S., Saltmarsh, J., Wergin, J., & Zlotkowski, E. (2003). *The engaged department toolkit*. Providence, RI: Campus Compact.

Baxter, L. A. (1990). Dialectical contradictions in relationship development. *Journal of Social and Personal Relationships, 7*, 69–88. doi:10.1177/0265407590071004

Baxter, L. A. (2004a). Relationships as dialogues. *Personal Relationships, 11*, 1–22. doi:10.1111/j.1475-6811.2004.00068.x

Baxter, L. A. (2004b). Dialogues of relating. In R. Anderson, L. A. Baxter, & K. N. Cissna (Eds.), *Dialogues: Theorizing difference in communication studies* (pp. 107–124). Thousand Oaks, CA: Sage.

Baxter, L. A., & Braithwaite, D. O. (2008). Relational dialectics theory: Crafting meaning from competing discourses. In L. A. Baxter & D. O. Braithwaite (Eds.), *Engaging theories in interpersonal communication: Multiple perspectives* (pp. 341–369). Los Angeles, CA: Sage.

Baxter, L. A., & Montgomery, B. M. (1996). *Relating: Dialogues and dialectics*. New York, NY: Guilford Press.

Bringle, R., Clayton, P., & Price, M. (2009). Partnerships in service-learning and civic engagement. *Partnerships: A Journal of Service-Learning & Civic Engagement, 1*(1), 1–20. Retrieved from http://www.partnershipsjournal.org/index.php/part/index

Bringle, R., Games, R., & Malloy, E. (1999). *Colleges and universities as citizens*. Boston, MA: Allyn and Bacon.

Bringle, R., & Hatcher, J. (2002). Campus-community partnerships: The terms of engagement. *Journal of Social Issues, 58*, 503–516. doi:10.1111/1540-4560.00273

Brown, B. B., Werner, C. M., & Altman, I. (1998). Choice points for dialecticians: A dialectical-transactional perspective on close relationships. In B. Montgomery & L. Baxter (Eds.), *Dialectical approaches to studying personal relationships* (pp. 137–154). Mahwah, NJ: Erlbaum.

Buys, N., & Bursnall, S. (2007). Establishing university-community partnerships: Processes and benefits. *Journal of Higher Education Policy and Management, 29*(1), 73–86. doi:10.1080/13600800601175797

Carriere, A. (2006, September). *Community engagement through partnerships*. Paper presented at HEQC/JET Conference on Community Engagement in Higher Education, Cape Town, South Africa.

Clayton, P., Bringle, R., Senor, B., Huq, J., & Morrison, M. (2010). Differentiating and assessing relationships in service-learning and civic engagement: Exploitative, transactional, and transformational. *Michigan Journal of Community Service-Learning, 16*(2), 5–21. Retrieved from http://www.eric.ed.gov

Community-Campus Partnerships for Health. (2006). *Principles of good community-campus partnerships*. Retrieved from http://depts.washington.edu/ccph/principles.html

Conville, R. (1991). *Relational transitions: The evolution of personal relationships*. New York, NY: Praeger.

de Rond, M., & Bouchikhi, H. (2004). On the dialectics of strategic alliances. *Organization Science, 15*(1), 56–69. doi:10.1287/orsc.1030.0037

Dumlao, R. (2009). Service-learning in the capstone course: Adopting the American Red Cross. In D. W. Worley, D. Worley, B. Hugenberg, & M. Elkins (Eds.), *Best practices in experiential and service-learning in communication* (pp. 436–443). Dubuque, IA: Great River Technologies/ Kendall Hunt.

Ellison, J., & Eatman, T. (2008). *Scholarship in public: Knowledge creation and tenure policy in the engaged university*. Syracuse, NY: Imagining America.

Enos, S., & Morton, K. (2003). Developing a theory and practice of campus-community partnerships. In B. Jacoby & Associates (Eds.), *Building partnerships for service-learning* (pp. 20–41). San Francisco, CA: Jossey-Bass.

Erbert, L. A., Mearns, G. M., & Dena, S. (2005). Perceptions of turning points and dialectical interpretations in organizational team development. *Small Group Research, 36*, 21–58. doi:10.1177/1046496404266774

Freeman, E. R., Brugge, D., Bennett-Bradley, W. M., Levy, J. I., & Carrasco, E. R. (2006). Challenges of conducting community-based participatory research in Boston's neighborhoods to reduce disparities in asthma. *Journal of Urban Health, 83*(6), 1013–1021. doi:10.1007/ s11524-006-911-0

Gibbs, J. (2009). Dialectics in a global software team: Negotiating tensions across time, space, and culture. *Human Relations, 62*(6), 905–935. doi:10/1177/0018726709104547

Graham, E. (2003). Dialectical contradictions in postmarital relationships. *The Journal of Family Communication, 3*(4), 193–214. doi:10.1207/ S1532769JFC0304_3

Hayes, E., & Cuban, S. (1997). Border of pedagogy: A critical framework for service-learning. *Michigan Journal of Community Service Learning, 4*, 72–80. Retrieved from http://www.eric.ed.gov

Higher Education Research Institute. (1996). *A social change model of leadership development (Version III)*. Los Angeles, CA: University of California Los Angeles Higher Education Research Institute.

Huxham, C., & Vangen, S. (2005). *Managing to collaborate: The theory and practice of collaborative advantage*. New York, NY: Routledge.

Jacoby, B. (2003). *Building partnerships for service-learning*. San Francisco, CA: Jossey-Bass.

Janke, E. M. (2008). *Shared partnership identity between faculty and community partners* (Doctoral dissertation). Retrieved from http://etda.libraries.psu.edu/theses/approved/WorldWideIndex/ETD-2962/index.html

Janke, E. M. (2009). Defining characteristics of partnership identity in faculty-community partnerships. In B. Moely, S. Billig, & B. Holland (Eds.), *Creating our identity in service-learning and community engagement* (Advances in Service-Learning Research, Vol. 9, pp. 75–101). Charlotte, NC: Information Age Publishing.

Kellogg Commission on the Future of State and Land-Grant Universities. (2001). *Returning to our roots: Executive summaries of the reports of the Kellogg Commission on the future of state and land-grant universities*. Retrieved from http://www.aplu.org

Kolb, D., Baker, A., & Jensen, P. (2002). Conversation as experiential learning. In A. Baker, P. Jensen, & D. Kolb (Eds.), *Conversational learning: An experiential approach to knowledge creation* (pp. 51–66). Westport, CT: Quorum Books.

Medved, C., Morrison, K., Dearing, J., Larson, S., Cline, G., & Brummans, B. (2010). Tensions in community health improvement initiatives: Communication and collaboration in a managed care environment. *Journal of Applied Communication Research, 29*(2), 137–152. doi:10.1080/00909880128107

Oliver, C. (1990). Determinants of interorganizational relationships: Integration and future directions. *Academy of Management Review, 15*(2), 241–265. Retrieved from http://www.jstor.org/stable/258156

Palowski, D. (2006). Dialectical tensions in families experiencing acute health issues: Stroke survivors' perceptions. In L. Turner & R. West (Eds.), *The family communication sourcebook* (pp. 469–487). Thousand Oaks, CA: Sage Publications.

Prins, E. (2005). Framing a conflict in a campus-community partnership. *Journal of Planning Education and Research, 25*(1), 57–74. doi:10.1177/0739456X04270370

Rawlins, W. K. (1992). *Friendship matters: Communication, dialectics, and the life course*. Hawthorne, NY: de Gruyter.

Sabourin, T. (2003). *The contemporary American family: A dialectical perspective on communication and relationships*. Thousand Oaks, CA: Sage.

Saltmarsh, J., Hartley, M., & Clayton, P. (2009). *Democratic engagement white paper*. Boston, MA: New England Resource Center for Higher Education.

Sandy, M., & Holland, B. A. (2006). Different worlds and common ground: Community partner perspectives on campus-community partnerships. *Michigan Journal of Community Service Learning, 13*(1), 30–43. Retrieved from http://www.eric.ed.gov

Sebring, R. H. (1977). The five-million dollar misunderstanding: A perspective on state government–university interorganizational conflicts. *Administrative Science Quarterly, 22*(3), 505–523. Retrieved from http://www.jstor.org/stable/2392186

Stoecker, R., & Tryon, E. (2009). *The unheard voices: Community organizations and service-learning*. Philadelphia, PA: Temple University Press.

Stone, D., Patton, B., & Heen, S. (1999). *Difficult conversations: How to discuss what matters most*. New York, NY: Penguin.

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

Thomas, N. (2004). Boundary-crossers and innovative leadership in education. In J. Galura, P. Pasque, D. Schoem, & J. Howard (Eds.), *Engaging the whole of service-learning, diversity, and learning communities*, 26-30. Ann Arbor, MI: The OCSL Press at the University of Michigan.

Thomson, A. M., & Perry, J. L. (2006). Collaboration processes: Inside the black box. *Public Administration Review, Special Issue,* 20–32. doi:10.1111/j.1540-6210.2006.00663.x

Toller, P. (2005). Negotiations of dialectical contradictions by parents who have experienced the death of a child. *Journal of Applied Communication Research, 33*(1), 46–66. doi:10.1080/0090988042000318512

Torres, J. (2000). *Benchmarks for campus/community partnerships.* Providence, RI: Campus Compact.

West, R., & Turner, L. (2010). *Introducing communication theory: Analysis and application* (4th ed.). Boston, MA: McGraw-Hill.

Wilson, S., & Sabee, C. (2003). Explicating communicative competence as a theoretical term. In J. Green & B. Burleson (Eds.), *Handbook of communication and social interaction skills* (pp. 3–50). Mahwah, NJ: Erlbaum.

Wood, J. (2007). *Interpersonal communication: Everyday encounters.* Belmont, CA: Thompson Wadsworth.

## About the Authors

**Rebecca J. Dumlao** is associate professor in the School of Communication at East Carolina University and a mentor for the university's Engagement and Outreach Scholars Academy. Her research explores community-campus partnership processes and outcomes, service-learning pedagogy, and communication in diverse families. Dumlao earned her bachelor's degree in home economics education/early childhood education from The Pennyslvania State University, her master's degree in scientific and technical communication from Oregon State University, and her Ph.D. in mass communication from the University of Wisconsin–Madison.

**Emily M. Janke** is the special assistant for community engagement in the Office of Research and Economic Development at the University of North Carolina at Greensboro. Her research explores collaborative processes, the nexus among organizational, partnership, and social identities, institutionalization of community engagement, and the experiences of practitioner-scholars (broadly defined) as engaged scholars. Janke earned her bachelor's degree from Colgate University in environmental geography and her Ph.D. in higher education from The Pennsylvania State University.