

A MIXED METHODS EVALUATION OF AN ONLINE COMMUNITY OF  
PRACTICE TO ENHANCE FACULTY PARTICIPATION IN SERVICE-LEARNING

by

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## **Abstract**

Both theoretical and empirical literature demonstrates that service-learning contributes to student learning and also yields positive outcomes for faculty, communities, and higher education institutions. Nevertheless, the myriad benefits described do not motivate many faculty to use this pedagogy. This research study examined data to understand faculty perceptions of service-learning, faculty-identified incentives and barriers related to service-learning engagement, and the influences of University culture to explain low rates of faculty participation in service-learning. Based on the empirical evidence collected and a review of the literature, this study implemented an online community of practice (CoP) to increase faculty interest in service-learning, cultivate faculty relationships, and build a network of service-learning faculty at Johns Hopkins University (JHU). While the pilot version of this CoP failed to elicit the hoped for level of faculty participation, analysis of qualitative data highlighted short- and long-term recommendations to improve this approach to faculty development. One of the recommendations included augmenting Wenger's (1998) social learning framework to include IT training and scaffolding around using CoPs online, rewards to routinize engagement, and a more concerted effort to understand the members' expectations and needs within the online space. It is evident from this research that the complex culture within JHU influences participant engagement in this kind of faculty development but more work is needed to further understand the influences of this culture. In the end, training, regular prompting, and recognition may contribute to enhancing this CoP and creating and sustaining a community of service-learning faculty at JHU.

Dissertation Advisor: Dr. Eric Rice

## **Dedication**

To my kids, Colby, Henry, and Sara. I hope that this dissertation will stand as a reminder to always pursue your passion and do what you love. There will probably be someone or some people in your life who tell you all the reasons you should not pursue something, when they do, first – quickly remove them from your life and second - please remember that your Mimi started a second doctoral degree with a wife, a son, and two babies on the way. I think Eckhart Tolle said it best, “If not now, when?”

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## **Chapter 1: Executive Summary**

### **Background**

Throughout the history of American higher education institutions (HEI), universities have been tied to the economic systems in which they were embedded. Early HEIs were founded to train citizens for religious vocations or to serve as effective participants in political discourse. In the late 19<sup>th</sup> century higher education and economic systems solidified this link through the passage of the Morrill Act. Land-grant institutions' purpose included preparing citizens for agrarian employment through training and apprenticeships and there are numerous other examples in our economic history where higher education played a role in economic prosperity. Ultimately, these relationships created a system whereby HEIs prepared students to contribute new knowledge and research to spur innovation and obtain high skilled jobs to stimulate the economy. This mission, along with other factors, contributed to the expansion of higher education worldwide (O'Banion, 2010).

Demand for higher education increased as the positive relationship between earning a bachelor's degree and higher wages became clearer over time (De Alva & Scheider, 2011). To keep up with the increased need and interest in earning a bachelor's degree, HEI's increased class sizes and added other forms of instruction, including part-time programs and distance learning options. In response, HEIs addressed the increase in consumers with a factory model of education. Universities and colleges no longer resemble early post-secondary classrooms, and Saavedra and Opfer (2012) argued that passive learning or a banking model dominates most present-day college classrooms, as

that model is viewed as an effective means to address the increased demand for education.

This model, however, may not adequately prepare students for the 21st century. Employers require employees who can “communicate, collaborate, and problem solve” (Saavedra & Opfer, 2012, p. 8). The Association of American Colleges and Universities (AACU) released a report last year suggesting that while students believe they are well prepared to enter the workforce, employers raised concern about skills deficits in the areas of teamwork, communication, critical thinking, and creativity. Furthermore, unlike HEIs, employers also reported that they have fewer concerns about students’ choices of majors and want to see an increase in these other skills (Hart Research Associates, 2015). Consequently, while students learn information, they may not effectively communicate or apply this knowledge in different contexts and groups. Evidence from this survey further suggests that students may not have sufficient opportunities in school to learn and practice the desired skills, adopt effective problem-solving strategies, or develop creativity. Thus, the transmission model serves larger numbers of students but may not adequately prepare them.

Consistent with U.S. HEI history, colleges and universities should consider adopting pedagogical that emphasize employer reported needs including communication, leadership, and teamwork. HEI’s historical role in and relationship with the U.S. economy offers an opportunity for universities to contribute, once again, to better prepare students for the workforce. One possible strategy is service-learning. In fact, in recent years, top universities including Duke, Stanford, and University of North Carolina-Chapel Hill required students to participate in a service-learning experience. Kaplan,

Sinai, and Flum (2014) argued for a shift away from an emphasis on test scores and achievement to a focus on student preparation in leadership, accountability, and interpersonal communication. This sentiment resembles John Dewey's ideas about education early in the 20<sup>th</sup> century. He emphasized the role of social development and knowledge accumulation and understanding (Dewey, 1985). Other theorists (Kolb, 2014; Lave & Wenger, 1991) supported the integration of social and intellectual development into student learning experiences.

This research study examines service-learning at one research university. It provides evidence of service-learning's benefits to all participating stakeholders as well as one possible way to increase interest, understanding, and use of this pedagogy in classrooms in one HEI. This teaching method may represent one pedagogical option for HEIs to consider in order to more effectively connect practice and theory in order to better prepare students to contribute to our economic system and society.

### **Service-Learning**

Service-learning promotes student understanding of course materials through the application of knowledge to a concrete experience and participation in activities with community-based organizations (Boyer, 1990; Bringle et al., 1995; Mink & Twill, 2012). It is evident from the literature that students benefit from this pedagogy and that faculty, community-based organizations (CBOs), and HEIs also report positive results from using this pedagogy (Cruz & Giles, 2000; McKay and Rozee, 2004; Mink & Twill, 2012). While much has been written on beneficial outcomes, there is a smaller body of research on faculty views of and experience with service-learning. The empirical literature did, however, provide a variety of explanations around faculty behavior related to service-

learning. Researchers presented a number of institutional, cultural, personal, and professional explanations for the varied perceptions of and motivations and barriers to service-learning participation. There is, however, a dearth of evidence describing faculty experiences at research universities. Consequently, there is an incomplete picture of why research university faculty do not participate, and little written about their perceptions of this pedagogy or, equally important, the influences on their likelihood of engaging in service-learning.

Service-learning is a less traditional, more practice-based approach to instruction, which means fewer faculty at research universities participate, and some characterize this pedagogy as time consuming and irrelevant to their courses (Butin, 2006). Furthermore, some faculty suggested time spent learning this pedagogy represents a threat to promotion and tenure (Serow, 2000). Even given the evidence of the benefits of the service-learning pedagogy, an acknowledgement of service-learning's value in higher education, as well as the newly adopted Carnegie engaged-university classification (Driscoll, 2000), faculty participation at research universities remains low. Service-learning represents one possible means to refocus the educational model towards collaborative constructivism (Garrison, Anderson, & Archer, 1999). In the end, this research offers evidence that faculty members at one research university do value service-learning, are interested in using this pedagogy in their classrooms, and want to engage in a community of like-minded service-learning practitioners in order to enhance the learning and teaching in their courses.

### **Purpose of the Research Study: Problem of Practice**

As previously indicated there is overwhelming evidence to support the idea that service-learning yields significant benefits for students, faculty, the community, and HEIs (Boyer, 1990; Blouin & Perry, 2009; Eyler, Giles, & Braxton, 1997; Mink & Twill, 2012). As key stakeholders in the HEI organization, faculty members play a critical part in implementing and institutionalizing this pedagogy. According to Antonio, Astin, and Cress (2000), however, less than three percent of faculty members nationwide implement service in their classes, and those who do encourage service experiences report a higher commitment to and engagement in service-oriented pedagogies like service-learning. However, those using service-learning tend to come from marginalized groups including women, faculty of color, and those with lower rank or untenured positions (Antoni et al., 2000). The registration statistics at the Johns Hopkins Schools of Medicine, Nursing, and Public Health (JHU Health Professional Schools) reflect the low participation described elsewhere.

### **Evidence of the Problem: Needs Assessment Findings**

At JHU, few faculty train in service-learning or integrate it into their classes. To better understand this phenomenon in the context of this study, I conducted a needs assessment to explore why, given the evidence of the benefits of this pedagogy and the critical role faculty play in producing these outcomes, most faculty at JHU do not train in or implement service-learning. Specifically, these data informed the present understanding about perceptions of service-learning and the incentives and barriers to participating in this pedagogy, with the goal of designing an intervention to increase faculty participation in service-learning activities at the JHU Health Professional Schools.

According to these results, while JHU faculty members face the strong norms and influences associated with a research university, their perceptions and identified incentives related to service-learning remain similar to those cited in the literature. This needs assessment provided evidence that, contrary to reports in the empirical literature, faculty at this research university do value teaching. In fact, this research suggested that there was no significant difference between how surveyed faculty members personally value their roles as researchers and as teachers. This is important because previous researchers, including Butin (2006), posited that research faculty were primarily interested in research. The results further indicated that faculty members believe the institution values research as 'Very Important' and views their role as teachers as less important. Faculty perceptions of the institutional importance of their roles may contribute to faculty decisions to pursue research over teaching, in spite of their own personal feelings about their role as teachers. The empirical literature and the needs assessment motivated a detailed exploration of the influence of an institution's culture on faculty decisions about whether or not to use service-learning.

Brownell and Tanner (2012) suggested that professional culture in higher education in general, and research universities in particular, values research and publications and reinforce this norm through incentives including salary and promotion. Moreover, this culture contributes to a relatively lower status of teaching. I hypothesized that faculty and department cultures, as well as institutional structure and value systems, would exert pressure on this online CoP. Moreover, constraints on both financial resources and time would present hurdles to its success. With limited financial resources, the university, divisions, and departments tend to spend this money on support,

infrastructure, and other assistance for enhancing faculty research efforts. Faculty must also efficiently allocate their time, often according to the signals and incentives created by the institutional structure and faculty culture (Fairweather, 1996). This creates a persistent tension between teaching and research. It is also possible that faculty, due to some of the reasons already described, lack the motivation to participate in professional development around teaching or implement service-learning in their classrooms. The reality is that faculty respond to incentives, and, at a research university, those incentives encourage faculty to participate in research rather than teaching (Fairweather, 1996, 2002).

Brownell and Tanner (2012) also suggested that training, time, and incentives are necessary conditions for influencing faculty engagement in teaching, but that these are not sufficient for change to occur. Brownell and Tanner (2012) argued that efforts to train faculty and figure out the most effective mix of incentives contributes to greater participation but also ignores a key barrier in the role of a faculty member's professional identity. Kuh and Whitt (1988) also posited that few colleges or universities are "monolithic entities" (p. 52). They argued that an institution's culture evolves over time and reflects its history, critical events, key figures, and core leadership and faculty views. Moreover, this institutional culture is influenced by the institution's size and geographic structure or layout. For example, larger universities, situated in different locations and dispersed across a large campus, reduce informal conversations among and between faculty, students, and staff, and this contributes to a culture where faculty lack opportunities to collaborate and discuss teaching and education-related practices. Finally, Kuh and Whitt (1988) and Tierney (1988) suggested that the dimensions of culture in

higher education include a variety of sub-cultures originating out of departments, disciplines, professions, managerial responsibilities, and social groups.

### **Evidence-Based Intervention**

In light of the needs assessment findings and evidence from the extant literature, unclear messages from leadership around teaching may represent a key barrier to faculty participation in service-learning. These disjointed communities, together with the institutional culture, create layers of a complex university culture.

JHU's complicated culture and the resultant tension between research and teaching contribute to low faculty participation in service-learning and require important consideration when crafting an intervention to increase participation in the service-learning pedagogy. Based on the empirical and theoretical evidence, I proposed an online CoP to address this POP. My intent was to increase faculty interest in service-learning, build social networks and a service-learning teaching community, and support faculty as instructors. In the end, I aimed to contribute to creating a critical mass of individuals who identify as service-learning teachers at JHU (Brownell & Tanner, 2012).

The literature review on potential interventions explored the effects of JHU's culture on faculty views of teaching and subsequent adoption of evidence-based teaching practices like service-learning, as well as potential strategies to navigate JHU's complex culture to support faculty as teachers. The literature review identified characteristics of an online CoP based on the theoretical and empirical research, as well as a preliminary implementation and evaluation plan for this intervention. In the end, an examination of the relevant literature established a strong case for implementing an online CoP themed around service-learning.

The intervention structure, curriculum, and process integrated themes from social learning theory. This online community included Service-Learning Fellows Program (SLFP) alumni, current fellows, and faculty handpicked from around JHU for their reputation as excellent teachers. The community included faculty representing different groups at JHU with varying experiences and views, and it engaged them in learning and discussions around service-learning. Finally, the CoP included a variety of resources to explore and possibly implement in different service-learning classes. This intervention established a community enterprise where faculty played a critical role in shaping a creative and supportive space to consider the relevance and value of service-learning to students and faculty at a research university like JHU (Hill & Haigh, 2012).

This intervention represented an intentional step towards creating opportunities within the current culture to influence faculty use of service-learning. The research aimed to account for the physical separation of many JHU faculty members and provide a place to engage in these normally informal and tacit encounters. For example, the CoP provided a space for community members to brainstorm potential service-learning projects that crossed boundaries and integrated different disciplines. The online CoP contributed to building a network of faculty interested in service-learning and fostered relationships with other like-minded faculty. It also created opportunities for participants to learn relevant theories, review and discuss appropriate literature, and develop and apply the requisite skills and resources in service-learning courses. In the end, the online CoP, based on the findings of the needs assessment and evidence from the literature, aimed to increase faculty participation in service-learning and build a network of service-learning faculty.

## **Intervention and Evaluation**

The evaluation of the intervention investigated fidelity, the extent to which this online CoP successfully incorporated attributes of social learning theory, and member value created from the experiences in the online CoP. Overall, the evidence yielded mixed results regarding the benefits of the experience, but it did offer insights into ways to improve the experiences in this kind of community in the future.

Based on the evidence, the CoP was implemented according to the original plan and achieved a high level of fidelity. Unfortunately, fewer than half of the members engaged throughout the intervention period. More positively, however, the evidence collected also revealed benefits, including real-time advice and artifacts like sample reflection questions, articles, and other assignments related to service-learning. The members also described the benefits of establishing social connections within this community of service-learning faculty. The social aspects included member-reported value in what they referred to as the tagging of artifacts. Tagging helped members connect with and engage members who posted the sample activities and other resources. The benefits, however, only accrued to the small group of participants who did engage during the intervention period. Participants who joined the CoP but rarely if ever posted saw potential value but reported skepticism around online platforms and related tools as an effective way to build such networks.

The evaluation, on the whole, produced results that support assessing this intervention as a success. More importantly, it uncovered ideas to consider for future improvements. The data revealed many unanticipated themes that if addressed could potentially increase and expand the value of the online CoP and benefits received.

Furthermore, these new themes may augment current thinking and writing on the development of online CoPs in the empirical literature. Themes related to technological barriers, beliefs about online platforms, scaffolding, and routine emerged from the qualitative data. This evidence offered an opportunity to augment current CoP frameworks towards improving participant experiences and increasing understanding of the process of forming a valuable online CoP for its members. The next iteration of this CoP will include better scaffolding including activities like Google+ training, practice sessions with discussion posts and other tools, and conversations around online community expectations. The online CoP 2.0 will also offer more personalized reminders and more targeted prompts for members when they share posts.

In the end, this research provided some evidence of the benefits of an online CoP to advance service-learning efforts at a research university. Not surprisingly, however, there is more to be done to strengthen the community's role in changing school culture around the use of service-learning. This research study revealed that faculty at this research university do value their role as teachers. Furthermore, faculty members at this institution see benefits to using service-learning but report time constraints, logistics, and the absence of promotion recognition of service-learning in promotion decisions as significant barriers. The online CoP also underscored the benefits of convening a group of faculty around their interests in service-learning. Faculty reported an appreciation of the peer support, sample assignments and activities, and opportunities to ask and discuss questions and relevant topics. This intervention also demonstrated the need to build in additional time to prepare members for the experience in order for them to get the most out of their time in the community. While much of the literature describes the key traits

of successful CoPs and their benefits, there is less focus on practices for creating this space and sustaining it over a longer period given the climate and competing demands placed on the members. This research allowed me to augment the current model of a CoP to include important new features including member scaffolding related to using the online community and tools, participating in discussions, and posting and accessing resources. It also suggested ways to better integrate this kind of practice and professional learning into the regular workflow of faculty members and increase active engagement among participants. Overall, this research illustrated faculty interest in engaging in service-learning, participating with their colleagues around this and other topics related to teaching, and offered recommendations to improve future versions of this type of professional development.

## **Chapter 2: A Review of the Theoretical and Empirical Literature**

### **Introduction**

In 1992, Hearn wrote an article claiming that a paradox existed in U.S. higher educational institutions. At the time, Hearn described the tension between higher education's image as an organization focused on teaching and preparing students for advancement and the economic constraints and institutional desire for prestige. While a paradox may still exist in higher education, this research suggested that the conflicting elements now include college as a means to obtain a job and higher education's mission of "intellectual development to cultivate a flexible mind" (Chronicle of Higher Education, 2015). Terry O'Banion (2012) described this as a tension between training for an occupation and training for the mind.

A review of Boyer's (1994) account of U.S. higher education history demonstrated the persistent, push-pull tension in defining the role of higher education. The founders of Harvard, in the 17th century, viewed education as a means to train citizens in "good" living and these students trained as ministers or public officials. It was not until the 19th century with the passage of the Morrill Act (1862) that institutions broke away from this tradition. This Act provided an opportunity to blend applied research and real-world educating, which Boyer (1994) characterized as liberal and practical training of the industrial class. In the mid-19th century, U.S. academics favored the German style of higher education, which gave rise to funding for research on a national scale. The Morrill Act and a keen interest in research created a strong link between universities and economic systems (Boyer, 1994). The 20th century brought the

linking of national, economic, and social development with higher education, which in Boyer's (1994) view represented the most important innovation of the era. He also suggested that this contributed to the tremendous expansion of higher education worldwide.

A recent AIR report (De Alva & Schneider, 2011) suggested that the myriad benefits of earning a bachelor's degree included almost 46% higher average wages, healthier and longer lives, and increased participation in communities. However, Saavedra and Opfer (2012) explained that employers now require graduates who can "communicate, collaborate, and problem solve" (p. 8). Saavedra and Opfer (2012) further suggested that the dominant transmission model might address the increased demand in educational institutions but inadequately prepares students to work in the 21<sup>st</sup> century. In the transmission model of education, students learn information but may not practice applying new concepts and knowledge in different contexts and do not have opportunities to communicate the knowledge to solve problems or develop creativity (Saavedra & Opfer, 2012). O'Banion (2012) described the current system as a network of factories with raw materials (instruction and students) and standardized, routine inspection. In other words, the current model provides a means to educate a larger number of students but may fail to prepare those students adequately. A college education certainly translates into many benefits to individuals and communities but this same increase in demand resulted in a model of education that may not meet the needs of today's students; the curriculum must provide relevant training for complex jobs.

According to Wagner (2008), 21<sup>st</sup> century skills include critical thinking and problem solving, collaboration and leadership, agility and adaptability, initiative,

communication, access and analysis of information, and curiosity and imagination. These skills are not developed because the current transmission model does not teach them. Students learn but are unable to apply material in any context, lack communication skills, and fail to develop creativity. In fact, Kaplan et al. (2014) provided evidence that the past several decades emphasized test scores and achievement over developing the types of skills previously mentioned. They argued that shifting away from the transmission model might contribute to improving individuals preparing for the changing world and that educators should focus on promoting students exploring their own identity and who they will become. This approach does not devalue the importance of knowledge formation or accumulation but suggests that an inclusion of students' "agency and capacity in exploring and forming their identity should be a central educational goal" (Kaplan et al., 2014, p. 245). Providing a space for students to explore their identities may increase their capacity for leadership, adaptability, and interpersonal communication, which all represent important 21st century skills.

Interestingly enough, this is not a novel idea. In the early 20<sup>th</sup> century, John Dewey emphasized the critical role of social development and knowledge accumulation and understanding. He also stressed the need for students to understand the influence of their actions in affecting the well-being of others (Dewey, 1985). Furthermore, the Wingspread Group in 1993 argued for a shift away from an instructional to a learning paradigm to refocus educational objectives towards ideas and values described by Kaplan et al. (2014) and Dewey (1985) rather than student test scores. Additionally, Kolb (2014), Lave and Wenger (1991), and Garrison et al. (1999) provided evidence of the value of integrating social and intellectual development into the learner's experience. Dewey

(cited in Giles, 1987) said that there exists an “organic connection between education and personal experiences” (p. 88). He argued that schools isolate subject matter and distinguish from practical, useful training, and liberal education. These distinctions, in his view, reduce the effectiveness of education. Dewey (cited in Giles, 1987) further reflected that an effective pedagogy connects practice and theory; “the realities of life demanded a mix of the two depending on life circumstances” (Giles & Eyster, 1994, p. 80). Dewey’s educational philosophy supported a balance between abstract and concrete ideas within a social context.

While Dewey never talked about service-learning explicitly (Saltmarsh, 1996), his ideas offered a foundation for a service-learning pedagogy that includes student involvement in learning, students, faculty, and the community working together, meaningful and educational experiences that emphasize social development, and students’ understanding of how their actions affect others’ well-being (Kraft, 1996). Garrison et al. (1999) stated that a learner’s experience included personal and shared experiences occurring within a purposeful and structured environment and Dewey described the same educational process as the sum of psychological (knowledge accumulation) plus the sociological.

The process described by education researchers and theorists pointed to service-learning as one possible means to refocus the educational model towards collaborative constructivism (Garrison et al., 1999). The empirical literature suggested that service-learning yields benefits for all participants involved but also suggested that few faculty implement service-learning. Given the benefits of service-learning and the need to educate students for “contemporary life in a complex world” (Saavedra & Opfer, 2012, p.

8), requiring higher-order thinking, complexity of thought, and effective communications skills, service-learning offers one possible pathway to achieve this goal.

### **Service-Learning**

Researchers have characterized service-learning as a teaching strategy where students deepen their understanding of course materials through the application of knowledge to a concrete experience and participation in activities with community-based organizations (Boyer, 1990; Bringle et al., 1995; Mink & Twill, 2012). Much of the service-learning literature to date focused on pedagogical outcomes rather than faculty decisions about implementing this method of instruction. The research offered numerous insights into student benefits and some evidence of benefits to others including faculty, communities, and higher education institutions (Cruz & Giles, 2000; McKay and Rozee, 2004; Mink & Twill, 2012). While much has been written on beneficial outcomes, there is a smaller body of research on faculty views of and experience with service-learning. The empirical literature did, however, provide a variety of explanations around faculty behavior related to service-learning. Researchers presented a variety of institutional, cultural, personal, and professional explanations for the varied perceptions of and motivations and barriers to service-learning participation. The existing research provided important and valuable insights into faculty behavior related to service-learning and pedagogical innovations. However, with little evidence describing the experiences and decisions of faculty employed at research universities, there is an incomplete picture of why research university faculty do not participate, with little written about their perceptions of this pedagogy and, equally important, the factors that would influence the likelihood of engaging in service-learning.

The findings in the empirical literature may hold true for some faculty, but the extent to which university pressures to publish, faculty culture, and a research-focused promotions and tenure process suppress faculty interests and ability to teach will also contribute to rates of participation in service-learning. Buzinski et al. (2013) and Zlotkowski (2001) argued that a less than supportive teaching culture and the presence of strong signals about the high value of publications stimulate faculty research productivity. Consequently, this professional culture and pressure to publish may help explain the scant use of service-learning at research universities. If service-learning organizations on campus have any hope of encouraging, motivating, and training faculty in service-learning, it is important to understand how the institutional type of a research university contributes to faculty views and responses to service-learning opportunities (McKay & Rozee, 2004).

As service-learning incorporates a less traditional, more practice-based approach to instruction, it is not surprising that many faculty at research universities view service-learning as time consuming and irrelevant to their courses (Butin, 2006). Furthermore, some faculty suggested that an investment in this pedagogy represents a threat to promotion and tenure (Serow, 2000). So, even with the evidence of the benefits of the service-learning pedagogy, higher education's acknowledgement of service-learning's value, as well as the newly adopted Carnegie engaged-university classification (Driscoll, 2000), faculty participation at research universities remains low. A review of the literature provided insight into explanations researchers offered for low faculty engagement in service-learning, insight relevant to research universities, and inform potential strategies. Subsequent sections offer a rationale for using service-learning with

theory and empirical evidence, a view of faculty experiences with service-learning through extant studies, and a discussion of the value of some of the insights of this research while recognizing the limits of the current literature.

### **Problem of Practice**

“Faculty come with the wisdom and experience that dictates what students need to know but faculty are not trained for the job at hand” (Steinert, 2010, p. 427). Service-learning is a pedagogy that engages student learning through a combination of community service and reflection. This learning includes working on community-identified needs, connecting academic learning with service, and illustrating student place and responsibilities as citizens (McKay & Rozee, 2004; Mink & Twill, 2012). This investigation relied on the Community-Campus Partnership for Health (CCPH) definition of service-learning adopted by the Johns Hopkins Student Outreach Resource Center (McKay & Rozee, 2004), the community service and service-learning center for the Hopkins health professional schools.

Service-learning is a structured learning experience that combines community service with preparation and reflection. Students engaged in service-learning provide community service in response to community-identified concerns and learn about the context in which service is provided, the connection between their service and their academic coursework, and their roles as citizens (Seifer, 1998).

The theoretical and empirical literature demonstrated that this pedagogy contributes to student learning by connecting theory to practice, integrating experiential learning into the curriculum, and making meaning out of real-life situations (Fairweather, 1996). This approach to learning represents a significant shift away from the “banking”

model where instructors deposit information into passive student learners (Friere, 1970). Service-learning represents an opportunity for faculty to contribute to student learning through community-identified projects and other service opportunities.

For institutions and students to benefit, institutions and faculty should consider using service-learning in their courses and program curricula. Furco and Moely (2012) suggested that implementing and sustaining service-learning practices hinge on faculty buy-in. In fact, they argued that the best predictor of long-term sustainability is faculty support of the pedagogy. However, faculty resistance to service-learning remains high (Furco & Moely, 2012).

The myriad benefits described in the empirical evidence and pedagogical theory do not motivate more faculty to participate in service-learning (Campus Compact, 2013). Forbes, Washburn, Crispo, and Vandever (2008) noted that a 2007 Campus Compact survey of 300 colleges and universities acknowledged the value of the beneficial outcomes of service-learning, but most faculty still do not utilize this pedagogy (Antonio et al., 2000). In addition, Holland (2001) suggested that despite the recent engaged-university movement, until service-learning is linked to power, prestige, and resources, it will only remain a passionate interest of a few faculty members.

Learning theory and the empirical literature suggested that service-learning yields significant benefits for students (Boyer, 1990; Eyler et al., 1997; Mink & Twill, 2012), faculty (Pribbenow, 2005), the community (Blouin & Perry, 2009), and HEIs. Further, Bringle, Games, and Malloy (1999), along with other researchers, suggested that faculty play a critical part in implementing and institutionalizing this pedagogy (Checkoway, 2001; Fairweather, 1996). However, according to Antonio et al. (2000), less than three

percent of faculty nationwide implement service in their classes. Moreover, Antonio et al. (2000) provided evidence that faculty members with relatively lower status demonstrated higher levels of commitment to and engagement in service-oriented pedagogies like service-learning. These marginalized groups include women, faculty of color, and those with lower rank or untenured positions.

The Johns Hopkins University (JHU) health professional schools provide opportunities for faculty to engage with this pedagogy. JHU offers a variety of activities to support faculty engagement in service-learning activities, including one-on-one mentoring, face-to-face and online workshops, and more recently, a year-long SLFP. As a faculty fellow, instructors receive training in service-learning and support to integrate this pedagogy into an existing or future course. And yet, even with the published evidence of significant student benefits and the availability of faculty development, few JHU faculty integrate service-learning on campus.

### **The Current Picture of Faculty Participation in Service-Learning**

A comparison of the service activities of Campus Compact member organizations with those at JHU illustrated the lack of faculty participation in service-learning at this institution. There are approximately 1100 member colleges in Campus Compact, and four-year institutions comprise about 81% of the group (Campus Compact, 2013). Service statistics from Campus Compact indicated that, on average, member schools offered 66 courses in service-learning per campus across a variety of disciplines and content areas, representing a small increase from 2010 (from 64; Campus Compact, 2013). According to SOURCE and the Center for Social Concern (JHU, Center for Social Concern, Community-Based Learning) on the JHU undergraduate campus, JHU offered

approximately thirty service-type courses, of which only thirteen identified as service-learning (JHU, SLFP; Campus Compact, 2013). Additionally, a review of the course catalogs for the health professional schools, revealed approximately 1700 annual course offerings. These numbers indicated that, overall, less than one percent of the courses at the schools of medicine, nursing, and public health utilize the service-learning pedagogy, well below the averages reported in the Campus Compact service survey.

The low number of service-learning courses offered may be partly explained by the lack of faculty participation in service-learning. According to Campus Compact, approximately seven percent of faculty reported teaching through service-learning, and this number has remained stable over the last three years (Campus Compact, 2013). Not surprisingly, the percentage of faculty using service-learning at JHU is well below the seven percent reported in the survey (JHU, SLFP; Campus Compact, 2013). According to Campus Compact (2013), there are only about thirty faculty members in the health profession schools who identify as service-learning faculty. Estimating the total number of full-time teaching faculty at the health professional schools through their respective websites produced a total of close to 850 faculty. This means that just over three percent of faculty members across the schools participate in service-learning. These statistics offered clear evidence of the relatively low faculty engagement with service-learning and the minimal presence of service-learning courses at JHU.

This picture of service-learning at JHU motivated inquiry into low faculty participation in service-learning activities at a research university. Investigating this problem of practice required consideration of the factors that influence faculty decisions about allocating time to their professional responsibilities. The extant literature,

suggested that understanding faculty perceptions of service-learning and faculty-identified incentives and barriers related to service-learning engagement, along with institutional culture at a research university, will provide some explanation for low rates of faculty participation in service-learning (Abes et al., 2002; Fairweather, 1996; Furco, 2001; Hardre, Beesley, Miller, & Pace, 2011).

Perception of service-learning, incentives and barriers to participation, faculty culture, and institutional structure represent some of the influences on faculty decisions about whether or not to engage in service-learning activities. For example, Hardre et al. (2011) posited that mission-specific incentives embedded in the culture and structure (i.e., publish or perish) contribute to lower participation in teaching strategies like service-learning. High productivity at a research university equates to scholarly publications, grants, and lower teaching loads. Therefore, it makes sense that the high value placed on publications dictate how faculty members position their work including participation in service-learning. Fairweather's (1996, 2002) work provided support for the idea that perceptions, barriers, and motivations to engage in service-learning might vary by type of institution or faculty member's academic discipline. Consequently, this investigation examined whether or not the factors identified as important in the literature remain significant to research university faculty decisions about service-learning. This research also explored the possibility that research-dominant institutional cultures have a moderating effect on faculty perceptions and incentives reported in the literature. Identifying the constructs relevant to the context of my POP and their interaction (if any) with institutional and department cultures helped inform the selected intervention for this research project.

The next section provides a review of theoretical explanations and empirical findings on reasons to use service-learning and a brief discussion of the evidence of positive service-learning outcomes for students and other stakeholders. Subsequent sections review some of the available literature on faculty experiences with service-learning and conclude with a discussion of features of research universities important to this investigation and a more detailed review of a few studies relevant to research universities and this POP. The literature review highlights findings in the extant literature to help shape the research questions and direction of this investigation. This discussion also highlights how this inquiry may contribute to the body of literature relevant to service-learning and also provides some direction for thinking about potential intervention strategies to decrease faculty resistance to participation in service-learning at Johns Hopkins University.

### **The Benefits of Service-Learning**

The recent growth of service-learning in higher education can be explained, in part, through its contribution to student achievement and institutional-level inclusion of engagement goals. A shift in understanding the learning process and a growing body of empirical evidence also improved the status of this pedagogy (Hurd, 2008). Tracing the origins of service-learning required an examination of a variety of contributors including historical roots and theories about learning.

### **Historical Roots of Service-Learning**

To understand the evolution in thinking about service-learning, it is important to briefly review the history of this pedagogy. Through a comparative analysis, Stanton and Erasmus (2013) provided an explanation of how service-learning developed within higher

education and established itself within the academy. The authors suggested that the U.S. service-learning movement developed from three primary influences including social movements, education reform, and institutional change. From their focus groups, Stanton and Erasmus (2013) surmised that service-learning's struggle to find a place in higher education pedagogy could be traced to the connections of democracy, education, and service. While service-learning started with a group of independent-thinking pioneers and activities, educational leaders' and citizen concern over the developing "me" generation led to a self-examination of the U.S. education system and the eventual integration of a values-oriented curriculum. Examining these influences may help understand changing viewpoints around service and service-learning and reveal potentially important contexts that influence faculty decisions.

**Shifting mission: Civics duty to economics needs.** While many higher education institutions were founded to serve their communities and develop good citizens to contribute and participate in the democratic process, service-learning did not emerge until 1968. During colonial times, higher education aimed to train citizens in "good" living and a religious life (Boyer, 1994). Responding to the needs of the U.S. economy, institutions of higher education contributed to training in rural communities, as well as to the construction of needed infrastructure including railroads and bridges. By the 19<sup>th</sup> century, with the passage of the Morrill Act in 1862, state colleges and universities started to integrate practical training of the industrial class into a part of their core mission (Duniway, 2006). This Act also connected rural communities with resources and expertise of higher education (Furco, 2001; Saltmarsh, 1996). The rise of land grant colleges and universities organized colleges and universities to train students in a

classical education alongside practical training (Duniway, 2006). These events shifted higher education's mission away from a focus on developing good citizens to using education to address the economic needs of the U.S. (Furco, 2001).

**Service to service-learning.** By the 1930's, new mechanisms for engaging in community service emerged (Saltmarsh, 1996). Service in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries was most often found in settlement houses and churches. Jane Addams and John Dewey believed education should include engagement in and strong connections to a community and its members. Jane Addams and colleagues conducted empirical analyses and investigated social problems to address relevant issues in their neighborhoods (Saltmarsh, 1996). These early versions of service-learning focused primarily on service to the community and an educational philosophy rooted in experience (Giles & Eyler, 1994).

The 1960s saw the emergence of an activist education that aimed to integrate service and learning (Giles & Eyler, 1994). In 1968, Oak Ridge Institute instructors made the first attempts to connect student learning with workforce development (Stanton & Erasmus, 2013). Bill Ramsey and Robert Signmon started the first service-learning program. Students placed in internships conducted research to meet specific needs defined by the community host. Ramsey referred to this activity as service-learning as it represented experiential learning but also included doing for and learning from a community partner. The 1960s also introduced the community-education partnerships with new programs similar to Volunteers in Service to America (VISTA) and Peace Corps founded in 1961. By the 1970s and 1980s, due in part to some of the work done by social psychologist Vygotsky (1978), higher education began to accept service-learning

as a legitimate pedagogy, and advocates saw it as a means to transform the culture of higher education (Merriam, Caffarella, & Baumgartner, 2012; Saltmarsh, 1996).

The 1970s saw service-learning advocates fight to differentiate this pedagogy from volunteer service with an emphasis on reciprocity, which put the needs of the community above the academy. During this time, advocates and practitioners also developed best practices through field study programs at institutions like Cornell University and UCLA. Building on the work of pioneering theorists like Addams and Dewey, the Peace Corps contributed to the foundation on which later approaches to service-learning could be built. However, even with these efforts, higher education pedagogy and curriculum remained largely unchanged, and student moral development and community participation remained disconnected from academic life and in the hands of student affairs leaders.

**Knowledge expert-to-expert learner.** The 1980s experienced a surge in service-learning brought about by two education reforms. The first questioned the values effect of existing curriculum content. The second movement came out of the concerns of think tanks, nonprofits, and government officials that students held self-centered attitudes and represented the “me generation” (Stanton & Erasmus, 2013). This, along with curriculum reform towards more internships and experiential education (Stanton & Erasmus, 2013), fueled the expansion of service-learning practices and led to higher education’s self-evaluation and resultant curricular changes.

Education reformers outside of higher education voiced concerns about the curriculum content and didactic approach to teaching in post-secondary education (Stanton & Erasmus, 2013). They advocated for the use of active, experiential learning

and, as a result, higher education leaders shifted emphasis towards critical thinking, problem analysis, and higher order cognitive skills. Additionally, a concern over the lack of civic values brought attention to questions about whether or not higher education prepared students for the complex problems of society. In 1984, a group of universities founded Campus Compact as a means to commit openly to increasing public service and a goal of renewing the missions of higher education institutions towards more public engagement. These changes provided opportunities to elevate interest in and highlighted the need for experiential and project-based learning to apply relevant knowledge and skills acquired in the classroom.

**Campus compact.** Advocates' concerns over the absence of the community voice in the service movement motivated Campus Compact to investigate ways to improve community-university collaboration and community participation in service-activities. Perceiving a disconnect between service and academic learning, Campus Compact initiated a study looking at integrating service with academic study. As a result, three summer institutes were formed to bring faculty from many different institutions together to learn how to integrate service into academics. Stanton and Erasmus (2013) argued that these institutes represented a critical turning point for service-learning as the 1990s saw service-learning emerge as an important issue. This can be seen in the introduction of various forms of service-learning activities and in the formal evaluations of service-learning projects and studies examining service-learning outcomes in the academic literature. For example, Eyler and Giles (1999) published a seminal piece with regard to the positive outcomes of service-learning. Service-learning proponents' interests in

improving engagement between the community and universities further elevated the visibility of and interest in service-learning.

Campus Compact's commitment to better integration of service-learning into classrooms contributed to a shift from the model of an individual instructor in a classroom teaching with service-learning to fully engaged universities creating partnerships among scholars, students, and citizens around service-learning. More recently, the Carnegie Foundation added an elective classification for community engagement (New England Resource Center for Higher Education, 2015). This 2010 policy decision provided a way to measure, reward, and acknowledge higher education institutions' level of community partnerships, and strengthened higher education's place as an integral part of the community (Stanton & Erasmus, 2013).

This examination of service-learning's history demonstrates the important influence of historical, social, and cultural change on the value of an instructional pedagogy. Leveraging opportunities like a nation's economic needs, an interest in enhancing student development, and rising interest in communities elevated the status of engagement and service-learning. A review of service-learning's historical roots also illustrated the evolution of the higher education mission and a return to a commitment to educating good citizens and engaging with the community. Even with the founding of Campus Compact and the development of the new Carnegie Engagement Classification, more interest in community engagement, and a focus on 21<sup>st</sup> century skills, faculty participation in service-learning remains low at research universities. Addressing this POP requires a close examination of the literature to better understand the reasons for this situation. Prior to investigating the reasons faculty do not participate however, it is

critical to establish the value of this pedagogy through learning theory and empirical evidence.

### **Theoretical Justification for Service-Learning**

While useful to trace the history of service-learning, it is important to recognize that theories of philosophy, social psychology, and education also shape and support the integration of service-learning in the classroom. Together, theorists argued that learning involves more than the transmission of knowledge (Dewey, 1985; Hurd, 2008; Kolb, 2014). Ideas of the progressive era, social constructivist theory, and other learning theories like critical pedagogy and transformational and experiential learning all contributed to the service-learning pedagogy and offer a rationale for its use. The following provides a brief discussion of service-learning tenets rooted in these theories.

As a progressive, Dewey rejected traditional approaches to learning (Saltmarsh, 1996). He believed that, “education is not a preparation for life; education is life itself” (Dewey, 1985, p. 249). According to Saltmarsh (1996), Dewey supported a “theory of education as deliberately conducted practice” (p. 14). He believed strongly in citizenship and that schools should not only impart these skills to students but also model this action through their work and partnerships with communities. From a service standpoint, Dewey started the service-learning movement and while he never uttered the words service-learning, the influence of his philosophy and views about education can be seen in present-day experiential education and service-learning (Saltmarsh, 1996).

Service-learning proponents also draw from the works of the social psychologist, Vygotsky (1978). Constructivist pedagogy entails learning from multiple perspectives, experiences, prior knowledge, cultures, and engagement with a variety of actors in the

process. Like service-learning, constructivist approaches to instruction utilize engagement and interaction with communities to enhance student learning and their understanding of the challenges communities face. The service-learning ideas of reciprocity acknowledge Vygotsky's (1978) interest in creating a learning environment where faculty, community, and students interact in the learning process.

Educational theorists expanded on the work of social psychologists with an eye towards improving student learning and outcomes. Friere (1970), for example, rejected the "banking education" (p. 140) characterized by teachers acting as the sole authority and making deposits of knowledge into students, who are to remain silent partners, and just accept the deposits. Freire (1970) developed a critical pedagogy where the learning process involved teacher-facilitated and supported problem-based inquiry and reflection on root causes and various perspectives on different social issues. He also suggested that teachers should help students grow and struggle with challenges and problems relevant to their students' lives (Freire, 1970). For Friere, educating was not about dominating students but facilitating their efforts to make meaning out of their learning and experiences, to help them, "know what they know" (p. 256). Service-learning resembles Freire's approach in that students engage in practice with knowledge and skills and reflect on their experiences in order to describe and understand the social context of the learning and identify sources of relevant community issues, with the ultimate goal of being able to change the world. The reflective process integrates Freire's (1970) emphasis on students as active participants in the learning process who also assume ownership for their learning. Freire's disinterest in a method of passive learning created

an opportunity for service-learning as a means to enhance student outcomes and understanding through experiences in the community.

Mezirow (1981) and Kolb (2014) also contributed to current service-learning practices and their influences are best viewed in the overall framework of the service-learning pedagogy. Mezirow (1981) argued that students experience periods of confusion or disequilibrium, or “disorienting dilemmas” (p. 65), during their learning (Mezirow, 1981). The ability of students to use and faculty to effectively facilitate the reflective process during these dilemmas influences the learning that occurs (Mezirow, 1981). Building on the work of Dewey (1985) and Mezirow (1981), Kolb (2014) created the current framework of service-learning including ideas on instruction, practice, experimentation, and future application of the knowledge. Further, service-learning emphasizes aspects of Kolb’s work including a student’s ability to consider and ponder the concrete experiences and abstract concepts and then apply this learning to new situations. Many of the ideas of transformational and experiential learning appear in student experiences with service-learning.

History and service-learning theory provided justification for why institutions should value and use service-learning. Integrating ideas from Dewey (1985) and scholarship from social psychology, education theorists, and the cognitive sciences, Eyler (2000) provided a rationale for integrating service-learning into student learning. Hurd (2008) also described the student-teacher interaction as a “multidimensional social practice” (p. 2). Learning requires participation in on-going activities including apprenticeships and other opportunities to relate to various kinds of expertise (Hurd, 2008). From this perspective, researchers and theorists agreed with Dewey’s conclusions

that student mastery involves more than memorizing disciplinary knowledge (Fairweather, 1996). Theoretical tenets of learning from social psychology and education strengthened the case for service-learning, but a review of empirical evidence is also required to demonstrate the evidence-based outcomes supporting the implementation of service-learning activities into classrooms in higher education institutions.

### **Empirical Rationale for Faculty to Engage in Service-Learning**

Whether educators agree with Dewey (1985), Vygotsky (1978), or Kolb (2014), or see service-learning as transformational or a means for educating reflective practitioners (Schon, 1987), the empirical literature provided a consensus of evidence supporting the positive outcomes service-learning yields. The empirical literature on service-learning complements the theoretical views, with evidence demonstrating positive outcomes for students, faculty, and the community (Blouin & Perry, 2009; Bringle, Phillips, & Hudson, 2004; Cruz & Giles, 2000; Eyler & Giles, 1999). Mink and Twill (2012), along with other researchers, pointed to students' increased depth of knowledge (Eyler & Giles, 1999; Vogelgesang & Astin, 2000), understanding of the community perspective, improved ability to communicate, and development of other professional skills as some of the benefits of this practice (Boyer, 1990; Eyler et al., 1997). Faculty also reported positive outcomes from service-learning experiences including improved connections with students, academic freedom to choose projects and partners, the ability to cover more material, and personal gains from seeing students learn from the experiences (as cited in Hatcher, Bringle, & Muthiah, 2004). Evidence also suggested that communities benefit from inexpensive skilled labor, experience personal benefits from mentoring, impart knowledge, and create connections with institutions and

students (Blouin & Perry, 2009). The empirical evidence, by and large, made a convincing case for the positive outcomes from service-learning as well as the recipients of those benefits. The following section offers a brief review of some of this literature.

Students. Within the service-learning literature, researchers presented convincing evidence to conclude that service-learning projects and classes yield positive student learning outcomes. Some of the benefits to students included an improved understanding of materials being taught and additional class time available for instructors to explore different and more advanced topics (Abes et al., 2002; Katowitz, 2012). Furthermore, students reported benefits that include improved leadership and communication skills, understanding of multiple perspectives, an awareness of community interests and needs, and a desire to contribute (Abes et al., 2002; MacKenzie, 2013). While this does not provide an exhaustive list of the student benefits in the literature, it does provide evidence to support the use of service-learning in higher education classes.

While researchers offer many different descriptions of the student outcomes from service-learning, four themes emerged: positive cognitive outcomes, personal improvements, professional development, and civic or cultural awareness. Research on cognitive growth reported improved learning of assigned and relevant academic materials (Eyler and Giles, 1999; Hurd, 2008; Steinke & Buresh, 2002), enhanced application of knowledge (Astin, Vogelgesang, Ikeda, & Yee, 2000), increased competency, and higher, overall student GPAs (Vogelgesang & Astin, 2000). Researchers also suggested that students experience moral growth (Astin & Sax, 1998; Celio, Durlak, & Dymnicki, 2011) and enhance their interpersonal skills, including their ability to work with others (Giles and Eyler, 1994). Vogelgesang and Astin (2000) demonstrated positive contributions of

service-learning to career development with better communication and writing skills. Mink and Twill (2012), in an examination of students in a social work course, demonstrated student development of discipline/field-specific professional skills including reporting of findings, writing policy memos, and conducting needs assessments. They also provided evidence that students displayed professional confidence as a result of their participation in a service-learning project. Finally, Eyler (2000) and others (Eyler and Giles, 1999; Vogelgesang & Astin, 2000) described students' ability to make meaningful connections, gain awareness of many different perspectives, and reduce beliefs about cultural stereotypes. This brief review of the evidence on student outcomes illustrates the strong, positive outcomes touching multiple dimensions of student learning including academic, personal, professional, and civic.

Faculty, community, and institution. While there is limited research on faculty, community, and institution outcomes from service-learning, the evidence suggested that, like students, these stakeholders also experience benefits from service-learning activities. Faculty and community members directly benefit from their work with this pedagogy while institutions of higher education receive indirect benefits as a function of the experiences provided by faculty in their classes and service-learning organizations on campus.

Pribbenow (2005) and Hurd (2008) reported faculty members' enhanced understanding of students and recognition that student learning is deepened through service-learning activities. Faculty also described more meaningful relationships with the community and satisfaction with seeing students learn and apply the concepts from class (Eyler et al., 1997; McCarthy, 2003). Eyler and Giles (1999) noted that faculty described

an improved ability to achieve class objectives, enhanced communication of theoretical concepts, and better utilization of more active learning strategies in the classroom. Finally, faculty cited satisfaction with increased involvement with and better connection to the community and community partners (McCarthy, 2003).

Although an important participant in the service-learning pedagogy, there is scant evidence about community experiences. There is, however, some evidence of improved relationships with students and the university, positive economic outcomes for the organization, and benefits to organization mission (Blouin & Perry, 2009; Cruz & Giles, 2000). Community partners reported satisfaction with student performance, enhanced university relationships, as well as stronger partnerships that bridge the town-gown gap (Cruz & Giles, 2000; Eyler, Giles, Stenson, & Gray, 2001). The economic benefits included access to university resources, an asset-based view of the institution, and the opportunity to use skilled, student labor to complete projects and tasks (Blouin & Perry, 2009; Eyler et al., 2001). Finally, effective service-learning contributes to an organization's ability to serve their clients (Eyler et al., 2001), further organizational goals (Blouin & Perry, 2009), and improve their ability to offer services (Cruz & Giles, 2000). Even with limited empirical findings, the existing evidence suggested communities and their clients do benefit from service-learning partnerships with local colleges and universities.

The extent to which service-learning projects yield the positive benefits mentioned earlier determines the overall influence of this pedagogy on the institution. Astin and Sax (1998) showed that service-learning does improve student retention. Hurd (2008) added to this discussion, showing that community and academic engagement

(Bringle & Hatcher, 2002) through service-learning lead to more positive college experiences for students. Moreover, faculty use of active learning like service-learning enhanced students' academic experiences and retention (Braxton, Milem, & Sullivan, 2000). Finally, Driscoll (2000) argued that improved community-university partnerships lead to better community relationships, translating into additional positive service-learning outcomes for the institution. Service-learning directly benefits students, faculty, and the community but may also create indirect, positive outcomes for colleges and universities.

### **Service-Learning and Faculty: Perceptions, Incentives, and Barriers**

As evidenced in the previous discussion, the literature on service-learning includes a number of empirical studies demonstrating the positive benefits service-learning activities yield; however, much less research investigated faculty perceptions of or experiences with service-learning. Before reviewing these empirical studies, it is important to briefly review the faculty decision making process to help explain current levels of participation in service-learning and identified mechanisms for future interventions.

Rau and Baker (1989) suggested that stakeholders, including faculty, act as rational decision makers trying to maximize benefits given their personal preferences and limited resources. Leslie (2002) also found that institutional, disciplinary, and departmental culture matter to faculty participation in service-learning. This model implies that the constructs related to service-learning, including perceptions, incentives, and barriers present, contribute to determining if, and how much of, faculty members' limited time and other resources are devoted to this pedagogy and related activities.

Expanding on Leslie's (2002) argument, this research considered whether or not a research university's institutional and/or departmental cultures may have a moderating effect on these constructs.

This decision process offered a guide to investigating important constructs related to the POP. While limited, the research on faculty experiences with service-learning provided a starting point for this investigation (Katowitz, 2012). A review of the relevant constructs in the literature illustrated the variety of measures researchers used to operationalize variables relevant to my POP and highlighted important differences to consider. The following sections offer a review of some of the extant literature on faculty perceptions, incentives, and barriers.

### **Faculty Perception of Service-Learning: Truth or Myth?**

Upon establishing the benefits of service-learning through the empirical literature, the next step in understanding the low level of faculty participation in activities related to the service-learning pedagogy involved understanding faculty perceptions of service-learning. Researchers tried to organize the complex picture of faculty perceptions of service-learning into themes. On one hand, Demb and Wade (2012) identified four categories of influence including personal, professional, communal, and institutional. Furco and Moely (2012), on the other hand, characterized the influences more as faculty awareness or lack of awareness of service-learning. Furthermore, depending on the research question or population investigated, researchers employed more detailed categories within those identified by Demb and Wade (2012). Banarjee and Hausafus (2007) and Hou (2010), for example, described institutional factors as both institutional

support (culture, infrastructure) and instructional support (colleague advice, faculty handbook, conferences).

According to Banerjee and Hausafus (2007), faculty levels of awareness around service-learning shape their perceptions of this pedagogy and are often attributed to faculty prior experiences with service-learning. For example, faculty awareness stemming from engagement with service-learning contributed to a more positive view of their experiences, while non-service-learning faculty who lack awareness of the pedagogy raise concerns (Banerjee & Hausafus, 2007). In a study of human services faculty, Banerjee and Hausafus (2007) provided evidence of a statistically significant difference in the value placed on service-learning between service-learning faculty and non-service-learning faculty. Service-learning faculty reported statistically significant greater perceived value from service-learning compared to their non-service-learning colleagues. Similarly, Hou (2010), in developing a faculty inventory measuring faculty barriers and benefits, demonstrated that service-learning faculty identified more benefits of service-learning while non-service-learning faculty expressed concern over myriad barriers. Service-learning faculty also viewed this pedagogy as a value added to the learning experiences. Faculty with knowledge of service-learning also view the pedagogy as helping students with gaining an understanding of societal problems, a sense of community responsibility, personal empowerment, and improved self-esteem (Banerjee & Hausafus, 2007; Smith, 2008). While the level of faculty awareness varies and, in part, depends on prior experience with service-learning, the empirical literature demonstrated that the extent to which faculty members inaccurately view the implementation and

impact of service-learning directly affects their decisions to participate (Demb & Wade, 2012).

There is also some consensus that faculty lack knowledge about service-learning (Abes et al., 2002; Hou, 2010; Koslowski, 2006). The lack or inaccuracy of prior knowledge about service-learning included:

- Assumptions about the high level of resources required to implement service-learning (Abes et al., 2002; Banarjee & Hausafus, 2007);
- Skepticism about student benefits from service-learning (Abes et al., 2002);
- Faculty concerns around classroom challenges related to using service-learning in the classroom (Banerjee & Hausafus, 2007; Koslowski, 2006; Lambright & Alden, 2012; Smith, 2008); and
- Questions regarding the value or relevance of service-learning across disciplines (Furco, 2001).

Smith (2008) argued that the lack of awareness creates myths about service-learning that further hinder its wide acceptance. For example, Butin (2003) suggested that faculty's lack of knowledge about implementing innovative pedagogies including service-learning lead to beliefs that it disrupts the classroom and takes time from important class content. Additionally, Butin (2006), building on his previous work, found that faculty members' impression of the service-learning pedagogy is that it is not rigorous academic work but merely volunteer opportunities for students and that moving away from traditional methods of teaching confuses the role of the teacher and student (Butin, 2003). Finally, Lambright and Alden (2012), in a study including one research university, established that institutions often have no awareness of which faculty

members are even engaging in service-learning practices. These misconceptions and general lack of knowledge about service-learning practices contributed to fewer faculty members participating in service-learning.

Faculty familiar with service-learning did express some concerns about the potential relationship between service-learning and curricular problems like the loss of academic freedom (Abes et al. 2002; Butin, 2003; Furco & Moely, 2012). They also characterized this process as resource intensive and requiring support with respect to connecting with the community and their own knowledge and comfort with the pedagogy (Abes et al., 2002).

Whether faculty perceptions emerged from a lack of information or familiarity, most perceived benefits of the service-learning pedagogy include some tradeoffs in time and resources. Consequently, establishing where the JHU faculty community is in their thinking about this pedagogy was critical in developing strategies to increase faculty participation. To offer a more complete picture of decisions to participate in service-learning it is equally important to investigate faculty-identified motivations for training in and implementing service-learning. The subsequent discussion provides a review of the empirical literature around faculty-identified incentives and motivators to participate in service-learning.

### **Factors Motivating Faculty to Engage in Service-Learning**

Faculty decisions to engage in service-learning activities represent a complex and multi-layered process. Adding to the understanding of faculty experiences involves a review of incentives faculty describe as contributing to their decisions about service-learning implementation and participation. Faculty-identified motivations to participating

in service-learning activities fell into four broad categories including student outcomes, personal and instructional support, personal and professional development, and institutional factors (Eyler and Giles, 1999; Furco & Moely, 2012; Hammond, 1994; Lambright & Alden, 2012; McKay & Rozee, 2004; Steinert et al., 2006). Table 2.1 offers a more detailed look at the evidence-based incentives faculty cited as important to engaging in service-learning.

Table 2.1

*Empirical Evidence of Faculty-Identified Motivations to Use Service-Learning*

Motivators/Incentives	Research Evidence
Personal Characteristics	Demb & Wade, 2012; Katowitz, 2012
Feeling of doing good	McKay & Rozee, 2004
Professional growth	Steinert et al., 2006
Passion for the curriculum	McKay & Rozee, 2004; Moore & Ward, 2010
Connection of pedagogy to values and experiences	Demb & Wade, 2012; Katowitz, 2012; Steinert et al., 2006
Persistence to implement despite barriers	Katowitz, 2012; Serow, 2000
Personal Support	Furco & Moely, 2012; Moore & Ward, 2010
Leaders at Institutions	
Department Chairs	Banerjee & Hausafus, 2007
Faculty in the Department	Abes et al., 2002; Banerjee & Hausafus, 2007; Smith, 2008
Faculty outside of the Department	Abes et al., 2002; Smith, 2008
Community Organization	
Students	Abes et al., 2002
Professional Support/Encouragement	Demb & Wade, 2012
Mentoring	Banerjee & Hausafus, 2007; Lambright & Alden, 2012; Moore & Ward, 2010; Steinert et al., 2006; Smith, 2008
Learning Communities	Barab, Barnett, & Squire, K., 2002; Furco & Moely, 2012;
Networking with "like-minded" faculty	Barab, Barnett, & Squire, 2002; MacKenzie, 2013;
Community Support	Demb & Wade, 2012; Hou, 2010
Institutional Factors	Demb & Wade, 2012; Young, Shinnar, Ackerman, Carruthers, & Young, 2007
Recognition in PAT, Financial Rewards & Release Time	Bringle et al., 1995; Checkoway, 2001; Forbes et al., 2008; Levine, 1994; Young et al., 2007,
Culture	Furco, 2001; McKay & Rozee, 2004;
Discipline Relevance	Furco, 2001; Zlotkowski, 2001
Opportunities for Scholarship	Checkoway, 2001; Katowitz, 2012; Forbes et al, 2008; Furco, 2001; Levin, 1994; Moore & Ward, 2010; Young et al., 2007
Admin/Avail.Resources	Lambright & Alden, 2012
Instructional Support	Furco & Moely, 2012; Hou 2010
Faculty Handbook/Web Resources	Banerjee & Hausafus, 2007; Steinert et al., 2006
Professional Conferences	Banerjee & Hausafus, 2007; Smith, 2008
Faculty Development	
Mentoring	Moore & Ward, 2010; Steinert et al., 2006;
Colleague Advice	Banerjee & Hausafus, 2007; Smith, 2008
Professional Presentations	Banerjee & Hausafus, 2007; Smith, 2008
Learning Outcomes/Students	Abes et al., 2002; Banerjee & Hausafus, 2007; Eyler & Giles, 1999;
Student-Learning in classroom	Bringle et al., 2004 (as cited in Hatcher et al, 2004); Katowitz, 2012; Smith, 2008
Student-Learning, community - based	Abes et al., 2002; Bringle et al., 2004 (as cited in Hatcher et al., 2004); MacKenzie, 2013;
Improved student relationships	Hou, 2010
Increase student understanding, personal development, awareness of social problems	Abes et al., 2002

Student outcomes. There is overwhelming agreement in the empirical literature that improved student outcomes represent the strongest incentives to persuade faculty to engage in service-learning activities (Abes et al., 2002; Hammond, 1994; Katowitz, 2012; Smith, 2008). Many of the resultant outcomes fell under the heading of personal development. Researchers cited increased understanding, enhanced personal development (Banerjee & Hausafus, 2007), awareness of different perspectives, and higher levels of student awareness of the value of community engagement (McKay & Rozee, 2004). Others included better relationships, raised awareness of social problems, and other kinds of academic and personal development (Abes et al., 2002; Banerjee & Hausafus, 2007). Faculty valuing of student learning experiences offered a real opportunity to persuade faculty to use service-learning.

Personal and instructional support. Another dimension of faculty motivation involved extrinsic support both personally and throughout the course development and implementation process (Banerjee & Hausafus, 2007; Smith, 2008). Empirical studies have clearly demonstrated that personal and professional encouragement matter (Lambright & Alden, 2012). In two different studies Banerjee and Hausafus (2007) and Smith (2008) found that other faculty, students, and the community were the most important supports for most faculty. Smith (2008) also suggested that faculty choose projects and initiatives based, in part, on colleagues' and their students' cues. However, Banerjee and Hausafus (2007) found that faculty reported that department chairs were important to their personal support. This difference may be explained by the narrow sample of human service faculty participating in the study. Banerjee and Hausafus (2007) noted that this discipline may already favor engagement and service as professional

endeavors and so leadership may be predisposed to support these endeavors. Leadership at any level did not appear as an important or available as a source of support in other studies reviewed for this research.

Faculty in- and outside of the department represented important sources of encouragement and lead to higher levels of engagement (Abes et al., 2002; Banerjee & Hausafus, 2007; Smith, 2008). Abes et al. (2002) conducted a study of four-year colleges including a sub-sample of research university faculty revealing that faculty outside the department represented the top available support while student support ranked as most important. In terms of instructional support, faculty cited mentoring as the most important (Abes et al., 2002; Banerjee and Hausafus, 2007; Lambright & Alden, 2012; Smith, 2008), but Smith (2008) also found mentoring as the least available support. From this literature, it is evident that colleague and student support matter in choices about where to devote time and resources in work efforts. Furthermore, there is some evidence that faculty respond to mentoring and learning communities but these sources of support are less prevalent on campus. Banerjee and Hausafus (2007) also highlighted the point that support may vary for faculty by institution type and department. Again, this literature illustrated the variety of views on support and demonstrated the need to examine the experiences of faculty at JHU in order to craft an appropriate intervention to address this POP.

Personal and professional development. There is some evidence that personal characteristics represent an intrinsic motivation to participate in service-learning. In a case study of a research university, Serow (2000) examined faculty decisions around spending time on teaching and research and why some faculty members continued to

choose teaching despite the institutional pressure to publish. He found that faculty persistence and passion, in part, determined their level of engagement. The idea of persistence is consistent with work completed by Katowitz (2012) and McKay and Rozee (2004) who both cited a personal commitment to the pedagogy as a motivator to participating. Furthermore, Demb and Wade (2012) and Steinert et al. (2006), in studies on community engagement and faculty development decisions, respectively, found linkages between interest in service-learning and faculty members' values, and previous experiences. While neither study specifically investigated service-learning, a look at engagement and faculty development participation did provide insight into how and what factors influence decision making around service and pedagogical innovations.

There is also some evidence in community colleges (Katowitz, 2012) and undergraduate institutions (McKay & Rozee, 2004) that faculty members are motivated by a passion for this curriculum and a feeling of doing well. Finally, several studies on service-learning and other faculty development also cited faculty interest in learning communities and a like-minded network of faculty as mechanisms to increase participation and community engagement (Barab, Barnett, & Squire, 2002; Furco & Moely, 2012; MacKenzie, 2013). Learning communities represent opportunities for faculty to gain knowledge and practice in new pedagogies with colleagues sharing similar interests. While measurements of intrinsic motivation may differ across the literature, it is evident that external incentive may not represent sufficient or adequate measures to improve overall faculty participation in service-learning.

There are also professional considerations that include networking, professional growth, and level of expertise in the service-learning pedagogy (Furco & Moely, 2012;

Hou, 2010; Steinert et al., 2006). Faculty reported the importance of making service-learning activities relevant to their own scholarship (Hou, 2010; Levine, 1994), their discipline/field (Buzinski et al., 2013; Levine, 1994; Zlotkowski, 2001), and relevant to their teaching (Furco & Moely, 2012). Several studies (Bringle et al., 1999; Forbes et al., 2008; Levine, 1994) offered evidence to support the importance of recognition for faculty work in service-learning and rewards for success in instruction and implementation of innovative pedagogies. While some personal and professional motivations cited do not come directly from the service-learning literature, the findings revealed important clues about faculty motivations to participate in teacher professional development and service activities. In the end, external incentives including networking, professional growth opportunities, and a connection to research interests influenced decisions but faculty may also engage as a result of personal experiences and a passion for this kind of work.

Institutional influences. While leadership within the institution was not cited as an important source of support (Abes et al., 2002; Smith, 2008), several articles noted the importance of other institution-level factors. These included the promotion and tenure process, recognition of service-learning and engagement by the leadership (Bringle et al., 1995; Checkoway, 2001; Forbes et al., 2008; Levine, 1994; Young et al., 2007), as well as institutional and department-level cultures that value service-learning and instruction (Furco, 2001; Zlotkowski, 2001). Levine (1994) and others expressed the importance of training, financial support, and help with coordinating with community organizations as faculty-identified incentives to engaging in service-learning (Young et al., 2007). Finally, there was overwhelming evidence that institutional factors related to creating scholarship opportunities represented significant incentives for faculty participation (Checkoway,

2001; Forbes et al., 2008; Furco, 2001; Katowitz, 2012; Levine, 1994; Moore & Ward, 2010; Young et al., 2007). This discussion contributed to this POP by offering constructs to measure incentives to participate. The extant literature identified student benefits, faculty support, and opportunities to grow professionally, and a supportive institutional structure as key to influencing faculty interest in service-learning.

### **Faculty-Identified Deterrents to Participating in Service-Learning**

Perceptions of service-learning and motivations to engage with the pedagogy only provided a partial view of faculty thinking around whether or not to participate. McKay and Rozee (2004), for example, found that rewards do not represent incentives for all service-learning faculty. In fact, they reported that only 16% of the faculty sampled identified the lack of rewards as a deterrent. However, interestingly enough, they also pointed out that over 30% of the sampled faculty at research universities reported the lack of rewards as a significant deterrent to participating in service-learning. This finding demonstrates the importance of considering other approaches to motivation and the need to investigate different groups of faculty. The literature discussed a variety of barriers loosely organized into themes (Hou, 2010; Morton & Troppe, 1996). This section organizes the discussion by curricular challenges, personal and professional deterrents, and institutional barriers. These and other measures of barriers to service-learning described in the literature are outlined in Table 2.2.

Table 2.2

*Empirical Evidence for Faculty-Identified Barriers to Service-Learning Use*

Barriers	References
Personal Characteristics	
Concerns over competency with s-l pedagogy	Banerjee & Hausafus, 2007
Inability to effectively use S-L pedagogy	Banerjee & Hausafus, 2007
Misinformation/Myths?	
Unclear goals	Furco & Moely, 2012
Believe innovation will pre-empt teaching responsibilities and academic freedom	Furco & Moely, 2012
Expectation of time required	Furco & Moely, 2012
Lack relevance	Banerjee & Hausafus, 2007; Furco, 2001; Levine, 1994; Smith, 2008; Steinert et al., 2006
Institutional Support	Butin, 2006; Hou, 2010
Context or culture, not embedded in the mission	Checkoway, 2001; Lambright & Alden, 2012; Moore & Ward (2010);
Resistance from influential faculty	Checkoway, 2001; Lambright & Alden, 2012
Lack infrastructure and logistical support	Checkoway, 2001; Forbes et al 2008
Lack of	
Evidence for Beneficial Outcomes	Abes et al., 2002; Bringle et al., 2004; Katowitz, 2012;
Lack awareness of or questions existing literature	
Lack mechanisms to disseminate empirical evidence	
Lack of data or follow-up about outcomes	
Student Outcomes	Hou, 2010
Rewards	Abes et al., 2002; Hou, 2010; Moore & Ward, 2010; Morton & Troppe, 1996; Smith, 2008;
Promotion and Tenure,	Butin, 2006; Banerjee & Hausafus, 2007; Forbes et al. 2008; Hou, 2010; Lambright & Alden, 2012; Levine 1994; McKay & Rozee, 2004;
Recognition for Professional Development or	MacKenzie, 2013; Smith, 2008
No release time given	
Curricular Challenges	
Time intensive	Abes et al., 2002; Banerjee & Hausafus, 2007; Katowitz, 2012; Hou, 2010; MacKenzie, 2013; Steinert, 2010
Students unprepared	Battistoni, 2002; Levine, 1994
Heavy Workload, Student/faculty ratios	Battistoni, 2002; Katowitz, 2012
Entrenched in old pedagogical practices	Koslowski, 2006
Challenge of teaching concrete to abstract theories	Battistoni, 2002
Lack knowledge of pedagogy and implementation	Banerjee & Hausafus, 2007; Driscoll, 2000; Smith, 2008
Difficult to Assess Learning	Hou, 2010
Reduces time to learn classroom topics	Hou, 2010
Logistics	Smith, 2008

Curricular challenges. Time represented the top deterrent mentioned by faculty participating in these research studies, followed closely by logistics (Banerjee & Hausafus, 2007; MacKenzie, 2013; Smith, 2008; Steinert et al., 2006). Curricular

challenges relevant to service-learning and non-service learning also included the amount of work required to use this pedagogy (Steinert et al., 2006), unprepared students, assessment of learning, and worries over time to cover class material (Abes et al., 2002; Banerjee & Hausafus, 2007; Hou, 2010; Katowitz, 2012; MacKenzie, 2013; Steinert et al., 2006). In general, the literature demonstrated that curricular challenges represented one reason faculty may hesitate or fail to participate in service-learning.

Personal-professional deterrents. Related to curricular challenges are faculty-identified professional concerns about their ability to implement the service-learning pedagogy, lack of knowledge, and a lack of confidence in how to effectively execute and then assess student learning (Banerjee & Hausafus, 2007; Driscoll, 2000; Hou, 2010; Smith, 2008). Faculty also cited concerns over the lack of professional awards and recognition for their work and commitment (Forbes et al., 2008). Partly due to the misinformation about the pedagogy faculty also raised concerns over the loss of control of the classroom and conveyance of course materials (Hou, 2010). Lack of rewards for teaching and acknowledgement of their efforts contributed to explaining low faculty participation in service-learning.

Institutional. Institutional-level reasons also helped illuminate low faculty participation in service-learning activities (Checkoway, 2001; Lambright & Alden, 2012; Moore & Ward, 2010). Literature described the lack of a supportive culture (McKay & Rozee, 2004), resistance from influential faculty (Furco & Moely, 2012), and the lack of support and recognition in an environment (Furco & Moely, 2012; Zlotkowski, 2001) emphasizing research over teaching as key to reducing faculty interests in service-learning. Other institutional barriers included inadequate infrastructure or logistical

support (Checkoway, 2001; Forbes et al., 2008), the promotion and tenure criteria for advancement, a lack of professional development opportunities (Katowitz, 2012), as well as lack of support for faculty release time and financial support to hire teaching assistants and obtain other resources (Forbes et al., 2008; Lambright & Alden, 2012; Young et al., 2007). The findings on faculty-identified deterrents highlighted concerns about time, logistics, lack of recognition, and professional development. Additionally, faculty raised concerns about the absence of a supportive culture around teaching. The empirical evidence regarding faculty perceptions of service-learning and the incentives and barriers offered constructs related to decision making that warrant consideration in addressing my POP. However, the choice of samples and research questions in many of these studies has important limitations. The next section discusses some of these weaknesses of the literature and the consequences for my own research.

### **Lessons and Questions: Application to Research University Faculty**

The research shed some light on important considerations including highlighting differences between faculty not using or new to service-learning and those who continue to use the pedagogy (Abes et al., 2002; Banerjee & Hausafus, 2007; Smith, 2008), examining the role of reward structures (Abes et al., 2002), investigating faculty experiences with service-learning across different institution types (McKay & Rozee, 2004), and identifying differences across disciplines (related to culture) (Abes et al., 2002; Zlotkowski, 2001). Empirical literature on faculty experiences with service-learning also offered some insights into the faculty decision-making process on whether or not to participate in service-learning. An examination of the extant literature highlighted important themes for the constructs of interest in investigating this POP,

provided two survey instruments (Abes et al., 2002; Banerjee & Hausafus, 2007) used in collecting data for my POP needs assessment, and underscored the importance of considering the influence and implications of institution type on this POP (Abes et al., 2002).

There are, however, limitations to this literature, which made it difficult to generalize these findings to research universities and, for this study, shaped the intervention strategy to increase faculty participation at JHU. The generalizability of findings is related, in part, to the external validity of the research (Babbie, 2013). In addition, the ability to rely on sample data to draw conclusions or inferences about a particular population is connected to external validity (Babbie, 2013). In this case, the sources of the threat to validity and generalizability could be related to the faculty in the study and their institutional context. If faculty members at research universities are different in significant ways from faculty at other types of universities, some of the findings from the extant literature may not apply to this POP.

While there are important insights gained from this literature, few studies focused exclusively on faculty at research universities. As Buzinski et al. (2013) noted, researchers addressing questions related to service-learning conducted their investigations using a university-wide or discipline- or course-level approach. As a result, most relied on unique samples from specific fields, disciplines, or engagement organizations on campus (Banerjee & Hausafus 2007; Demb & Wade, 2012; Lambright & Alden, 2012; Moore & Ward, 2010). Further, early empirical studies only sampled faculty using service-learning or interested in community engagement. Finally, some of the related literature focused on faculty development activities and community engagement rather

than service-learning. In terms of scope, research relied on different levels of analysis including a university-wide approach, faculty development program level, and an intra-university view through a consortium of engaged universities and service-learning directors. Some investigations focused on sub-samples of faculty including a human services department exclusively, clinical-medical faculty, a single professor's view, and a small group of community college faculty. Other studies further delineated the samples by examining service-learning faculty only, a combination of service-learning and non-service learning faculty members, or faculty who identified as engaged or interested in community service or engagement.

The uniqueness of the samples as well as the variation in research questions posed in this body of literature created difficulties in drawing conclusions about faculty at research universities. These limitations raised even greater concern as the researchers doing this work acknowledged the importance of institution type and this limitation in their own work (Buzinski et al., 2013; Hardre et al., 2011; McKay & Rozee, 2004; Zlotkowski, 2001).

Much has been written in the literature about how faculty members spend their professional time (Furco, 2001; Serow, 2000; Steinert et al., 2006; Young et al., 2007). Researchers have tried to understand who adopts new innovations like service-learning, and the incentives and barriers motivating decisions to engage with pedagogical innovation was measured in a variety of ways but the empirical literature did not investigate the interaction of the perceptions, incentives, or barriers with culture. In other words, barriers and incentives to participate in service-learning, in part, arise out of the culture of the institution. While a few studies provided empirical evidence showing that

context and institution type matter, the literature findings were not clear on whether or not perceptions, barriers, and incentives identified in the literature would hold true for faculty at research universities. Consequently, the extant literature did not provide a clear picture of the support faculty need to assist them with their teaching responsibilities. Faculty at research universities may face additional and/or different barriers and incentives to participating in service-learning activities (Butin, 2006). In addition, an institutional culture emphasizing a research focus may have a moderating effect on relevant incentives and barriers related to service-learning participation.

### **Research University “Uniqueness”**

Universities struggle with the seemingly conflicting goals of teaching and preparing students for advancement and their mission to produce research and publications (Hearn, 1992). In the second half of the 18<sup>th</sup> century, higher education experienced a shift from teaching to research and, as Furco (2001) described, a movement from being knowledge transmitters to knowledge generators. These traditions, plus the economic constraints and competition for prestige, created a rewards system at research universities that values publications above all else.

According to Wright (2005), research universities present more ambiguity over teaching expectations than other institution types. Furthermore, a lack of clarity often leads faculty to determine, for themselves, the institutional value system and this often leaves them feeling as if their values do not align with peers or colleagues. Interestingly enough, Wright (2005) suggested that faculty at research universities often believe they place more value on teaching than the institution and their colleagues. This observation is important for two reasons. As Wright (2005) argued, the incongruence of values often

leaves faculty feeling stressed about their job performance. Additionally, and relevant to this POP, the real or perceived value (or lack of value) placed on faculty roles determines how faculty spend their professional time (Austin, 1990).

Hardre et al. (2011) argued that faculty productivity is influenced by institutional- and discipline-specific incentives. The research university's valuing of publications and research activities dictate how faculty members position themselves to work. In this institutional context, Rau and Baker (1989) suggested that, "...it is not rational for faculty to devote much time or energy to teaching" (p. 61). Given this institutional environment, this research may demonstrate that faculty perceptions, incentives, and motivations to engage in service-learning may vary by institution type. Even if the faculty-identified influences match those described in the literature, it is possible that the research environment may have some moderating effect on these influences and participation. This research aimed to investigate these questions in order to identify an intervention to address low faculty engagement in service-learning.

### **Empirical Literature Highlighting the Experiences of Research University Faculty**

While questions about faculty at research universities experiences with service-learning remain, there are a few studies that provided some answers. The studies discussed here on research university faculty, community engagement, and service-learning relied on samples with a proportion of observations coming from research universities or samples exclusively drawn from research university faculty. Additionally, only three of these studies examined the topic faculty-identified perceptions, barriers, and incentives related to service-learning. The other included studies posed questions related to incentives and barriers influencing faculty participation in community engagement in

general and teaching and research roles in research university rewards systems. While the latter studies stray from the focus of this POP, they still offer a view of different mechanisms that contribute to faculty decisions to engage in activities outside of their role as researchers.

The literature describing research universities is limited because the samples are not exclusively from research universities and the research questions posed often do not match those explored in my POP. However, there is still value in reviewing these studies. Abes et al. (2002), Lambright and Alden (2012), and Demb and Wade (2012) included research universities in their samples of interest. These three studies highlighted the importance of institutional context in examining my POP and confirmed the value of some of the constructs previously presented to measure perception, incentives, and barriers related to faculty decisions about whether to participate in non-research oriented activities.

Abes et al. (2002) examined 29 institutions including research universities to identify barriers and deterrents to participating in service-learning. They found that faculty identify student and community outcomes as the strongest incentive to engaging in service-learning and affirm that time and logistics as well as the lack of rewards top the list of barriers that faculty cite. This research also provided some evidence that the lack of confidence in the evidence of positive student outcomes represented a barrier for some faculty. Also, almost twice as many research faculty members reported the lack of rewards as a barrier compared to the full sample of faculty respondents. The evidence suggested the possibility that faculty views on barriers, such as the rewards structure, may differ by the type of university in which they work. Furthermore, Abes et al. (2002)

noted in their conclusions the importance of looking more deeply into the faculty experiences at research universities. This study confirmed some of the similarities in faculty views on service-learning but also underscored the need to examine these within a research university context.

More recently, Lambright and Alden (2012) conducted a relevant empirical study on faculty perspectives on support for service-learning. To carry out this research, the authors relied on the case study method and included three institutions in their study, one of which was a research university. The findings provided evidence that compared to the other institutions, research universities lack support for training in and teaching with service-learning, and faculty reported that service-learning and related activities are not valued in their professional review process. Again, this study pointed to the importance of institutional culture in faculty decisions about service-learning participation. It also highlighted that faculty at research universities engaging in service-learning reported an interest in this pedagogy due to a passion and personal interest in the topic. The empirical evidence supported the need to incorporate institutional context into the investigation of this POP and to consider what role, if any, intrinsic motivation might play in influencing faculty to participate in service-learning activities.

Demb and Wade (2012) also included research university faculty but focused their work on faculty participation in community engagement. Like earlier studies focused on specific courses or disciplines, they found that non-tenured faculty participated more often in service-related activities and that the fields of social work and education garner the highest participation. Demb and Wade (2012) also found evidence that professional motivations strongly influenced faculty decisions to engage in service

activities. In terms of this POP, their finding offers additional justification to explore the role that a connection between service-learning participation and a faculty member's research might play in increasing faculty buy-in and engagement with this pedagogy. This research also contributed to understanding categories of influence including personal, professional, and institutional factors.

The other relevant studies focused solely on faculty at research universities but did not pose the same kinds of research questions related to this POP. Serow (2000) conducted a study with twenty-nine faculty from one research university. The faculty in this study already had an interest in teaching, and Serow (2000) wanted to understand how faculty created successful teaching careers within a research university where publications and grants receive higher relative value. Serow (2000) found that research outranked teaching and that it represented an essential component to gaining promotion and tenure. This study provided evidence that the main reasons faculty participate in less-valued activities related to seeing student benefits and having a personal interest and the ability to create success after failing in their role as researchers. This study contributed to this POP in that it demonstrated the importance of persistence in overcoming obstacles to participation, that success in teaching and engaging in activities related to teaching require the ability to adapt to the current structure, and that successful teaching faculty in this study reported having the ability to combine their teaching interests with some form of research.

Moore and Ward (2010) conducted another study using research faculty but focused on research questions outside of service-learning. They surveyed twenty faculty members at fifteen research universities about incentives and barriers to community

engagement. Consistent with the other literature discussed, faculty reported a desire for incentives related to personal passion but also the need for instructional and financial support to participate in service activities and interest in more engaged leadership. However, in relation to this POP, the authors cited one barrier that might be of great interest. The barrier they described related to the current definition of scholarship at research universities. While many faculty engage in more integrated activities that combine research, teaching, and service, the institutional culture, and specifically the rewards structure, still treat these as discrete, non-overlapping categories (Moore & Ward, 2010). Consequently, this study's value stems from the evidence suggesting that defining faculty responsibilities as integrated and more closely aligned with what Moore and Ward (2010) referred to as "engaged scholarship" (p. 48) may encourage institutions to adopt a different view of faculty work. In addition to broadening the definition of scholarship at research universities, these authors proposed incorporating more faculty mentoring for guidance and support and finding ways to engage the leadership in this discussion and position teaching to better support research activities.

Finally, Forbes et al. (2008) conducted a study that along with the work done by Abes et al. (2002), most closely reflected the population and topic of interest. Forbes et al. (2008) used a random sample of service-learning and non-service-learning faculty to explore the question of faculty motivation to engage in service-learning. Using a rating scale, the researchers found that service-learning recognition and connection with community instructional tools represented important incentives. They also identified the lack of promotion and tenure recognition and training but for non-service-learning

faculty, knowledge about the pedagogy emerged as the top deterrent to participating in service-learning.

Forbes et al. (2008) confirmed some of the findings in the other literature related to service-learning but suggested a need for a more supportive infrastructure to include training and that leadership and the institution need to provide ways to recognize faculty efforts in the form of service-learning awards, promotion, and tenure. Although very few studies in the service-learning literature directly focused on research universities and questions similar to those posed in this study, they provided a foundation for conducting this research as well as insights into the kinds of constructs to include and potential intervention strategies to consider.

## **Conclusion**

The review of the extant literature on service-learning and community engagement provided strong evidence that students benefit from engaging in this pedagogy. Furthermore, the literature offered some evidence that faculty, community members, and institutions also accrue benefits from this type of learning. In terms of faculty experiences with service-learning, faculty familiar with the pedagogy reported more benefits than barriers (Banerjee & Hausafus, 2007), and faculty also identified student outcomes, logistical support, and rewards as significant to influencing their decisions on whether or not to participate in service-learning.

The literature contributed to investigating this POP by demonstrating the importance of incentives to faculty at research universities and offered evidence of the role institutional and disciplinary culture may play in low faculty participation in service-learning. As discussed, there are limitations to the literature on faculty experiences with

service-learning, as most research took either a micro- or macroscopic view of the research questions (Buzinski et al., 2013). These limitations represented an opportunity to conduct additional research on a Carnegie-classified research university. The literature review provided a foundation for the selected approach for the needs assessment and offered a direction of inquiry to consider how the culture and structure at a research university might shape different faculty perceptions of and experiences with service-learning. The next chapter includes an examination of faculty and leadership survey data to explore the problem outlined in Chapter 1.

## **Chapter 3: Needs Assessment**

### **Introduction**

As discussed in Chapter 2, the empirical literature on service-learning provided evidence demonstrating positive outcomes for students, faculty, and the community (Cruz & Giles, 2000; Eyler & Giles, 1999). Mink and Twill (2012) and others (Boyer, 1990; Eyler et al., 1997) pointed to students' increased depth of knowledge, understanding of the community perspective, improved ability to communicate, and development of other professional skills as some of the benefits of this practice. Faculty also reported positive outcomes from service-learning experiences including improved connections with students, academic freedom to choose projects and partners, the ability to cover more material, and personal gains from seeing students learn from the experiences (cited in Hatcher et al., 2004). Evidence also suggested that communities benefit from inexpensive and skilled labor and experience personal benefits in the form of mentoring, imparting knowledge, and creating connections with institutions and students (Blouin & Perry, 2009).

The body of literature on faculty experiences with service-learning is comparably smaller than the service-learning outcomes literature. The theoretical and empirical literature on faculty experiences with service-learning, taken together, provided a foundation and rationale for the present research and this investigation will add to the small body of literature on faculty experiences with service-learning at research universities. Much of the extant literature investigated faculty participation in service-learning with a singular viewpoint, with researchers focused on university-, discipline-, or

course-level analyses (Buzinski et al., 2013). Furthermore, the empirical investigations of research universities addressed related but different research questions, and few papers considered faculty experiences with service-learning. For these reasons, it is difficult to predict with any certainty faculty experiences with service-learning especially within the context of a specific university. The relevant literature did, however, contribute to the methods and survey instruments used to explore JHU faculty experiences with service-learning. This chapter reviews the study context, key stakeholders, and needs assessment research questions. It also presents and discusses the needs assessment findings, and reviews the limitations of the study and implications for implementing an intervention to address low faculty participation in service-learning at JHU.

### **Context of the Study**

**Service-Learning at a Research-Intensive University.** JHU offers faculty a variety of service-learning activities including a year-long SLFP. Instructors train in the service-learning pedagogy and integrate this pedagogy into a new or existing course. Despite JHU's tremendous efforts, fewer than approximately 2% of the courses offered by the three schools combined meet the definition of a service-learning course and less than 3% of the faculty engage in service-learning activities. JHU's faculty members spend a significant amount of professional time on research and publications and this research-focused culture has important consequences for crafting an intervention strategy to increase participation in service-learning.

**Target Audience – Stakeholders and their Information Needs.** Low faculty participation in service-learning affects several stakeholders: faculty, leadership, students, and JHU. Each has standing related to the benefits and challenges of increasing

participation. These include instructional benefits, improved student learning experiences and outcomes, influence on student retention, and the long-term success of JHU's SLFP. Accurately characterizing this POP and ultimately, effectively addressing it with the research study's intervention required knowing more about what JHU faculty and leaders think about service-learning as an instructional strategy. This needs assessment explored faculty and leadership perception of and thoughts around service-learning and these findings contributed to understanding their individual values and perspectives related to teaching.

### **Goals and Objectives**

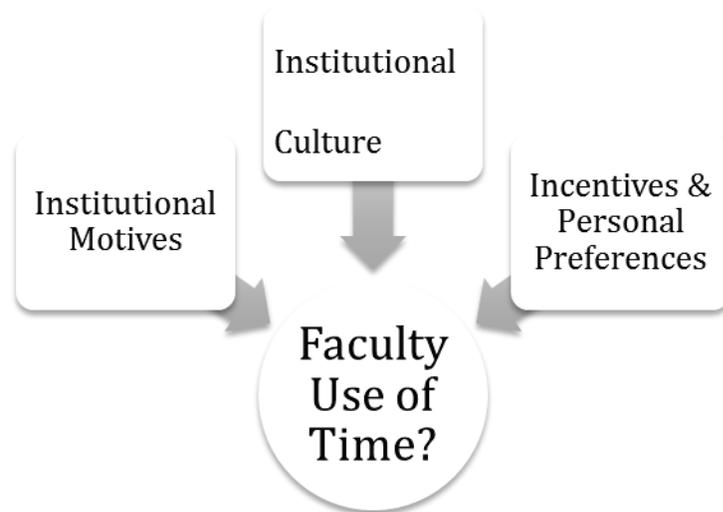
At JHU, few faculty train in and implement service-learning into their classes. This needs assessment addressed why, given the evidence of the benefits of this pedagogy and the critical role faculty play in producing these outcomes, most faculty do not train in or implement service-learning. Specifically, these data informed the present understanding of perceptions of and incentives and barriers to participating in service-learning, with the goal of designing an intervention to increase faculty participation in service-learning activities at JHU.

The needs assessment answered the following research questions:

1. **RQ1:** What are the characteristics of faculty using service-learning and those who do not?
2. **RQ2:** What is JHU faculty perception of the value of service-learning?
3. **RQ3:** What are the factors that motivate faculty decisions on whether or not to participate and barriers to its implementation on campus? Do barriers and incentives identified differ between users and non-users of service-learning?

4. **RQ4:** Do faculty characteristics, perceptions, motivations, or barriers differ across the JHU Health Professional Schools (public health, nursing, and medicine)?
5. **RQ5:** What is leadership's perception of service-learning and of faculty barriers and incentives to participate in service-learning?

Bringle et al. (1999) along with other researchers suggested that faculty play a critical part in implementing and institutionalizing this pedagogy (Checkoway, 2001; Fairweather, 1996). However, according to Antonio et al. (2000) less than three percent of faculty nationwide include a service component in their classes. Furthermore, faculty members integrating service-learning often come from non-tenured, less powerful, and marginalized faculty (Antonio et al., 2000).



*Figure 3.1.* Faculty decision making.

Historical, economic, and sociological factors also contribute to low faculty participation. Hardre et al. (2011) argued that faculty productivity is directly related to incentives created by institutional rewards, individual interest, and recognition. Consequently, JHU faculty, in response to the existing incentive structure that rewards

publications and grant funding, often choose research over teaching. The economic tradeoffs associated with investing time and effort into teaching can be high, as faculty may risk future promotion or professional recognition. With limited time and resources, faculty respond to the strong incentives and signals about research that JHU provides. This institutional structure is reinforced through faculty interactions such as mentoring and within the culture of the departments. While the empirical literature offered some insights into factors influencing faculty decisions, it is important to acknowledge and explore the critical role of the publish or perish mentality in influencing faculty decisions on whether or not to participate in service-learning. An attempt to turnaround the low number of faculty participating in service-learning faculty development requires a strategy that accounts for faculty decision-making, including the climate in which these decisions occur. This needs assessment study highlighted reasons for low faculty participation while also uncovering potential pathways for an intervention to increase participation in and implementation of service-learning.

## **Methodology**

**Study participants.** The population of interest for this needs assessment included faculty at the JHU Health Professional Schools as well as faculty in leadership roles as Department Chairs, Program Directors, and members of the Promotion and Tenure (PAT) Committee. Surveying faculty and leaders offered insights into faculty perceptions, motivations, and barriers but also provided some insight into the JHU institutional culture related to research and teaching, as well as evidence of the influence this environment may have on faculty decisions to engage in service-learning. A sample of faculty and

leaders offered a more comprehensive view of important factors in faculty decisions about whether or not to participate in service-learning.

**Data collection.** The investigation used a quantitative approach to collect faculty data. Two surveys were administered to faculty and university leadership including Department Chairs, Program Heads, and members of the PAT Committee. A review of the extant literature, identified two validated instruments to measure constructs very similar to those previously outlined in this paper (Abes et al., 2002; Banarjee & Hausafus, 2007). With the authors' permission, this needs assessment used their surveys and adapted the battery of questions for two separate surveys for JHU faculty and leadership, separately. The surveys asked questions about faculty members' professional roles, the value of various personal and instructional supports, perceptions of service-learning, and identification of incentives and barriers to engage in service-learning. The instruments utilized different Likert scales to record faculty responses. The surveys also asked for demographic information including years of service at JHU, tenure status (tenure or tenure-track), leadership role (if any), as well as familiarity with and use of service-learning.

### **Sampling**

Recruitment of faculty and leadership required different strategies to reach each group of respondents. SOURCE, along with a number of colleagues, provided assistance with administering the survey to faculty in the three schools. The sampling frame for the faculty survey was based on the number of full- and part-time faculty according to information from each school's website; the non-service learning faculty population targeted included medical faculty teaching years one through four medical students (24),

public health (619), and nursing (184) for a total of 827 faculty. However, the final sample number for this study indicated a larger number of medical faculty than noted here. For example, it is likely that some faculty members who received the email invitation via the public health list server may actually hold primary appointments in Medicine. Consequently, the final sample included more medicine faculty than reflected in the sampling frame. This resulted from the fact that some faculty hold joint appointments and while it is possible to identify primary faculty appointments, it is not possible to know whether or not faculty responded to the electronic invitation originating from their secondary appointment.

The service-learning faculty included previous and current participants in the SOURCE Service-Learning Fellows Program (SLFP) and faculty who worked with SOURCE on service-learning projects prior to the creation of the SLFP. The definition of service learning faculty only include those JHU faculty who hold a faculty position at one of the three health profession schools and submitted an application and selected to the SOURCE SLFP. Mindi Levin, the executive sponsor for this research and Director of SOURCE, provided a list of faculty affiliated with the SLFP, as well as faculty who worked with SOURCE one-on-one to implement service-learning (pre-SLFP). This produced a list of thirty-two faculty members who identified as service-learning faculty. With the help of department chairs and other key leaders at JHU, eligible faculty received an email with a link to the online survey to reach out to the non-service learning and service-learning faculty population. Ms. Levin, several deans, and a JHU Vice Provost, assisted with sending the email communications about the survey through various faculty email list servers. The survey remained open for six weeks with two additional reminder

emails sent out to respondents. In the end, 152 faculty from across the three schools responded to the survey, yielding an 18% response rate.

The leadership survey included respondents from a convenience sample. A former Department Chair for Health Policy and Management in the School of Public Health assisted with compiling a list of leaders around the school. Once finalized, the chair sent a pre-survey email to each of the leaders and introduced this project and survey. The leadership survey included a list of twenty-five people from which eighteen responded. The leadership survey remained open for one month and included an introductory email, two reminder emails a week apart, and a final reminder at the beginning of the closing week. The survey results were downloaded into two separate data files from Qualtrics, an online survey tool provided to JHU faculty, and converted into STATA data sets where I renamed the variables, cleaned the data, and conducted the data analysis. The following sections offers a brief explanation of the variables utilized in this survey as well as an analysis of the research questions previously outlined.

### **Analysis Variables**

As established in the previous chapter, service-learning experiences add real value for students, faculty, and institutions of higher education. Despite service-learning's place as an evidence-based pedagogy, faculty at JHU do not often implement or use this pedagogy and they have few opportunities to participate in professional development to train in this pedagogy. Encouraging greater participation in service-learning and relevant faculty development at JHU and recommending improvements to increase participation in service-learning activities at JHU, required a needs assessment to closely examine JHU

faculty perception of service-learning and the barriers and motivators driving their decisions around this pedagogy.

**Perception.** The following offered some insight into the themes explored in this needs assessment. The discussion links each of the previously identified research questions with the relevant constructs. The first step in understanding the level of faculty participation in activities related to service-learning identified faculty perception of this pedagogy. While the literature offered varied descriptions of and explanations for faculty perception of service-learning there is some consensus that faculty lack knowledge about service-learning (Abes et al., 2002; Hou, 2010; Koslowski, 2006). The extent to which faculty members inaccurately assess the implementation and impact of service-learning may affect their decisions to participate. For example, Butin (2003) found that faculty believed service-learning disrupts the classroom and takes time away from important class content. Additionally, Butin (2006) found that faculty's impressions of service-learning is that it is not rigorous academic work but merely an opportunity to volunteer for students. Abes et al. (2002) and other researchers also found that faculty express concerns over the loss of academic freedom (Butin, 2003; Furco & Moely, 2012) and that moving away from traditional methods of teaching confuses the role of the teacher and student (Butin, 2003). These misconceptions about service-learning practices may contribute to fewer faculty members participating in service-learning. Consequently, recognizing where JHU faculty members are in their thinking about this pedagogy proved important in establishing a baseline measure of their perceptions.

**Incentives and Barriers.** To offer a more complete picture of decisions to participate in service-learning, this needs assessment investigated faculty-identified

motivations and challenges to training in and implementing the service-learning pedagogy. The subsequent discussion provided some examples of constructs to measure these phenomena. The literature offered a diverse set of factors that faculty identify as key motivators to engage in service-learning practices. The themes in the literature included personal characteristics (Katowitz, 2012), multiple sources of support (Furco & Moely, 2012; Steinert et al., 2006; Young et al., 2007), opportunities for scholarship (Katowitz, 2012; Levin, 1994), encouragement (Lambright & Alden, 2012), and student learning outcomes (Eylers & Giles, 1999). Researchers used different approaches to measuring these themes.

Another dimension of faculty participation in service-learning involves the faculty-identified deterrents to participation. Here again, the literature discussed a variety of barriers including service-learning myths held by faculty (Furco & Moely, 2012), curricular challenges (MacKenzie, 2013), and a lack of several factors including institutional support (Butin, 2006), evidence of beneficial outcomes (Bringle et al, 2004), student outcomes, and rewards (Hou, 2010). Table 3.1 presents examples of how researchers measured these concepts in the literature.

Table 3.1

*Construct Map: Service-Learning Survey*

Constructs/Variables	Faculty Survey	Leadership Survey
	Questions	Questions
Demographics	Q2-Q10	Q2-Q11
Professional Responsibility (Teach v Research)	Q11-Q14	Q12-Q13
Perception	Q16	Q17
Student Benefits		same as faculty
Academic	3,8,10,13	same as faculty
Professional	1,7-9, 10,12, 14, 15, 17, 19	same as faculty
Personal	1, 2, 5-7, 20-22, 24, 25	same as faculty
Logistical Challenges	4	same as faculty
Pedagogical Challenges	4,16,18,23	same as faculty
Value placed on service-learning	-----	26-30
Department Chair Role	-----	26-30
Positive effect on student retention	-----	26-30
Incentives/Motivations		Q20
Personal Characteristics	Q24(12-16)	same as faculty
Institutional Support	Q22	-----
Rewards	need to add item for this	-----
Recognition	Q24(13,14)	same as faculty
Culture	Q24(16)	same as faculty
Personal Support (leadership, faculty and students)	Q21	Q18
Instructional Support	Q22	Q19
Service-learning outcome for:	Q24	
Students	1, 2-7	same as faculty
Community	8, 9, 10, 11	same as faculty
Barriers	Q26, Q27	Q21
Faculty Using Service-Learning		
Myths	Q16	same as faculty
Institutional Support	3, 6	same as faculty
Lack of Beneficial Outcomes	1, 2	same as faculty
Lack of Rewards	6, 8 & Q28	same as faculty
Curricular Challenges	3, 4, 5	same as faculty
Faculty Not Yet Using Service-Learning		-----
Lack of Outcomes	1, 3	-----
Lack of Academic Rigor	2, 4, 8	-----
Logistics	5, 6, 16-18	-----
Lack of Faculty Preparation	7	-----
Rewards	9-11, 15	-----
Encouragement	12, 13, 14	-----

## **Data Analysis Procedures**

The literature suggested that motivations and barriers to engage in service-learning differ across different faculty characteristics, including experiences of faculty with the pedagogy, the primary role of faculty at an institution (Lambright & Alden, 2012), the faculty's primary discipline, and faculty rank and tenure status (Abes et al, 2002). At the conclusion of the survey, data was downloaded from Qualtrics into an excel file and imported into STATA, a data analysis software package. To answer the research questions outlined in the needs assessment, data was coded, cleaned, and analyzed; the analysis procedures included descriptive statistics for the full sample and service-learning and non-service-learning subgroups. Chi-squared tests were employed to test for differences in the four-point Likert scale (Professional Roles) and *t*-tests detected significant differences between outcomes within groups as well as differences in perceptions, incentives, and barriers between service-learning and non-service-learning faculty.

## **Initial Summary of Results**

This section provides a summary of some key findings regarding this POP. The subsequent results offered an evidence-based description of the extent of the problem, as it exists at JHU. This section is organized around the research questions and includes a presentation and discussion of the results of the data collection and implications for my POP.

**RQ1: What are the characteristics of faculty using service-learning and those who do not?** The results in Table 3.2 suggest that there are no demographic differences between service-learning and non-service-learning faculty groups. T-tests detected no

significant differences between service-learning and non-service-learning respondents. Within both of these groups, males represented just over one-third of the samples, 50% reported being on the tenure track while only 25% of the sub-samples earned tenure. Full-time status represented the only significant difference ( $p = .0854$ ) between service-learning and non-service-learning faculty with 81% and 93%, respectively. Examining average statistics across the different faculty groups suggested no real differences in personal or professional characteristics.

A closer examination of the data, however, demonstrated that faculty who engage in service-learning more frequently as defined by teaching more than one service-learning course during a five-year period, differ in both tenure and tenure-track status. Unfortunately, the small sample for this group prevented significance tests but these outcomes do raise the possibility that more frequent users of service-learning may, in fact, resemble those faculty members described by Antonio et al. (2000).

Table 3.2

*Demographic Characteristics*

	Faculty	S-L	nonS-L	S-L = 1	S-L >1
Male	.40 (.49)	.35 (.49)	.42 (.50)	.38 (.51)	.22 (.44)
Tenure Track	.52 (.50)	.38 (.50)	.57 (.50)	.40 (.52)	.29 (.49)
Tenured	.25 (.39)	.19 (.40)	.26 (.44)	.29 (.47)	.11 (.33)
Fulltime	.90 (.30)	.81 (.40)	.93 (.26)	.79 (.43)	.78 (.44)
# of Years	13 (9.5)	14.45 (9.98)	12.68 (9.44)	16.5 (10.66)	13.9 (11.15)
N	111	23	85	14	9

Survey results also revealed that almost two-thirds of the non-service-learning faculty reported some familiarity with service-learning. Finally, of the service-learning faculty in the survey, over half reported that it was very likely that they would continue to

use service-learning in their classes and over 90% reported that they were likely or very likely to continue use. Contrast this with only 20% of non-service-learning faculty who reported that they were likely or likely to start using service-learning in their courses. Without considering frequency of service-learning use, demographic characteristics of the two groups are very similar but when looking at faculty who reported using service-learning in more than one course, there is evidence to suggest there might be differences in tenure and tenure track status. Lastly, these results also indicated that faculty who engage in service-learning are more likely to continue using this strategy compared to those faculty who have not used it.

Professional responsibilities. The professional roles identified in the survey included teaching, publications, service, advising, and administrative. This survey question measured faculty and leaderships' personal views on the importance of their professional roles and also asked each respondent their opinion on the institution's view of the importance of different faculty professional roles. The survey measured importance from one to four where four indicated most important. Table 3.3 includes details on faculty and leadership personal views on their professional roles as well as their perspective of institutional views on different faculty roles.

Table 3.3

*Importance of Professional Roles*

	Faculty	Leadership	S-L	nonS-L
Personal Views				
Teaching	3.66 (.70)	3.88 (.34)	3.97 (.18)	3.55 (.79)
Advising	3.35 (.74)	3.88 (.34)	3.50 (.76)	3.30 (.73)
Publications	3.56 (.77)	3.69 (.79)	3.45 (.81)	3.60 (.75)
Service	3.05 (.89)	3.25 (.68)	3.28 (.92)	3.03 (.77)
Administrative	2.60 (.95)	-----	2.78 (.87)	2.53 (.98)
Institution Views				
Teaching	2.69 (.84)	3.50 (.63)	2.72 (.81)	2.68 (.85)
Advising	2.61 (.80)	3.38 (.72)	2.56 (.76)	2.62 (.82)
Publications	3.99 (.09)	4.00 (.00)	3.99 (.18)	4.00 (.00)
Service	2.59 (.87)	2.88 (.72)	2.69 (.82)	2.56 (.89)
Administrative	2.64 (.86)	-----	2.66 (.87)	2.64 (.86)
N	120	16	32	88

The results in Table 3.3 suggest that except for administrative responsibilities, which the sample of faculty, on average, viewed as not important, faculty reported that their responsibilities as teachers, researchers, and advisors are important. A test of significance between the importance of teaching, publications, and advising revealed no difference between ratings *within* the overall sample of faculty. Furthermore, there is also no statistical difference between leadership personal views on the value of teaching and publications.

This is not the case, however, for the sub-samples of service-learning and non-service-learning faculty. Service-learning faculty viewed teaching as most important relative to their other responsibilities and the difference in their personal views on the

importance of teaching versus publications was statistically significant ( $p=.0021$ ). This difference in category rating translated into service-learning faculty reporting teaching as ‘Very Important’, with publications viewed as ‘Important.’ Non-service-learning faculty reported similar results as the whole faculty sample with publications, teaching, and advising labeled as ‘Important’ professional responsibilities. Finally, a Pearson’s chi-squared test *between* service-learning and non-service-learning indicated that service-learning faculty personally viewed teaching as ‘Very Important’ and this was statistically different than values reported by non-service-learning faculty ( $p=.002$ ). Consequently, these results support the idea that service-learning faculty value teaching significantly more than non-service-learning and all faculty members, regardless of affiliation with service-learning, expressed the importance of their faculty role as teachers.

The other question in this section asked faculty about their perception of the institution’s view on the importance of different faculty roles. Not surprisingly, faculty members at a research university, irrespective of their relationship to service-learning or their leadership status, reported that the institution values publications as ‘Very Important.’ Secondly, faculty across all categories suggested that JHU, as an institution, ranked teaching well below a three or less than ‘Important’ as a faculty role. The differences within each faculty category revealed statistically significant differences between teaching and publications with p-values of zero. Leadership in this sample perceived that JHU views publications and teaching (with advising a close second) as equally important, statistically speaking, with a rating of 3.5 on average. In other words, there is no statistical difference between 3.50 and 4.00 importance ranking. While faculty perceive JHU as an institution that values research over all other faculty roles, the data

suggests that leadership believes the institution values research and teaching equally.

Figures 3.2a and 3.2b provided an additional examination of the data on faculty views on the importance of faculty roles. Both figures provided rating frequencies for teaching, research (publications), and advising by service- and non-service-learning faculty groups.

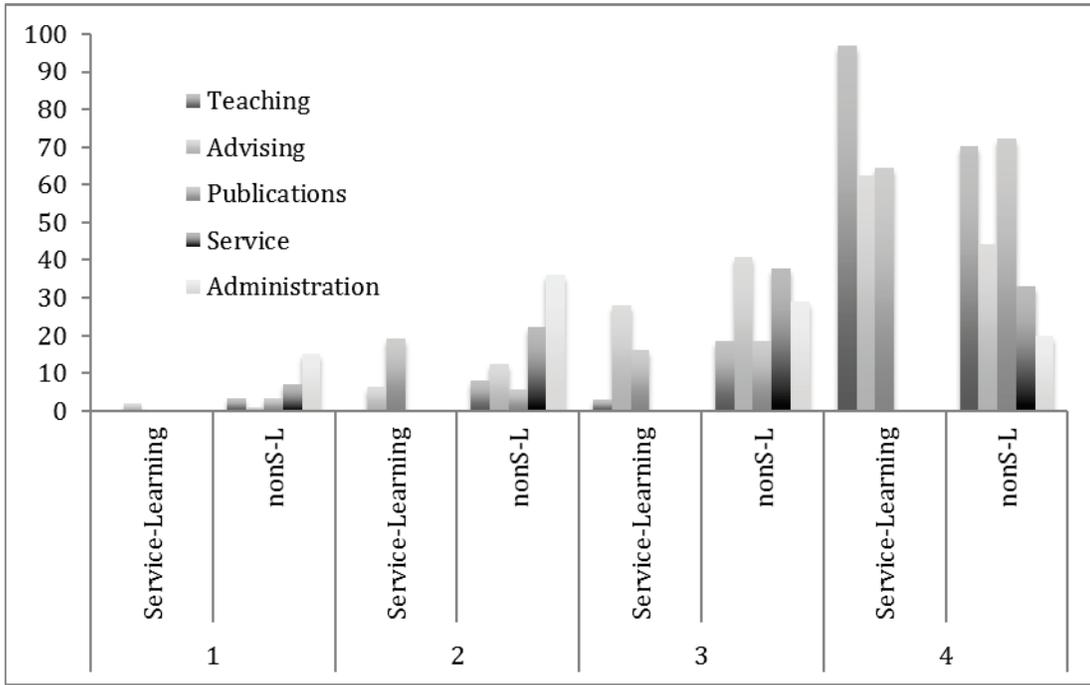


Figure 3.2a. Importance of roles – faculty personal views.

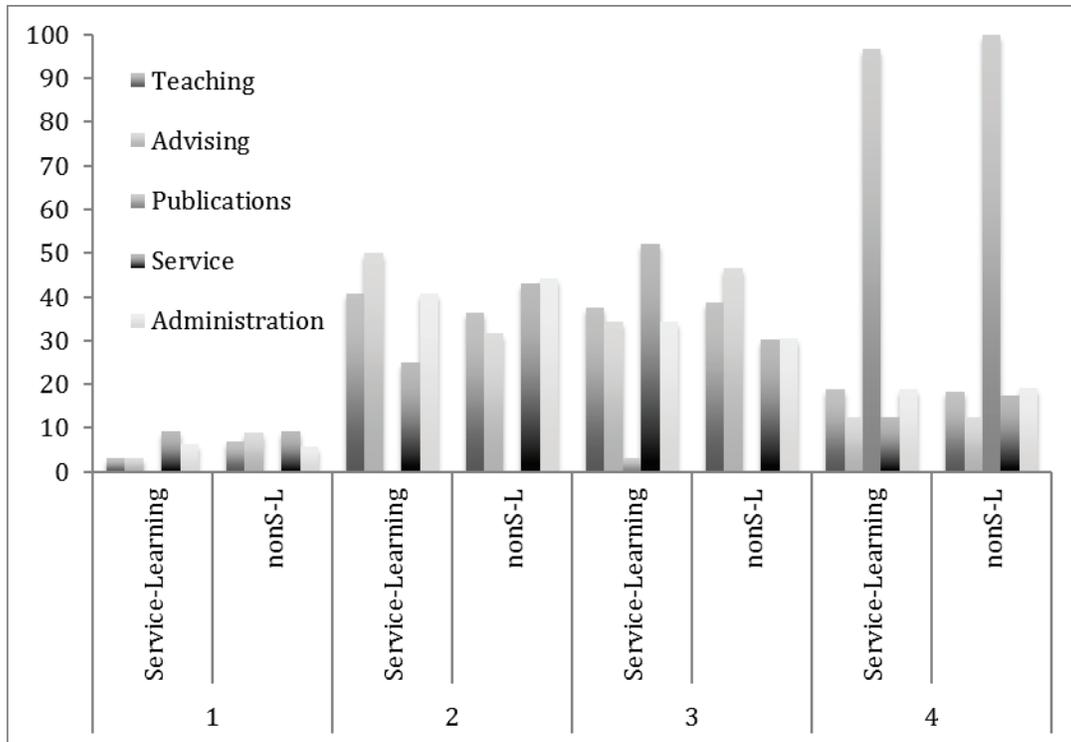


Figure 3.2b. Importance of roles – faculty perception of the institution’s views.

**RQ2: What is faculty perception of the value of service-learning?** The survey also measured faculty perception of service-learning using a one-to-seven Likert scale ranging from strongly disagree to strongly agree. In many cases, non-service-learning faculty, overall, expressed less agreement with the benefits of service-learning. Yet, unlike empirical findings reported in Chapter 2 (Butin, 2003, 2006), JHU faculty, on average, believe service-learning yields positive outcomes. For example, faculty members, irrespective of their connection to service-learning, suggest that service-learning enhances student awareness of the world around them, raises questions about important social issues, helps students understand critical problems, develops interpersonal skills, and brings about a sense of responsibility in the student participants (see Table 3.4).

Table 3.4

*Perceptions of Service-Learning, SL, and NonSL*

	Service-Learning	Non-Service-Learning	P-values
Enhances Awareness of World	6.5 (.80)	6.17 (.95)	.0831
Raises Questions About Social Issues	6.38 (.87)	5.82 (1.02)	.0072
Better Understand Critical Problems	6.34 (.74)	6.03 (1.06)	.1298
Work in Groups	6.1 (.87)	5.44 (1.13)	.0038
Interpersonal Skills	6.06 (.81)	5.43 (1.05)	.0027
Academic Equivalent to Volunteering	4.56 (1.64)	3.94 (1.54)	.0578
Decreases Classroom Instruction	3.94 (1.48)	4.08 (1.46)	.6401
Not a Rigorous Pedagogy	3.53 (1.8)	3.7 (1.53)	.6089
Divert Attention from Context	3.48 (1.63)	3.85 (1.44)	.2429
Easy to Evaluate	3.39 (1.31)	3.28 (1.30)	.6838

The following figures offer several different summaries of interesting findings within the data including top rated perceptions for service- and non-service-learning faculty as well as those perceptions in which these groups showed statistically different levels of agreement. Figure 3.3a shows the highest and lowest agreement rating for service-learning faculty (side-by-side with non-service-learning). Figure 3.3b illustrates the non-service-learning faculty high and low agreement ratings alongside service-learning faculty ratings. As previously mentioned, there are a few differences across the groups.

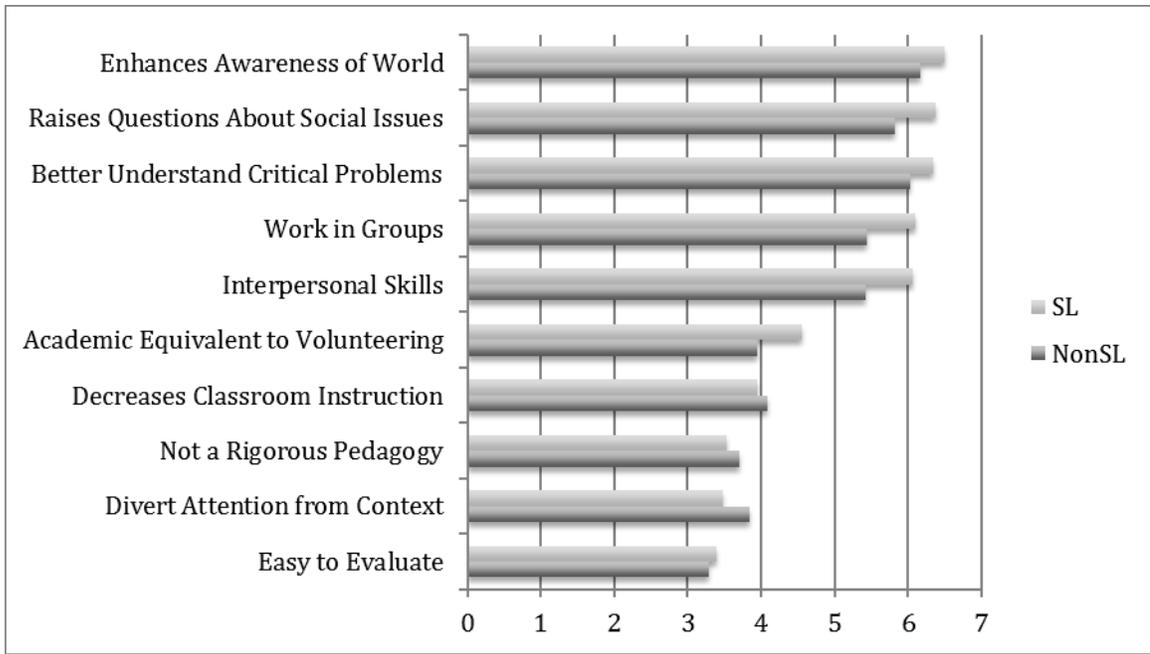


Figure 3.3a. Highest and lowest perception ratings: service-learning faculty.

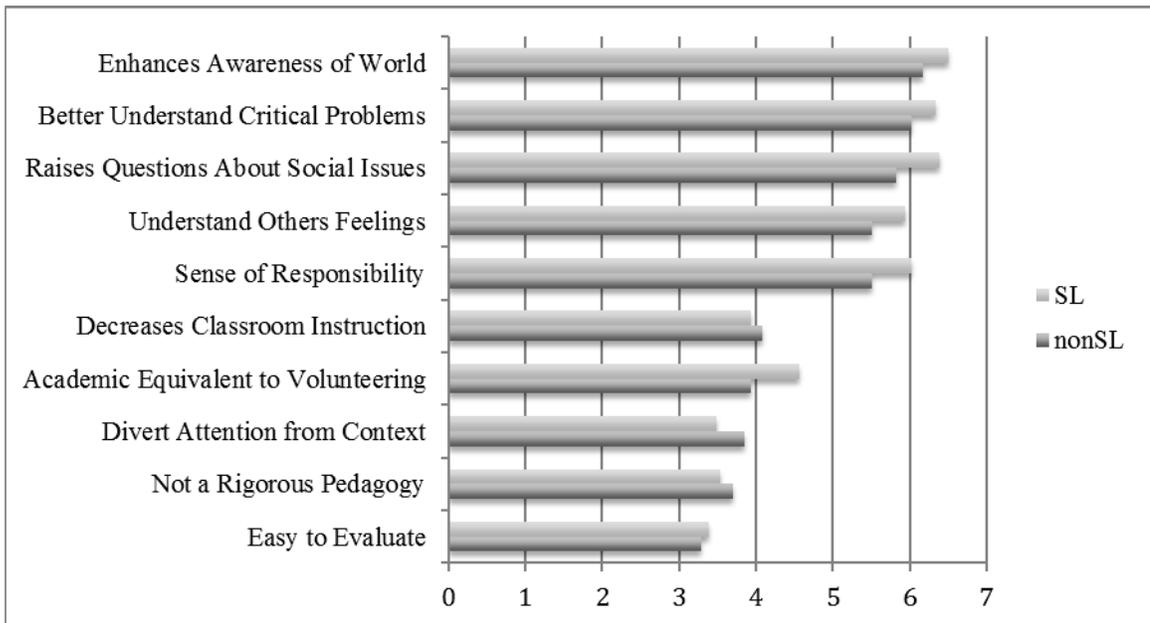


Figure 3.3b. Highest and lowest perception ratings – non-service-learning faculty.

While the previous table and figures highlighted many similarities, Table 3.5, Figure 3.3d, and Figure 3.3e show some of the statistically significant differences in the perceptions of the pedagogy between service-learning and non-service-learning faculty.

As shown in Table 3.5, non-service-learning remain doubtful about this pedagogy's ability to enhance communication, critical thinking, and leadership skills.

Table 3.5

*Comparison of Significant Differences in Perception: S-L versus non-S-L*

	Non-Service-Learning	Service-Learning	P-values
Critical Thinking Skills	4.94 (1.17)	5.84 (1.13)	0.0004
Leadership Skills	5.06 (1.17)	5.8 (1.01)	0.0021
Interpersonal Skills	5.43 (1.05)	6.06 (.81)	0.0027
Enhance Self-Esteem	5.21 (1.2)	5.9 (.83)	0.0035
Work in Groups	5.44 (1.13)	6.1 (.87)	0.0038
Inspired to Get Involved	5.23 (1.24)	5.94 (1.08)	0.0048
Raises Questions About Social Issues	5.82 (1.02)	6.38 (.87)	0.0072
Shows Student Impact on the Community	5.1 (1.21)	5.75 (.98)	0.0078
Make the World a Better Place	4.78 (1.32)	5.5 (1.32)	0.0094
Can Make a Difference	5.3 (1.29)	5.97 (1.09)	0.0096
Communication Skills	5.34 (1.25)	6 (.85)	0.0097
Get along with diverse groups	4.98 (1.21)	5.63 (1.1)	0.0139
Apply theory to real world settings	5.34 (1.2)	5.9 (.98)	0.0216
Sense of Responsibility	5.5 (1.29)	6.03 (.93)	0.0346
Sense of Commitment	5.17 (1.23)	5.66 (1.12)	0.0502
Academic Equivalent to Volunteering	3.94 (1.54)	4.56 (1.64)	0.0578
Acquire New Skills	5.17 (1.22)	5.63 (.97)	0.0588
Understand Others Feelings	5.51 (1.23)	5.94 (.95)	0.0746
Enhances Awareness of World	6.17 (.0949)	6.5 (.80)	0.0831
See Inequities	5.48 (1.34)	5.94 (1.01)	0.0834

Figure 3.3c shows the frequency distribution for Likert scale ratings for each of the perceptions for which service- and non-service-learning reported statistically significant differences. As demonstrated early, this figure supports the fact that both groups of faculty noted the benefits of service-learning but that on average, service-learning faculty reported statistically significant higher ratings than their non-service-learning faculty members. Figure 3.3d reiterates that the largest statistical differences in perceptions include beliefs about improving critical thinking skills, developing leadership skills, and enhancing students' communication abilities.

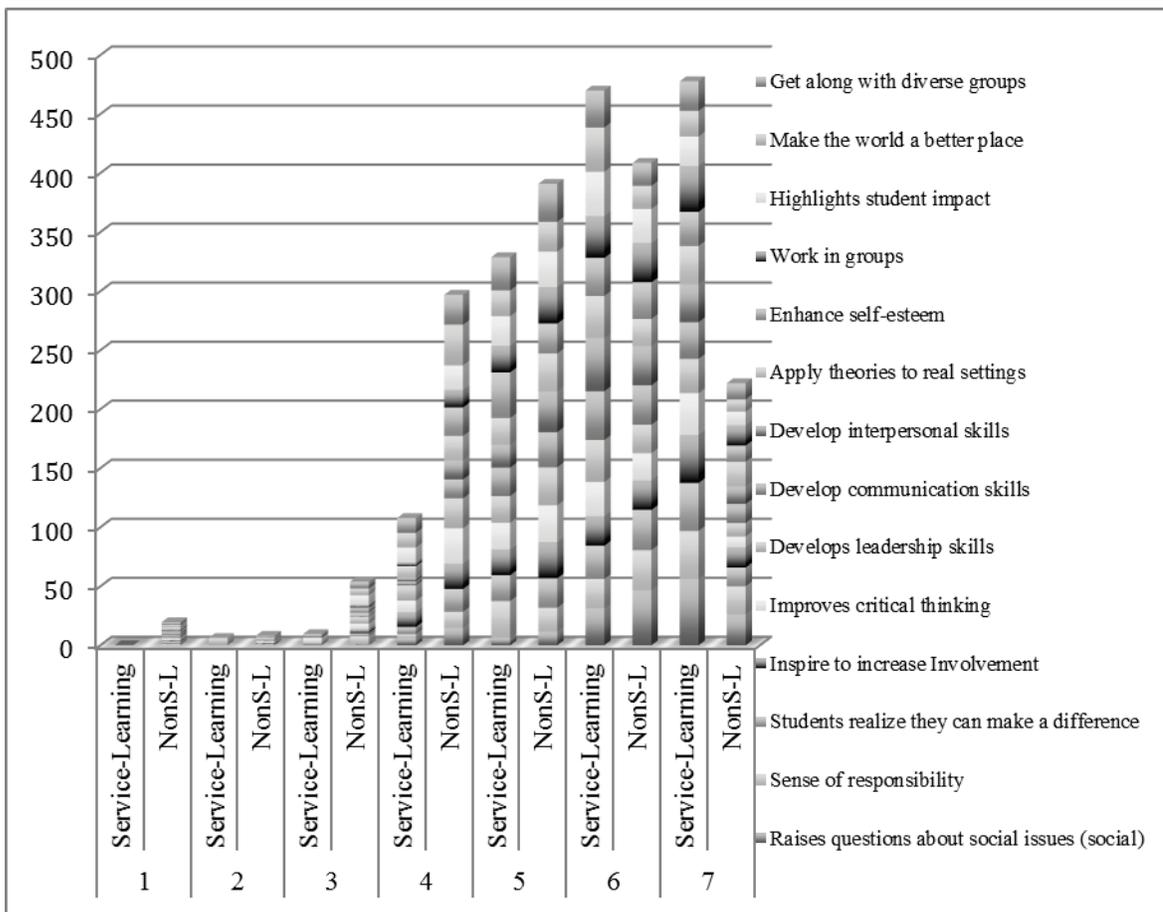


Figure 3.3c. Frequency distribution for perception (1 to 7): S-L versus non-S-L.

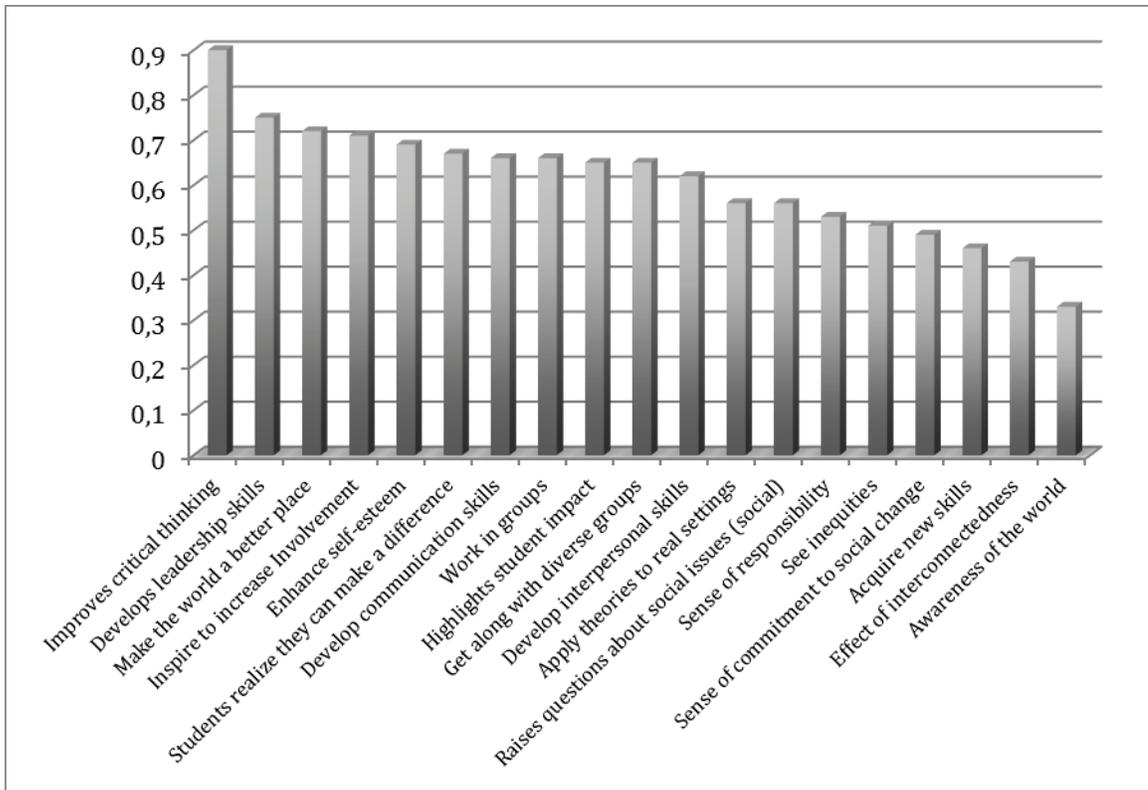


Figure 3.3d. Statistically significant differences – perception of service-learning.

Overall, faculty suggested that there are many diverse benefits to student involvement including both academic and professional outcomes. Furthermore, as suggested in the literature, it does not appear that this group of faculty lacks knowledge about service-learning which researchers identified as an explanation for low participation (Butin, 2003; Hou, 2010). Extant literature suggested that faculty raised concerns about the lack of academic rigor or believed that service-learning diverted class time from the course (Butin, 2006). However, these results do not support this conclusion. Both service-learning and non-service-learning faculty disagreed with previous findings (Butin, 2006) regarding the statement that service-learning is not academically rigorous, takes away class time, and diverts from important course content (Butin, 2003; Furco & Moely, 2012).

An examination of Figure 3.3e stacked column chart of relative frequencies for other, more negative perceptions shows that both groups of faculty reported some disagreement with these statements. Most faculty members, in fact, reported a value of four or lower (neutral to disagreement).

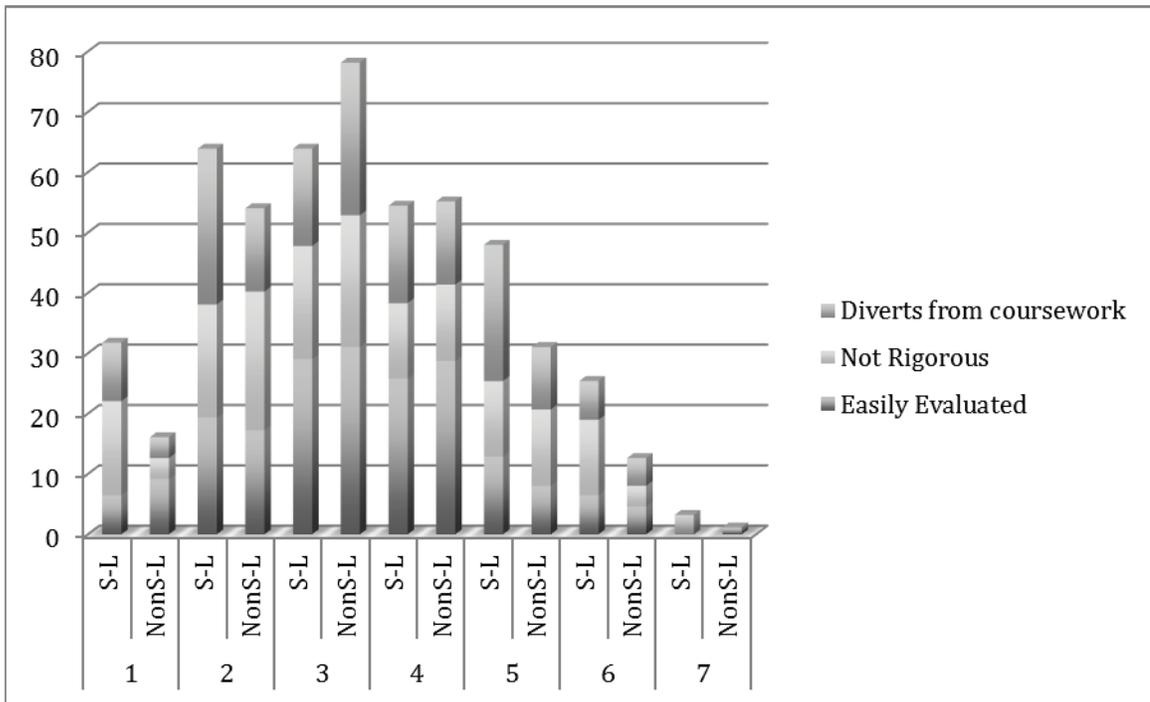


Figure 3.3e. Disagreement with perceptions.

These findings provide evidence that faculty at research universities may differ from faculty at other institutions. Consequently, addressing this POP may require a unique intervention strategy to increase faculty participation in service-learning. It is likely that these results paired with the findings on faculty personal and institutional views on their roles, indicate that although faculty at research universities agree with many of the service-learning perceptions, the culture represents a stronger deterrent in faculty decision to engage in service-learning. For example, it is possible that faculty value service-learning but due to a complex culture that favors research, they choose to

engage in researcher activities over tasks related to their other roles. If this is true, it stands to reason that the relative benefits of participation in service-learning activities and professional development remain below the benefits gained by faculty who focus on research and publications. Consequently, one interpretation is that seeing benefits in service-learning does not translate to sufficient value in the larger context of educating students or professional advancement at research universities to motivate participation. For these reasons, it is important to turn and look at faculty-identified incentives and barriers to better understand low faculty participation in service-learning.

**RQ3: What are the factors that motivate faculty decisions on whether or not to participate and barriers to implementation on campus? Do barriers and incentives identified differ between users and non-users of service-learning?**

Personal support and other incentives. To investigate factors that might motivate faculty to engage in service-learning activities, this survey asked questions about the importance (1 to 4) of personal and instructional support, separately, as well as its availability (yes/no) at JHU. The categories of personal support included senior administration, deans and chairs as well as faculty, students, and the community members. The survey also included separate questions about outcomes of service-learning and asked, using a Likert scale (1 to 4), if these outcomes would be important to faculty decisions to continue or start using service-learning.

In this section explanations for why faculty may not participate in service-learning started to emerge. In most cases, significant differences in ranking the importance of different personnel emerged between service-learning and non-service-learning faculty members. For example, while service-learning faculty ranked the

community as the most important influence on participation, non-service-learning faculty reported the Department Chair as most important to their decision about participating in service-learning activities, followed by students and faculty inside their own department (Table 3.6a). Additionally, only sixteen percent of the non-service-learning faculty in this survey described the Chair as ‘Available.’ Furthermore, less than 50% of non-service-learning faculty members cited their top personnel identified as supportive also being currently available. Service-learning faculty, however, reported community, students, and senior administration as important and reported the availability of students and faculty inside the department at 57% and 63%, respectively. Finally, the majority of service-learning faculty in all but three categories reported the availability of these groups.

Table 3.6a

*Personnel Support – Availability and Importance*

	Importance (1 to 4)			Availability (yes/no)		
	<i>S-L</i>	<i>nonS-L</i>	<i>p-value</i>	<i>S-L</i>	<i>nonS-L</i>	<i>p-value</i>
Community	3.36 (1.38)	2.5 (.72)	.0093	0.41 (.50)	0.25 (.44)	.2390
Students	3.32 (1.28)	3.00 (.8)	.2934	0.59 (.50)	0.42 (.50)	.2178
Senior Administration	2.9 (1.87)	2.83 (.98)		0.43 (.51)	0.13 (.34)	.0078
Faculty – Inside	2.90 (1.32)	2.64 (.91)	.4040	0.66 (.48)	0.44 (.51)	.1183
Dean	2.89 (1.45)	2.57 (.99)	.3445	0.54 (.51)	0.13 (.34)	.0011
Department Chair	2.85 (1.38)	3.00 (.98)	.6532	0.41 (.50)	0.16 (.37)	.0384
Faculty-Outside	2.61 (1.34)	2.12 (.83)	.1154	0.59 (.50)	0.58 (.50)	.9479

Table 3.6b provided additional information regarding the kinds of institutional materials faculty identified as supporting their service-learning efforts. This table lists the materials in order of importance as indicated by the service-learning faculty. As shown in Table 3.6b, faculty reported the availability of three out of the top four instructional

resources and this provided some insight into mechanisms to integrate into faculty development around service-learning.

Table 3.6b

*Supportive Instructional Materials*

	Rank of Importance	Useful? (Yes/No)
Colleagues	3.42	0.55
SOURCE	3.31	0.48
Conferences	3.27	0.27
Mentoring	3.11	0.55
Journals	2.91	0.32
Professional Development	2.10	0.20
Other	2.00	0.08
Books	1.86	0.10

***Service-learning outcomes as incentives?*** The findings in Figure 3.4 provided some insight into what it is about service-learning that might motivate faculty members to continue using or consider incorporating this teaching method into their classes. In this question, the survey asked about the importance of each outcome (1-4) in motivating service-learning faculty to *continue using* the pedagogy or non-service-learning to *consider using* this teaching strategy. Some of the findings comport with conclusions in the literature that suggested that some of the determination of faculty participation relates to faculty members' personal traits (Serow, 2000). For example, in Figure 3.4 service-learning faculty cited their own participation in the community as one of the most important influences on their decision to continue with service-learning and create partnerships and build community. Additionally, service-learning and non-service-learning faculty identified several student outcomes as possible incentives for using service-learning. Similar to the empirical literature, both groups suggested that increased understanding of social problems, an appreciation of diversity, and personal development influence their decisions about whether or not to participate in service-learning

(Hammond, 1994; McKay & Rozee, 2004). Furthermore, non-service-learning faculty suggested that student civic participation also served as a motivator.

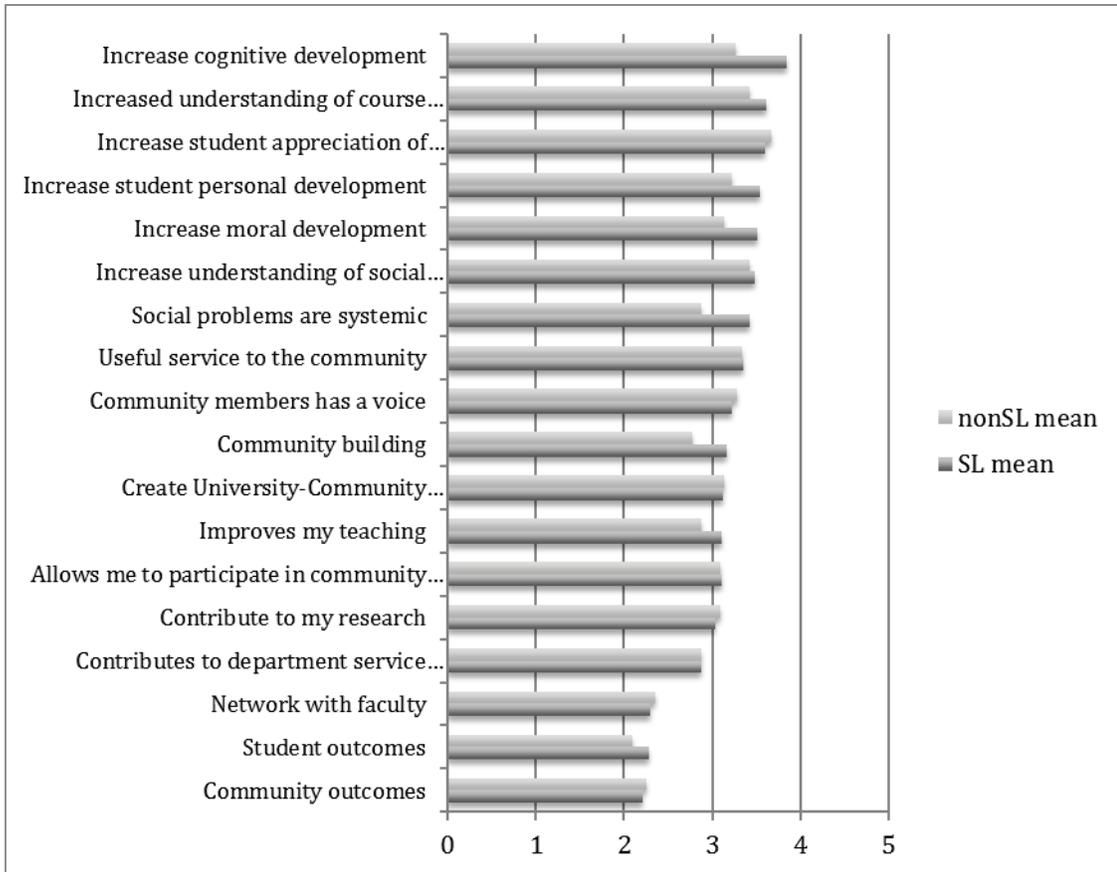


Figure 3.4. Faculty views on the Importance of S-L outcomes as incentives.

Service-learning faculty viewed enhanced student cognition, personal development, understanding of course material, and student appreciation of diversity as the top motivators to incorporating service-learning. Non-service-learning respondents reported students' increased appreciation of diversity, understanding of course material and social problems, as well as the utility of service-learning experiences to the community as the top incentives to consider using service-learning (see Table 3.7 below). Unlike the empirical literature, both groups did not report contributions to research as the most important incentive to continuing to use or consider using service-learning. While

there is no clear top motivator for each group of faculty, it seems that the majority of the items on the list represented some incentive to participate.

Table 3.7

*Incentives to Continue or Start Using Service-Learning*

Non-Service-Learning Mean (std)		Service-Learning Mean (std)	
Increase student appreciation of diversity	3.67 (.48)	Increase cognitive development	3.84 (.85)
Increased understanding of course material	3.42 (.72)	Increased understanding of course material	3.62 (.64)
Increase understanding of social problems	3.42 (.78)	Increase student appreciation of diversity	3.6 (.58)
Useful service to the community	3.34 (.78)	Increase student personal development	3.54 (.76)
Community members has a voice	3.28 (.84)	Increase moral development	3.52 (.79)
Increase cognitive development	3.26 (.75)	Increase understanding of social problems	3.48 (.80)
Increase student personal development	3.22 (.80)	<i>Social problems are systemic</i>	3.42 (.93)
Increase moral development	3.13 (.80)	Useful service to the community	3.35 (.85)
Create University-Community Partnerships	3.13 (.92)	Community members has a voice	3.22 (.89)
Allows me to participate in community service	3.09 (.73)	Community building	3.16 (.80)
Contribute to my research	3.09 (.85)	Create University-Community Partnerships	3.12 (1.01)
Improves my teaching	2.88 (.88)	Allows me to participate in community service	3.11 (.91)
Contributes to department service obligation	2.88 (.80)	Improves my teaching	3.11 (.79)
<i>Social problems are systemic</i>	2.87 (.81)	Contribute to my research	3.04 (1.10)
Community building	2.77 (1.07)	Contributes to department service obligation	2.88 (1.03)
Network with faculty	2.35 (1.08)	Network with faculty	2.3 (1.11)
Community outcomes	2.26 (.92)	Student outcomes	2.28 (1.1)
Student outcomes	2.09 (.79)	Community outcomes	2.21 (1.18)

***Barriers to service-learning.*** The questionnaire also asked faculty to consider the likelihood that each of the potential barriers included in the list would influence their

decision to discontinue use (service-learning faculty) or prevent non-service-learning faculty from incorporating the service-learning pedagogy. The questions asked to service-learning and non-service-learning faculty differed in that faculty currently using service-learning were asked to rate using a likelihood scale from one to seven where one indicates very unlikely and seven means very likely. The survey asked non-service-learning faculty their level of agreement with whether or not each item represented a barrier to incorporating service-learning in their teaching. A value of one indicated that a faculty member strongly disagreed with the item as a barrier while a four meant the faculty member identified it as a barrier to adopting service-learning. Table 3.8a described the faculty-identified barriers to continuing to use service-learning.

Table 3.8a

*Barriers to Participation: S-L Faculty Reasons not to Continue Using S-L*

Barriers to Continuing Service-Learning	Likelihood (1 to 7)
Unable to secure release time	4.5 (2.00)
Time Intensive	4.44 (1.69)
Difficult to secure funding	4.04 (2.28)
Lack of Rewards in PAT	4.00 (2.25)
Difficult Coordination	3.92 (1.73)
Uncomfortable with S-L knowledge	2.60 (1.26)
Lack of Community Benefits	2.50 (1.66)
Absence of Student Benefits	2.38 (1.50)

While the scales for the barriers question differed for the categories of faculty, both faculty groups identified release time, the time-intensive nature of the pedagogy, a lack of funding and recognition in promotion and tenure, and logistical coordination as

barriers to continuing or initiating service-learning use. The findings also highlighted those items in the potential barriers list that faculty reported as not posing a barrier to participation. These included service-learning is not important to faculty and the lack of beneficial outcomes, faculty interest, or academic rigor in service-learning. This list supported the idea that, unlike other research universities, JHU faculty members are interested in service-learning, acknowledge the benefits of the pedagogy, and do not cite academic rigor as a challenge. Table 3.8b outlines barriers identified by non-service-learning faculty.

Table 3.8b

*Non-Service-Learning Faculty Perception of Barriers to Incorporating S-L*

Barriers to Incorporating Service-Learning	Agree or Disagree? (1-5)
Difficult to secure funding	3.74 (1.13)
Logistical challenges	3.37 (1.18)
Unable to secure release time	3.33 (1.33)
Time Intensive	3.26 (1.26)
Lack of Rewards in PAT	3.26 (1.40)
Uncomfortable with S-L knowledge	3.00 (1.07)
Institution does not value teaching	3.00 (1.30)
Difficult to establish community partnerships	3.03 (1.19)
Unrelated to courses taught	2.78 (1.40)
Institution does not value service	2.67 (1.18)
Takes away from valuable class time	2.56 (1.09)
No support from Dean	2.37 (.97)
No support from Chair	2.37 (1.05)
No support from University Administration	2.33 (.97)
Not Academically Rigorous	1.96 (.90)
Absence of Student Benefits	1.85 (.82)
No interest in using service-learning	1.85 (.82)
Lack of Community Benefits	1.59 (.64)
Not important to faculty member	1.26 (.59)

**RQ4: Do faculty characteristics, perceptions, motivations, or barriers differ across the JHU Health Professional Schools (public health, nursing, and medicine)?**

To address this question, I stratified the survey data by the three health professional schools at JHU; Public Health, Medicine, and Nursing. As expected, the sample sizes

decreased significantly, and consequently, the analysis for this question only included descriptive statistics for the demographic characteristics by school for faculty in the sample, an examination of faculty views on their faculty roles as well as the institutional views, and finally, a brief look at the faculty perception of service-learning across the schools.

The results revealed that a small percentage of faculty using service-learning reside in the public health school. This is somewhat surprising as compared to the other schools, as more public health faculty tend to participate in the SLFP. The high percentage of nursing faculty reporting service-learning use is most likely an artifact of the data as the sample size is only six.

A look at the views of faculty and the institution regarding faculty roles as researchers, teachers, and advisors indicated that public health faculty, on average, value their role as researches above all other responsibilities, with advising and teaching running a close second. Medicine faculty reported placing higher personal value on teaching, with publications next, and advising falling to third. Finally, nursing faculty also identified teaching as more important than their other roles, with publishing a close second. While the personal views of faculty across the schools differed slightly, faculty views regarding the institution's perception of the importance of faculty roles consistently identified research and publications as most important with a value of four with teaching falling well below for public health (2.73), medicine (2.67) and nursing (3.00). This is further evidence of the possible influence of institution and school perception on faculty members' decisions about how to spend their professional time.

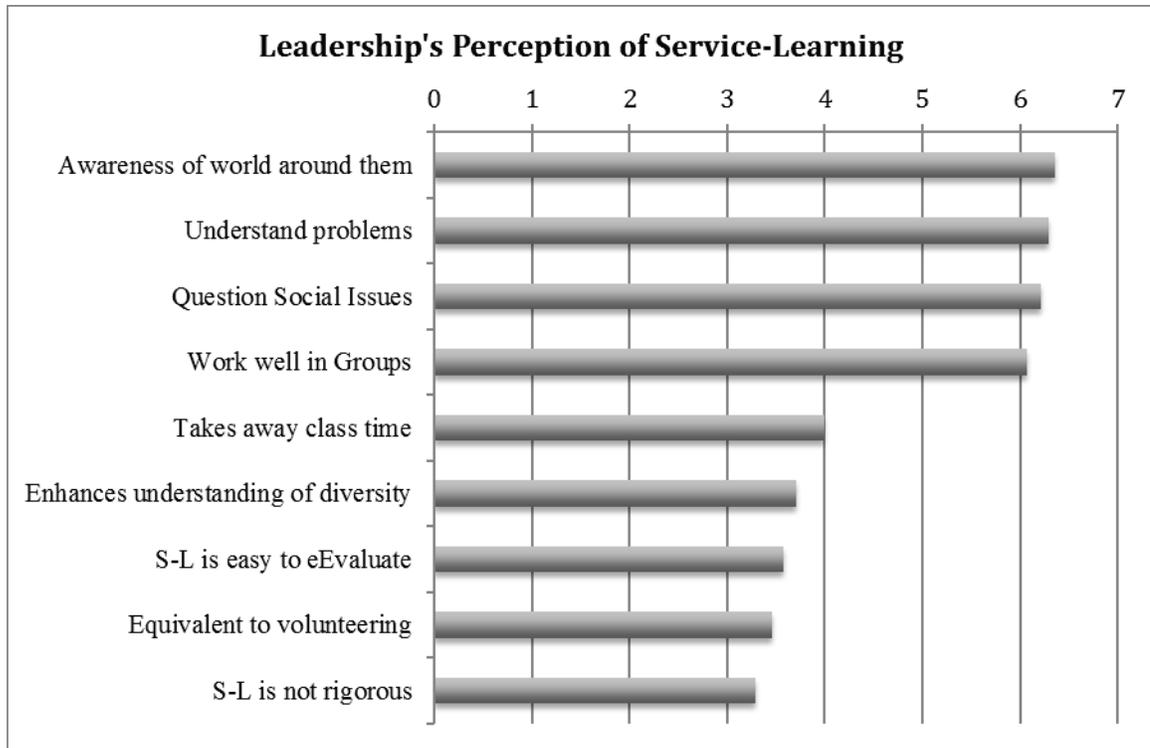
Finally, a look at faculty perceptions of service-learning across the three schools revealed more similarities than differences. Most faculty in the survey, regardless of school affiliation, believed that service-learning benefits students in many ways including contributing to an expanded world view, introducing students to social problems, providing opportunities to connect with the community, and developing new skills. Furthermore, faculty in all three schools do not agree with statements that characterize service-learning as an activity that diverts attention from class time, reduces instructional time, or lacks academic rigor. While sample size contributed to the lack of differences detected across schools, the findings provided some evidence of a consistent view of the importance of research in faculty work life, irrespective of the school within JHU. This provides evidence to confirm the hypothesis of the perception of a research-centric culture at JHU across the different health professional school but also revealed, interestingly enough, that faculty in these schools also consistently report benefits of participation in service-learning. These positive views regarding service-learning provide some evidence that teaching does matter and leaves the possibility that with additional supports and structures in place, more faculty might participate in service-learning professional development.

**RQ5: What is leadership's perception of service-learning and of faculty barriers and incentives to participate in service-learning?** Turning to the leadership data revealed the expected demographics. Of the sixteen respondents in this convenience sample, over 60% of the leaders reported earning tenure, a little more than a third serve as a Department Chair, and half of the sample reported serving on promotions and tenure

(PAT) committee. Less than a quarter of the sample is male but several of the respondents chose not to respond to this question.

As previously discussed, this group viewed faculty roles as teachers, researchers, and advisors as personally important. Furthermore, their views of the relative importance the institution placed on each showed researcher at the top (4.0) with teaching a close second. The congruence in leadership's personal and institutional views is interesting and curious given that faculty views about teaching, irrespective of service-learning use, diverged from their opinion of institutional views.

Figure 3.5a offered findings similar to those for service-learning and non-service-learning faculty; leadership reported agreement with several of the perceptions regarding the benefits of service-learning. Faculty leaders viewed positive student outcomes as a product of service-learning. However, leadership expressed some belief that service-learning takes away from class time. Interestingly, leadership, promotion, and tenure committee members viewed service-learning as also contributing to student retention.



*Figure 3.5a.* Leadership perception of service-learning.

An examination of Figure 3.5b illuminated some of the barriers leaders believe faculty face at JHU. Overall, faculty and leadership agreed about the challenges of service-learning. Leadership reported the lack of promotion and tenure recognition and rewards, a lack of funding, the time-intensive nature of service-learning classes, as well as faculty competency with this pedagogy as barriers to faculty adoption of service-learning.

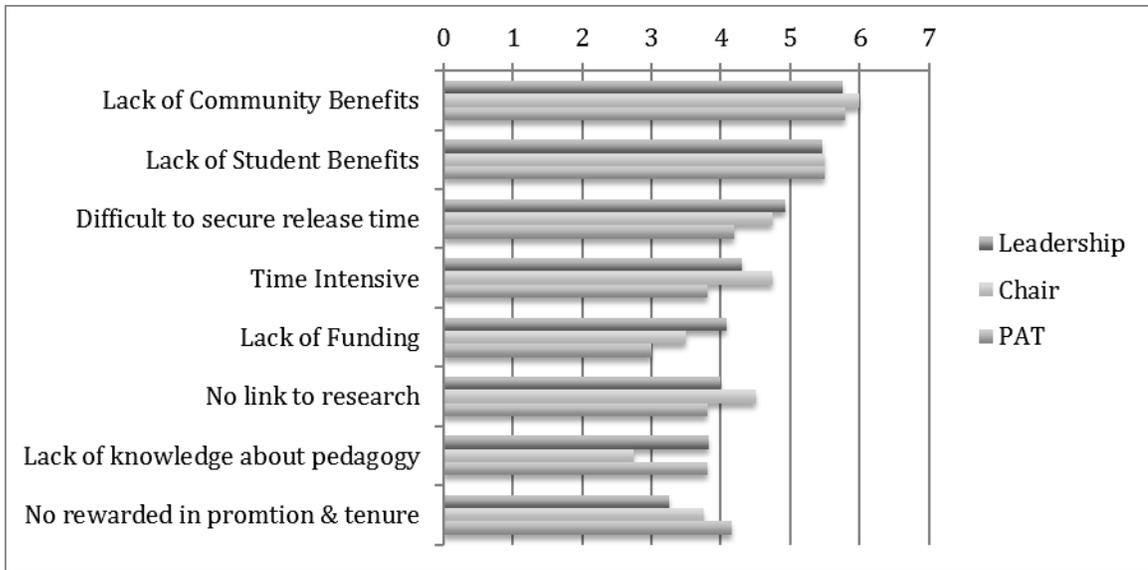


Figure 3.5b. Leadership perception of barriers to service-learning.

### Discussion of Results

The previous findings offered several interesting insights into faculty views on their professional roles, their perception of the institutional values of these roles, as well as their perceptions of the incentives and barriers to participating in service-learning activities. The organization of this section remains consistent with the presentation of the results and outlines the conclusions by the needs assessment research questions.

**RQ1: Demographic characteristics and faculty professional roles.** At first glance, service-learning faculty at JHU did not seem too different demographically in any significant way other than full-time status. However, when considering the number of service-learning courses faculty teach, it is clear that more frequent service-learning users do resemble the less powerful faculty described in the literature (Antonio et al., 2000). On average, more frequent users of service-learning included fewer tenured and tenure-track faculty members.

A review of the data on faculty professional roles revealed several interesting findings. While the extant literature suggested that research universities attract faculty who want to conduct research (Butin, 2003), in the case of JHU, it is also true that, on average, and faculty value their role as a teacher. Service-learning faculty tended to view teaching as ‘Very Important’ with research following as a close second in importance. Additionally, and pleasantly surprising, non-service-learning faculty identified teaching as ‘Important’ in their professional role. Finally, while there is a statistically significant difference between service- and non-service-learning faculty importance ratings on their role as teachers, it is unclear if this finding has any practical significance. In other words, the more important takeaway may be that faculty at a research university like JHU reported teaching as ‘Important’ to their roles as faculty members.

When faculty were asked about their perception of the institution’s view on the value of different faculty roles, irrespective of group affiliation, they perceived that the institution values teaching less than research. Faculty views on institutional perception of the value placed on research and teaching illustrated some of the challenges that faculty and faculty development leaders may face at a research institution. Even when faculty expressed an interest in and placed value on teaching, the perceived research culture seems to weigh heavily on faculty decisions about how to spend their time.

Equally interesting, was leadership’s view that the institution values both research and teaching as ‘Important.’ It is less clear how to make sense of the differences between leadership and faculty views on the institutional value of different faculty roles. It is possible that faculty in leadership positions really do believe that all of the roles are important but fail to send a clear message regarding this value to the faculty community.

Secondly, it may be that leadership feels a responsibility or duty to express the mission of the school. Lastly, it could be that Department Chairs and other leaders understand the recent financial realities of the fact that tuition dollars (and teaching) represent a larger percentage of the operating budgets than research funding. Even without a clear explanation for these findings, it does reveal the possibility that while leadership does value research and teaching equally and might believe that the institution does as well, the incentives in place and the messages sent do not communicate that value system to the faculty. It is apparent that the messages and institutional structure including incentives and barriers result in faculty believing the institution values research over all else in spite of their own views that teaching is an important professional role. This also provided evidence of a complicated culture at JHU. Furthermore, the incongruence in faculty, leadership, and their perceptions of institution's views may contribute to low faculty participation in service-learning.

**RQ2: Faculty perception of service-learning.** Unlike Butin's (2003, 2006) suggestion, faculty seemed aware of many of the positive service-learning outcomes. The needs assessment findings suggested that JHU faculty, regardless of connection to service-learning, believe that service-learning yields positive outcomes for students. Both faculty groups identified a variety of perceptions that indicate an understanding or awareness of some of the benefits of service-learning. However, the main finding from this section of the survey may be that even though faculty expressed an awareness of service-learning outcomes it does not automatically translate into increased participation. Furthermore, this scale also did not provide evidence of the value that faculty place on service-learning practices just that they acknowledge some agreement that the pedagogy

may yield these outcomes. The idea of these outcomes as incentives is explored further in the next section.

**RQ3: Faculty perception of incentives and barriers to participate in service-learning.** The faculty survey asked respondents about different kinds of support including personnel and instructional. Service-learning and non-service-learning faculty reported statistically significant differences in whom they view as important to their decision to use service-learning. For example, non-service-learning faculty expressed that the Department Chair along with other leadership, in general, are important to their decisions, while service-learning faculty described the community as important. Interestingly, almost 50% of the non-service-learning faculty reported that important personnel like the Department Chairs are viewed as unavailable. This finding contributed to further understanding why faculty may not participate in service-learning activities. Service-learning faculty were then asked about the kinds of instructional support that encourage their participation and they reported that their colleagues, SOURCE, and mentoring contributed to their motivation to use service-learning. The personnel and instructional supports cited offered some insight into particular features that may be important to designing an intervention.

In terms of faculty perception of incentives to participate, the survey also asked respondents about the influence of potential service-learning outcomes to act as incentives to participate. The findings in this question comport with those in the extant literature although alignment with research interests did not emerge as an important incentive for either group. Additionally, while both faculty groups reported that many of the listed items represented an incentive to participate, none of the outcomes emerged as

a clear winner or obvious reason to engage in service-learning. Consequently, these results did not explain why faculty participate. One explanation for the lack of participation was the notion that non-service-learning faculty did not believe in the positive outcomes of service-learning but the results of this needs assessment did not support that hypothesis (Hou, 2010; Phillips, & Hudson, 2004). The lack of clarity in these results highlighted the challenges that a research university and faculty development leaders face in trying to figure out how to incentive faculty to participate in service-learning activities.

The survey also asked service- and non-service-learning faculty to identify barriers to continuing to use or incorporate (for the first time) service-learning into their classes. Examining these results lead to conclusions consistent with the empirical literature. Like other faculty, JHU faculty viewed time and the lack of funding and promotion and tenure rewards as barriers to participating in service-learning. Unlike the literature, however, JHU faculty did not report the lack of academic rigor, faculty interest, or benefits as deterrents to service-learning participation.

**RQ4 and RQ5: Differences across the health professional schools and leadership views.** The last two research questions attempted to examine specific groups of faculty including those in different schools and faculty members who also hold leadership positions. The investigation across the health profession schools highlighted the fact that there may be important cultural differences *within* the JHU schools. These differences may further complicate both understanding faculty decisions around service-learning participation but also ways to intervene. Finally, leadership, outside of their views of faculty roles already discussed, aligned closely with faculty in their perceptions

of benefits as well as their concerns about service-learning. They also tended to agree with faculty in their perception of barriers to participating in service-learning.

This needs assessment underscored the influence of culture, institutional structure, and unclear messages on faculty decision-making. While the survey did not ask any direct questions about culture, responses to some of the questions, particularly the importance of various faculty roles and incentives to participate in service-learning, revealed the potential influence of the institutional culture. For example, while faculty may personally value teaching, they also acknowledged that the institution values research over all other roles and, in fact teaching fell well below research in the importance categories. Furthermore, the barriers explicitly pointed to challenges inherent in JHU's institutional structure. Consistent with the literature related to the barriers to service-learning, faculty reported challenges related to a lack of available funding or release time and a failure to earn recognitions or rewards in the promotion and tenure process for non-research related activities (Abes et al., 2002). While the intervention may not shift the current culture at JHU, it is possible that an intervention may create and sustain a community of service-learning faculty capable of fostering a teaching culture within a research climate. It is also true that a successful intervention might establish a space within the institution where faculty will feel supported in and respected for pursuing activities to improve their teaching skills. In the end, an intervention should address some of the barriers (such as reducing the time required and solving logistical issues using SOURCE resources and faculty mentors) but also contribute to a sub-culture of faculty who identify as service-learning teachers who may, eventually, build faculty

support for these efforts, better integrate research and teaching, and elevate the status of service-learning and faculty as service-learning practitioners and teachers at JHU.

### **Implications and Constraints**

**Implications.** The discussion of the needs assessment underscored several important implications for the proposed intervention to address this POP:

- The research-dominant culture at JHU is complicated and what is observed in institutional structure and faculty activities do not provide the full picture;
- Unlike the empirical literature on research universities, the JHU culture is not monolithic;
- JHU faculty members value their role as teachers as much as their role as researchers and JHU may stand as a Carnegie-classified VH/RU but it does not mean that faculty members do not appreciate and value service-learning;
- Leadership's messages regarding the value they place on teaching are unclear to faculty; Leadership and faculty's perceptions of the institutional view of faculty roles diverge. Leadership reported that the institution values both research and teaching while faculty expressed a perception of the lower-status of teaching relative to research;
- Faculty, irrespective of group, see positive benefits of service-learning, however, it is possible that even if they see positive benefits, these benefits are not sufficient to persuade faculty to engage in service-learning;
- The findings pointed to potential components of an intervention; service-learning faculty suggested that colleagues, mentors, and SOURCE are important to their decisions to participate in service-learning;

- None of the potential service-learning outcomes emerged as a clear incentive to participating in service-learning; and
- Barriers to service-learning may outweigh perceived benefits of various outlined incentives.

These findings indicated that JHU faculty value their role as teachers, see benefits of service-learning, and identify some personnel as important to their decisions. These results, however, also indicated that while faculty identified a variety of positive outcomes of service-learning, there were no clear and strong incentives to entice faculty to participate and that the barriers are tangible, difficult to overcome, and consistently emerged for faculty and leadership. For this intervention, it is clear that there may be a captive audience of faculty but that the intervention needs to send a clear message of support from leadership and entice faculty participation by demonstrating an ability to reduce logistical challenges, increasing efficiency of planning and preparation, and offering some kind of funding to support faculty work.

**Constraints.** The needs assessment offered interesting results, provided some insights into understanding this POP, and contributed to the development of the intervention discussed in the next chapter. It is also important to keep in mind that there are several limitations to this analysis. First, an 18% response rate did yield almost 150 faculty respondents but when examining the sub-groups of service-learning, non-service-learning, and faculty across the different schools, the sample sizes decreased dramatically. The faculty groups for service- and non-service-learning remained above thirty but given the use of Likert scales, it is possible that unbalanced frequency counts may influence the results of statistical tests performed. Furthermore, as mentioned in the

results section, the sample size for each of the three health professional schools was too small to conduct any kind of difference in means statistical tests so those findings were purely descriptive.

It is also important to remember that the faculty respondents for this survey work in the JHU Health Professional Schools. Consequently, the results of this study may not apply to faculty in other JHU Schools and could differ given that the other schools also teach undergraduate students (not just graduate students). The executive sponsor, SOURCE, currently only provides services for the health professional schools so for the purposes of this work, only those faculty were included.

Finally, as noted throughout the results, the survey relied on several different Likert scales, which may influence the findings. For example, the Professional Roles scale only included one to four and could arguably be considered unbalanced towards important. Additionally, the barriers questions for service- and non-service-learning faculty utilized different Likert scales, which prevented any statistical testing for significant differences between the two groups. The Likert scales were not changed because this survey has been validated and used throughout the literature (Banerjee & Hausafus, 2007). Even with the limitations discussed, the results offered some insights into faculty perceptions of incentives and barriers to service-learning at JHU.

### **Final Thoughts**

The need assessment offered some important insights into faculty perceptions of service-learning as well as factors they identified as incentives and barriers to participating. According to these results, while JHU faculty experience the influences of a research university, their perceptions and identified incentives remain similar to those

cited in the literature. The key difference, however, for faculty at a research university may be the extent to which culture serves as both a barrier in itself (through the institutional structure and rewards system) but also as a moderator on other perceptions and incentives to engage in service-learning. This needs assessment provided evidence that, unlike reports in the empirical literature, faculty at this research university do value teaching. In fact, this research suggested that there was no significant difference between how faculty surveyed personally value their role as researchers and teachers. This is important because previously, researchers including Butin (2006) posited that research faculty were only interested in research. The results further indicated that faculty perceive institutions to value research as 'Very Important' AND that faculty perception is that this institution does not value teaching. Faculty perceptions of the institutional importance of their roles may contribute to faculty decisions to pursue research over teaching, in spite of their own personal feelings about their roles as faculty.

Given the findings in the empirical literature and the needs assessment, the next chapter explores in more detail the influence of culture, applies concepts from network theory to consider ways to change attitudes and rebalance the culture at this institution to better reflect faculty and leadership values, examines theoretical and empirical evidence about a potential intervention and, finally offers an evidence-based approach to increase faculty participation in service-learning given the context of this POP.

## **Chapter 4: An Evidence-Based Intervention**

The theoretical and empirical literature on service-learning provided evidence supporting the positive outcomes of implementing this pedagogy in college classrooms (Blouin & Perry, 2009; Mink & Twill, 2012; Pribbenow, 2005) and the needs assessment offered evidence that JHU faculty reported perceived benefits from service-learning. JHU faculty also noted barriers to using service-learning similar to those found in the literature including logistics and a lack of time and funding (Banerjee & Hausafus, 2007; McKay & Rozee, 2004). The most interesting findings in the needs assessment shed light on the possibility that JHU faculty do not participate in service-learning not because of a lack of knowledge of the pedagogy, insufficient training, or even a lack of time or interest. JHU faculty may resist engaging in this evidence-based strategy as a result of the cultural factors and misperceptions around the institutional value placed on faculty professional roles.

Brownell and Tanner (2012) suggested that training, time, and incentives are necessary conditions to influence faculty engagement in teaching but these are not sufficient for change to occur. Brownell and Tanner (2012) argued that efforts to train faculty and figure out the most effective mix of incentives contributes to greater participation but also ignores a key barrier in the role of a faculty member's professional identity. Kuh and Whitt (1988) also posited that few colleges or universities are "monolithic entities" (p. 52). They argued that an institution's culture evolves over time and reflects their history, critical events, key figures' and core faculty views, and the university's deeply held beliefs. Moreover, according to Kuh and Whitt (1998), this

institutional culture is influenced by institution size and geographic structure or layout. For example, larger universities, situated in different locations, and dispersed across a large campus reduce informal conversations among and between faculty, students, and staff that also contribute to culture. Finally, Kuh and Whitt (1988) and Tierney (1988) suggested that the dimensions of culture in higher education include a variety of sub-cultures originating out of departments, disciplines, professions, managerial responsibilities, and social groups. These disjointed communities together with the institutional culture create layers of a complex university culture. Building on Brownell and Tanner (2012) and Kuh and Whitt (1988) and, in light of the needs assessment findings, the data suggested that the complexity of the JHU institutional culture may represent a key barrier to faculty participation in service-learning.

JHU's complicated culture and resultant tension between research and teaching contributed to this POP and require important consideration when crafting an intervention strategy to increase participation in the service-learning pedagogy. Based on the empirical and theoretical evidence, this chapter shows that an online community of practice (CoP) represents an appropriate strategy to address low faculty participation in service-learning. It provides a mechanism to train faculty in service-learning, build social networks and a teaching community, and support faculty as instructors, and it may contribute to creating a critical mass (Brownell & Tanner, 2012) of individuals who identify as service-learning teachers at JHU.

To consider ways to address these needs, this chapter explored the effects of JHU's culture on faculty views on teaching and subsequent adoption of evidence-based teaching practice like service-learning as well as potential strategies to navigate JHU's

complex culture to support faculty as teachers. This discussion provided a rationale for selecting an online CoP by recapping the problem and needs assessment findings, outlining the influence of a JHU's institutional culture on faculty decisions about adopting service-learning teaching practices, and reviewing the empirical evidence for different approaches to teacher training and support. The literature review also provides details on characteristics of a CoP based on the theoretical and empirical research as well as a preliminary discussion of the implementation and evaluation strategies for this intervention. In the end, an examination of the relevant literature made a compelling case for implementing an online CoP themed around service-learning.

### **Needs Assessment Findings**

The needs assessment findings revealed a more complex picture of JHU faculty than depicted in the extant literature. Unlike the empirical literature, JHU faculty did not report a singular focus on research activities. While service-learning faculty value their role as teachers relatively higher than research, compared to non-service-learning faculty, both groups reported the importance of teaching in their faculty roles. Furthermore, leaderships' personal views showed teaching and research statistically equal in their importance. There was, however, consensus among the faculty and leadership in the survey that JHU, as an institution, values research more than all other roles. The findings described the complex nature of the JHU culture and suggested that there may be misconceptions and a disconnect between faculty and leadership views on the value of research and teaching. The culture and institutional structure impose a strong influence on faculty views of their professional roles, and a successful intervention needs to leverage these surprising results to counteract these misconceptions.

The influence of culture also emerged as critical to motivating participation in service-learning when examining faculty-identified support available within departments and the institution. A review of responses on personal and institutional support for considering engagement or continuing to engage in service-learning showed that faculty place importance on support from the community, students, and faculty inside the department. Faculty also overwhelmingly reported the availability of this support as well as the importance and availability of mentoring as an incentive to engage in service-learning. Faculty expressed strong interest in collegiality and building relationships around teaching and suggested that these connections represented incentives to engage in pedagogical innovations like service-learning.

These questions also revealed that while faculty reported valuing encouragement from Department Chairs and Deans, they described it as non-existent or unavailable. Interestingly enough, leadership also cited their support of faculty as important to engagement with service-learning professional development but lacked awareness that faculty view leadership support as absent. These findings offered evidence that faculty members' relationships within and outside of the department matter to decisions about how they spend their limited professional time. Furthermore, there seems to be an opportunity to strengthen the support faculty members receive from leadership. These outcomes suggested that an effective intervention should build and strengthen relationships among faculty and between faculty and leadership in order to enhance faculty engagement with effective service-learning strategies increased participation in the pedagogy.

The needs assessment provided a picture of faculty life at Hopkins. It confirmed a research university culture where faculty and individual leaders personally value faculty members' role as teachers but perceive an institution that values researchers and their respective activities over other faculty roles. It also provided evidence that faculty value their role as teachers and gather motivation to engage in teaching activities from faculty support. Overall, the needs assessment provided evidence that faculty irrespective of their affiliation with service-learning, see benefits to service-learning and report common barriers cited in the literature (McKay & Rozee, 2004). Most importantly, however, the findings underscored a disconnect between faculty members' personal values and the perceived institutional value of teaching. Additionally, this inconsistency also surfaced through leaderships' statistically equal valuing of teaching and research roles. The survey results suggested a possible breakdown in communication and sharing of information between faculty and leadership related to teaching. This outcome may be emblematic of Tierney's (1988) discussion of culture's influence on messages formed within a social organization and further supports Antonio et al.'s (2000) notion regarding the fragmented nature of departments in higher education. Wright (2005) also noted that research universities, in particular, send vague messages about teaching expectations. Faculty and leadership views on teaching and the unclear messages sent about the value of this role suggested improving communications about service-learning may contribute to increasing faculty participation in service-learning.

The survey results offered an examination of one research university and revealed the need to rebalance faculty roles as researchers and teachers to reflect the faculty community's personal values but also to improve communications between leadership

and faculty that more accurately reflect the value system and mission of the institution. The subsequent discussion explores the concept of culture, tries to reconcile the literature on research university culture with these needs assessment findings, and describes a CoP as an evidence-based approach to navigate the complex culture found at JHU.

### **Culture Defined**

“Culture eats strategy for breakfast!” (Peter Drucker, cited in Brene Brown, 2012, p. 173). Geertz (1973) wrote that culture, “denotes a historically transmitted pattern of meaning embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which people communicate, perpetuate, and develop their knowledge and attitudes towards life” (p. 89). Valente (1996) defined culture as a social network including friendship and community. Tierney (1988) also suggested that organizational culture is grounded in shared assumptions of language, norms, and attitudes and, according to Umbach and Wawrzynski (2005), culture refers to professional, institutional, and disciplinary aspects that influence faculty teaching. In an attempt to capture the myriad definitions of culture, Umbach and Wawrzynski (2005) articulated this concept as, “the collective, mutually shaping patterns of norms, values, practices, beliefs, and assumptions that guide behavior of individuals and groups” (p. 266). They further posited that culture represents a complex matrix that creates varied teaching goals, values, and pedagogical techniques. Boyer (1994), in *Scholarship Reconsidered*, attributed the tension between research and teaching to culture, leaving few resources for faculty engagement in teaching. Consequently, it stands to reason that a research-dominant culture, real or perceived, will influence decisions on how faculty members

allocate their work efforts and whether or not to spend their time training and implementing evidence-based teaching strategies like service-learning.

### **Research-Dominant Culture at JHU?**

Empirical literature presented in Chapter 2 suggested that a research-centric culture contributes to the low status of teaching relative to research and the lack of training and peer support (Boyer, 1994; Feldman & Paulsen, 1999; Hill & Haigh, 2012; Putnum, 2000). While this is relevant to JHU, findings in Chapter 3 also suggested that cultural influences include factors beyond a research focus. To develop an intervention to address low faculty participation in service-learning required an examination of the influence of a research culture but also the effect of other potential sub-cultures within higher education on the institutional culture (Kuh & Whitt, 1988).

The extant literature on service-learning suggested that faculty culture at a research university, in particular, yields little, if any, training and collegial support for faculty in their role as teachers, shapes the training of graduate students towards a research focus (Austin, 1990), and rewards research over teaching (Boyer, 1994; Duniway, 2006; Feldman & Paulsen, 1999). Consequently, faculty face their teaching responsibilities with inadequate training, feelings of uncertainty about their effectiveness as teachers, a lack of confidence in their skills, and a fear that an interest in improving these skills will be viewed in an unfavorable light.

The empirical literature also discussed the influences of culture on socialization of faculty towards research (Feldman & Paulsen, 1999; Umbach & Wawrzynski, 2005). Austin (1990) argued, in his examination of Ph.D. students and their faculty mentors that this socialization helps explain the lower relative status of teaching within research

universities. Austin (1990) found that faculty mentors wielded significant influence over graduate students' initial views of the relative stance of research and teaching. He demonstrated, through interviews with students, that faculty often implicitly guided students away from teacher training because it detracted from research activities. The lack of collegial support and socialization for current and future faculty devalues teaching and creates cultural norms and values reflecting this (Austin, 1990; Umbach & Wawrzynski, 2005). Furthermore, a dominant research culture may not provide peer support for faculty or support for reflective examination of teaching, and it does not value collegial discourse (Hill & Haigh, 2012; Putnum, 2000). As a result, faculty do not voice concerns about engaging in teaching and teacher development for fear of adopting an identity diverging from the norms (Hill & Haigh, 2012). Furthermore, as evidenced in the needs assessment, faculty reported the institutional valuing of research over all other faculty responsibilities, and non-service-learning faculty, in particular, do not feel that needed support including Department Chairs is available to them. Socialization towards research, a lack of collegial support for teaching activities, and higher relative value of research lead to low faculty participation in service-learning.

Faculty and organization culture is also reflected in the institutional structure comprised of rewards and incentives for different work efforts. This system within a research university, like JHU, further cultivates research-focused faculty relying on incentives including prestige rankings, salary increases, and promotion possibilities (Fairweather, 1996; Hazelkorn, 2013). These incentives influence faculty decisions to engage in research and publications, reinforcing a research culture and promoting an environment that motivates faculty to engage in research activities. This system promotes

and supports a faculty culture that values research over teaching activities like service-learning and rarely appreciates or recognizes these same efforts (Anderson, Banerjee & Drennan, Elgin, Epstein, Handelsman, & Warner, 2011; Hill & Haigh, 2012). The reasons cited in the empirical literature stem from institutional structure, culture, and faculty identity. Together, these features incentivize faculty to invest time in research and contribute to the declining status of teaching and low faculty participation in service-learning (Anderson et al., 2011; Blackmore & Kandiko, 2011; Leslie, 2002; Rau & Baker, 1989). This culture results in a lack of teacher training for current faculty and little if any social or professional support for faculty in their role as instructors, and produces a socialization process for both new and current faculty emphasizing research (Austin, 1990; Felder, 2004).

As previously mentioned, given the findings of the needs assessment, JHU does not seem to resemble a research university fostering a singular research identity for the faculty and institution (Hill & Haigh, 2012). The research culture at JHU may shape faculty engagement with teaching through doctoral training, the rewards structure, and the kinds of professional development available but the needs assessment and empirical literature suggested that there are other factors shaping the culture at JHU that may directly influence faculty participation in service-learning.

Kuh and Whitt (1988) characterized higher education culture as multi-faceted with various disciplines, departments, and groups contributing to the overall institutional culture. Tierney (1988) and Kuh and Whitt (1988) also suggested that the interaction of the institutional culture and external environment contribute to the resultant climate at an institution. Furthermore, Bess (1982) suggested that faculty sub-culture includes a

complex organization of sub-professions. This often leads to fragmentation of groups with different needs and interests. Bess (1982) further argued that discipline and department cultures along with academic culture represent other subcultures with specific needs, interests, and demands based on a field of study or type of student. Bowen & Schuster (1986) added that faculty in different disciplines add to the variety within subcultures as a result of the various intellectual tasks required and the stated missions of a field of study.

Other authors (Brownell & Tanner, 2012; Kuh & Whitt, 1988) offered evidence of additional influences on institutional culture including professional identity and administration structure. Brownell and Tanner (2012) suggested that professional culture in higher education and research universities, in particular, value research and publications and reinforce this norm through incentives including salary and promotion. This faculty culture contributes to feelings of isolation (Quinlan & Akerlind, 2000) and apprehension about “coming out” as teachers (Brownell & Tanner, 2012) and may act as a deterrent to pursuing faculty development activities related to service-learning. Furthermore, research suggested that JHU’s reputation as a research institution attracts faculty more focused on research relative to teaching (Fairweather, 1996). Beyond faculty and department groups, Kuh and Whitt (1988) further suggested that the administrative structure within an organization could shape culture. They argued that a more management-oriented department views decision-making from the broad perspective of the institution or department while a more academically focused style engages faculty in decision-making.

While a close examination of the various facets of JHU's institutional culture is beyond the scope of this study, there is evidence in the literature and the needs assessment to support the hypothesis that while JHU's reputation reflects one of a research-centric university, it is more likely that the institutional culture at JHU is multi-dimensional and shaped by the aforementioned influences. This conclusion may explain some of the interesting findings in the needs assessment and help to design an intervention to address this POP. Regardless of the dominant cultural influence, it is evident that JHU's culture leads to a situation described by Felder (2004) where "college teaching is the only skilled vocation for which systematic training is neither required nor provided" (p. 41). While the review of the literature and the needs assessment suggested a variety of reasons why faculty do not continue to use or ever start using service-learning, the common theme is culture.

### **Culture as a Barrier to Service-Learning Adoption**

As evidenced by the literature, culture plays a significant role in shaping faculty professional activities (Remmik, Karm, Haamer, & Lepp, 2011). Moreover, university culture serves as a guidepost and contributes to faculty meaning in their roles as teachers (Feldman & Paulsen, 1999; Tierney & Rhodes, 1993; Umbach & Wawrzynski, 2005). Faculty members worry about their professional identities, norms of the prevailing university culture, the status quo, and often resist change or innovation (Remmik et al., 2011; Tagg, 2012). A research culture inadequately supports faculty as teachers but also contributes to a lack of creative thinking, experimentation, or practice around teaching including service-learning. Valente (1996) suggested that a culture has the ability to integrate and diffuse innovation, but, as Wright (2005) noted, research universities send

ambiguous messages about the value of teaching. In Smith's (2006) interviews regarding technology adoption, faculty described the strong influence of institutional core values on technology use, and, in fact, one faculty member reported that someone on the tenure track at a research university needed to focus on research and did not have the time or collegial support needed to consider adopting a technological innovation. Leidner and Kayworth (2006), in a review of the technology adoption literature, also concluded that cultural values play a critical role in determining patterns of technology development and adoption. This literature may offer applicable evidence to explain JHU faculty members' reluctance to adopt service-learning. Finally, Lave (1991), in his work on situated learning, also suggested that culture influences adoption of innovation. Consequently, while in some universities, culture encourages the adoption of valued practices and strategies like service-learning; it may also risk sustaining a narrow focus like research or other discipline- or department-specific goal, acting as a barrier to implementing evidence-based approaches in support of other aspects of the organizational mission. In the end, culture can contribute to the ways in which organizations change with present demands and while culture may encourage innovation, institutions risk focusing on one part of the mission (research) at the expense of teaching, another critical part of the JHU mission.

A research university culture creates barriers for faculty who seek training and support in service-learning. Collegial support and peer networks at research universities focus on faculty research activities and skills. In a similar way, unintentional learning (or lack thereof) about teaching and pedagogy, according to Lave (1991), results from social interaction framed by context and culture. Unfortunately, in a complex institutional

culture influenced by disjointed groups around the University, faculty communities foster learning and dialogue around their own needs and interests which often times focus on research issues but fail to address faculty needs or interests related to their role as teachers. These informal teaching communities do not exist within the research networks, departments, or larger institution (Lave, 1991). Buckley and DuToit (2010) suggested that this kind of tacit knowledge shared during informal conversations between colleagues and within these faculty communities represents valuable and important information to the faculty and university. Wenger and Snyder (2000) noted that this is the kind of information organizations should and need to facilitate and capture in order to grow and evolve successfully. Researchers have shown that a lack of informal and varied teaching-related communities within this culture contributes to low adoption of teaching-related technology innovation and isolation of interested teaching faculty from each other and mainstream faculty (Leidner & Kayworth, 2006; Smith, 2006). A research university, like JHU, may not offer sufficient institutional learning around pedagogy and teaching strategies. Consequently, as a less traditional, more practice-based approach to instruction, it is not surprising that more faculty at research universities view service-learning as time-consuming and irrelevant to their courses (Butin, 2006). This leads to low faculty participation and training and so, persuading faculty to adopt service-learning requires the ability to create capacity and a community of faculty around this pedagogy (Brownell & Tanner, 2012; Smith, 2006).

As previously discussed, the complex culture at JHU is shaped by a variety of influences, but what is important to note for this research is that faculty culture created an unfavorable climate for service-learning and perpetuated the perception of a dominant

research culture as a barrier to adopting evidence-based teaching strategies (Brownell & Tanner, 2012; Cox, McIntosh, Reason, & Terenzini, 2011; Feldman & Paulsen, 1999). Consequently, student-centered teaching policies, alone, will not trump history, culture, or faculty experience. Addressing culture barriers at JHU requires a novel approach to faculty development that contributes to mitigating the effects of JHU's complex culture. The next section considers literature to inform ways to leverage the varied professional interests of this faculty community and reduce the aforementioned challenges.

### **Relationships and Networks to Increase Faculty Participation in Service-Learning**

Empirical evidence suggested that culture plays a dominant role in faculty decisions to engage in service-learning and related professional development activities (Anderson et al., 2011; Fairweather, 1996). Consequently, in addition to common barriers identified in the literature and confirmed in the needs assessment, culture ultimately acts as both an independent but also moderating variable in faculty decisions to engage in service-learning. In this case, faculty members, as reported in the needs assessment, reported that positive perceptions about service-learning do not outweigh the dominating perception around the importance of research and publications. Establishing and modifying attitudes around service-learning at a research university may require an increase in interpersonal processes or social networks (Erickson, 1988). Designing an intervention to motivate faculty to use service-learning requires an understanding of how to create change through existing and potential networks within JHU's faculty community.

Tierney (1988) described culture as a web of people and connections while social network theorists use terms like nodes and ties to represent actors and their relationships

to each other (Erickson 1988; Marsden & Friedkin, 1994). These theorists believe that social connections matter more than any personal attribute. Rogers (2004) also argued that social systems within an organization, as well as individuals, determine successful adoption and diffusion of strategies and practices and may apply to faculty adoption of service-learning. He suggested that networks represent the key to member acceptance and adoption and emphasized the important role of networks in collecting, understanding, and spreading ideas through interpersonal channels.

Wright (2005) contends that individual faculty members travel on an “instructional pathway” (Wright, 2005, p. 347) and often move in isolation and need more social interactions to improve their chances of developing an interest in teaching. While Nicolle (2005) and Senge (2000) agreed that a university culture where faculty function as individual entrepreneurs makes collaboration difficult, Lave (1991) posited that faculty reportedly value dialogue with their peers, especially when considering the adoption of teaching strategies. Senge (2000) and Rogers (2004) provided evidence that peer support within these networks and peer communities increased motivation, collegiality, and support for experimentation with innovations.

The needs assessment demonstrated that even when faculty value their role as a teachers and report positive outcomes of service-learning, the institutional culture at JHU tends to moderate these influences. In other words, faculty understand that the institution values research and so they may pursue research activities at the expense of their teacher training. Wright (2005) described this misalignment as incongruence of values. She and other researchers argued that this disconnect contributes to higher levels of stress, uncertainty in their jobs, and low self-efficacy (Erickson, 1988; Wright, 2005). Based on

Tierney (1988), Wright (2005), and Rogers' (2004) work, increasing faculty participation in service-learning at JHU requires an intervention that not only trains faculty but emphasizes social engagement and personal relationships to embed teaching into day to day decisions, actions, and communications. Integrating some of the previously mentioned elements of Wright's (2005) suggestions about building congruency may contribute to moving JHU toward a climate where service-learning can thrive alongside and support valued research activities. A supportive teaching culture better aligned with faculty values may enhance instructional activities and entice faculty to engage in faculty development on service-learning.

As previously discussed, social network theory examines how individuals connect and interact in a network or organization. This theory also seeks to understand how different ties result in connections and barriers (Wellman, 1983). Using the basic ideas of social network theory, the SLFP created by SOURCE provides an example of this kind of intervention, even if on a smaller scale, it represents an opportunity to introduce and connect actors (node) as a group around the service-learning pedagogy. Over the past three years, SOURCE developed, implemented, and facilitated the SLFP. Faculty participants work with SOURCE and other faculty to develop skills in service-learning, create a new course or modify an existing course, and receive mentoring and support to implement the class. SLFP successfully trained 20 faculty in service-learning and expanded the service-learning course offerings, but after three years in operation, service-learning and this faculty development effort remain largely on the fringe of university life and department activities. During the three years, the SLFP yielded significant benefits to

participants and affected students but has arguably made little headway with mainstream faculty.

There are a variety of explanations for the lack of integration of the SLFP into faculty life. For example, as a new professional development activity, the SLFP attracted faculty who self-selected into this program and possess a previous interest in teaching and service-learning. These participants represent what Rogers (2004) referred to as early adopters. Faculty members, at this stage and for a variety of reasons, expressed an interest in being one of the first to adopt service-learning at a research university. In terms of social networks, the SLFP represents a part of a larger organizational network of departments, centers, and other entities. It represents what Katz, Lazer, Arrow, and Contractor (2004) call a structural feature of a network representing full or almost fully connected nodes. Unfortunately, the strong ties formed between faculty participants rarely, if ever, result in stronger ties between actors outside of SLFP. Arguably, while SLFP participants reported benefits from the program, the absence of strong ties with other actors within JHU but outside SLFP contributed to low faculty participation university-wide.

Wright (2005) suggested that connections that only lead back to one person or group might indicate too much centralization and prevent the spread of innovation or new organizational information or strategies. Wright (2005) examined congruent departments where faculty members shared understanding of effective teaching and the value placed on instruction alongside incongruent departments where faculty disagreed with organization and colleague views on teaching. In this investigation, Wright (2005) used social network data to try and explain the emergence of these two different teaching

cultures. Wright (2005) uncovered interesting findings relevant to designing this intervention. She found that congruent departments included: direct peer contact that helped with understanding beliefs and establishing shared guidelines, as well as expanded instructional networks almost one and half times larger than incongruent departments. Also, they offered opportunities for team teaching and peer review. She also found that faculty in less congruent departments tended to identify a single instructional source, usually one faculty member, and this centralized network often led to an inability to spread pertinent information about teaching. She stressed the need for low-cost, informal interactions like conversations during a coffee break or in the hallway. She also pointed to the value of identifying a department teaching expert to spearhead new initiatives and meetings. In terms of this study, Wright (2005) and Erickson's (1988) work suggested the need to establish better communication among faculty in- and outside of departments. This may lead to more congruence in values and could contribute to an increase in participation service-learning and ultimately contribute to cultivating a culture of instructional congruence to enhance faculty development and support around service-learning (Wright, 2005).

In the case of SLFP, faculty members leave the program and return to their respective departments to continue their research, perpetuating a culture where service-learning training represents episodic and short-lived activities. After three years in place, it is evident that SLFP alone cannot increase faculty participation in service-learning or bend the current culture in support of this kind of faculty development. The current SLFP represented an important first step in attracting early adopters and building the group with strong relationships and ties but creating a sustainable network or web (Tierney, 1988) of

faculty connected by their instructional interests requires a different infrastructure and unique strategies to persuade mainstream faculty to participate. The program effectively teaches and supports faculty in service-learning training but for reasons discussed fails to foster a community of service-learning teachers beyond those in the SLFP. A novel approach to low faculty participation may contribute to cultivating a supportive culture for faculty fellows and create the potential to connect with other interested faculty leading to increased adoption of service-learning.

In a culture comprised of informal faculty research communities, empirical literature suggested that building faculty competencies in service-learning requires networks around instruction and teaching strategies (Hill & Haigh, 2012). It requires understanding individual perspectives and an attempt to better match faculty members' identified interests and values towards a teaching capacity. It is also essential to create a network of supportive relationships professionally linking teachers and researchers (Hill & Haigh, 2012). The empirical literature suggested that the selected intervention incorporate strong features of the SLFP training model but augment faculty experiences with a structured online CoP to create a sustained community to support faculty outside of their participation in SLFP (Garrison & Vaughan, 2008; Garrison et al., 1999; Lave & Wenger, 1991).

### **Evidence-Based Approaches to Increase Faculty Participation in Service-Learning**

As demonstrated in the previous discussion, an intervention to address low faculty participation in service-learning at a research university like JHU required consideration of the unique institutional culture and the personnel and instructional supports reported in the needs assessment. As a result, this intervention provided service-learning teaching

support, shared resources, and an environment to dialogue about the application and relevance of service-learning, but also socialized faculty around the value and benefits of service-learning. Finally, this intervention tried to build relationships and a community through discussions and other asynchronous activities to extend these connections and dialogues beyond the regular, in-person meetings to support participants as they return to their departments.

Thomson (2013) suggested that ad hoc conversations and informal relationships among faculty generate learning and new ideas and contribute to building a teaching network and culture. A review of the empirical literature around faculty development and social networking provided valuable insights into effective mechanisms to achieve increase participation in and use of service-learning at JHU. These strategies ranged from informal faculty conversations to mentoring and peer communities. Senge (2000) and Pataria, Falconer, Margaryan, Littlejohn, and Fincher (2014) reported that casual networks like peer communities represent a locus for informal learning and that culture shifts may occur within these systems. Examining this literature offered justification for the intervention, but also highlighted key elements to incorporate into the intervention.

Several researchers suggested implementing a mentoring or apprenticeship model for teacher professional development that creates relationships to foster socialization around teacher training (Mullen & Hutinger, 2008; Putnam, 2000). Finelli, Pinder-Grover, and Wright (2011) also demonstrated the effectiveness of one-on-one instructional consultation as a way to mentor and train faculty. Brownell and Tanner (2012) further demonstrated the value of faculty mentoring in reshaping academic culture into a more collaborative and supportive community open to faculty professional

development and growth around teaching. They argued that creating an environment to support faculty interests in teaching reduces the fear around “coming out as a teacher” (Finelli et al., 2011, p. 341) and may help shaping a culture that elevates multiple faculty roles including teaching. They further suggested that mentoring within doctoral training represented one mechanism to change the culture around teaching. Consequently, the empirical literature suggested that mentoring represented an effective form of networking to train and support faculty in the service-learning pedagogy (Brownell & Tanner, 2012; Finelli et al., 2011).

The empirical literature also provided evidence in support of a cross-cultural approach to faculty relationships and coaching around faculty development in service-learning. Angelique, Kyle, and Taylor (2002) developed a model built around the idea of connecting with multiple peer communities for a variety of purposes while Sorcinelli and Yun (2007) advocated for the use of mentoring networks to support faculty in their various professional roles. Both investigations supported the use of multiple mentors across departments and disciplinary boundaries and offered another example of how to effectively train faculty through socialization and faculty relationships. Senge (2000) agreed that using networks to build cross-department relationships might improve social structures and enhance faculty willingness to consider evidence-based teaching practices. In a case study with teacher-educators, Finley and Hartman (2004) and, more recently, Pataria et al. (2014) provided additional evidence that teaching-focused communities or peer networks represented a mechanism to influence the adoption process by creating a more supportive faculty culture. The needs assessment further confirmed that faculty respondents see peer support as motivation to engage in innovations like service-learning

and strengthen the case for a network or community of support for teaching. Establishing a network of faculty interested and trained in service-learning within the JHU culture contributes to increased adoption of service-learning but also leads to other peer communities to support faculty engagement in overall pedagogical training and implementation.

The aforementioned empirical literature and evidence from the needs assessment demonstrated that networks including mentoring and peer communities play a significant role in motivating faculty involvement with innovations like service-learning (Hixon, Buckenmeyer, Barczyk, Feldman, & Zamojski, 2012; Nicolle & Lou, 2008; Rogers, 2004). Consequently, increasing faculty interest and participation in service-learning will necessitate a formal structure and new strategies to formalize the learning Thomson (2013) described. This formal network could extend learning in the SLFP to other faculty at JHU but also shift ad hoc learning and dialogue between faculty related to service-learning to an intentional space within the institutional structure and University culture. Doing this may provide opportunities for faculty to explore personal views on their role as teachers and contribute to fostering a culture that values faculty research activities and their interests and participation in service-learning (Cox et al., 2011).

### **In Support of a Community of Practice**

A review of the relevant theoretical and empirical literature lead to a community of practice (CoP) as an intervention to address low faculty participation in service-learning at JHU. This approach incorporated key features of social networks, mentoring, and peer communities to effectively address low faculty participation in service-learning. An intervention to address faculty participation in service-learning needed to consider the

culture of a research university but also include effective mechanisms to train and support faculty and create a positive faculty culture around teaching. This program reinforced service-learning competencies, fostered peer support for teaching, offered opportunities to connect service-learning to faculty research, and introduced resources, techniques, and strategies to support faculty in their role as service-learning teachers. Oliver and Hyun (2011), in an examination of a collaborative approach to curriculum review, said it best: “teaching reform requires reculturing not restructuring” (p. 6). The intervention leveraged the successes of the SLFP and designed and implemented an online CoP to influence and contribute to the culture around teaching in order to expand the reach of the SLFP and increase the likelihood of long-term sustainability of this program. This section reviews literature on communities of practice and other related communities, provides a brief introduction to CoPs and a rationale for selecting a CoP, outlines some of the evidence-based intervention specifics, and offers a brief discussion of the evaluation approach. This, along with the previous investigation of culture and its influences on faculty views and professional development activities around teaching, builds a case for using the CoP framework.

### **Brief Introduction to Communities of Practice**

A CoP refers to members who share common interests and possess a desire to learn from and contribute to a group with diverse experiences and knowledge (Lave & Wenger, 1998). It involves the social participation of faculty, or what Wenger, McDermott, and Snyder (2002) called a knowledge-based social structure. These communities facilitate developing, sharing, talking, and doing related to a common goal among members (Nicolle & Lou, 2008). According to Lave and Wenger (1998), CoPs

contribute to social practice at higher education institutions, deliver professional development (Wesley & Buysee, 2001), and cultivate faculty learning in a common domain. They presented a real opportunity to foster a community and culture centered on service-learning and a potential mechanism to grow a space and informal network within the JHU culture. Rather than spending limited time searching for these informal networks, an established CoP focused on service-learning provides a place for newcomers and seasoned faculty to share and exchange relevant knowledge, dialogue about issues related to teaching, establish shared resources, and work together to strengthen the JHU teaching community. Lave and Wenger (1991) described CoPs as a living curriculum for faculty, students, and apprentices. CoPs also represent a means for collaborative inquiry in the form of professional development and offer the ability to transcend boundaries, explore diverse expertise, and engage leaders, newcomers, and outsiders (Wesley & Buysee, 2001). Vaughan and Garrison (2006) pointed to the importance of community in faculty development. This intervention aimed to develop a process to carve out a collaborative space and equip faculty with content knowledge in order to integrate service-learning pedagogy into the fabric of JHU.

### **Rationale for a CoP to Address Low Faculty Participation in Service-Learning**

As evidenced in the relevant literature, CoPs represent a form of faculty development to effectively build a culture that supports learning, nurtures collegiality, and encourages sharing and the practice of teaching. Umbach and Wawrzynski (2005), in research to examine the influence of culture on teaching, surveyed 137 colleges and universities and found that a culture that supports and rewards teaching leads to improved

instruction. They further posited that disciplinary culture shapes teaching and offered several avenues to build a culture around teaching including:

- Being intentional in socialization of newcomers;
- Using teaching mentors as support not just evaluators; and
- Offering opportunities for faculty to interact and collaborate within and across disciplines.

They argued that these steps could contribute to better teaching, increase intellectual stimulation, decrease isolation among teaching faculty, and encourage diverse group discussion.

CoPs influence the spread of innovation through interactions and relationship building between members in the group (Valente in Nicolle, 2005). Furthermore, Valente (1996) postulated that individuals monitor others, model their behavior, and decide whether or not to adopt a new practice. As discussed in the last section, networks, mentoring, and peer communities represent opportunities to facilitate and strengthen peer support within and across departments (Nicolle & Lou, 2008; Rogers, 2004; Senge, 2000). Nicolle and Lou (2008) demonstrated in their investigation of technology adoption at three colleges and universities that peer support leads to increased faculty motivation to adopt new technology tools. The extant literature on informal networks and learning communities offered a rationale to implement a CoP at JHU (Nicolle & Lou, 2008). A CoP represented the best opportunity to simultaneously build skills and knowledge in service-learning and cultivate a community of faculty as service-learning teacher-practitioners.

**Theoretical evidence in support of a community of practice.** Early theoretical literature on communities of practice and learning communities cited collaboration and relationships among group members as critical to the learning process (Hord, 1997; Lave & Wenger, 1991). As early as 1973, Schon (1983) developed the idea of learning communities and while his work occurred in the context of non-academic organizations, his assertion that organizations succeed and grow by adopting internal learning systems applies directly to higher education institutions. Senge (2000) also described the ability of organizations to enhance member capacity through collaboration and learning communities, and Hord, Hall, Rutherford, and Huling-Austin (1998) defined learning communities as a group with shared values that learns collectively and works within a supportive environment. Sergiovanni (1994) and Chang (2003) added that learning communities express a commitment to inquiry and growth and Barab et al. (2004) suggested learning communities represent powerful and useful learning resources in higher education. With the needs assessment findings and theoretical literature in mind, a service-learning CoP represented a way to address the needs of JHU service-learning faculty, training them in service-learning, and growing a small community of service-learning faculty towards a university-wide reach.

CoPs represent a specific kind of learning community where members create relationships and connections around practice. Based on ethnographic studies of five different apprenticeship experiences, Lave and Wenger (1991) developed a theory of CoPs. They posited that knowledge spreads across practitioners in heterogeneous communities. Through this research, the authors characterized learning as situated activities where learners participate in a community of practitioners similar to the

apprenticeship model. These ideas informed their social learning framework, where work-related learning is central to the experiences (Lave & Wenger, 1991). In an examination of claims processors, Wenger (1998) continued this work and extended the theory to include the idea that community member coherence through practice represented the foundation for community and relationship building. Lave and Wenger's (1991) work suggested that a CoP offered an opportunity to introduce faculty to service-learning but also a way to bring together faculty focused on teaching and those with interests in adopting and improving their teaching skills.

In 1998 Lave and Wenger, described communities of practice as knowledge-based social structures. Eib and Miller (2006) suggested that successful communities of practice emphasize process and culture building and that information sharing and development of skills happen concurrently. The theoretical literature on learning communities and communities of practice suggested that effective faculty development should aim to foster a collegial sense among community members (Vaughan & Garrison, 2006). Moreover, Brooks (2010) found that faculty learning and practical assistance improves in a community of learners and he argued that faculty interactions construct new experiences and understanding. Online CoPs, for example, can stand along but also offer ways to augment traditional workshops, seminars, and faculty development programs to focus on knowledge construction, shared experience, and relationships among professionals. CoPs treat faculty development as building and supporting a social structure around teaching rather than exclusively building skills.

Learning theories also contributed to the rationale for implementing a CoP to affect culture change and increase faculty participation in service-learning. Vygotsky's

(1978) Social Development Theory and Bandura's (1977) Social Learning Theory suggested that learning is a social process. For Vygotsky (1978) social interaction, sociocultural influences, and teacher-student relationships contribute to cognitive development. He further argued that this theory suggests a less didactic and more student-involved process of learning, creating a reciprocal experience. Similarly, Bandura (1977) posited the importance of observation of others and modeling as a means to consider new ideas and behavior. These interactions, in his view, acted as guides for future action and reflected individual learning. Both Vygotsky (1978) and Bandura (1977) emphasized the importance of the environment, group settings, and informal networks for learning. A CoP offered a means to integrate characteristics of social learning theory. Lave and Wenger (1998) agreed that groups and informal networks represent a critical component of learning. In a discussion of the application of CoPs to the online communities, Brooks (2010) suggested that consistent with the principles of constructivism, peer-to-peer dialogue in a CoP perpetuates and supports reflection and discovery.

Finally, sociocultural theory supports the use of a CoP as an effective faculty development platform. Brooks (2010) argued that faculty bring unique backgrounds and identities to a group, and this heterogeneity influences knowledge construction and learning. Sociocultural theory suggests that this environment enhances faculty members' ability to learn from others and shapes the learning in a more relevant and useful way. Lave and Wenger (1991) referred to this process as legitimate peripheral participation. It underscores the importance of interactions between newcomers and experienced faculty to reflect on personal experiences. Situated learning in a CoP offers a collaborative space for new and in-training faculty to assimilate safely into a sociocultural practice and gain

competencies through knowledge and skills development. Learning in a community provides a way of “knowing how to be in practice” (Brown & Duguid, 2002, p. 20). Consequently, a CoP centered on service-learning as a means to support faculty as teachers tried to create an informal network around pedagogy and enhance the adoption of service-learning practices.

Empirical evidence in support of a community of practice. Empirical literature around situated and collaborative learning also offered evidence of the role of CoPs in enhancing knowledge and skills acquisition related to instruction, improving face-to-face and online learning, fostering dialogue between colleagues about teaching, and strengthening faculty relationships (Lave & Wenger, 1998; Moore, 2008; Putnam, 2000; Steinert, 2010). CoPs act as effective vehicles for faculty development (Cuddapah & Clayton, 2011; Eib & Miller, 2006; Remmik et al., 2011), improve socialization around teaching (Cuddapah & Clayton, 2011), and contribute to expanding a culture focused on research to include other themes like teaching excellence (Hill & Haigh, 2012; Moule, 2006; Rogers, 2000; Teeter et al., 2011).

***CoP enhance faculty learning.*** Remmik et al. (2011), through interviews with early-career university teachers, demonstrated the importance of CoPs in enhancing faculty learning. The authors suggested that learning from and with colleagues is essential to enhancing teaching skills. Their investigation showed that faculty value the relationships within the CoP and depend on the interactions to gain information, offering further evidence of the critical role of community and social practices in the learning process.

Remmick et al. (2011) also demonstrated the value of learning in a community through an examination of new faculty experiences. They identified factors that influenced early career academics' learning in a community. Faculty expressed a need for support, the value they saw in more democratic collaboration, and a desire for open communication that permits them to seek assistance with their teaching. Faculty suggested that in a research-centered culture they struggle with professional identity and the conflicting responsibilities to publish and teach. Remmick et al. (2012) concluded that with a CoP available these new faculty developed the confidence and skills necessary to disseminate new ideas back to the larger faculty community. As Wenger et al. (2002) suggested, these communities offer knowledge formation and socialization. These findings provided empirical evidence supporting a CoP as an effective way to train faculty in service-learning while developing desired peer connections.

In addition to serving as a mechanism for faculty to acquire new knowledge, CoPs represent a space to discuss and resolve challenges faculty experience as teachers. Cuddapah and Clayton (2011) studied a cohort of novice teachers who participated in a CoP bringing together individuals facing similar teaching circumstances and challenges. The investigation demonstrated that a CoP framework offered a space to share problems, accumulate valuable teaching resources, and garner positive support. Participants reported the importance of CoPs in increasing their confidence and building relationships with colleagues. Similar to Remmick et al.'s (2011) findings, these results suggested that improved confidence leads to an increased willingness to try out and adopt new ideas. The CoP served as an exchange of ideas and a space to share experiences, discuss and disagree, and it provided guidance and understanding. The authors also noted that the

members in this CoP would have benefited from a more diverse population of faculty. Experienced faculty members bring valuable knowledge and experience to help newer, less experienced faculty grow as teachers (Wenger, 1998; Cuddapah & Clayton, 2011). The empirical literature provided convincing evidence that CoPs enhance faculty learning and provide a space to acquire knowledge and practice with new ideas.

***CoPs cultivate community and a teaching culture.*** The aforementioned empirical literature supported the CoP framework as an effective approach to teacher training. Equally important, however, is the community in which faculty train and learn. The literature suggested that fully effective teacher training requires more than workshops and periodic training sessions. CoPs should include mechanisms to create a strong network to facilitate interaction, cultivate dialogue about teaching practices, and offer support to teaching faculty as they return to their research-focused departments, colleagues, and professional lives. A CoP represented an evidence-based approach to addressing low faculty participation in service-learning, as this model places equal importance on content and process, with both contributing to faculty learning (Wenger, 1998).

In addition to faculty learning, empirical evidence pointed to CoPs as an influence on the research-dominated culture. Hill and Haigh (2012) provided an excellent example of CoPs as an intervention to change academic culture. They examined a teacher education program in a School of Education aimed at elevating the status of research at the school. The authors described an attempt to create a research culture alongside a teaching-centered environment using a CoP model. While this study depicted the opposite challenge described in this research study, the cultural barriers remained the same. They characterized the difficulty in creating a research culture in a teaching

environment as characterized by fear and anxiety, limited support from colleagues, and a lack of time. The authors cited a need to embed research into everyday practices in order to change the fabric of the organization. While they supported the formation of writing groups and mentoring relationships, building capacity around research necessitated a culture change and new institutional identity reflecting interest and support for research. Hill and Haigh (2012) argued that capacity equals the sum of motivation, opportunity, and expertise; as such it is important to understand the individual values and perspectives to build a new identity around service-learning. This study underscored the important role of a CoP in building this capacity and shaping the new identity of the members.

Like Hill and Haigh (2012), Rogers (2000) demonstrated the ability of CoPs to establish relationships and collaboration within a group around a common theme. In a case study reviewing online CoPs in a leadership development course, Rogers (2000) showed how CoPs provided a vehicle for faculty to share and distribute work and knowledge. He suggested that applying Lave and Wenger's (1998) framework contributed to the group's ability to collaborate and achieve the workshop's goals. Rogers (2000) suggested that the group operated in "a culture of learning in which everyone is involved in collective efforts of understanding" (p. 1).

Finally, Teeter et al. (2011) demonstrated the importance and influence of CoPs in a teaching-related context. In an examination of four CoPs over a one-year period, they presented evidence of benefits to the community and subsequent culture change. The participants reported enhanced faculty development and the ability to share teaching strategies and connect with faculty across and within departments. Teeter et al. (2011) suggested that a CoP approach reached beyond formal, institutional structures and

produced improved teacher and student performance. Lastly, their research reported that these informal networks contributed to the development of new faculty-created CoPs themed around new teaching topics.

The theoretical and empirical evidence demonstrated the value of a CoP in a variety of settings with different goals. They contributed to rebalancing the culture to include faculty responsibilities beyond publications (Hill & Haigh, 2012), but also strengthened relationships and collaboration through professional development workshops (Rogers, 2000). In the end, CoPs represent a model to develop faculty interests and skills in the service-learning pedagogy and cultivates and contributes to a community of faculty teachers. CoPs offer the JHU faculty community an opportunity to increase the current group of service-learning teachers and also expand and build new CoPs around other important faculty-identified teaching interests (Teeter et al., 2011).

### **Successful Application of a CoP Framework Online**

A community of practice need not be exclusive to face-to-face interactions (Sherer, Shea, & Kristensen, 2003). The availability of online tools and resources permit communities to exist in virtual spaces. Moreover, new technologies require faculty to learn about and use new forms of communication (Sherer et al., 2003). Arguably, online communities can leverage technological innovation to enhance the quality of dialogue, expand the faculty member sharing and collaboration (Shirky, 2008), and address some of the faculty barriers to in-person engagement (Brooks, 2010; Vaughan & Garrison, 2006). Consequently, recent literature provided evidence of the effectiveness of online and blended or hybrid settings to incorporate the CoP model and enhance the benefits of a face-to-face community experience (Rovai & Jordan, 2004).

Several researchers described the effectiveness and positive contributions of an online CoP (Brooks, 2010; Palloff & Pratt, 2005; Vaughan & Garrison, 2006; Wideman, 2010). Brooks (2010) and Vaughan and Garrison (2006) suggested that a hybrid CoP provided flexibility and a more accessible environment. Brooks (2010) further suggested that faculty within an organization, like students, learn and interact differently with their colleagues and so a blended environment expands the available modes of communication. He further suggested that new faculty appreciate online faculty development as it reduces the difficulty of finding assistance at the physical university. A more flexible and diverse CoP created with a hybrid model contributed to expanded faculty participation on a more frequent basis and overcame faculty time and schedule constraints.

Wideman (2010) also pointed out that an online community permits easier distribution of knowledge and sharing of teaching resources. The medium has the ability to expand the geographical boundaries of face-to-face meetings (Brooks, 2010) and increase interactions among faculty (Palloff & Pratt, 2005; Wideman, 2010). Finally, Brooks (2010) and Sherer et al. (2003) suggested that online communities reduce isolation, enhance faculty sense of community, and provide a higher comfort level for discourse. These features contribute to a potentially more democratic and supportive form of faculty development.

Several studies provided empirical evidence to support Brooks (2010) and other researchers' ideas about the application of the CoP framework to the online environment. Recall that the real value of a CoP is in recognizing learning as a social activity and harnessing its ability to effectively train faculty and develop a community of learners around a particular theme or practice (Wenger, 1998). Several investigations offered

examples of successful implementation of this framework as well as the resultant benefits of this approach.

The literature examined different forms of online communities ranging from e-mentoring to hybrid CoPs. Using a case study approach, Rogers (2000) and Gutke and Albion (2008) found online interaction improved the sense of community between members and enhanced their ability to dialogue and share. New teachers participating in an e-mentoring program reported positive learning experiences and stronger relationships with their mentors (Gutke & Albion, 2008). The authors also suggested that this mentoring supported the face-to-face training of this program. Moule (2006) examined an interprofessional online module for health care students and found that this online community developed CoP characteristics and that participants benefited from member diversity. Moule (2006) further argued that this form of a CoP offered the potential to facilitate practice development on a national or international scale. Tsai, Laffey, and Hanuscin (2010) investigated pre- and in-service teachers in an online community of practice aimed at providing professional support. Participants reported an overall satisfaction with the experience and strong relationships among members. Teachers also suggested that participating in a supportive community contributed to a higher level of teaching confidence. Tseng and Kuo (2014), using self-reported results from over 300 members of an online CoP, showed that participants experienced close connections, social interactions that enhanced problem solving, improved relationships, and increased availability of resources and support within the community. As evidenced by the theoretical and empirical literature, CoPs have applications beyond face-to-face interactions. Sherer et al. (2003) argued that online CoPs offer a means to expand the

scope of traditional faculty development and create a more sustainable and long-lasting structure.

### **Implementing a Community of Practice**

In a review of entrepreneurial leadership, Smith, Besharov, Wessels, and Chertok (2012) described the key tenets of a paradox theory. This theory investigated the nature and management of competing organizational demands as well as employee reactions to them (Smith et al., 2012). In many ways, this resembles the environment at JHU created by a complex culture comprised of institutional, managerial, discipline, department, faculty, and other sub-cultures. These groups come with competing needs, interest, and goals that contribute to the tension between different faculty professional roles and responsibilities. Applying their thinking to a successful online CoP acknowledges the competing demands of research and teaching at JHU. The intervention design attempts to consider the institutional culture at JHU, articulate the value of service-learning, and identify opportunities to integrate this training into faculty members' research interests (Smith et al., 2012). Intervention success hinged on the ability to demonstrate the value of service-learning while simultaneously influencing the current culture to include space for faculty work outside of their research interests and responsibilities.

This intervention implemented an online CoP based on the work of Lave and Wenger (1991) and Wenger (1998). The CoP will utilize Wenger's (1998) social learning model to train faculty in service-learning but also construct a sustained system to encourage collaboration, build faculty relationships, and promote dialogue. An online CoP themed on service-learning may contribute to building a critical mass of teaching

faculty and influence the current JHU culture to better integrate faculty members' various roles at JHU.

Lave and Wenger's (1991) framework indicates that learning occurs through and is constructed and reconstructed by participation in the social practice of a community. Wenger (1998) suggested that a CoP integrates community and practice. To engage faculty in this kind of learning, this intervention will incorporate Wenger's (1998) social learning theory.

The intervention structure, curriculum, and process integrated the elements of Wenger's social learning framework including community, practice, identity, and meaning making. The intervention aimed to establish community through asynchronous activities, dialogue, and reflection. This online community included SLFP alumni, current faculty fellows, and faculty handpicked around JHU for their reputation as excellent teachers. The community aimed to engage faculty representing different experiences, views, and groups at JHU and engage them in learning and discussions around service-learning. As suggested by Brooks (2010), the addition of the online community to the existing SLFP may contribute to the program's ability to establish and sustain a faculty community beyond the in-person meetings. Finally, facilitators and members engaged in practice-like activities through discussions about service-learning strategies and sharing of resources. While the program provided a variety of resources in different forms, the real value of a CoP is in the accumulation of the artifacts by the group itself. A newly established online community created a CoP of faculty members around service-learning. This intervention established a community enterprise where members played a critical

role in shaping a creative and supportive space to consider the relevance and value of service-learning to a research university like JHU (Hill & Haigh, 2012).

This intervention represented an intentional step towards creating opportunities within the current culture to influence faculty use of service-learning. The CoP provided a space for faculty and leadership to brainstorm potential service-learning projects that cross boundaries and integrated different disciplines. It also aimed to contribute to a network of faculty interested in service-learning and stronger relationships with other like-minded faculty. This CoP also tried to create opportunities for faculty to learn relevant theories, review and discuss appropriate literature, and develop requisite skills in service-learning. In the end, the intervention design integrated the findings of the needs assessment and evidence from the literature to increase faculty participation in service-learning through an online CoP.

### **Factors Influencing the Success of this Community of Practice**

Brownell and Tanner (2012) suggested that professional culture in higher education and research universities, in particular, values research and publications and reinforces this norm through incentives including salary and promotion. Moreover, this culture contributes to a relatively lower status of teaching. Figure 4.1 offers both the organizational barriers to (in red) and supports for (in blue) this intervention.

A closer look at Figure 4.1 illustrates how faculty and department culture as well as institutional structure and value systems exerted pressure on this CoP. Moreover, constraints on both financial resources and time presented hurdles to its success. The university relies heavily on faculty research dollars to support operations and in some cases, does not encourage faculty to engage in activities like service-learning that might

jeopardize this funding. Further, with limited financial resources, the university, divisions, and departments tend to spend this money on support, infrastructure, and other assistance towards enhancing faculty research efforts. Faculty must also efficiently allocate their time often according to the signals and incentives created by the institutional structure and faculty culture (Fairweather, 1996). This creates a persistent tension between teaching and research. It is also possible that faculty, due to some of the reasons already described, lack the motivation to participate in professional development around teaching or implement service-learning or other teaching strategies. The reality is that faculty respond to incentives and, at a research university, those incentives encourage faculty research (Fairweather, 1996).

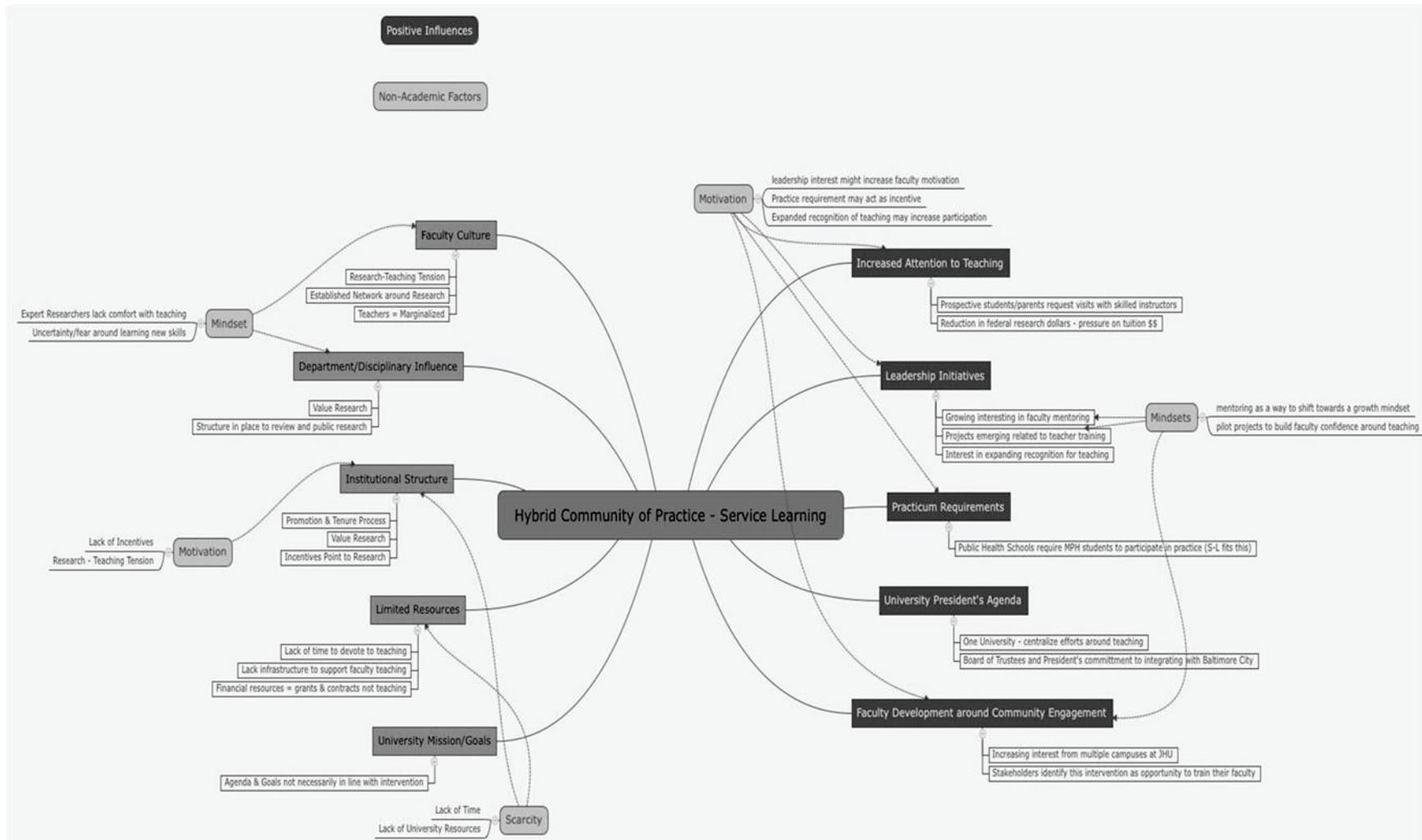


Figure 4.1. Factors that may influence the success of the hybrid community of practice.

The previous figure, however, also revealed that even in JHU's culture and structure, there are supportive influences for efforts and initiatives related to teaching and specifically, service-learning. For example, leadership reported a strong interest from prospective students and parents to see evidence of innovative teaching at Hopkins. Also, accrediting bodies like the Council on Education for Public Health (CEPH) requires students to participate in meaningful and academically linked service as part of the Master in Public Health (MPH) degree. Furthermore, several universities in the U.S. News and World Report top ten including Duke and the University of Pennsylvania require their undergraduate students to participate in a service-learning experience. These external demands encourage leadership to support faculty professional development in evidence-based teaching like service-learning and to invest financial resources and human capital to implement sustainable initiatives. In the end, the diagram underscores the persistent tension between research and teaching at Hopkins. Based on the empirical and theoretical evidence, an online CoP represents one possible strategy to address the problem of low faculty participation in service-learning at JHU. It represents a mechanism to train faculty and a first step in establishing a community of service-learning faculty, as well as build social networks of faculty as instructors at JHU.

### **The Intervention: An Online CoP at JHU**

The relevant literature and needs assessment identified various points of intervention to increase faculty participation in service-learning including providing regular teacher training, cultivating peer relationships, creating a space for dialogue, and building a community of service-learning faculty (Anderson et al., 2011; Brownell & Tanner, 2012; Fairweather, 1996; Felder, 2004; Tierney, 1988). Based on evidence

presented, the research study implemented an online CoP themed around service-learning. According to the literature (Patarai, Falconer, Margaryan, Littlejohn, & Fincher, 2014; Senge, 2000; Thomson, 2013), mentoring, instructional consultation, and peer networks included features necessary to facilitate a successful online CoP. Empirical literature about CoPs offered evidence that this approach would address faculty issues raised in the needs assessment, enhance knowledge and skills related to instruction, use online experiences to build faculty relationships, and foster dialogue about teaching (Hill & Haigh, 2012; Lave & Wenger, 1998).

The many departments, disciplines, and individual group interests at JHU shape the institutional culture. Consequently, building a critical mass around service-learning presented many challenges. Furthermore, based on the needs assessment, the current culture at JHU, sends unclear messages about the value of teaching, offers inadequate collegial and instructional support, and lacks clear incentives motivating faculty to commit efforts toward service-learning (Boyer, 1994; Butin, 2006). Faculty perception of the low institutional value placed on teaching may contribute to what Hill and Haigh (2012) describe as faculty adopting an identity diverging from the norm, which creates fear and anxiety about engaging in faculty development for service-learning. Increasing faculty interests and motivation to engage in service-learning training and teaching will require understanding individual perspectives and using identified interests and values towards building a capacity. Consistent with the Hill and Haigh (2012) study, the needs assessment revealed the importance of creating a network of supportive relationships linking teachers and researchers, professionally. Consequently, an online CoP represented a way to train faculty in service-learning while also establishing the beginnings of a

supportive faculty teaching network at JHU. The subsequent discussion reviews the intervention logic model, discusses model assumptions and required resources, and concludes with a discussion of the intervention activities as well as an overview of the evaluation plan.

### **Program Overview**

The intervention complemented the SOURCE SLFP with an online CoP and included faculty and community partners from current and past SLFP cohorts. Working with other JHU stakeholders, membership also included a select group of interested faculty from the Carey Business School. For several reasons, Google Communities hosted the online CoP. This platform provided a way to invite a diverse group of members and also offered an easy means of sharing and exchanging resources and ideas. The anticipated outcomes included an established and online space for service-learning, a group of faculty in a collaborative community connected through service-learning activities, and a curriculum and standard operating procedure for facilitating other online CoPs.

This intervention contributed to building a community where faculty and community members could shape a creative and supportive space to consider the relevance and value of service-learning (Hill & Haigh, 2012). This intervention also represented an opportunity to replicate informal, tacit style learning that does not naturally occur in a place like JHU (Anderson et al., 2011). In the end, this intervention tried to develop an evidence-based mechanism to build a critical mass (Brownell & Tanner, 2012) of faculty teachers at JHU.

Over the long-run, this intervention may contribute to building a stronger faculty teaching identity and cultivate collegial support for faculty to improve as teachers. Considering the need for the intervention, the affected stakeholders, and the unique challenges of a research university context, this section describes the implemented intervention. The following discussion and Figure 4.2 help explain the assumptions, inputs, and details of the recruitment plan, intervention activities, and expected outcomes and impacts of a successful hybrid CoP.

Logic Model: Community of Practice to Increase Faculty Participation in Service-Learning

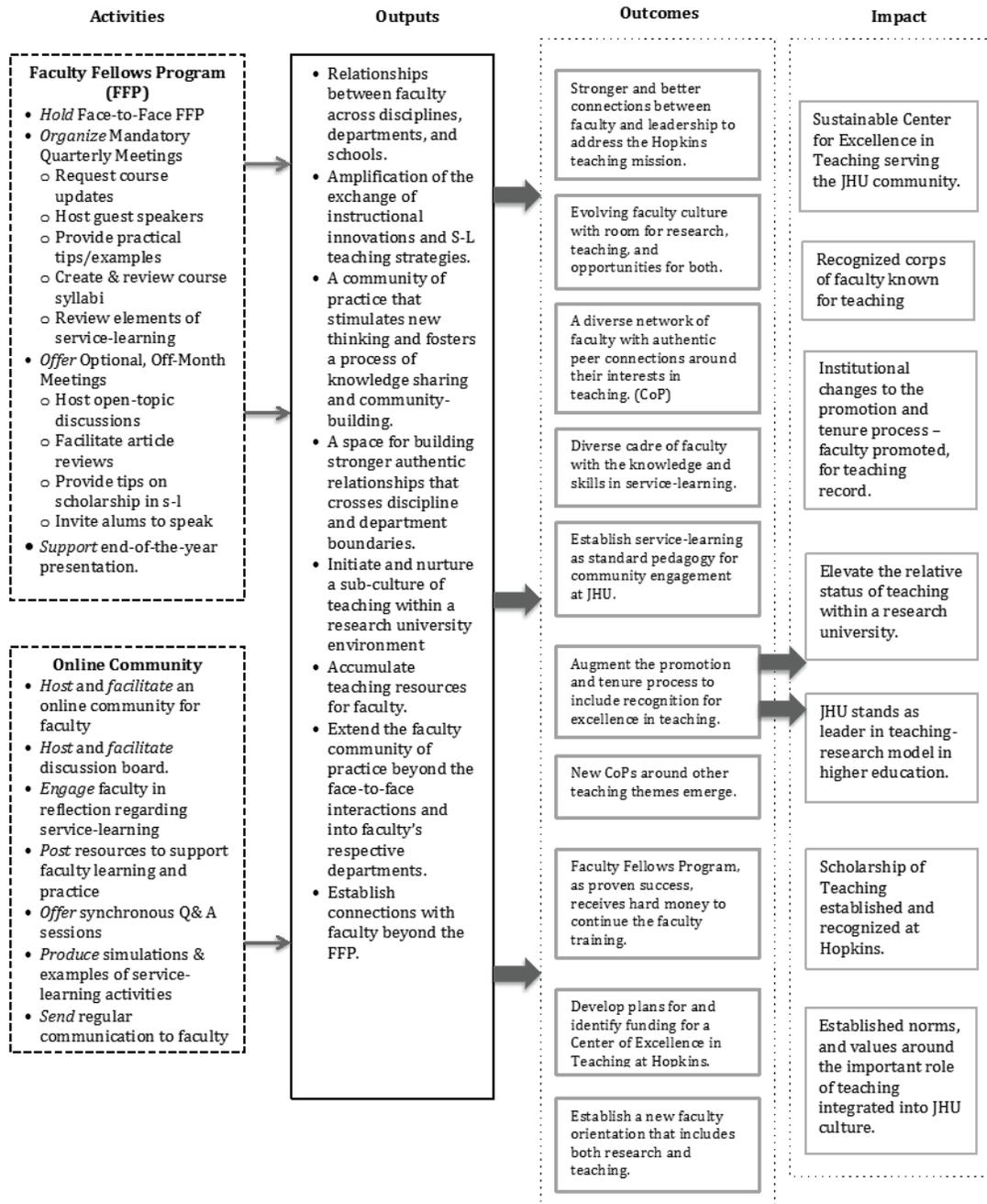


Figure 4.2. Logic model: Delivery system for increasing service-learning participation.

A delivery system to train faculty in service-learning includes two primary activities: (a) Face-to-face SLFP and (b) the online CoP. This intervention, however,

focused on the design, implementation, and effectiveness of the online CoP as a mechanism to support the current SLFP and expanded the reach of service-learning training and support for JHU faculty.

### **Assumptions**

The theory of change suggests that a CoP framework represents an evidence-based, long-term strategy to increase faculty participation in service-learning. This will be accomplished through a variety of activities within this intervention. This proposal and theory of change assumed the intervention would:

- Include faculty motivated to participate;
- Represent a structured (more centralized) opportunity for faculty to discuss teaching;
- Educate faculty on the benefits of service-learning and other pedagogies;
- Increase mainstream faculty participation in teaching-related professional development activities;
- Establish a formal network focused on service-learning and improve communication and information sharing among faculty;
- Provide professional and personal support around teaching; and
- Give a voice to teaching.

### **Resources**

Another element critical to the successful implementation of this intervention involved the required inputs. Creating and implementing this intervention required a low level of funding, University leadership and faculty willing to support and devote time to participation, adequate physical space to hold the recruitment meeting and focus group

interviews during the academic year, a session facilitator, and technology resources and an online space to host the virtual CoP.

### **Intervention Activities**

The online CoP is based, in part, on the work of Lave and Wenger (1998) and incorporated their social learning model to construct a sustained system to encourage collaboration, build faculty relationships, and promote dialogue. Lave and Wenger's (1991) framework demonstrates that learning occurs through and is constructed and reconstructed by participation in the social practice of a community. This intervention integrated dimensions of social learning theory including community (joint enterprise, mutual engagement, and shared repertoire), practice (learning as doing), identity (learning as becoming), and meaning-making (learning as experiencing).

The activities included in the logic model (see Figure 4.2) represents and implements important elements of an online CoP previously described by Wenger (1998). As discussed in the logic model, the online CoP through a variety of identified activities aimed to produce outputs that contribute to short- and long-term outcomes.

### **Online Community**

The online community offered faculty an opportunity to continue discussions from the monthly meetings and build a strong community around teaching and service-learning. Participating faculty must leave the safety of their cohort and return to their respective departments. This online community represents a chance to build faculty support and confidence around service-learning, increase self-efficacy in community engagement and their roles as instructors, create "buzz" within their department communities, and encourage faculty to extend conversations among their peers. Activities

included regular discussion posts, group reflection activities, sharing of service-learning and instructional resources, as well as regular and frequent communication with community members. Together these activities represents an attempt to engage faculty in an online CoP to promote and support a community of faculty teachers interested in the service-learning pedagogy.

### **Brief Overview of the Evaluation Plan and Questions**

The evaluation included both process and outcome evaluations. The process evaluation investigated the fidelity of this intervention or the extent to which this program implemented the planned activities. This examination also included structural aspects like reaching the intended target and offering quality delivery of services. Furthermore, the process evaluation examined dynamic aspects like intervention dosage and participant engagement.

The evaluation examined the following overarching questions:

- **EQ1:** To what extent did the online CoP achieve program fidelity? Was the online CoP implemented and delivered as intended? Did the intervention deliver an adequate dosage to motivate participation in the community? Did participants engage in the online CoP?
- **EQ2:** Does the established online CoP reflect Wenger's social learning model? Does it reflect attributes of community, practice, meaning, and identity as defined by Wenger? What are some examples from the online CoP?
- **EQ3:** Value Creation: In what ways did this CoP create value as defined by Wenger, Trayner, and de Laat (2011)? Does the CoP offer participants

immediate, potential, and/or applied value? What kinds of immediate, potential, and applied value do members desire?

Measuring the effectiveness and successes of this program required an investigation of implementation fidelity, facilitator effectiveness, intervention dosage and the engagement of faculty participants. The evaluation also included an assessment of the extent to which the online CoP included elements of the social learning framework and the value (if any) reported by community members. The next chapter provides a detailed look at the evaluation methods including a discussion of intervention participants and recruitment plan, data collection procedures and instruments, a review of the constructs and indicators, a summary matrix to connect the evaluation questions, indicators and data sources, and a brief description of the data analysis methods employed.

## **Chapter 5: The Evaluation Plan**

### **Introduction**

From the needs assessment and review of the literature in Chapter 4, this intervention aimed to increase interest and participation in service-learning through an online community of practice (CoP). This intervention represents efforts to build an online network of service-learning teaching faculty, increase discussions and use of service-learning, and contribute to integrating teaching practices into day-to-day life (Danielson & Warwick, 2014). The success of this intervention hinged on its ability to increase faculty self-efficacy around using service-learning, as well as to articulate the value of the community such that members remained engaged and interested in contributing. It offers a new approach to faculty development at JHU that in the long-run, may contribute to increasing faculty engagement and participation in service-learning and building relationships among faculty interested in teaching.

This chapter discusses an evaluation of this online CoP. The evaluation provided background characteristics on community members as well as an investigation into the previously outlined research questions. The descriptive analysis examined relevant attitudinal characteristics of community members including openness to and curiosity about new opportunities, self-efficacy around community engagement, and views regarding diversity and social justice. The evaluation then investigated three research questions to frame the assessment of this intervention. The research questions addressed the fidelity of the pilot intervention, examined the community through Wenger's (1998) framework of Social Learning Theory (SLT), and investigated participants' perceived

value of the online community. This evaluation also highlighted elements of the intervention successfully carried out and the attributes of this online CoP most valued by community members. It also identified areas requiring further attention and improvement in order to increase member participation and enhance the experiences and learning for community members in the future.

This evaluation focused on both the fidelity of implementing an online CoP as well as its effectiveness in sustaining and expanding interest and participation in service-learning at JHU. In the end, a successful online CoP may enhance the face-to-face component of this faculty development model but also contribute to building a sub-culture of JHU service-learning faculty teachers that might include conversations and connections related to but not limited to the service-learning pedagogy. In the end, this research project contributed to highlighting a novel approach to expand the community of service-learning practitioners at JHU, represented a means to connect faculty with strong interests in developing in their role as teachers, and underscored evidence-based changes to improve this resource in the future. Ultimately, this approach to faculty development and support offers the potential to connect like-minded faculty and could foster a sub-culture or faculty identity towards teaching.

This chapter briefly reviews the intervention activities, provides a description of the participant recruitment procedures, outlines the research questions and evaluation plan including data collection and analysis, and concludes with a summary matrix linking the evaluation questions, relevant variables, and identified data sources.

## **Review of the Intervention**

**Activities.** The intervention created, implemented, and facilitated an online CoP and it represents a new addition to the existing service-learning faculty development at JHU. The online community initiated relevant discussions, fostered new conversations and connections among members, offered collegial support and feedback, and created a space to share relevant resources with faculty in- and outside of the service-learning SLFP. The community engaged in activities to facilitate exchanges about relevant teaching resources, supported faculty in their learning about this pedagogy, and promoted dialogue between community members. The online CoP is modeled after Wenger's (1998) social learning framework. Wenger's (1998) CoP includes four primary dimensions; community, practice, meaning, and identity. The following activities supported these important facets of the CoP:

- Bi-weekly online discussions;
- Open Forum Question & Answer space within the community; and
- Resource sharing.

The following table offers a more detailed outline of the planned topics, discussion questions, and possible artifacts to share with the community members.

Table 5.1

*Outline of the Planned Topics, Discussion Questions, and Possible Artifacts to Share with the Community Members*

Session #	Discussion Topics	Session Objective	Questions	Possible Activities	Possible Journal Articles to Share
1	Building Community	Initiate community building among alums and current fellows	1. Based on your experiences in an online space, what areas need to be addressed for this work to be valuable and effective? 2. What kinds of information, activities, and discussions will encourage you to regularly visit our community? 3. What should our group goals be for this year?	1. Request that each member complete some kind of introduction to the community. It could be a short description, a photo, a visual, whatever works for them and will give the group a little background information. 2. Group Goals - In what ways should we augment the original group goals to reflect our work in an online space? Be specific in your responses.	
2	Multicultural Education (ME)	Understand implications of ME for using the service-learning pedagogy.	1. How do you define multicultural education? 2. How, if at all, does it manifest in your professional practice?	Circle of Diversity	Gay (2002) Preparing for Culturally Responsive Teaching; Nieto (2008) Beyond Heroes and Holidays
3	ME & S-L	Identity and evaluate community member differences and similarities and how these aspects of individuals influence community and collaboration	1. What do you have in common with other fellows in this community (according to the Circles of Diversity)? 2. What, if any implications does one's cultural identity have on successful outcomes in service-learning for students and the community?		Pederson (2000) Rules of Multiculturalism
4	Swamp Revisited - Another name for the "swamp"?	Build off of discussion during the retreat	Use reflection questions from facilitator's own class.		
5	Asset Building	Identify and recognize strengths of community members and students		Strengths Finder	
6	S-L & Pedagogy	Strategies to implement S-L in the classroom	Request that members share ONE effective strategy		
7	Open - follow-up to face-to-face				
8	Cultural Humility, power & privilege	Twofold: general discussion of both topics but also how to introduce and discuss with students	1. How do you define cultural humility? 2. In what ways should we be thinking about power and privilege with our students?	Cultural Humility Video - from SLFP	
9	What Happens when	Consider ways to recover	1. How does an instruction	Facilitator example of when	

	Reflection Doesn't Work?	from a reflection activity that doesn't work/How do foster better reflection with your students	know if the reflection is not working? 2. What kinds of strategies could be implemented to recover or produce something positive out of a challenging or less than successful reflection exercise?	things go wrong
10	Success Stories in Service-Learning	Opportunity for members to share practice/pedagogy/activities that work well in S-L	n/a	Share examples of successes and challenges
11	Tips and Tricks in Service-Learning	Share specific examples of activities or little tips to help others	n/a	Specific example and resources shared

The evaluation provided important information to shape and improve the activities of this online CoP and increase service-learning participation but also offered a model for professional development in other teaching areas. In the end, JHU could stand as a leader in training and supporting faculty in their role as teachers at a research university.

### **Participant Recruitment**

As a pilot program, recruitment was limited to past and present participants from the SOURCE SLFP and other selected JHU faculty. Community participants included alumni of the SLFP, current 2015-2016 fellows, and other JHU faculty identified as excellent teachers by JHU Leadership. SOURCE staff helped identify participants from the fellow's program and while all faculty alumni of the program were technically eligible to serve, SOURCE and program facilitators excluded those who performed below expectations during their time in the program.

Participants in the SLFP included faculty from the Health Professional Schools, the Carey School of Business, and Baltimore community partners who served as fellows in the SOURCE Service-Learning Program. The SOURCE program used an application process and this intervention recruitment relied on that process to select participants. The application inquired about faculty interest in service-learning, their prior experience with the pedagogy, specific ideas about the relevant course for the program, and whether or not they had the time to make a yearlong commitment. At the close of the application period, SOURCE and a committee convened a review process whereby faculty members were selected to participate in the yearlong program. The committee included the Director and Associate Director of SOURCE, a few members of the SOURCE Executive Board, myself, and another alumnus of the SLFP. This committee reviewed the

applications and interviewed prospective participants. Finally, alumni of the SLFP actively engaged in service-learning at JHU as well as a few non-service-learning faculty participated in the online community. After contacting faculty alumni to gauge interest, I held a meeting at the end of August to recruit faculty and community fellows and collect requisite signed consent forms.

This recruitment strategy effectively supported the project goals; examining and understanding the process necessary to engage faculty in service-learning and cultivating a community of service-learning faculty at JHU. The ability of this intervention to address low faculty participation in service-learning depended in large part on facilitators' and community members' skill in and commitment to creating and then sustaining a network of interested faculty motivated to investigate, discuss, and practice service-learning at JHU. Relying on faculty who self-selected into this process and already had an interest in service-learning and improving their teaching skills represented an important first step in building a service-learning community at (Lave & Wenger, 1998).

Fortunately, attrition has not been a serious issue during the SLFP and those who exited the program, although rare, generally did so because they felt it was not a good fit. The more challenging problem for this program related to the faculty who continued with the program but, for a variety of reasons, did not fulfill the requirements of the program. For example, faculty either did not complete the service-learning course development or delayed implementation for a considerable amount of time. In the end, the community included 18 participants; ten from public health, two from the School of Nursing (SON), one from the School of Medicine (SOM) and the Carey Business School and four

community fellows each with varying service-learning and community engagement experiences.

### **The Evaluation**

The intervention evaluation involved an assessment of both the process and program outcomes. The evaluation investigated the level of program fidelity, the extent to which the CoP resembled Wenger's social learning model, and members' views on immediate, potential, and applied value of the community. This section outlines the pertinent research questions, the research design, the relevant indicators and instruments, the data collection procedures, and the analysis methods.

### **Research Questions**

As a reminder, Chapter 4 introduced the overarching questions for this evaluation, including:

#### **RQ1: To what extent did the online CoP achieve program fidelity?**

- Was the online CoP implemented and delivered as intended?
- Did the intervention deliver an adequate dosage to motivate participation in the community?
- Did participants engage in the online CoP?

#### **RQ2: Does the established online CoP reflect Wenger's social learning model?**

- Does it reflect attributes of community, practice, meaning, and identity as defined by Wenger?
- What are some examples of these traits from the online CoP?

**RQ3: In what ways did this CoP create value as defined by Wenger, Trayner, and de Laat (2011)?**

- Do participants report immediate, potential, and/or applied value?
- What kinds of immediate, potential, and/or applied value do members describe?

This investigation employed a mixed methods approach to the evaluation. It relied on a concurrent design for data collection and analysis (Creswell & Clark, 2007). With this approach, quantitative and qualitative methods occurred during the same phase of the research, remained independent during analysis, and converged at the interpretation stage of the investigation. This permitted equal weighing of both quantitative and qualitative findings with a mixing of the findings to arrive at relevant conclusions (Creswell & Clark, 2007).

**Data Collection**

The quantitative strand of this evaluation relied on a quasi-experimental design without a control group. While this approach did not yield the desired causal inferences, the limited resources and time constraints made this approach the appropriate design strategy. This design relied on a single-group pretest-posttest method also known as a within-participant design (William, Shadish, Cook, & Campbell, 2002). The quantitative data collection included a pre-post survey to measure shifts in faculty beliefs and attitudes including openness and curiosity, efficacy around community engagement, and diversity and social justice. Participants responded to the online pre-survey through Qualtrics and responses were downloaded to Excel and imported into Stata for data analysis. Initially, data collection included an exit survey and Google analytics for

additional data on participants' sense of community and fidelity, however, a small sample size and challenges working with Google made it impossible to do either. Ultimately, the findings and conclusions emerged out of a review of descriptive statistics, and the qualitative data collected to address questions originally planned for some of the quantitative data collection.

The qualitative methods for data collection relied on a review of community discussion posts, transcripts for two end-of-the-intervention focus groups with community members as well as a template based on Wenger et al. (2011) value creation narrative. Additional qualitative data came from a review of planning documents for this intervention. The exit interviews were recorded and transcribed in order to review, code, and analyze the data collected. This data provided insight into intervention fidelity, the social learning framework, and participants' perceived value of the community. Integrating this kind of mixed methods approach offered an opportunity to obtain independent but complementary data. It allowed the use of quantitative and qualitative findings to develop a more complete understanding of the situation (Creswell & Clark, 2007). The pre-survey along with the interview guide for the focus groups and the value creation narrative forms are in the appendix of this dissertation. The following offers an overview of the indicators collected for each research question.

### **CoP Constructs and Measures**

As suggested by Onwuegbuzie and Leech (2006), the research questions inform the methods and measures discussed in this section. Adequately answering these questions required collection and analysis of quantitative and qualitative measures. The

following offers an overview of the relevant constructs and links the indicators to the previously outlined data collection procedures.

**Member traits-openness, diversity, and community engagement self-efficacy.**

As previously discussed, the pre-survey collected data to ascertain member perceptions and belief regarding openness to new ideas and experiences, diversity, and self-efficacy around community engagement. Given that this intervention represents a new approach to faculty development and service-learning focuses on sensitive topics of cultural humility, reciprocity, community, and others, it was important to establish individual and group attitudes around these topics. The pre-survey for this intervention incorporated three separate scales for 35 questions about openness, curiosity, diversity, and community engagement self-efficacy. While there are numerous surveys covering these topics, the selected instruments offered the appropriate mix of content and length for this evaluation.

Kashdan et al. (2009) published an article to refine the measurement of trait curiosity. It represented an improved version of the Curiosity and Exploration Inventory (CEI). This revised instrument (CEI-II) included a ten-question Likert scale ranging from strongly disagree to (1) strongly agree (5). Higher scores on the full scale indicated a psychological flexibility and willingness to express feelings. It also indicated an ability to persist even in distress. Kashdan et al. (2009) reported a reliability score of .86.

This scale also offered insight into two additional attributes: stretching and embracing. Stretching refers to respondent motivation to seek out knowledge, explore interests in challenges, and view these challenges as chances to grow. Analyzing this data required summing the odd-numbered questions within the CEI-II. The embracing subscale emerges out of the even-numbered questions and explored feelings about

uncertainty, new experiences, unpredictability of jobs, and unfamiliar people. This instrument permitted an exploration of individual and group curiosity but also a look into their views on knowledge exploration and their perceptions of new and uncertain experiences.

The pre-survey also included a series of statements to measure member personal views regarding diversity. Postian and Aguilar's (2001) fifteen-item Likert scale includes statements describing historically marginal groups in different scenarios. The five-point Likert scale is the same as the openness scale previously described and overall scores range from 15 to 75. The authors did add, however, that average scores on this scale range from 56.23 to 64.41 and includes a reliability scale of .78. This scale provided a means to compare community members' views on diversity with others who have previously participated in this survey.

The last section of the pre-survey included a ten-item community service efficacy scale that inquired about respondent confidence to serve the community "in the future" (Reeb, Katsuyama, Sammon, & Yoder, 1998). Statements required respondents to consider their confidence in engaging in service activities using a one to ten certainty scale where one represented the least certain (uncertain). This scale offered a means to measure member confidence with engaging in community work in the future. It includes ten questions that explore self-esteem, empathy, and participation in service as well as feelings around empowerment and others. Respondents were asked to rate their perception of each question on a scale of one to ten with one representing quite uncertain and ten equaling very certain. Self-efficacy, in this context, refers to "individual's confidence in his or her ability to make meaningfully significant contributions to the

community through service” (Reeb et al., 1998, p.459). Scores on this scale ranged from zero to one hundred. Moreover, Reeb et al. (1998) found a positive correlation between the survey results and civic behavior intentions, which include growth motivation, empathy, hope, and self-esteem. This scale is valuable for two reasons; self-efficacy represents one goal of the service-learning pedagogy and two-these civic behaviors are associated with levels and variety of service involvement. This scale lent insight into member comfort with and pre-disposition to service-learning and community engagement. This community self-efficacy scale provided a measure of confidence about service-learning upon entering the CoP and included a reliability scale of .90. The constructs and measures in the pre-intervention survey offered an opportunity to measure characteristics, perceptions, and attitudes of the inaugural group of community members. Other measures in the evaluation explored the intervention characteristics (planned versus actual) and member views on the CoP value creation.

**RQ1: Program fidelity.** According to Rossi, Lipsey, and Freeman (2004), process evaluation confirms what a program is and “whether or not it is delivered as intended to the target recipients” (p. 171). The question of program fidelity, as defined by Dusenbury, Brannigan, Flaco, and Hansen (2003), requires an investigation into program adherence or implementation fidelity. Implementation fidelity involves determining whether essential elements of a program or intervention occur during implementation. The activities outlined in the logic model in Chapter 4 represent the essential elements of this intervention. Quality of delivery is also important to implementation fidelity. It characterizes whether or not the relevant intervention activities capture the attention of the participants. Furthermore, program dose matters to process evaluation. While dose

typically refers to whether or not an investigator delivered a treatment, it also provides a way to measure adequate dose, or, in this case, the optimal number of discussion prompts, interactions, and communications to keep community members active in this online space.

According to Dusenbury et al. (2003), participant responsiveness, in the context of this intervention, refers to faculty members engaged by and involved in activities and content of the program. Saunders, Evans, and Joshi (2005) refer to this fidelity measure as the proportion of the intended audience that participates in the activities while Nelson, Cordray, Holleman, Darrow, and Sommer (2012) describe it as participant follow through. Together, these definitions provide a clear picture of the fidelity of participant responsiveness for this evaluation. Table 5.2 (below) provides an overview of the fidelity questions, measures, and data sources. The subsequent section offers a discussion of the measures for program fidelity.

Table 5.2

*Fidelity Indicators and Data Sources (Dusenbury et al., 2003)*

Evaluation Questions	Measures
Implementation Fidelity - Does the implemented intervention reflect the components of the proposed online CoP?	Number of planned discussions Number of shared resources Count of activities planned for the space Participant presence in the community.
Delivery Quality – Are facilitators trained and skilled to engage participants in program activities?	Facilitator activity in the community. Facilitator prompts members to participate. Facilitator effectively responds to posts.
Program Dose – Is the level of programming adequate to engage participants?	Number of discussion posts Timing of discussion posts Kind of posts (questions, articles, comments) Reminders for participants
Participant Responsiveness – Are faculty participants engaged and involved in the activities?	Number of active members Active and Passive Engagement Posts to the community Review of CoP Posts Download/Upload of Resources

Recall, fidelity includes implementation, delivery of activities, program dosage, and participant responsiveness. Implementation fidelity describes the extent to which the planned and actual interventions match. This portion of the evaluation attempted to determine whether the essential intervention activities occurred in some recognizable form. Determining adherence required comparing planned to actual discussion topics, the expected discussion prompts posted by the facilitator, as well as the number of resources shared with the community during the pilot intervention. Delivery quality and program dose relied on the timing and frequency of facilitator discussion prompts, posting of articles, questions, and other resources, and, finally, the timing of these different actions.

Participant responsiveness included member participation defined as viewing posts, responding to posts or uploading and downloading community resources. The logic model for this online CoP relied on the assumption that CoP members' virtual attendance at an activity is necessary but not sufficient and that the depth, quality, and kind of engagement matters. Observing the member activities and interactions (or lack thereof) within each of these settings provided data to evaluate this aspect of the intervention's fidelity. For example, the online CoP required members to participate in ten to twelve online sessions on various service-learning topics and members had opportunities to access and share relevant service-learning resources. The success of the intervention activities within the logic model was predicated on the ability of this facilitator and the community content to persuade faculty to join the community and "show up" at sessions, but also participate in ways that are relevant to their growth and support peer learning.

This evaluation defined participant responsiveness in two ways: passive and active engagement. Passive engagement referred to community members who visited the

community and reviewed posts or community resources but did not report or post a response to mark their presence or experience with a resource or post. Active engagement, in comparison, described members who actively posted or responded to activity in the community, commented on shared resources, and uploaded activities and other resources for their colleagues to review and use. As previously mentioned, participant responsiveness, according to Dusenbury et al. (2003), represents one aspect of fidelity. Program adherence, dosage, facilitator competence, and participant responsiveness represent the elements of fidelity. A review of community discussion posts and resources as well as the exit focus groups provided data to examine these important indicators.

**RQ2: Social learning framework.** Through an ethnographic study of apprenticeships, Lave and Wenger (1991) proposed a sociocultural theory of learning to explain the influence of social context on practice, meaning, and identity. In a later study, Wenger (1998) further explored practice and identity, which lead to the community of practice social learning model. SLT suggests that community members are social beings and that knowledge is a matter of participating in pursuit of enterprise or engagement. It also contends that participants achieve meaning through an ability to experience the world and engage in meaningful ways. The social learning framework offers a cohort model for faculty professional development. Wenger (1998) suggested that learning occurs through social interactions in practice and that participants belong to multiple communities and learning occurs through these various interactions and engagements. Table 5.3 outlines the elements in the social learning framework.

Table 5.3

*Social Learning Framework (Cuddapah & Clayton, 2011)*

Elements of the Framework	Indicators
Community Evidence of Practice	Joint Enterprise, Mutual Engagement, and Shared Repertoire Talk about Shared Resources and Perspectives, Sustained Mutual Engagement, Learn by Doing
Meaning-making for faculty	Learn through experiences, Reification, Talk about change/evolution
Identity	Learning trajectory, membership, learning as becoming, local and global situation

Wenger’s (1998) social learning model includes four related aspects: community, practice, meaning, and identity. The elements of community, according to Wenger (1998) and Lave and Wenger (1991), include three distinct attributes: mutual engagement, joint enterprise, and shared repertoire. Mutual engagement involves activities groups members do together, membership, and negotiation of meaning and participation. Joint enterprise is characterized by the notion of goal. It includes mutual accountability, a collective negotiation process and responses but it is not consensus rather outcomes or discourse yielded through continual negotiations. Finally, a community encompasses a shared repertoire where joint pursuit yields shared resources in various forms. These resources are heterogeneous but connected by being of the community. The researcher hypothesized that community members would learn about how to use service-learning through their conversations and interactions within this online community.

The practice element of the model involves shared enterprises where members can, according to Wenger (1998), “sustain mutual engagement in action” (p. 5). Mastering implementation and use of the service-learning pedagogy requires efforts beyond attending seminars about the pedagogy. This community offered real-time support, coaching, and practice for new and seasoned faculty using service-learning in

their classes. The online community acted as a space for faculty to ask questions and receive timely answers and ideas to enhance planning and execution of their service-learning courses.

Wenger (1998) also argued that learning involves actions beyond acquisition of skills. He suggested that learning includes meaning-making where members of a community transform and form a new identity. In these communities, members experience and shape new ideas and practices that contribute to a new or amended personal and professional identity. Through discussions around personal change and evolution, members adopt a new identity through learning and participation. The online community for service-learning tried to incorporate important tenets of service-learning including reflection. Through this process, faculty learn service-learning but also gain awareness of their own role in this learning framework and how their views and attitudes influence the experiences of students but also how these experiences influence their own beliefs and views. This community of practice included members with varying experiences with service-learning but also community engagement. Consequently, Lave and Wenger's (1991) ideas around newcomers and old-timers engaging towards learning and identity-building reflects one of the goals of this intervention and is an appropriate lens for the evaluation of the online community. This research further hypothesized that if the CoP resembled this social learning framework participants would report benefits and value from participation in this online community. The following research question provided a means to evaluate value creation in this community.

**RQ3: Value creation.** Wenger et al. (2011) defined value creation as “the value of the learning enabled by community involvement...” (p. 7). This method includes a

theoretical framework but also relevant questions, indicators, and a toolkit to measure the benefits of a community of practice (Wenger et al., 2011). The authors noted that assessing the value of a community of practice required an exploration in the context of narratives (Wenger et al., 2011). The framework includes five cycles of value creation that produce distinct data with specific indicators. Additionally, the framework includes what Wenger et al. (2011) call value-creation stories. These stories rely on personal and collective experiences of community members to collect additional data but also make better sense of the data in the cycles.

As previously mentioned, the value creation framework (Wenger et al., 2011) includes five cycles that represent the different kinds of value communities and networks create. This evaluation focused on the first three cycles primarily because the other two involve long-term organizational performance metrics and institutional changes. The following offers a brief explanation of the relevant cycles for this study.

The first three cycles in this framework reflect immediate, potential, and applied value and represent relevant constructs to evaluate this CoP. Wenger et al. (2011) defined Cycle 1 as immediate value. This concept of value describes activities and interactions holding value in and of themselves. These activities might include helping a community member with a problem during a meeting, participating in a useful conversation online, or providing a valuable teaching tip to a colleague. Cycle 1 suggests that activities and related interactions produce value now, as they take place (Wenger et al., 2011). The next cycle describes potential value or the knowledge capital of a community. As with many programs, value is not always immediately realized (Wenger et al., 2011). Consequently, it is possible that community activities and connections created potential value to be

realized in the future. For example, group members may exchange best practices or strategies to manage different classroom situations or other environments. It is possible that a member has not and possibly will not encounter a particular situation, but the exchange of ideas and practices represent knowledge capital or potential value. This kind of value takes a variety of forms, including (Wenger et al., 2011):

- Personal assets or human capital – useful skills or new perspective gained;
- Relationships or social capital – the ability to distribute knowledge across a community;
- Resources – access to resources or recognition from reputation; and
- Learned capital – transfer experiences to other contexts.

Cycle 3 measures the applied value of communities, interactions, and activities.

This cycle includes moments when members adapt or apply knowledge to different contexts leading to some kind of change in their own practices or tools used. This cycle also examines how practice has changed because of knowledge capital (Wenger et al., 2011). In other words, membership in a community may also bring value to participants through its ability to encourage and challenge members to adapt new knowledge and skills to different situations. Table 5.4 (below) outlines the indicators to measure value creation in this intervention.

Table 5.4

*Value Creation, Cycles 1 to 3 (Wenger et al., 2011)*

Evaluation Questions	Measures
Cycle 1: Immediate Value	Help with a challenge, Answers questions, Solutions to a problem, Triggered out of the box thinking or a new perspective, Elicited relief – a sense of being on the right path.
Cycle 2: Potential Value	Resources available, Learning capital, human capital, and social capital in the form of an ability to ask questions and knowing who to trust.
Cycle 3: Applied Value	Implement advice, Revise a lesson plan, Change in practice from leveraging experiences, Tried a suggestion, Used social connections

### **Data Sources**

The mixed method approach relied on both quantitative and qualitative data sources. The quantitative data sources came from the pre-survey questionnaire. It includes a ten-question curiosity scale (Kashdan et al., 2009) to measure openness, flexibility, and curiosity. In particular, this scale also includes measures for stretching and embracing. The scale has an internal reliability of .86 and higher scores indicate a willingness to express feelings, emotions, and an ability to persist through distressing thoughts and challenges.

The diversity scale (Pohan & Aguilar, 2001) included 15 questions to measure personal beliefs regarding diversity. It is a one to five agreement scale with scores ranging from fifteen to seventy-five. According to the authors, the typical range is 56.23 to 64.41 with an internal reliability of .78. Finally, the online survey includes a scale to measure self-efficacy around community engagement (Reeb et al., 1998). It includes ten questions with a reliability of .90. This data source offered insights into the attitudes and perceptions of the community members. Given the novel approach used and the subject matter, it was important to describe the starting point for CoP members.

Qualitative data sources included online discussion posts, the exit focus groups, and the value creation story narratives describing members' perceived value of the intervention activities. These sources addressed each of the three research questions previously outlined and highlighted other, unexpected outcomes that will be discussed in the next chapter. The online posts occurred through September 9, 2016 and concluded on December 7, 2016 (end of the pilot phase of this intervention). It included thirty-six initiated posts with almost the same number of comments. A review of these posted revealed the frequency of dialogue by and between members, the kinds of posts that prompted activity, and the variety of resources shared and downloaded. The exit focus groups explored a variety of topics including perceived value, favorite resources, and barriers to participation. The actual interview guide is located in the appendix of this dissertation. Finally, the narratives offered participants a chance to contribute privately and on an individual basis to their perceptions of the immediate, potential, and applied value of the CoP. The template is also in the appendix. These sources provided rich points of data for the individual and the group, and the sources may offer insights into participant experiences and perceptions of the experience. Posing research questions and collecting appropriate data on attitudes, intervention fidelity, characteristics of social learning theory, and value permitted this research to analyze the data for common themes and connections. Using descriptive statistics and a priori qualitative coding, the following offers a brief discussion of the data analysis plan including a review of the descriptive measures used, a priori coding method, and analysis of excerpts and narratives collected from the online discussions, focus groups, and value creation template.

## **Data Analysis**

**Quantitative data.** The small sample size for this intervention prevented the use of t-tests of differences in means or chi-squared test of independence. The evaluation used quantitative survey data to conduct a descriptive analysis of the activities and interactions occurring throughout the intervention, as well as participants' perceptions and feelings regarding openness to new experiences, self-efficacy related to community engagement, social justice, and other measures relevant to the evaluation. A descriptive analysis of this new approach to teacher development at JHU, coupled with the qualitative findings offered a rich look into the activities and events of the intervention and participant experiences.

**Qualitative data.** The qualitative data for this evaluation included transcripts of online discussion posts, exit focus group interviews, and value creation stories (Wenger et al., 2011) from the templates. Analysis of the qualitative data includes frequency counts of participation, sharing of resources, and pre-set and newly identified themes. Review of the transcripts from the online community, focus group transcripts, and value narratives relied on provisional coding. Miles and Huberman (1994) recommended using a "start list" based on research questions, literature reviews, and other information (p. 58). For this evaluation, themes were developed from categories highlighted in the research questions. Creswell and Clark (2007) recommend the development of five to six lean codes that eventually expand to sub-categories. This analysis included a first-pass of the pre-set themes and close attention to significant quotes and potential emergent themes. A second-pass reexamined the transcripts for the pre-set themes and further developed the newly identified themes. Qualitative analysis includes frequency counts of

facilitator and participant posts, the number and frequency of discussion posts and resource sharing during the intervention pilot period.

The coding approach was applied to online posts, the exit focus group transcripts, and the value creation narratives. The intervention included two exit focus groups with seven members of the community. The focus group followed a semi-structured interview guide, were recorded, and transcribed for review. The value creation stories templates also provided an evidence-based method to catalog responses in order to highlight the value of activities and themes. As suggested by Wenger et al. (2011), the outcomes of these stories were integrated throughout the different value cycles, commencing with a participant-identified activity (Cycle 1), moving through outputs that emerged (Cycle 2), and attempting to explain how members applied the resources in practice and their subsequent effects (Cycle 3). Wenger et al. (2011) posited that with enough time, the story could show changes in performance measures as well as reflections on long-term influences on institutional change or stakeholder views. The data analysis followed a mixed methods approach and provided background information regarding the community members and insights into participant experiences, perceptions of the community, and suggestions for the future use of the CoP.

### **Summary Matrix**

Table 5.5 (below) represents a summary matrix of the research questions, indicators, and data sources. This matrix provides a summary of the evaluation elements, including a process evaluation, an assessment of the ability of a community of practice to create immediate, potential, and applied value, and a list of program outcomes for this intervention. The instruments mentioned in the matrix are included and explained in the

Appendix. In the end, this evaluation will determine the extent to which this intervention can create and maintain an effective community of practice to engage and maintain the interest of faculty participants. In the end, this assessment will provide evidence of the ability of an online CoP to increase faculty participation in service-learning and help create a critical mass of service-learning teaching faculty at JHU.

## **Conclusion**

Based on the extant literature and needs assessment, this chapter described a mixed method approach to collecting and analyzing data from this intervention. The evaluation includes a review of the process as well as program outcomes. The outlined research questions serve to guide the organization and approach to the data analysis. In the end, the evaluation revealed important insights into community members' views on the intervention and will serve as a guide to future revisions and additions versions of this CoP. Chapter 6 reviews some of the key findings from the quantitative and qualitative data, highlights some unexpected but connected themes within the data, offers conclusions to the data analysis findings, and briefly discusses the implications of this research as well as remaining questions that require future exploration.

Table 5.5

*Evaluation Summary Matrix*

Research Questions	Indicators	Data Source
RQ 1: Process - Fidelity		
Implementation Fidelity - Does the implemented intervention reflect the components of the delivery system outlined in Chapter 4?	Number of planned discussions, number of shared resources, Count of activities planned for the space, participant presence in the community.	Planning documents for CoP, online discussion posts and other activities in the community.
Program Dose – Is the level of programming adequate to engage participants in program activities?	Number of discussion posts, timing of discussion posts, kind of posts (questions, articles, comments), reminders for participants	Online discussion posts and other activities in the community.
Delivery Quality – Are facilitators trained and skilled to engage participants in program activities?	Facilitator activity in the community, facilitator prompts members to participate, facilitator effectively responds to posts.	Online discussion posts and other activities in the community and exit focus group transcripts.
Participant Responsiveness – Are faculty participants engaged and involved in the activities?	Active and Passive Engagement, posts to the community, review of CoP Posts, download and upload of Resources	Online discussion posts and other activities in the community and exit focus group transcripts.
RQ2: Social Learning Framework		
Evidence of Practice	Talk about Shared Resources and Perspectives, Sustained Mutual Engagement, Learn by Doing	Online discussion posts and other activities in the community and exit focus group transcripts. Value Creation Personal Narratives
Meaning-making for faculty	Learn through experiences, Reification, Talk about change/evolution	
Identity	Learning trajectory, membership, learning as becoming, local and global situation	
Community	Mutual engagement, joint enterprise, shared repertoire	
RQ3: Value Creation		
Cycle 1 - Immediate Value	Help with a challenge, Answers questions, Solutions to a problem, Triggered out of the box thinking or a new perspective, Elicited relief – a	Online discussion posts and other activities in the community and exit focus group transcripts. Value Creation Personal Narratives

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Cycle 2 - Potential Value	sense of being on the right path. Resources available, Learning capital, human capital, and social capital in the form of an ability to ask questions and knowing whom to trust.	Online discussion posts and other activities in the community and exit focus group transcripts. Value Creation Personal Narratives
Cycle 3 - Applied Value	Implement advice, Revise a lesson plan, Change in practice from leveraging experiences, Tried a suggestion, Used social connections	Online discussion posts and other activities in the community and exit focus group transcripts. Value Creation Personal Narratives

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## **Chapter 6: Data Analysis and Findings for the Evaluation Research Questions**

The following chapter offers a description and discussion of the results from the analysis of data collected. First, it reviews participant demographic characteristics and prior experience with service-learning as well as the quantitative survey data about respondent attitudes towards openness, diversity, and self-efficacy related to community engagement. The remaining discussion is organized according to the research questions outlined in Chapter 5 but also includes a brief discussion of other themes that emerged. While these themes did not directly address the research questions, a review of this data provided further insight into findings for the main research questions.

The chapter introduces the members of the online CoP through a discussion of member characteristics and attitudes and perceptions of openness to new experiences (curiosity), diversity, and community engagement efficacy. It also includes a review of the intervention's fidelity as previously defined. The analysis presents quantitative and qualitative evidence to support the conclusion that the pilot version of this online CoP did achieve a high level of fidelity. The discussion also outlines evidence to support the online CoP as an example of the social learning framework, and the data from the online discussion posts and focus group transcripts support the claim that this CoP did include elements of practice, community, meaning-making, and identity – the four key elements of Wenger's (1998) social learning theory. Finally, data presented supports the hypothesis that the online CoP, for all of its challenges, did create value in the eyes of the community members. The qualitative findings support the conclusion that this online CoP created immediate, potential, and applied value.

## **Participant Characteristics**

As noted in Chapter 5, 18 faculty and community fellows consented to participate in and joined the online community of practice. During the six-month intervention, however, only about seven of those members posted in the discussions, replied to questions and prompts, and/or exchanged resources with other participant. These participants included three faculty and four community fellows and the majority were female. One member holds a primary appointment in the School of Nursing while the other two faculty members hold primary appointments in the School of Public Health. While the number of participants is lower than anticipated, the composition of the sample attributes reflects the overall proportions of the eighteen original members. The most notable characteristic of the eighteen and sub-sample of seven is that the majority of members came directly from the SOURCE Service-Learning Fellows Program. This is important to note as these participants have most likely met at least one time in person, received some training in the service-learning pedagogy, and tended to value service and service-learning more than other colleagues at JHU. Their strong interest in service and related topics is supported in a review of the pre-test survey in the following section.

## **Participant Perceptions: Openness, Diversity, and Community Engagement**

Initially, I had planned to use a pre-post survey design to identify and understand engagement patterns of different members of the community. It was hypothesized that members who experienced positive changes in their openness to new experiences and challenges might post with a higher frequency than others. Moreover, change in perceptions of diversity as well as reported confidence in community engagement might also be linked to members who participated more, due in part to their comfort with topics

relevant to and discussed in service-learning circles. However, the small sample size of survey respondents made it impossible to use the data as initially intended. Rather, this data served to provide a background understanding of the beliefs and perceptions of community members regarding openness, and around relevant issues of diversity and self-efficacy toward community engagement. This section of the evaluation is descriptive in nature and provides evidence at both the individual and aggregate level on each of the three scales included in the survey. As evidenced by the data, most members scored quite high on all three scales, and, given the low response rate and a lack of an observable delta, this discussion will not include an analysis of the post-survey. The pre-survey included thirty-five questions comprised of three different scales: curiosity, diversity, and community engagement self-efficacy. Prior to the start of the intervention, participants responded to the online survey through Qualtrics. Seventeen of the eighteen CoP members participated. The following discussion outlines the results from each scale and tentative conclusions supported by the evidence.

### **Openness and Curiosity**

The ten question Curiosity and Exploration Inventory II (CEI-II) was developed by Kashdan et al. (2009). Respondents used a five-point agreement Likert scale to report on their disposition towards new situations, uncertainty, challenges, unpredictability, and other characteristics. Higher scores on the CEI-II translated into psychological flexibility, awareness and clarity of emotions, increased frequency of positive emotions, and a willingness to express feelings and persevere even in challenging situations (Kashdan et al., 2009). Scores on this scale were reported for the full ten questions and by odd- and even-numbered questions. These sub-categories of the scale include stretching or a

motivation to seek knowledge (odd-numbered questions) and a willingness to embrace uncertainty and the unpredictable aspects of life (even-numbered questions).

A review of the statistics in Table 6.1 revealed an average curiosity score of 36.71 (*std* = 4.64) with a maximum score of 44 (out of 50). Recall from Chapter 5 that this score measures participant willingness to share feelings as well as their psychological flexibility. This average is higher than the 32.96 (*std* = 6.65) reported in the Kashdan et al. (2009) investigation, suggesting that, members of this CoP report statistically higher ( $p = .0048$ ) than average psychological flexibility and openness about their emotions and feelings. The table also illustrates the distribution of overall scores for respondents with a skewness of -.50 indicating a left-skewed distribution. The histogram confirms this; almost half of the respondents scored below the mean. The overall scale also reported a standard deviation of 4.64, which indicates more dispersion between member scores and the sample mean. In other words, relative to the other measures within the curiosity scale, this sample's scores are located further away from the mean.

Table 6.1

*Descriptive Statistic: Curiosity Score*

	N	Mean	Std	Median	Min	Max	Skewness	C.V.
Curiosity	17	36.71	4.64	38	27	44	-.506	12.64%
Stretching	17	20.18	2.60	21	13	23	-1.16	12.88%
Embracing	17	16.53	3.14	17	10	21	-.482	19.00%

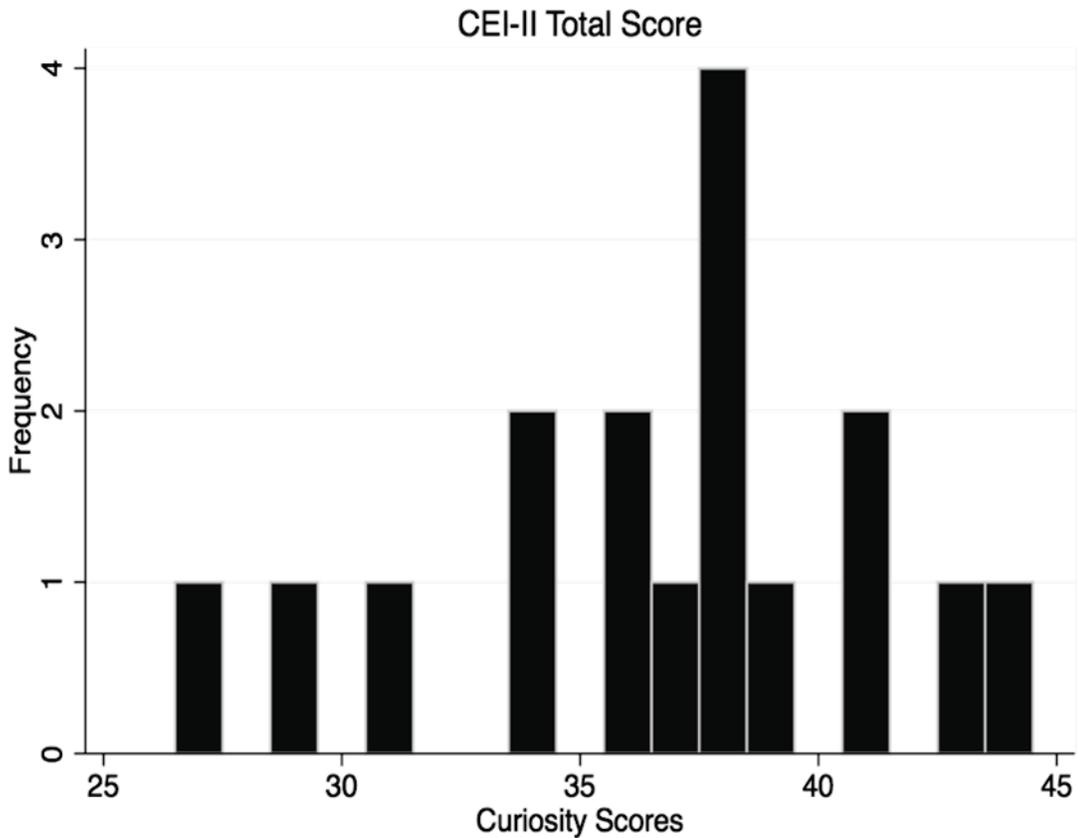


Figure 6.1. Distribution of the CEI-II overall score.

The sub-scales within the curiosity scale included stretching and embracing. Compared to the full scale, the variation in the stretching sub-scale was lower (2.60), which indicates slightly less relative dispersion than the other two scales under curiosity. The average score for stretching equaled 20.18 ( $std = 2.60$ ), which like the overall curiosity scale scores was statistically higher ( $p = .0006$ ) than that reported in the Kashdan et al. (2009) study (17.51,  $std = 3.69$ ). The embracing sub-scale of 16.53 ( $std = 3.14$ ), however, was not statistically different ( $p = .22$ ) when compared to the Kashdan et al. (2009) reported score of 15.43 (4.01). In this case, the relative variation as measured by the coefficient of variation is 19%, which is higher than every scale except for the self-efficacy of community engagement in Kashdan et al. (2009). Overall, compared to

other scores in the empirical literature, average member scores are higher than previously reported data except in the case of the sub-scale for embracing. This may provide some evidence that members of this community may report higher than average openness and curiosity to new experiences, which is not surprising given the self-selected nature of the SOURCE program.

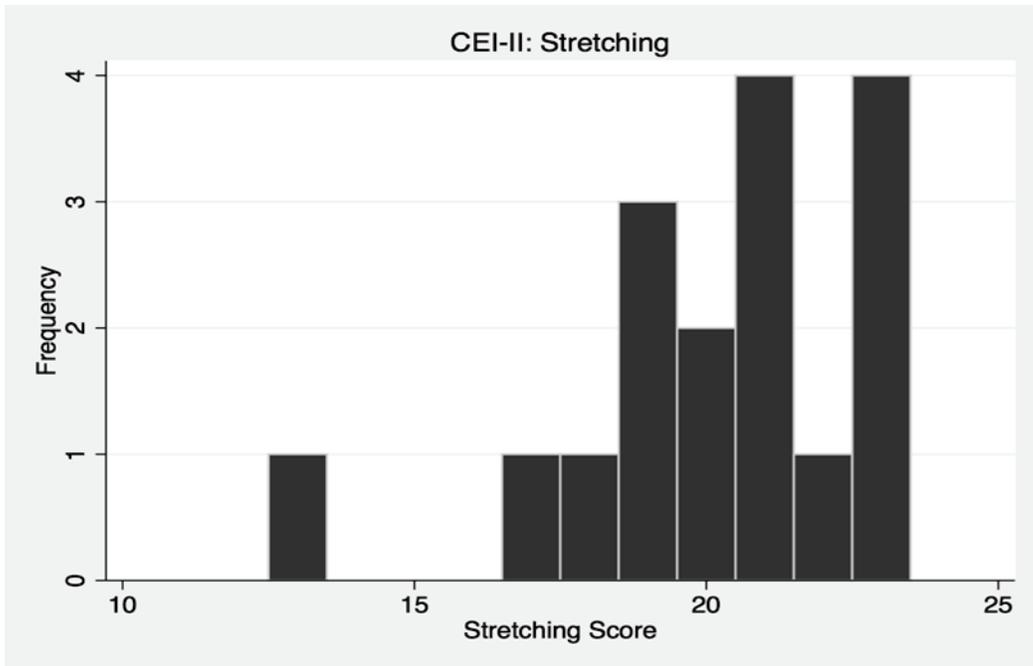


Figure 6.2. Distribution of the CEI-II stretching sub-scale.

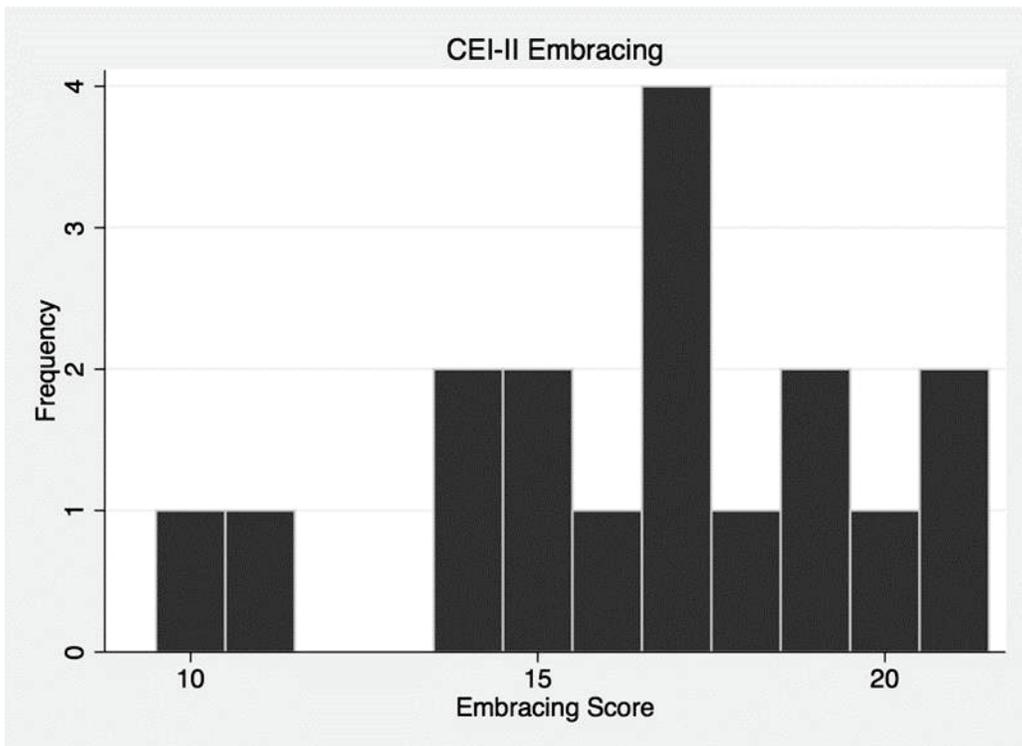


Figure 6.3. Distribution of the CEI-II embracing sub-scale.

Predictably, members of the CoP who either also participated in the SLFP or serve as current fellows identified, on average, as highly engaged in community work and service-learning. On average, these members also reported more openness and motivation to seek knowledge. While embracing average scores were also higher, the spread in the data reflected the presence of other, lower scores in the study sample.

### **Diversity Scale**

The diversity score measures personal beliefs about diversity, and in this scale diversity includes historically marginalized groups based on race, gender, social class, sexual orientation, disability, language, and immigration status. This scale includes fifteen questions in the form of a 1 to 5 Likert scale of agreement. Analyzing this data included recoding negatively worded items and totaling the scores for individual respondents. Scores for this scale range from 15-75 and, according to Pohan and Aguilar (2001), scores typically range from 56.23-64.41. An examination of this data includes a histogram of each member's score as well as the descriptive statistics for the group.

Table 6.2

#### *Average Score for the Diversity Scale*

	N	Mean	Std	Median	Min	Max	Skewness	C.V.
Diversity	17	67.35	4.48	67	56	75	-.749	6.65%

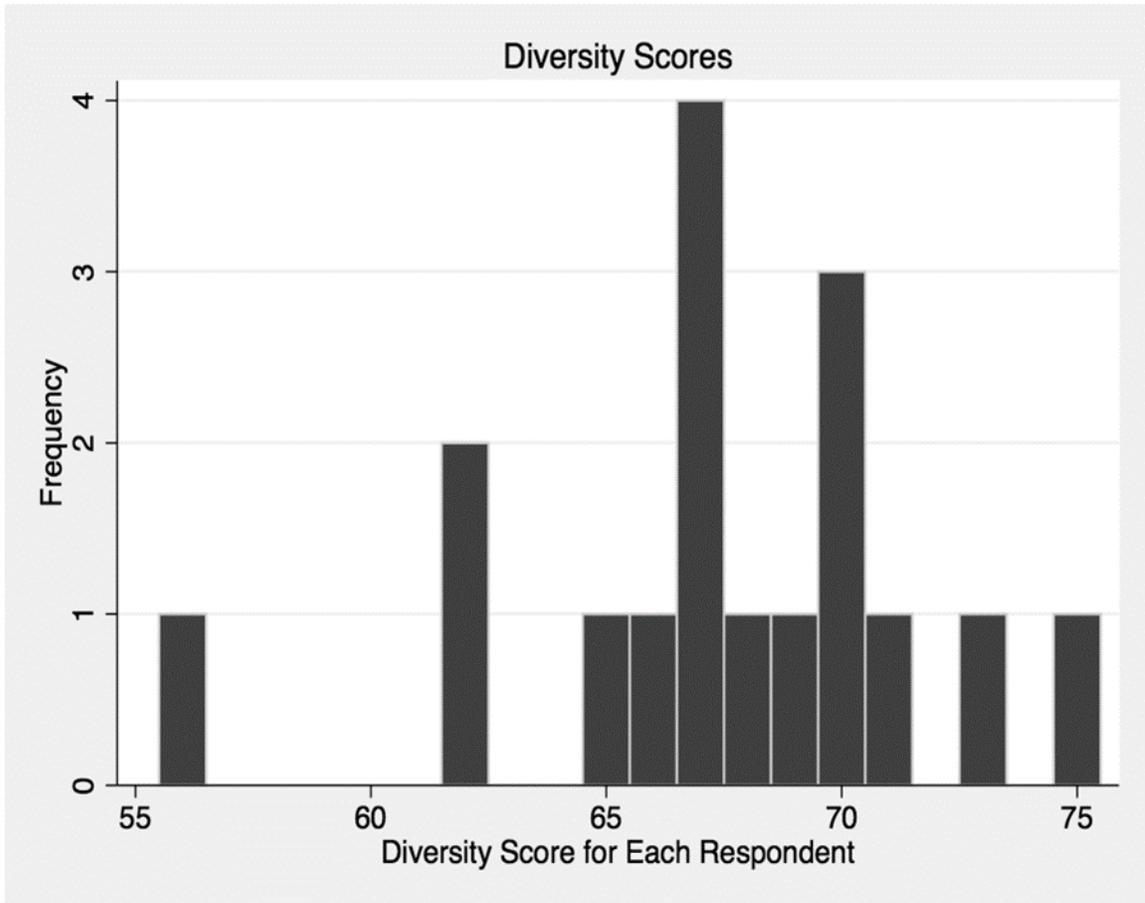


Figure 6.4. Frequency table for individual respondent diversity scores.

Unlike the curiosity scale, the diversity scores for respondents closely resemble a normal distribution, with a mean of 67.35 and a median of 67. Given the range of scores reported, this data also indicates higher levels of support for and recognition of the value and contributions of diverse and marginalized groups. A one sample t-test comparing the sample mean to the upper level of the range in the Pohan and Aguilar (2001) article indicates a statistically higher average score for this group ( $p = .0156$ ). The diversity scores are also more tightly located around the mean relative to other scales.

### **Community Engagement Self-Efficacy Scale**

This scale offers a means to measure member confidence with engaging in community work in the future. It includes ten questions that explore self-esteem,

empathy, and participation in service as well as feelings around empowerment and others. Respondents were asked to rate their perception of each question on a scale of one to ten, with one representing quite uncertain and ten equaling very certain. Self-efficacy, in this context, refers to the “individual’s confidence in his or her ability to make meaningfully significant contributions to the community through service” (Reeb et al., 1998, p. 459). Scores on this scale can range from zero to one hundred. Moreover, Reeb et al. (1998) found a positive correlation between the scale and civic behavior intentions, which include growth motivation, empathy, hope, and self-esteem. This scale is valuable for two reasons: self-efficacy represents one goal of the service-learning pedagogy, and these civic behaviors are associated with levels and variety of service involvement. Results from this part of the survey provide evidence of member comfort with service-learning and community engagement.

Table 6.3

*Descriptive Statistics – Community Self-Efficacy*

	N	Mean	Median	Std	Min	Max	Skewness	C.V.
Self-Efficacy	17	72.59	73	14.25	46	100	-.013	19.23%

Table 6.3 shows basic summary statistics for the average score for the group. This evidence describes an average score of 72.6 with a normal distribution. The standard deviation indicated a significant spread in the data (14.25). Two-thirds of the sample scored between 58 and 87. A histogram (see below) of individual scores on the CSES reflects the findings in the descriptive statistics. Scores vary and range from forty-six to one hundred. A review of the individual member participation and self-efficacy scores revealed no pattern or correlation.

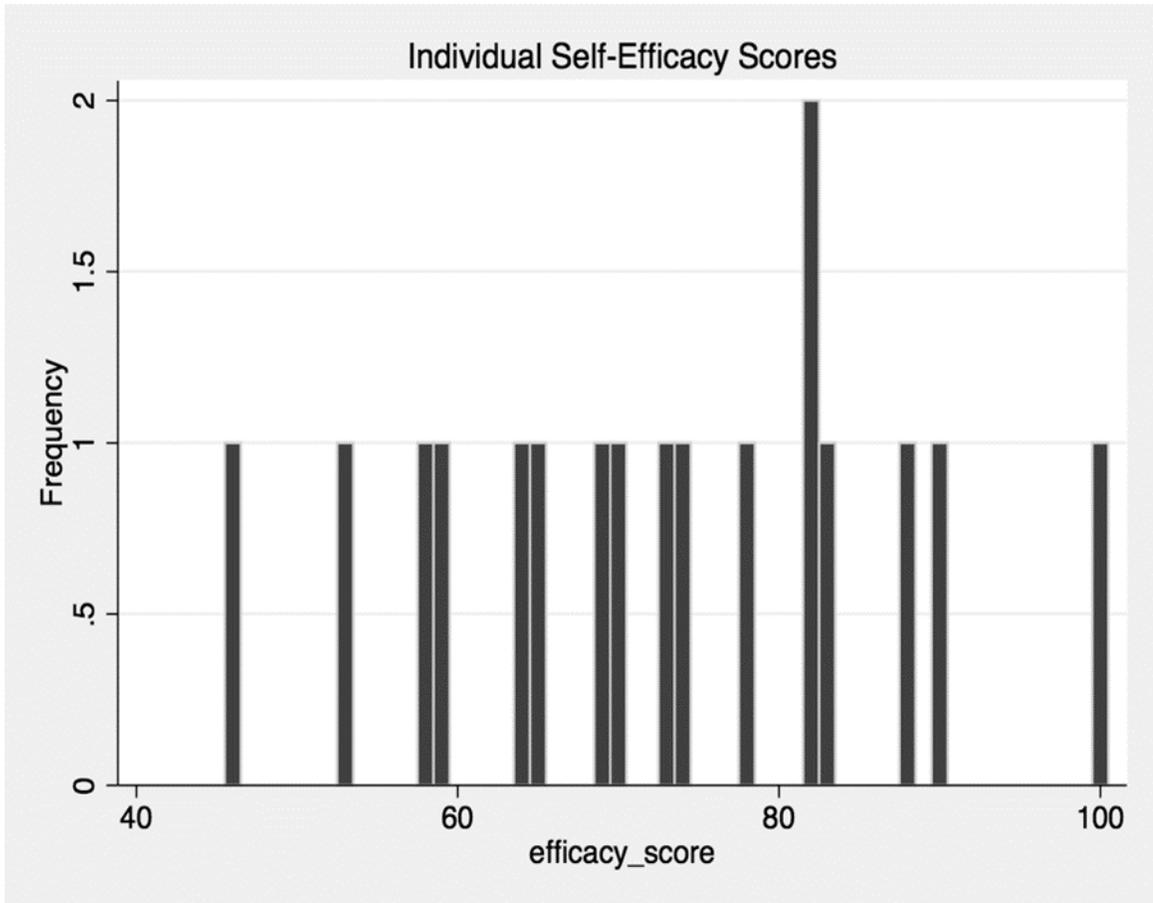


Figure 6.5. Frequency distribution-individual self-efficacy scores.

An examination of the pre-survey sub-scales of curiosity, diversity, and self-efficacy revealed that, on average, participants scored high on all three. A closer look at individuals reveals larger variation in scores on the overall scales, with curiosity having the most dispersion. The standard deviations of the sub-categories of stretching and embracing revealed a relatively smaller spread in the data, which translates to less variation in participant attitudes within these measures.

Finally, it is also worth pointing out that the sub-group of members who participated with the most frequently, on average, tended to score higher on the curiosity scale with five of the seven scoring higher than 50% of the total sample. Moreover, it is interesting that this group also scored either the lowest or the highest on the community

self-efficacy scale. Again, caution is required when interpreting these data points but it is possible that members who participated most often are more curious and open to new experiences but also either believe they need to build more confidence in this work or a higher level of confidence prompts a belief that they have something to contribute to a space like the online community of practice.

### **Overview of the Qualitative Coding Analysis**

As outlined in Chapter 5, qualitative data collected included online CoP discussion posts, transcripts from two focus groups conducted at the conclusion of the intervention, along with participation descriptions from written narratives. The qualitative analysis included a review and accounting of the discussion posts, a two stage coding process of the transcribed focus groups, and a summarizing of findings from the written narratives. Prior to starting the analysis, I used Miles and Huberman's (1994) suggestion to rely on a list of pre-set themes and codes that emerged directly from the research questions. Using the themes of fidelity, social learning framework, and value creation, I created parent and child codes for each category. With these codes, I examined the qualitative data and collected notes and excerpts of the findings. To aid in identifying, organizing, and summarizing the findings from the two one-hour focus groups, I used Dedoose, an online qualitative software. Table 6.5 includes the research questions, codes, and sample excerpts.

Analysis of the focus group transcripts concluded with a second review of the data, during which new themes emerged. These included technological barriers, beliefs about online platforms, scaffolding, and routine. Technological barriers included respondent descriptions and reporting of challenges with setting up a Google+ account,

identifying the best methods to receive reminders of community updates and prompts, and navigating and posting to the Google Community. Although related, beliefs about online platforms identified member reporting of skepticism about the ability of an online community to produce social networks and relationships comparable to those established in a face-to-face setting. This theme also included the idea of a relational anchor, which refers to ideas about the role of an online community as a resource repository, a social network, or some combination of the two. Within this theme, members discussed possible generational differences regarding expectations and utility of online communities.

Scaffolding identifies when members reported the need for preparation and training to participate in this intervention. This focused mainly on using the Google tools, but also included references to gaining a better understanding of the process and rhythm of posting, attaching files, photos, and other artifacts, as well as replying and searching for topics. The theme of routine emerged through the focus group discussions as a reason for lower member participation. Members discussed the challenges of incorporating this intervention into their day-to-day workflow. Using Dedoose and Excel, I compiled 248 excerpts from the focus group transcripts along with data from the online discussion posts, and the value creation templates to craft a narrative describing in more detail the various elements of each of them, providing evidence for them, and highlighting the connections between the different themes. The subsequent discussion reviews these findings.

Table 6.4

*Themes, Parent, and Child Codes for the Qualitative Analysis*

Evaluation Questions	Themes	Parent Codes	Child Codes
RQ1	Fidelity	Implementation Facilitator Delivery Dosage Participant Engagement	n/a  Passive and Active Engagement
RQ2	Social Learning Framework	Community  Practice  Identity  Meaning-Making	Joint Enterprise, Mutual Engagement, Shared Repertoire Learning by doing, Talk about perspectives, Talk about shared resources, Sustained mutual engagement Learning trajectory, Learning as becoming, Local and global situation, Membership Reification, Talk about change, Learning through experience
RQ3	Value Creation	Immediate  Potential  Applied	Answer questions, Help with challenge, Relief, Solutions to a problem, Triggered out of the box thinking Human capital, Learning capital, Social capital Implement advice Practice changed from leveraging knowledge capital, Review a lesson plan, Tried a suggestion, Use social connections
N/A	Emergent Themes	Technology Barriers Beliefs about Online Platform Scaffolding Routine	N/A

According to Figure 6.6 and based on the 248 excerpts highlighted in the analysis of the focus group transcripts, value creation (25%) and the social learning framework (29%) themes emerged in the highest proportion of the excerpts, followed by fidelity (15%) and technological barriers (15%). While these percentages, to some degree, align with the types of questions asked in the focus groups, what is interesting is that the emergent themes appeared regularly enough to warrant their own discussion. Ideas about routine, scaffolding, technological barriers, and beliefs about online platforms were not asked and yet, many of the focus group participant brought up these topics and wanted to discuss them in more detail.

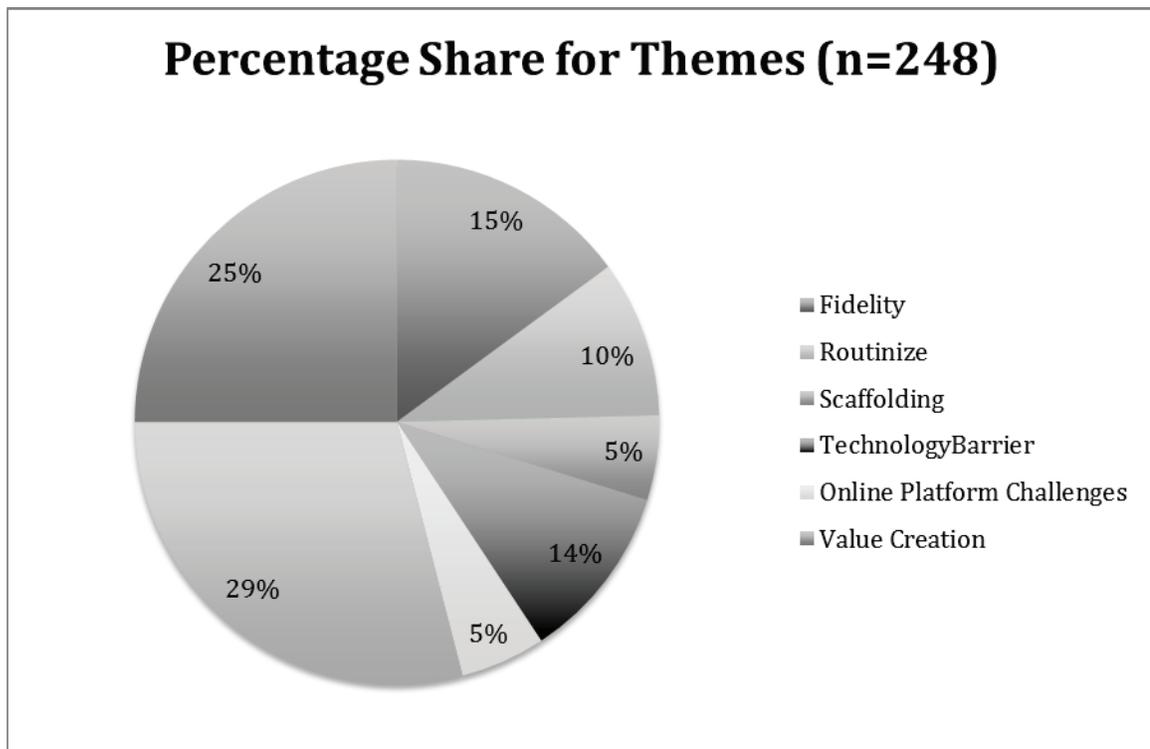


Figure 6.6. Percentage share of themes identified in the coded focus group excerpts.

Out of the 248 excerpts highlighted, 159 excerpts provided some insight into the three primary research questions and the themes of fidelity, social learning, and value creation. As highlighted in the histogram below, community (52/159) and potential value

(31/159) occurred more frequently than any other child codes connected to the research questions. Immediate value and participant responsiveness followed. The other elements of social learning, including practice, identity, and meaning making, represented a very small proportion of the transcribed and coded excerpts. Similarly, excerpts coded as immediate and applied value represent fewer than half of those coded as potential value. This may be a result of the direction of the conversation in the second focus group. Since several of these participants did not engage or did so at a very low level, much of the conversation focused on their views of the potential value of the community. As will be discussed in the next section, there are varieties of possible explanations for this low level of member participation in the online CoP.

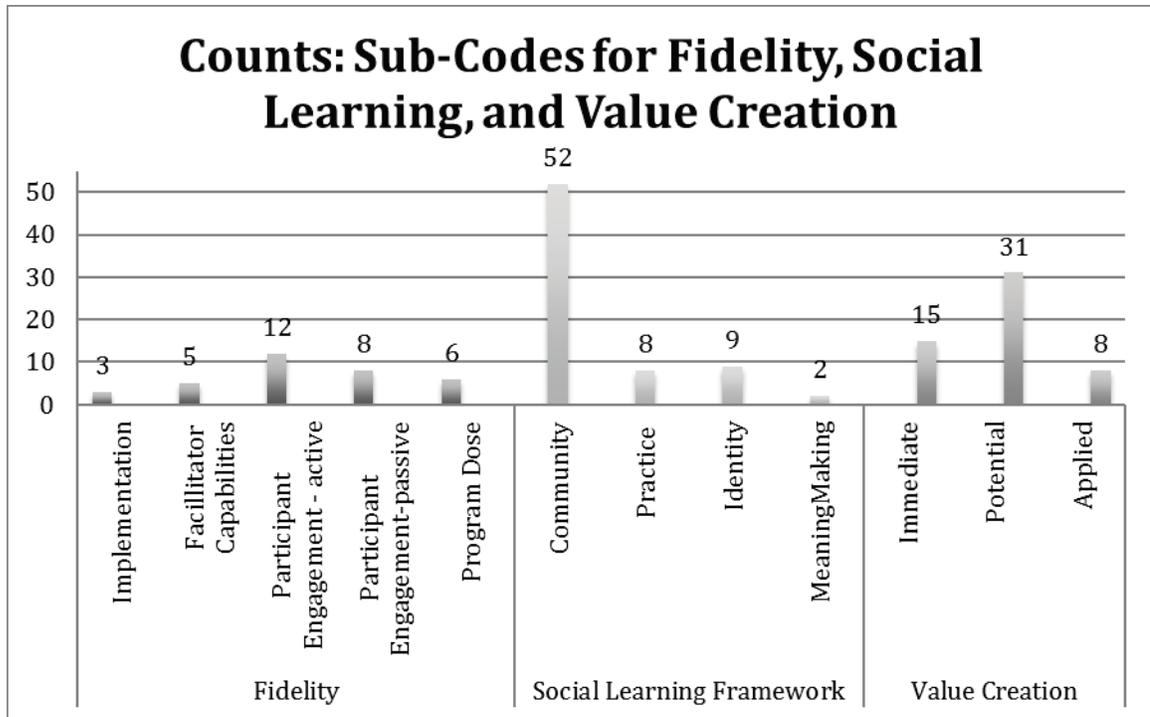


Figure 6.7. Frequency counts for the sub-codes of fidelity, social learning, and value creation.

### Research Question 1: Fidelity

Analysis of this research question included examinations of adherence to the plan, quality of the program or facilitator capability, dosage, and participant responsiveness.

**Fidelity: Implementation.** Overall, a review of the planned and actual curriculum for the community provided evidence that the topics and activities covered reflect the initial plan for the online CoP. As described in Chapter 5, the primary activities included those in Table 6.6.

Table 6.5

*Planned Design of the Online Community Space (Google Community)*

Areas	Description	Initiated by:	Frequency	Source
Events	Reminders of upcoming events/milestones related to service-learning	Facilitator	As needed	Web, JHU, SOURCE
Announcements	Updates/regular communication with members	Facilitator	Weekly	Facilitator
General Discussion	Main group discussion board	Facilitator	Every two weeks	Facilitator and Discussions from Face-to-Face Meetings
Grab Bag	Place for group to make suggestions, offer topics, talk about something on their minds, etc.	Any Member	On-going	Facilitator and Community Members
Advice "Column"	Seeking assistance with specific situations, issues, or challenges	Any Member	On-going	Community Members
Resources	Repository to collect (upload and download) various resources related to teaching and service-learning	Any Member	On-going	Facilitator and Community Members
General Teaching Activities	Teaching tips, suggestions, ideas			
	Specific examples of student/community activities			
Reflection Ideas	Sample reflection questions or tasks to foster student reflection			
Other Journal "Club"	Miscellaneous			
	Select a journal, article, blog for the week and discuss merits, relevance, or value to service-learning, the community, classes, etc.	Facilitator	Several times over the year	Facilitator and Community Members

A review of community activities revealed that general discussion, the advice column, and resources were the most common areas for posting. Resources included teaching tips, activities, reflections, relevant articles and books, and other media sources like YouTube videos. No events were shared, there was no value in the grab bag, and while articles were posted, there was not enough interest to create a journal club section of the community. As a new endeavor, it seems that multiple categories were unnecessary for member discussions and community content and resources. As shared by several respondents, one challenge for the participants revolved around technological barriers

related to using Google Drive, which contributed to difficulties with locating the community artifacts and resources. The evidence suggested that a simpler structure for presenting the posts might also have helped members find relevant discussion posts and resources.

As outlined in Chapter 5, I aimed to facilitate ten to twelve weekly discussions. Over the course of the intervention, however, I facilitated fourteen weekly discussions and contributed multiple posts (replies) during those fourteen weeks (71%) from September to December. For example, on September 28, I posted twice; the first described a new report on service-learning from Inside Higher Education, and another shared a newly published academic journal article on service-learning. Again, on October 7, I shared a reflection activity and later posted a discussion question seeking member advice on conducting reflection using a blended method. I contributed a total of thirty-seven posts to the different discussions that occurred over the course of the intervention.

While some of the topics outlined in the table of planned activities were excluded, including asset building and multicultural education, new ones emerged and more time and interest was spent on other planned topics. For example, there were six separate questions and posts related to reflection, and while power and privilege did not explicitly come up, the community did briefly discuss social justice issues several times through other topics.

The other notable difference stems from change in modes of communication used within the CoP. Initially, the intervention included face-to-face sessions. These could have occurred in a number of formats, including face-to-face meetings, online Adobe Connect sessions, or Google Hangouts. With the start of the CoP, it became evident that

the focus should remain on encouraging participation in the online space: the evidence in the interview transcripts as well as the mid-intervention check-in discussion post revealed difficulty navigating the tools, skepticism about the role of an online community in building relationships, and the recurring lack of time to dedicate to this effort. Consequently, the intervention did not use synchronous sessions as part of the intervention.

In the end, even though the CoP started a few weeks later than expected and covered a few topics outside the planned curriculum, it appears that implementation fidelity was high. When implementing an intervention like an online CoP, it is expected that the flow of discussions and interests will meander, and by definition a CoP should form and shape according to the interests and needs of the community members (Lave & Wenger, 1991). The evidence suggests that this intervention reflected the evolution of a COP as described by Lave and Wenger (1991), as was planned.

**Fidelity: Delivery quality and dosage.** Other aspects of fidelity included facilitator capabilities and program dosage (Dusenbury et al., 2008). According to exit interviews, members suggested that the facilitator demonstrated appropriate skills to both post and respond. Furthermore, members commented that dosage did not influence their participation. In other words, the frequency with which I posted, as the facilitator, did not determine the frequency with which participants engaged in the community. According to one participant, “posting should not be the sole responsibility of the facilitator” (Focus Group Respondent 2, 1/15/16). Furthermore, they agreed that there is no formula for the appropriate level of participation or active posting, nor for frequency of sharing of resources. These levels, in their views, depend, in part on when they would use the

resources and the timing of their preparation and teaching related to service-learning. When asked about the lack of active participation, one respondent noted that it was a matter of timing. If faculty were not working on service-learning course preparation in the fall, it is likely that they would not be fully engaged or might be collecting and making mental notes to circle back to this information (Focus Group Respondent 1, 1/29/16). Furthermore, another respondent said that the frequency of posts, whether every week or every month, was not important. She was interested in valuable and practical resources, and the advice and timing were less important (Focus Group Respondent 2, 1/15/16). Overall, the evidence suggested that my knowledge of managing this kind of platform and the frequency of posting and sharing were appropriate and did not hinder participation in the discussions or the community in general. As discussed in the next section, while data suggested that participation was better than initially expected for the pilot version of this online CoP, future versions of this community and the facilitators should consider the use of email prompts and recognition to motivate participation.

**Fidelity: Participant responsiveness.** Thus far, evidence has suggested that the pilot online CoP achieved fidelity as defined by implementation, facilitator capability, and intervention dosage. A review of participant engagement, an important fidelity measure, reveals a more ambiguous view of fidelity. Recall that engagement in this intervention refers to either passive or active engagement, or a mix of both. Overall, of the thirty-seven initial posts, I initiated thirty (81%), while members in the community only created seven. There were an additional thirty-two comments stemming from those posts within the community. On three occasions, four or more comments emerged. Topics from these discussions included questions around institutional barriers to working

with communities, reflection questions, and an activity that offered an article and related discussion questions. Consequently, eighteen of thirty-two, or 56%, of the additional comments resided in three of the initial community posts. Furthermore, the Google Community reported seven “views” of individual posts. At first glance, these numbers seem reasonable for a new community in the very early stages of development. In fact, one participant suggested, “these things just take time.” (Focus Group Respondent 1, 1/15/16). One issue, however, is that these conversations occurred between a small and consistent sub-group of five to six, or fewer than a third, of the seventeen community members. Therefore, while there was a reasonable level of activity across the entire community, it occurred within a subgroup made up of only 30% of the community members.

A review of the focus group data provided some insight into this quantitative analysis. In the discussion one member suggested, “numbers are not an appropriate measure of success in the case of this kind of intervention” (Focus Group Respondent 2, 1/15/16). She raised the question of engagement, and this discussion led the group to distinguish between active and passive engagement. In fact, a number of the focus group participants stated that they viewed and read posts but either did not feel the need to respond or simply catalogued the information for future use. Unfortunately, Google Analytics did a poor job of tracking this data, so the only evidence of this passive engagement comes from the focus group.

Participants repeatedly provided examples of reading and saving resources or reading and using materials without reporting to the community about their experiences. One added, “They did not feel compelled to report out mostly because of time

constraints” (Focus Group Respondent 2, 1/15/16). Some participants in the community viewed the reporting out as an important aspect of resource collection in the community. A member, however, suggested, “The facilitator might want to consider the use of prompts and follow-up to motivate reporting back to the group” (Focus Group Respondent 1, 1/15/16) and several members noted the value in members providing descriptions and context for the resources being shared. It also helped to know who posted the resource so that members could follow-up with their own questions about the artifact. Others mentioned an interest in participating in training that would give tips on effective ways to report and reply in the community. Another community member shared that her fall course load did not include service-learning preparation, so she was collecting resources but not really engaging or using the materials yet. In other words, participants engaged but did not actively post to alert the community about this engagement or to discuss their experiences. Another member said (and the community posts showed) that she was in the midst of prepping and did reach out and received advice and examples for a particular topic that she used in a class session. Consequently, a surface investigation of the online metrics reveals a steady stream of engagement by less than a third of the community members. Yet, upon deeper exploration of the data, it appears that as discussed by Carr, Francis, Rivlin, and Stone (1992), participant engagement takes multiple forms. These include active encounters and participation without posting, as well as passive involvement such as observing what others do but also reading and archiving materials for later. The evidence supporting fidelity in terms of participant responsiveness revealed one possible example of the anatomy of engagement. This includes contributing initial posts; readings and responding to posts and replies;

reviewing and archiving posts; reading and using the information; and reading, using, and then reporting on the experience. While unanticipated, this kind of engagement data from the online community posts and the focus group transcripts provided sufficient evidence to support these conclusions and demonstrated a higher level of engagement than was revealed by the online community metrics alone. In the end, evidence suggested that the design and implementation of the intervention achieved fidelity, and, while participant responsiveness remained steady, the quantitative measures show that less than one-third of the members actively engaged in expected ways. The next section reviews the extent to which the community reflected components of social learning theory.

### **Research Question 2: Social Learning Framework**

Social learning, according to Wenger (1998), represents a form of belonging, or learning as social participation, and includes active participation in practices of social communities. Over time and in these communities, members construct identities in relation to the community. While the online CoP needs time and attention to grow and increased in membership and active participation, respondent reflections about the community align with critical aspects of this framework.

Recall, the four primary components of this framework include community, practice, identity, and meaning-making. Wenger (1998) suggested that learning as social participation represents the primary focus, and this online CoP certainly reflects this. There was a sense of “feeling more comfortable within the community” (Focus Group Respondent 2, 1/15/16) and appreciating the presence and connections with “like-minded people who share this interest in service-learning” (Focus Group Respondent 2, 1/15/16). Respondent three added to this by characterizing the community as a means to build

relationships and ask and discuss questions. Respondent One described the community as a way to “have a voice, getting out there for people to see but not imposing, for me it was exciting” (Focus Group, 1/15/16). The next several pages provide a more detailed discussion of the evidence that emerged in support of the elements contained in the social learning framework.

**Community.** Community represents one of the attributes of the social learning framework and encompasses characteristics of mutual engagement, joint enterprise, and shared repertoire. Mutual engagement refers to a general feeling of membership in a community where participants do things together and engage in activities and negotiate meaning and understanding. In this CoP, respondents described mutual engagement as “feel[ing] an obligation to participate as members of the community” (Focus Group Respondent 3, 1/15/16) and working with “like-minded people” (Focus Group Respondent 4, 1/15/16). Participants in both focus groups described an interest in sharing and discussing activities related to service-learning but also talked about strategies and logistics that reduce the challenges inherent in using this pedagogy in the classroom.

Joint enterprise, according to Lave and Wenger (1991), is the idea of mutual accountability and a negotiated response to problems and challenges (not necessarily implying agreement). The qualitative evidence supports the presence of accountability in this CoP, but not in the traditional way of thinking about this term. Many of the members described a need for prompts directed at them that would act as a “shame factor” to motivate engagement (Focus Group Respondent 4, 1/15/16). Members talked about feeling guilty and a sense of “shame” (Focus Group Respondent 1, 1/15/16) when they failed to post. Personal email prompts, according to several respondents, acted as an

effective means of shaming members into participating and engaging in the online conversations. According to Tadelis (2008), shame is considered a public emotion while guilt works as a private emotion. This is important because the evidence seems to suggest that accountability to participate may not originate from a work obligation related to the JHU mission, but rather from a responsibility to a community of people. Furthermore, it is interesting and unclear why the JHU culture may require faculty shaming to motivate faculty participation in these kinds of activities. What does this indicate? Looking back at the needs assessment, faculty reported the personal importance of their role as teachers as well as perceived benefits of using service-learning in their classrooms. The needs assessment also suggested that messages from leadership about teaching were unclear, and most faculty members perceived that the institution did not value them as teachers. It then makes sense that the shaming prompts a response possibly because faculty members really do want to participate; because of the competing obligations, primarily research, it takes an extreme emotion like shame to prompt action. It may represent more evidence of a complicated culture. It is possible that the absence of significant rewards and recognition for this work remains a barrier to participation even when members do join a community of faculty interested in teaching.

The evidence also suggested that while there are many positive to participating in this community there are also negative aspects to these kinds of communities. For example, a review of the online discussion posts reveals that sometimes even these like-minded individuals disagreed on a course of action. Respondent One, in the first focus group, described a moment where another member “sort of cut me off” and talked about how her views on the matter were correct (Focus Group Respondent 1, 1/15/16). While

there was some unease around this negotiated response, this respondent continued to participate in the community.

Lastly, the aspect of community where there is a joint pursuit and collection of resources can be described as a shared repertoire. A respondent suggested that the community “seems so much more attainable for me as an online space as the repository and the resource that makes sense. That’s how I use it” (Focus Group Respondent 7, 1/29/16). The resources may vary as previously discussed, but the common thread is that they are of the community (Cuddapah & Clayton, 2011). Participants reported the existence and collection of different resources, including activities, articles, examples of reflections, and others. One respondent reported thinking that “the value for me of the online space is not so much the sharing of what replaces face to face. It’s more becoming a repository of where resources sit that I can access” (Focus Group Respondent 6, 1/29/16). Faculty also reported a lack of personal organization, which sometimes made it difficult to access the resources, but participants did acknowledge the existence of this repertoire within the shared Google Drive folder. Members also noted that it takes time to build up resources and that “it is not necessary to front load resources” (Focus Group Respondents 1 & 2, 1/15/16). They suggested that this repository develops through the collection of tangible resources, but also through an archive of informative posts and discussions over time. The evidence may also point to another important role for the facilitator: to act as a community curator. Respondents noted that in the future, the community facilitator might want to take on the task of tagging resources with new categories in order to improve member searches later. Members described how eventually, “posts may be grouped and archived so that members can go back and search

for specific topics and posts from several months and maybe years ago” (Focus Group Respondent 1, 1/15/16 & Focus Group Respondent 5, 1/15/16). While this online CoP remains in its infancy, there is evidence from the online discussion posts and the focus group transcripts that members felt a part of the community and displayed some of the important qualities of joint enterprise, mutual engagement, and shared repertoire so familiar from Lave and Wenger’s (1991) early work on communities of practice. “For me, this is the only space like this that our organization is involved in with any part of Hopkins that is an open space for dialogue” (Focus Group Respondent 1, 1/15/16).

**Practice.** Like community, practice represents an element of this social learning framework, and, based on some evidence from the online posts, it appears that respondents engaged in actions resembling Wenger’s notion of practice (Wenger, 1998). For example, in over eight exchanges respondents discussed a particular reflection activity and associated questions. The discussion about reflection in service-learning courses generated more replies than any other community discussion post created over the course of the entire intervention period. Additionally, a review of these online posts revealed that member replies only occurred around topics directly related to their professional practice. Two members discussed the topic of social justice while others commented in response to a service-learning logistical question in relation to connecting with a community-based organization (CBO) in Baltimore. Two others replied to a direct request about an upcoming service-learning project and yet another discussion took place around a different reflection activity. Finally, other evidence in the online discussions emerged out of reviewing what members ignored, or at least those posts that failed to provoke any discussions. These categories of posts included academic journal articles and

research even when they were specific to service-learning. It is possible that participants rely on passive engagement in these cases or do not find these resources immediately relevant to their preparation and practice. Nonetheless, practice emerges very clearly when members and the facilitator offer discussions, activities, and examples of tangible, specific artifacts that can be easily implemented and adapted to a service-learning course or class session.

**Meaning-making and identity.** The final aspects of the social learning framework include meaning-making and identity. Evidence of these attributes, although minimal, did emerge through focus group discussions. For example, respondents reported feeling an increased sense of confidence and relief from viewing posts describing different approaches to introducing and discussing service-learning topics with their students. They also noted that while in SLFP they identified as a service-learning learner and that the CoP commenced a transition from “I don’t have the sense that I have something other people would be interested in” to “building confidence to serve as a service-learning teacher of sorts within the community” (Focus Group Respondent 2, 1/15/16). One member said that the community prompted a change in her thinking and perspective about service-learning as well as her own knowledge and confidence around the pedagogy (Focus Group Respondent 3, 1/15/16).

Although many respondents shared the sentiment that “things just take time,” the evidence suggested that even in its infancy the intervention reflected the elements of Wenger’s (1998) social learning framework. As the evidence demonstrated, the pilot version of this online CoP achieved some fidelity in implementation and engagement while also effectively incorporating Wenger’s social learning theory framework into this

space. The last research question inquires as to the perceived value of the CoP as defined by immediate, potential, and applied value. As the evidence showed, the value created is due, in part, to achieving fidelity and establishing a learning space based on social learning theory. The subsequent section examines qualitative data from discussion posts, focus groups, and value creation narratives to illustrate member perception of value in the CoP.

### **Research Question 3: Value Creation**

Value creation, according to Wenger et al. (2011), includes five components, three of which are relevant to this evaluation: immediate, potential, and applied value. Members agreed on the positive value of this community, and many suggested that this CoP is needed and seems to be moving along nicely. Community partners reported a high level of engagement and described the CoP as a unique space at Hopkins to talk and engage with other faculty (Focus Group Respondent 3, 1/15/16). “The wealth of information we are able to share is pretty incredible” (Focus Group Respondent 1, 1/15/16). “It is an opportunity to learn and increase confidence” (Focus Group Respondent 3, 1/15/16) and respondents “love the ability to put something out there and get an answer from someone [in the community]” (Focus Group Respondent 1, 1/15/16).

#### **Immediate value.**

I personally don't look at that space as this place where you become connected and social and build these bonds. I look at this as a process by which we're going to get to a goal and this agenda needs to get me to that goal if I'm going to meet with you in this way. (Focus Group Respondent 7, 1/29/16)

Immediate value included activities, answers to questions, and solutions to problems. The respondents reported a change in perspective and an immediate sense of relief when comparing member responses to their own. More specifically, the online discussions showed member interest in acquiring sample questions and various resources and activities to use for reflection and other service-learning sessions and course activities. Members responded to logistical questions on how to best connect with organizations and addressed challenges related to institutional barriers and talking about social justice with their students. In one of the focus groups a respondent reported an appreciation for “the ability to post a question about a rubric, for example, and receive feedback and examples right in the moment” (Focus Group Respondent 2, 1/15/16). This participant also cited realizing that another community member “found an effective way to frame something and in a different way than my own, helpful to think differently but also provided a sense of confidence that I was on the right track” (Focus Group Respondent 2, 1/15/16). The immediacy of acquiring resources as well as feedback represented real, tangible benefits to community members.

There is also some evidence to suggest that the availability of resources and relevant advice and tips from other community members represents value. Both the value creation narratives and focus group transcripts revealed this immediate value. Of the seven narratives completed, six of them described the availability of a resource as helpful in the service-learning work. Two members cited finding a particular journal article, while another respondent reported using a reflection question in class. During the focus groups, respondent four noted, “It was successful because it was more interactive than just sending the resources and tips to members via email...[better] than one-way

communication” (Focus Group Respondent 4, 1/15/16). Furthermore, respondents in the first focus group described the CoP experience as a “dynamic interface” (Focus Group Respondent 4, 1/15/16). It is possible that members who did not participate also valued this aspect even though they did not respond or reply. For example, respondent six from the second exit focus group noted, “value for me of the online space...it’s becoming a repository of where resources sit that I can access” (1/29/16). In other words, this member did place value in the activities but suggests that the value may come later when the resources are accessed. From this perspective, it is possible that this dialogue mattered to members even if they did not take immediate advantage of the exchange. Even in the short time covered by the CoP intervention, it seems that participants found immediate value in their participation and sharing in the community, which contributed to their understanding and more effective implementation of service-learning in real-time.

**Potential value.** Potential value is another aspect of value creation defined by knowledge and social and learning capital. It is the idea that participants may acquire information, skills, perspectives, resources, and social connections to apply in future circumstances and different contexts. For example, respondents viewing posts or engaging in passive engagement reported an appreciation that members shared resources in the CoP and that they would be available when they needed them. One respondent reported that “[it was] not necessary to track down an expert to talk about or ask a question about a topic” (Focus Group Respondent 1, 1/15/16). Similarly, a participant expressed gratitude that the CoP essentially screened service-learning resources so that she did not have to spend time “figur[ing] out if this is the right person to ask” (Focus Group Respondent 2, 1/15/16).

In terms of social capital, it is evident from the previous discussion that social connections were made and that participants appreciated the opportunity to engage with others interested in service-learning and topics relevant to this pedagogy. A member, in a value creation narrative, described the potential social connections in terms of strengthening and remaining in touch with the SOURCE fellows. A respondent also shared that “cohort and connection is definitely something that I really value. I think I see it primarily as a personal value with professional value as secondary” (Focus Group Respondent 5, 1/29/16). However, some evidence makes it less clear if members, at this point in time, viewed the CoP as building social capital. For example, some members questioned whether the space represented a repository of resources or a means of building a social network related to their service-learning practice. The lack of clarity in how members view social capital raises important questions in this area. Is it possible that some members did raise their social capital but were not aware of it? For example, members participating in this intervention today may not anticipate how these connections may benefit them in the future. Additionally, it might also be reasonable to consider that while members may have increased their social capital among a particular group of faculty, they may have also reduced this social capital with other groups on or off campus. While this goes beyond the scope of this research evidence, it would be important to consider whether this community builds the “right” social capital to increase and expand the reach and use of service-learning. It is also important that faculty interested in using service-learning have access to a community of supportive faculty but it is possible that this new connection may reduce the power they had in other influential circles within the university.

In the end, most focus group participants agreed that while collecting resources might have been the primary focus, the social aspect brought valuable context to the application and use of resources shared. For example, one respondent noted, “it is helpful to look at someone else’s materials and ask questions when needed” (Focus Group Respondent 3, 1/15/16). The data supporting this element of community also spoke to the value of connecting the social capital and resources in one place as a “dynamic” repository of resources (Focus Group Respondent 4, 1/15/16). “It helps to know that someone used it [the resource] and how they used it” (Focus Group Respondent 5, 1/29/16). Others did find value in the ability to bridge social connections through questions and answers, discussions, and sharing of resources. They appreciated being “at the table, in the mix” (Focus Group Respondent 1, 1/15/16).

The qualitative evidence on the CoP’s potential value to members creates as many questions as answers. Members of the community did acknowledge that attaching contextual information to posted resources in the form of comments and advice from members represented potential value for their class preparation. However, a number of faculty were also skeptical of the community’s ability to build social capital that would yield future benefits. More importantly, however, this discussion highlighted the need to consider whether this community creates social capital of which members may not be aware, or even shifts the balance of a member’s social capital from one of their groups to another. It also raises the possibility that future communities of practice need to be deliberate in considering the kind of social capital that is enhanced. Is the social capital in this group going to yield the results required to support the work of the community? For service-learning communities of practice, this might mean that members need to be more

strategic about member invitations and that it might be important to have like-minded individuals but also those individuals with some previous clout and credibility at the university. While the evidence does suggest that members perceive some potential value in this online CoP, there is much more to be done to better understand the role of this community in creating and maintaining the most effective social capital towards supporting the mission of the community.

**Applied value.** This evaluation of value concludes with an investigation of applied value, considering how participants reused lesson plans, tried a suggestion, or changed practice because of leveraging CoP capital. The applied value is evident in a review of the focus group transcripts.

During the first focus group session with members, one respondent indicated that she improved student reflections by incorporating a video on the meaning of words that came from the online discussion posts in the CoP. Through the activity, she reported that students “enhanced their understanding of key terminology but also broadened [this member’s] own perspective of the topics covered” (Focus Group Respondent 3, 1/15/16). Another respondent described a need to improve a topic that had gotten stale. She incorporated an activity into a particular lesson in order to “freshen up” the course (Focus Group Respondent 2, 1/15/16). She added that she likes “seeing other exciting ways that people are using resources and activities” (Focus Group Respondent 2, 1/15/16). Unlike evidence on the potential value of the CoP, it seems clear that community members did report and share examples of ways in which they applied the artifacts and advice into their service-learning courses and other work contexts.

## **Findings Beyond the Evaluation Research Questions**

The first part of this evaluation used the data collected to address the research questions outlined in Chapter 5. A review of that qualitative data yielded evidence to suggest that the online CoP achieved some successes over the course of the six-month period. The findings support the notion that implementation of this pilot online CoP achieved a high level of fidelity, and while participant engagement remained lower than expected, a closer look at this revealed different kinds of member engagement not obvious from a glance at the online discussion posts. Furthermore, the discussions, exit focus group transcripts, and qualitative narratives demonstrated that this CoP included key attributes of social learning theory, including community, practice, meaning-making, and identity.

Achieving fidelity and a social learning framework may have proved beneficial in contributing to the results of the last evaluation research question regarding value creation. Those members who participated reported a satisfaction with the community, cited specific examples of immediate and potential value, and described ways in which they did and will apply material from discussion posts and specific resources in the CoP. While fidelity, social learning, and value creation were central to this evaluation, the provisional coding of the data uncovered four unanticipated but related themes. The following provides a brief discussion of the evidence that emerged regarding these topics and how they might shed light on the experiences of the participants in the CoP.

**Unexpected but not unsurprising themes.** While the a priori or provisional coding used categories of pre-set codes, a series of iterative coding sessions uncovered evidence of other relevant themes. These new themes included technological barriers,

beliefs about online platforms, scaffolding, and routines. Looking back on the list and the data findings already discussed, these data contribute to explaining the level and pace of participation and the expectations and views of members in the community regarding this online CoP. The following discussion includes a review of these themes and the supporting, and a discussion of potential connections between the pre-set codes and these emergent themes.

**Technological barriers.** One possible explanation for lower participation from members who joined and those who did not ultimately join is technological barriers. “What is Google Drive?” (Focus Group Respondent 3, 1/15/16) was a question asked by a community member during one of the focus groups. Another member openly admitted that “[she] is technologically impaired” and “I don’t know how to use that” (Focus Group Respondent 5, 1/29/16) in response to the discussion about using Google Drive as the resource repository. At the outset, and after much consultation with service-learning faculty and other faculty who use these kinds of tools in their practices, I selected Google Communities as the platform. Google Communities offered accessibility and ease of use not found in other platforms, including Blackboard and CoursePlus (JHSPHs online software). Unfortunately, I made an incorrect assumption regarding individual community member’s familiarity and comfort with Google tools.

According to the data, Google represented a significant barrier to participation for folks who had no familiarity with, and really no interest in new technology. One such participant reported, “It can’t need a password because too many clicks and I’m done” (Focus Group Respondent 5, 1/29/16). Another member, in an online discussion post, suggested that the community “needs to include an ease-of-set-up to motivate

participation” (Anonymous Survey Responses, 11/6/15). More often, however, members reported that they were actually interested in using the technology and the online community tools but did not have the time to stop and learn how to use the different components of the community and the associated tools, including Google Drive. In a mid-intervention “check-in” question on the community discussion board, several members cited a lack of time to learn the technology tools (Anonymous Survey Responses, 11/6/15). One respondent said about another CoP member, “technology is not her strength so she just never engaged with Google” (Focus Group Respondent 2, 1/15/16). I did manage to help this member join the community, but Google proved to be too significant a barrier for her to participate. Contrast this with other evidence from the focus group, where another member suggested that “[she] should have these skills but needs to get into this world with some assistance; Google Drive feels easier but [she] needs to make it part of the routine – automatic” (Focus Group Respondent 2, 1/15/16). The seven participants in the focus groups overwhelmingly described their unfamiliarity with Google, including discomfort with the mechanics of the community itself, challenges when trying to join the community through Gmail, and a lack of understanding of the structure and process related to using Google Drive, which served as the resource repository. It is unfortunate that these challenges were not anticipated, but the data does provide reason to believe that, with some training on the key Google products, community members might be inclined to participate more fully in this online community.

**Beliefs about online platforms: Expectations, relationships, and competing identities.** The theme of technology as a barrier contributes to explaining member

participation patterns and, in a related but different way, the beliefs about online platforms emerged as another theme that sheds some light on the engagement during the intervention period. These members' perspectives represent a technological barrier of a different kind. This challenge stems from participants' pre-determined views about and expectations of an online platform:

I think that is sort of a positive byproduct of why we meet face-to-face because if I sort of think about my experiences in online meetings and those non-in-person meetings I want them to be as efficient as possible. For some reason, that [online] space to me doesn't lend itself to the sort of social context that being in-person and being able to smile at you...online space should be as efficient as possible.

(Focus Group Respondent 7, 1/29/16)

Participants reported an interest in establishing and a desire to make authentic connections with colleagues. Respondents in both sessions noted that the SLFP contributed to achieving this feeling of being part of a cohort. The online CoP, however, continued to strengthen and expand these feelings of community for only some of the members who participated in the focus group. As previously noted in the discussion of community, many participants reported feelings of connection and an appreciation for having access to service-learning colleagues. Conversely, there were some members, perhaps due to technological barriers or their beliefs about this online community's capabilities, who did not achieve this connectedness. This group described a strong interest in collaboration with like-minded individuals, and one respondent articulated this idea as a "relational anchor" (Focus Group Respondent 5, 1/29/16). This member expanded on this idea: "I am most effective and productive and satisfied when the work

is coming out of a relational anchor. I need to have a relational component or I really feel kind of at odds. I just feel like I'm tossing about in the ocean," (Focus Group Respondent 5, 1/29/16). Another respondent attributed this to generational differences:

But maybe the degree of differentiation is more extreme for those of us who didn't come of age and didn't learn how to make friendships and connections electronically. We learned that secondarily. And it still is secondary. It will always be. (Focus Group Respondent 7, 1/29/16)

Respondents in the second focus group also overwhelmingly agreed that the online space, in their views, might not represent the most suitable platform for building social connections or "cohortness" (Focus Group Respondent 5, 1/29/16). One member reported that face-to-face meetings "can be inefficient but in that inefficiency is where this sort of I get to know you happens," (Focus Group Respondent 7, 1/29/16). Another respondent added, "I think being able to have some sort of face-to-face downtime, have those pauses that really sort of allow you to understand a person," (Focus Group Respondent 7, 1/29/16). The participants in this focus group continued to explore these ideas and concluded that the issue went beyond technological barriers, because even with training and assistance it is likely that these views would still be held. Furthermore, members articulated that this might actually be generational. Older generations need time "to build connections," (Focus Group Respondent 7, 1/29/16). Face-to-face meetings "give us an ability to put [discussions] in a context and hear your voice, not read it through my lens but hear it in your voice...it takes more," (Focus Group Respondent 5, 1/29/16). While implementation of this CoP did not consider the generation of the faculty engaged, a

review of the literature reveals that this is consistent with findings on this topic. Oblinger and Oblinger (2005) found that Net Gens view the “Internet as oxygen” (p. 7).

Other findings emerged within this theme, including the influence of members’ geographical location. Some participants suggested that knowing other members of the community are in close proximity, within JHU or in the City of Baltimore, made the experience less effective and valuable. “But when we’re all physically sort of in the same place I’m not so sure it’s as efficient because what often happens is when you’re sitting there [in front of your computer], you’re going to be drawn to something else in some other way” (Focus Group Respondent 5, 1/29/16). This seems consistent with other sentiments participants expressed about the expectations regarding online meetings, interactions, and debate about whether this online CoP works better as a social collaboration tool or resource repository.

One other theme that continued to surface referenced the idea that identities outside of the CoP influence a participant’s ability to engage and develop a rapport with other members. Members suggested that their identities as researchers, members of the JHU faculty, directors of programs, and so on overshadow an opportunity to build an identity within this community. One participant noted, “The fellowship’s [SLFP] purpose of being together was of being learners together” (Focus Group Respondent 5, 1/29/16). In describing her interactions in the online space, this respondent reported a difficulty with removing other identities, “I [couldn’t] take them off” (Focus Group Respondent 7, 1/29/16). Lastly, and related to the idea of identity, a respondent suggested that the institutional culture at JHU also influences participants’ ability to engage fully in this experience.

And you can't ignore the institutional culture around that because part of the way we act and respond is also linked to the system and structure that we are a part of. You know, for better or for worse, if there were a different kind of structure, we might be thinking about this in different ways. So you can't separate the environment from our behavior. (Focus Group Respondent 6, 1/29/16)

The challenges of using an online platform represented real barriers for this community. Several of the members questioned and were skeptical of an online CoP's ability to serve as a social network. This concern was exacerbated by the fact that when members were physically closer in proximity, they reported no perceived immediate value to using online tools. The takeaway from this emergent theme is that systemic and institutional structure and culture exist and influence online community culture even when the community is separate from the university. Finally, members suggested that other personal identities inhibited potential for online social connections.

**Scaffolding.** Technological barriers, online platform challenges, and a strong desire for social connections when joining communities contributed to understanding member interaction with other participants and on-going dialogue and activity within the CoP. The next theme, scaffolding, offered one way to mitigate some of the barriers created by the previous themes. In fact, Oblinger and Oblinger (2005) and Moule (2006) described generational differences in technology use and views and suggested that exposure to and the pervasiveness of technology in an individual's personal and professional lives lead to adopting views resembling those held by Net Gen.

Participants referenced ideas of scaffolding both explicitly and implicitly through their discussions at the focus group and the questions that emerged over the course of the

intervention. At the first focus group the participants were asked about the benefits and value of the community to them in their professional practice and one member immediately confirmed the value of this community and that this would expand “with just a little scaffolding,” (Focus Group Respondent 1, 1/15/16).

Vygotsky (1978) described the concept of a Zone of Proximal Development (ZPD) as the space where skills are appropriately challenged in order to bridge students’ prior and new knowledge. In order to move towards mastering these skills, instructors use supports in the form of guidance and encouragement, often times from an experienced learner. While inspired by Vygotsky, the term scaffolding emerged out of Bruner’s (1985) work and included interactions between learners and experts, learning within the ZPD, and support (scaffolding) that is slowly removed as the learner’s competency expands. The emergence of this theme in the focus groups highlighted the idea that even with members’ expertise and experiences, the online CoP represented a brand new procedure for most. “I need to be trained a little bit and prompted to use it. I want to participate and I want to learn how to use Google but just didn’t find the time to master or dedicate to it” (Focus Group Respondent 2, 1/15/16). Participants suggested that the CoP implementation should incorporate training sessions in the next iteration of the CoP. These sessions should cover the technical skills needed to navigate Google Communities, log into Google, and use Google Drive. Participants also suggested that early on the community facilitator should provide scaffolding in the form of a Google Community session in real-time and face-to-face with the members. In other words, members would like to learn how to post to the community, view, and comment on initial posts, attach documents and links to messages, and then access the resources through Google Drive.

Here again, I made assumptions about the learning curve for accessing and participating in this online CoP. According to the evidence from the focus groups, the implementation plan moving forward should augment the first session (where potential members hear about the CoP and consent to participate) with an active introduction to the community itself. A respondent noted the need for training:

Whether we use Google Drive or Dropbox whatever but I think your point is absolutely spot on that whatever it is it has to be training because you can't assume just like you found out that everybody [understands how this CoP works].  
(Focus Group Respondent 6, 1/29/16)

Based on participant suggestions and comments and according to social learning theory, future invitations to use the online CoP should integrate multiple face-to-face sessions for members to reach a comfort level with the community, but then eventually remove the scaffolding and let the members explore the platform and tools. Like the technological barriers, lack of scaffolding diminished participation and the immediate value of the CoP; however, the data also identified tangible ways to improve the process moving forward.

**Routine.** A separate but certainly connected theme centers on the idea of routine, or adapting this online CoP to a member's typical or regular workflow. According to Sundaram, Schwartz, Jones, and Chin (2007), routinization is directly related to the frequency with which someone uses a technology. The authors suggested that a higher frequency of use also increased the opportunities and likelihood that "participants will incorporate this technology into their routine work pattern (routinization)" (p. 103). In addition to influencing outcomes from the research questions, technological barriers and

scaffolding contribute to whether or not a member will integrate this online CoP into their regular workflow. Participants admitted that participation (active and passive) was lower than desired because, for various reasons, the CoP did not make it into their workflow. A member admitted that the online CoP “[is] not part of my work stream. It’s not my workflow. It’s like some alien thing,” (Focus Group Respondent 5, 1/29/16). Another respondent stated that they “didn’t set a schedule to prompt [them] to participate so [they] would forget,” (Focus Group Respondent 1, 1/15/16). Yet another participant noted that an icon on the desktop or a regular prompt from the application or facilitator would serve as a good reminder to engage. Yet another member said that “when someone else is prompting” (Focus Group Respondent 2, 1/15/16), they are more likely to participate. Surprisingly, several members said that even with all the email they receive in their Inboxes, they do read it, so even a “simple email prompt” (Focus Group Respondent 2, date) would help with engagement.

Prior to the implementation of the online CoP, there was concern about how to prompt engagement, and this data offered some specific insights into how to do this. The absence of scaffolding and technological training for members may explain, in part challenges members faced incorporating CoP participation into their regular routines. Both of these factors contribute to the level of CoP usage and consequently influence the ability of a member to add this practice into their routine (Sundaram et al., 2007).

As evidenced by the data, technological barriers, insufficient scaffolding, and difficulty in routinizing the online CoP had both individual and aggregate effects. A review of these unexpected themes provides additional insight into lower member participation (fidelity), the challenges of creating an online community, member

difficulty in engaging in community content and activities, and establishing a community identity (social learning theory). Furthermore, these unanticipated themes provide clues as to how future facilitators could increase the immediate, potential, and applied value of the community. While overall the evidence suggested that this pilot online CoP was successful, a closer look at the data also revealed numerous ways in which this CoP could be improved to increase participant responsiveness, strengthen the current social learning framework, and bring much more value to members who participate. The subsequent and final sections review the limitations of the research study, provide some general observations about the evidence and offer concluding remarks to consider for the next iteration of this online CoP in service-learning.

### **Limitations**

This research study represented a first step to explore the utility of an online community of practice in faculty development in service-learning. The choice to use this kind of pilot intervention relied on sampling methods that may not permit the results of this study to generalize to the greater Hopkins faculty or other universities. To increase the likelihood of participant willingness to join the CoP and engage in the relevant activities, I relied on a self-selected group of faculty and community fellows from the established SOURCE fellows program. Consequently, these participants had likely met face-to-face at least on one occasion, received some training in service-learning, and self-selected into this program in part as a result of their interest in service and service-learning. Furthermore, as an alumnus of the program, it is also possible that some of the members of the CoP participated out of a loyalty to me and not as a result of the perceived value of the community itself. Finally, using the SOURCE program as the

sampling frame also resulted in a small sample size, which may also create challenges for thinking about the implications for the larger population of faculty and HEIs.

Even with these limitations, however, the findings offer notable implications for faculty development at Hopkins and other HEIs. The findings also offer insights that may inform the current literature on CoP framework and their application in different settings. While it might be necessary to implement adjustments to suit the needs of different kinds of community members, this research study provided strong evidence of how to effectively address potential member differences and improve this online CoP for future service-learning faculty. Finally, even given the limitations, this research provided insights into how this framework might be applied to other faculty development efforts at Hopkins and other HEIs.

### **Implications of Findings**

This section offers a comparison of evaluation evidence and extant literature, a revision of Wenger's social learning framework based on findings from this research, and suggestions for improving the next phase of this online CoP for the short- and long-term. The empirical evidence from the literature review and the evidence from this evaluation converge on several findings about the role and value of online communities of practice. Both the extant literature and the current evaluation provided evidence that highlighted the importance of member interactions to enhance learning and build relationships (Wright, 2005). Members of this CoP acknowledge the value of the community in building relationships and collecting resources, which confirm Vaughan and Garrison (2005) and Remmik et al.'s (2011) evidence demonstrating that a sustained community acts as a support for faculty in developing their various identities including researchers,

teachers, and practitioners. Finally, in the area of collaboration, this evaluation provided qualitative evidence suggesting that CoPs offer an opportunity for faculty across different departments and working groups to form relationships around a CoP theme, as described by Wright (2005).

In addition to evidence regarding the positive value of and faculty interest in collaboration and social interactions, the literature and examination of the data from this project confirms the idea that faculty often act as individual entrepreneurs, which contributes to the difficulty of forming a cohesive group (Nicolle, 2005; Senge, 2000). Even with the frequent discussions of and strong interest in service-learning, several faculty members who participated in the qualitative interviews alluded to the influence of their research and department identities, as well as the institutional culture, as barriers to engaging with the community. Moreover, the needs assessment, empirical literature, and the evaluation findings agreed that unclear messages about teaching (Butin, 2006), and the perception of an incongruence between faculty and institution values (Wright, 2005), created challenges to sustaining an online CoP around service-learning. Even with these challenges, this evaluation supported the conclusions of previous researchers that social networks are valued and needed to influence, shape, and contribute to the complex cultures in higher education (Erickson, 1988; Marsden & Friedkin, 1994; Rogers, 2004).

Both the evaluation and extant literature provided strong support to illustrate the emergence of practice (Lave & Wenger, 1991) in this online CoP. Members of the online CoP reported an increase in confidence and a sense of relief when reading and using other members' activities and suggestions. Furthermore, following Valente (1996), members described the monitoring and modeling of behavior when considering or

adopting new practices. Members of the Cuddapah and Clayton (2011) pre-service teacher CoP reported a need to include more experienced teachers in the community in order to increase knowledge of member participants, much as in this project. In the first exit focus group, one respondent stated that relative to other groups to which she belongs, the service-learning community at JHU is young, and she argued that perhaps the online CoP would benefit from a few more years, when current fellows would have become experienced, old timers (Lave and Wenger, 1991) of the group. While this is true for this respondent, it is important to keep in mind that members only take on these old-timers roles by participating in nascent efforts such as this intervention. Consequently, inaugural members of this cohort will eventually serve as the experienced participants this respondent identifies as important.

### **Comparative Analysis**

Juxtaposing the discussions in Chapter 4 on the evidence supporting the implementation of this CoP with the evidence from the intervention evaluation, it became evident that while most findings of this research project are consistent with previous empirical evidence, there are several observations that run contrary to previous work in this area. Evidence collected in this project leads to a reexamination of the findings of earlier research regarding collaboration and social interactions, member identity and culture, practice, and the role of technology in an online CoP. The following offers a brief discussion comparing member experiences with the previous research findings.

While many of the evaluation findings comport with the extant literature discussed in Chapter 4, a few inconsistent findings emerged. Contrary to evidence in the literature regarding online and hybrid CoPs, the members in this community did not

appreciate the online platform. Brooks (2011) described faculty interest in technology as a way to reduce or eliminate the need for setting up a physical space for collaboration. The members in this CoP lacked that appreciation for the specific technology. Members reported inadequate knowledge and training about the available tools, but this failure to appreciate the online platform might be due in part to the design of the Google tools. The literature does suggest that users report difficulties in seeing and replying to discussion posts and experience technical difficulties in navigating this type of technology tool (Joubert & Wishar, 2011). While the extant literature does offer evidence supporting the ability of these technology tools to act effectively as an information repository and the convenience and flexibility of those tools (Bean & Hott, 2005; Hara, Bonk, & Angeli, 2000), evidence from this research project highlighted the pitfalls of making assumptions about members' prior knowledge.

Pataria et al. (2014) and Hill and Haigh (2012) argued that a teaching-focused community, and online CoPs in general, create a supportive culture for these members but also affect changes in the institutional culture. While this research study did not evaluate this CoP's role in influencing the broader institutional culture, it did provide evidence of the challenges of this culture including feelings of shame and competing identities reported by the community members. This evidence does confirm the existence of the tensions and challenges created by the multiple faculty identities and the institutional culture at JHU that cannot be separated from faculty development like this one. While there are several differences in the findings between extant literature and this project, much of the evidence from this evaluation points to the value of the CoP and the presence of the key elements of Wenger's social learning framework.

## **Final Thoughts**

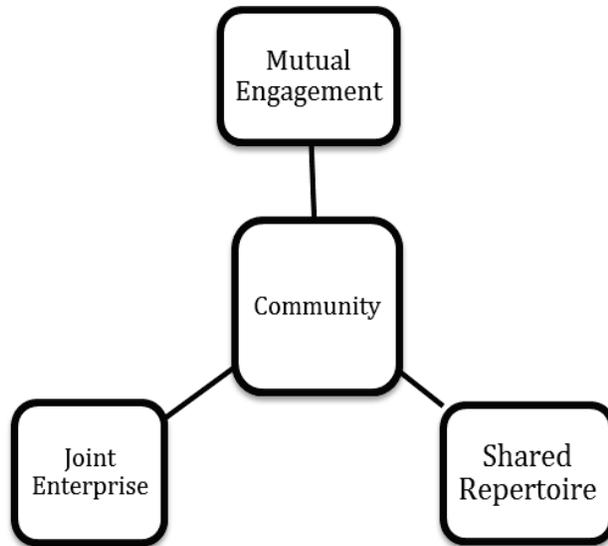
Arguably, the research on a comprehensive approach to successfully implementing an online CoP is limited and disjointed. Much of the literature pertaining to communities of practice centers on Wenger's elements of a CoP, including community, practice, identity, and meaning making (Wenger, 1998; Brooks, 2011). Other research in this area relied on the CoP framework to evaluate and assess the success of programs utilizing the Social Learning Theory Framework (Cuddapah & Clayton, 2011; Herrington, Herrington, Kervin, & Ferry, 2006). Another set of articles examined the use of online discussions and asynchronous learning (Meyer, 2003; Moule, 2006) to understand better the benefits and challenges of online platforms for learning and collaboration. Few articles addressing CoPs discussed the conditions needed to initiate a CoP aside from the design and implementation of this learning tool.

This analysis and the previous discussion of the evidence offered insights suggesting a need for facilitators of online CoPs to augment the preferred model of learning related to the CoP as prescribed by Wenger (1998). Wenger designed a CoP diagram from the social learning framework, placing learning at the center of community, practice, identity, and meaning. This final section briefly reviews the current framework for thinking about CoP use and with evidence from this study proposes to amend the available models. It will also present this revised model and narrative explaining the rationale for the changes. Finally, this section offers short- and long-run suggestions to improve this online CoP for future community members.



*Figure 7.1.* Wenger's – components of social learning theory (retrieved from <http://pagi.wikidot.com/wenger-social-theory-learning>).

Moule (2006), in an investigation of online discussion use for students, relied on Lave and Wenger's (1991) earlier representation of community, which included joint enterprise, mutual engagement, and shared repertoire.



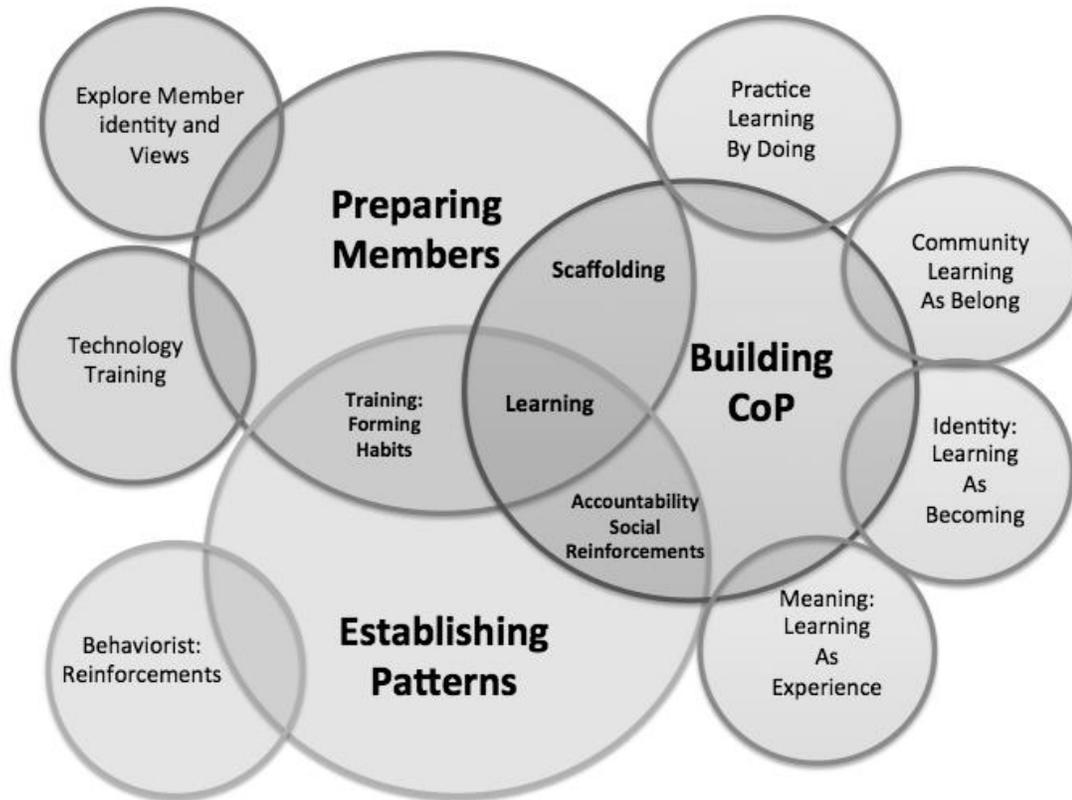
*Figure 7.2.* Mutual engagement.

Moule (2006), however, augmented this diagram with the addition of instructional technology training and the need for longevity in the online community. Moule (2006) explained that technology barriers hindered mutual engagement. For example, the students who reported lower participation also reported little to no access to technology and unfamiliarity with the technology tools. Additionally, Moule's (2006) evidence identified a need to develop a level of trust to foster joint enterprise. Finally, the author posited that the lack of evidence for the shared repertoire might result from the short-term nature of the intervention. These diagrams and Moule's (2006) findings are significant, as they provide a way to highlight the observations and conclusions for this research project.

This investigation provided some evidence for believing that additional changes may contribute to guiding facilitators in effectively initiating an online CoP, building and sustaining this community, and generating value. A group (online or face-to-face) that builds on the social learning framework may report benefits and value, but adding the

additional elements discussed here and in the literature may reveal the necessary and sufficient steps to create value from an online CoP.

Recall that the evidence from the qualitative findings of the focus groups supports the presence of characteristics from Wenger's SLT for a CoP and members reported some value. Other important themes, however, emerged during coding and analysis of transcripts and community discussion posts. These codes, when considered together, generated other conditions necessary for a successful online CoP. While Wenger's diagram placed the elements of social learning theory at the center of the learning process diagram, this investigation included evidence that may support an augmented depiction of this process that includes preparing members, establishing a rhythm, and building the CoP.



*Figure 7.3.* Anatomy of a successful online CoP – member preparation, establishing patterns, and building a CoP.

From the evidence already presented, this investigation offers an augmented framework based on the work of both Moule (2006) and Wenger (1998). As shown above, the revised framework adds dimensions of member preparation and the establishment of patterns or rhythm in addition to the social learning theory. These three elements arguably create a situation whereby members will maximize their learning and perceived value from participating in an online community. The following discussion provides a more detailed discussion of each aspect of this revised framework.

**Preparing members.** For the purposes of this discussion, the concept of preparing members comes out of the idea that facilitators, like instructors, need to meet members where they are in their skills and views related to online platforms and tools.

Preparation might include training sessions on Google Communities and Google Drive, but also sessions to practice using an online CoP in real-time. These kinds of sessions would help members set-up their workstation and other resources from a logistical perspective and provide scaffolding in the form of practice with the online CoP. This would allow members to ask questions, try out different tools, upload resources, and access artifacts and other items saved in the Google Drive shared folder. Scaffolding might also include sessions and discussions to determine member expectations of online platforms and to gauge their confidence with using and being a part of an online community. It would also include discussions about the expectations and goals of the new platform and the different roles that members could assume within the community.

As in the CoP literature, this intervention evaluation revealed that members experienced significant technological barriers that reduced the frequency with which they engaged with the community in a variety of ways. Moule (2006) suggested that different technical skills among members affect collaboration, and that the lack of time may exacerbate that result as there is little time to spend learning a new technology tool or platform. Furthermore, Meyer (2003) provided evidence that often times members have a preference for face-to-face or online interaction, and it is important that the preparation process explore these preferences and address them directly. Moule (2006) also suggested that increasing the time online and use of these tools increases the likelihood that members will participate in the future. Adding these kinds of activities to the intervention may contribute to increasing member participation, self-efficacy about engaging, and the frequency with which they view and post discussions and resources.

**Establishing a rhythm to participation.** The data collected for this intervention evaluation revealed that members did not regularly participate because of an inability to integrate this online CoP into their regular workflow. Some members argued that adding regular email prompts or rewards would help to motivate participation and engagement on a more routine basis. Consequently, future iterations of this online CoP might include some behaviorist practices that would include different kinds of reinforcement (citation) or consider co-constructing expectations in an early session of the intervention. Moreover, the interest in extrinsic motivators raises the question of what needs to change to create member intrinsic motivation. It is possible that until the culture at JHU recognizes and rewards the various faculty roles, CoP rewards and prompts will be needed. According to Cambridge, Kaplan, and Suter (2005), this would contribute to creating a “predictable rhythm that sets expectations around how and when to participate” (p. 2). Language, practice, customs, and relationships develop over time (Squire & Johnson, 2000), so it stands to reason that an online CoP facilitator’s use of rewards for active participants and individual reminders may increase overall member participation. Several of the participants cited the need to establish a habit of reviewing the community and use rewards similar to those used in the latest apps. For example, members noted an interest in using electronic recognition badges and other rewards that appear on their phone or computer as encouragement and acknowledgement of their accomplishments like posting to the community multiple times in a row. They also described the effectiveness of a desktop icon or email prompts to serve as reminders to participate and engage in the online community. If facilitators spend time focused on member preparation and routinization of this practice prior to launching an online CoP, this work

will pay off as the facilitator initiates the actual CoP. Inclusion of pre-intervention activities and efforts may also contribute to increasing connections, collaboration, trust, self-efficacy, and accountability all of which enhance the overall member experiences in an online community of practice.

**Building a CoP.** There is consensus in the literature around the characteristics of a CoP (Lave & Wenger, 1991; Brooks, 2011; Cuddapah & Clayton, 2011; Wenger, 1998). It is also well known that the rationale for using CoPs, face-to-face and online, is related to constructivist, sociocultural, and social learning theories. According to Vygotsky (1978) and Brooks and Brooks (1999), knowledge generation occurs through interactions between individuals as well as the environment. Furthermore, Palloff and Pratt (2005) added to this notion with the idea that knowledge expands as a collaborative enterprise, and Wenger (1998) described these experiences of learning as a co-construction of community history. Knowles et al. (1998) and Lave and Wenger (1991) discussed identity and the idea of legitimate peripheral participation and the evolution in identities that occurs with interactions and learning that occurs between old timers and newcomers. The evidence from this CoP suggested, however, that a focus on quality posts, variation in topics, and valued resources are ineffective for learning if participants do not know how to access the online CoP and/or fail to establish a routine or habit that includes visiting the community as part of their regular work. For these reasons, and according to some of the academic literature and empirical evidence from this research, a successful CoP must include scaffolding around IT use and community engagement, but also the establishment of community expectations or norms, rewards, and a sense of accountability, in order to establish an inclusive rhythm to participation (Oblinger &

Oblinger, 2006; Sundaram et al., 2007). The integration of these elements should enhance member experiences and learning in an online CoP.

### **Short- and Long-Run Recommendations**

As in the extant empirical literature, this research project also confirmed faculty understanding and appreciation for the service-learning pedagogy. Upon further investigation, though, the evidence suggested that the low participation in service-learning at JHU may not have emerged out of JHU's culture of research, which is counter to the initial hypothesis. More accurately, it is likely that the complexity of the culture of this institution contributed to less frequent use of the pedagogy. Faculty identities as a proxy for sub-cultures within JHU include their disciplinary focus, research efforts and interests, departmental affiliation(s), and membership in professional associations, among others. Consequently, a review of the literature highlighted a CoP as one possible way to penetrate the complex culture as an attempt to initiate an additional identity as service-learning faculty.

The online CoP represented an opportunity to increase awareness and knowledge of service-learning practices, strengthen self-efficacy around, and use of service-learning, and connect faculty on the campus with interests in service-learning and teaching more generally. The project successfully implemented an online CoP that operated in a pilot phase from September of 2015 to January of 2016. It included more than sixteen weeks of posts, activities, and resource sharing. While seventeen members joined, fewer than half of the individuals engaged, and even these members participated in irregular patterns. After data collection through a survey, online discussion posts, focus group

transcripts, and individual narratives, the evidence pointed to the benefits of this CoP, but also suggested possible future actions to improve a second iteration of the tool.

In the short run, changes to this intervention should include:

- Meetings with current and potential members prior to the start of the second phase of this CoP to figure out their specific interests, needs, experiences, and other information that might influence their contributions and participation in the online CoP;
- Multiple, initial face-to-face sessions to discuss and identify the explicit mission, goals, and objectives of the CoP as it relates to service-learning and faculty roles as teachers;
- Sessions to train faculty on the relevant technology, including Google+, Google Communities, and Google Drive;
- Sessions to set-up each member's Gmail, Google login, shared folder from Google Drive, and any other relevant community features;
- Real-time sessions on using and participation in the CoP, including but not limited to:
  - Initiating posts;
  - Replying to discussions;
  - Uploading and downloading resources;
  - Attaching images, documents, or links to posts; and
  - Searching for various topics.

- Implementing procedures with prompts to motivate members to visit the community, add to the discussions, and share resources and experiences, including:
  - Sending regular email correspondents with members as rewards for their efforts;
  - Scheduling daily or weekly reminders to prompt participation; and
  - Following up with members to encourage reporting on their use of resources and to offer a recap of their use of an activity or resource.

In the future, facilitators may want to consider:

- Implementing a different technology platform with a number of the described mechanisms already in place;
- Working with the Centers for Teaching and Learning to develop an app for the online CoP that would include rewards, reminders, and easy access to the community;
- Encouraging leadership to offer release time, stipends, and professional credit for faculty work in this community; and
- Conducting another evaluation, including survey research and faculty interviews, to determine other ways to institute improvements.

Implementing these short- and long-run changes over the next few phases of the online CoP will contribute to further successes, including an expanded member community, stronger collaborations between members, increased frequency of participation and sharing of resources, and a network of service-learning faculty.

## **Conclusion**

This research project aimed to understand the extent to which the intervention enhanced participation in and use of service-learning at JHU through social relationships and the sharing of relevant resources. Through an online CoP, I tried to demonstrate the value of service-learning to student outcomes and faculty work as teachers. Through the CoP, members had opportunities to discuss relevant service-learning topics, share relevant activities and logistical advice for leading service-learning courses, and exchange valuable resources used in service-learning projects and courses. While the online CoP and the subsequent evaluation highlighted successes and shortcomings, in the end, this pilot intervention did establish an online space for members to connect and engage around the topic of service-learning. Further, it included the valuable experience of talking in more detail with members about their experiences in order to improve the process in the future.

The needs assessment findings suggested that faculty at this research university value both their roles as researchers and teachers but perceive that the institution values teaching as less important. Surprisingly, leadership reported that the institution perceived the value of research and teaching roles as equal. Regardless of the reasons for this incongruence, faculty seem to receive, at the very least, unclear messages about the importance of their teaching role. Moreover, faculty report that the promotion structure and daily messages from leadership and colleagues also reinforce the perception that research is the priority.

While this intervention did not seek to change the culture at JHU, the evaluation did collect data that shed light on the influence of a complex culture on teaching

activities. Faculty reported that mechanism that elicit shame are more effective in increasing engagement in service-learning professional development. In addition, several community members commented that the institutional culture and their research identity could not be separated from their experiences in the service-learning CoP. In fact, the complexity of the JHU culture influenced the kind and frequency of member participation.

The theoretical and empirical literature overwhelmingly suggested that CoPs could build community and provide opportunities for social interactions and instructional pathways (Wenger et al., 2002; Wright, 2005). Furthermore, other researchers provided evidence that these kinds of interventions benefit and change culture and can potentially contribute to greater congruence in faculty and institutional values (Hill & Haigh, 2002; Teeter et al., 2011). This intervention evaluation provided evidence of collaboration, feelings of community, and increased self-efficacy around service-learning work. In the short-run, however, the culture of research remains a barrier. Therefore, while this study confirmed some of the benefits and value of a CoP to support faculty development in service-learning, this investigation also raised questions including:

- How could future online CoPs focused on service-learning, contribute to a teaching culture?
- Can a research university create a climate where teaching and research faculty are viewed as equal in the faculty community and in the promotion and tenure process?
- What is leaderships' evidence that the institution values teaching?

- Are there other applications of this CoP framework within faculty development that may improve training, support, and retention?

Bandura (1977), Vygotsky (1978), and Kolb (1984) suggested learning is social and relationships and the environment shape learning. Modeling and individual monitoring contribute to faculty decisions to adopt a new technique or strategy (Valente, 1996). For this to occur, however, might require leadership and institutional efforts to support and engage in this community. Faculty members represent a critical element in this culture change but without authentic and tangible support from the current rewards and recognition structure, faculty, even if interested and committed, hesitate to engage fully – the professional risk is often too great.

Change takes time, champions, and perseverance. Building an online CoP in this way may have helped to generate the interest and momentum to increase participation in service-learning, extend and promote the nascent culture of teaching at JHU, and eventually reduce faculty apprehension and feelings of isolation related to their teaching identity. This research stands as a tremendous foundation to redesign and implement the next iteration of this online CoP.

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## **Appendix A: Survey Research Consent Form**

### **INFORMED CONSENT FORM**

Title: Identifying Faculty-Identified Motivations and Challenges to Engaging in Service-Learning Pedagogy to Explain Low Faculty Participation

Principal Investigator: Carey Borkoski, School of Education, JHU

Date: March 22, 2014

### **PURPOSE OF RESEARCH STUDY**

The purpose of this research study is to determine the faculty perception of the service-learning pedagogy. The survey research will highlight potential areas for additional professional development of pedagogy at Johns Hopkins University.

For this preliminary investigation into the research questions, I anticipate that 40 faculty will participate in the survey.

### **PROCEDURES:**

The study will include a survey questionnaire administered online. The request to participate will be sent via email with follow-up to increase participation. The survey will include approximately 30 questions and will take 15-20 minutes to complete.

**RISKS/DISCOMFORTS:**

There are no anticipated risks to the faculty.

**BENEFITS:**

Potential benefits include a better understanding of faculty views on the service-learning pedagogy. The survey will contribute to improving existing professional development opportunities related to service-learning and offer insight into possible future training that would better suit faculty.

**VOLUNTARY PARTICIPATION AND RIGHT TO WITHDRAW:**

A faculty member's participation in the survey questionnaire is entirely voluntary. There are no penalties if a faculty member decides not to participate or choose to withdraw from the study.

**CONFIDENTIALITY:**

Any study records that identify a faculty member will be kept confidential to the extent possible by law. The records from the survey may be reviewed by staff responsible for making sure the research is properly carried out including members of the Johns Hopkins University Institutional Review Board. Otherwise, the records will be available only to people working on the study, unless you give permission for other people to see the records.

Survey data will be collected via password protected data system (Survey Monkey or Qualtrix) that belongs to the principal investigator. Electronic data will be stored in the PI's computer, which is password protected and respondent names will not be associated with any of the responses nor will they appear in any of the published reports.

**IF YOU HAVE QUESTIONS OR CONCERNS:**

If you have questions about the research study please feel free to contact Dr. Carey Borkoski via email: [cborkoski@jhu.edu](mailto:cborkoski@jhu.edu).

**SIGNATURES**

This letter of informed consent is to provide you with important information about your participation in this study. You are not required to provide an electronic signature.

By completing this survey or questionnaire, you are consenting to be in this research study. Your participation is voluntary and you can stop at any time.

## Appendix B: Instruments for Data Collection

Curiosity and Exploration Inventory (Kashdan et al., 2009)

Q1 I actively seek as much information as I can in new situations.

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree nor Disagree (3)
- Agree (4)
- Strongly Agree (5)

Q2 I am the type of person who really enjoys the uncertainty of everyday life.

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree nor Disagree (3)
- Agree (4)
- Strongly Agree (5)

Q3 I am at my best when doing something that is complex or challenging.

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree nor Disagree (3)
- Agree (4)
- Strongly Agree (5)

Q4 Everywhere I go, I am out looking for new things or experiences.

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree nor Disagree (3)
- Agree (4)
- Strongly Agree (5)

Q5 I view challenging situations as an opportunity to grow and learn.

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree nor Disagree (3)
- Agree (4)
- Strongly Agree (5)

Q6 I like to do things that are a little frightening.

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree nor Disagree (3)
- Agree (4)
- Strongly Agree (5)

Q7 I am always looking for experiences that challenge how I think about myself and the world.

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree nor Disagree (3)
- Agree (4)
- Strongly Agree (5)

Q8 I prefer jobs that are excitingly unpredictable.

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree nor Disagree (3)
- Agree (4)
- Strongly Agree (5)

Q9 I frequently seek out opportunities to challenge myself and grow as a person.

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree nor Disagree (3)
- Agree (4)
- Strongly Agree (5)

Q10 I am the kind of person who embraces unfamiliar people, events, and places.

- Strongly Disagree (1)
- Disagree (2)
- Neither Agree nor Disagree (3)
- Agree (4)
- Strongly Agree (5)

**Community Service Self-Efficacy Scale (Sensitive to Change Version)**

For each of the items below, please rate your confidence using the following scale:

1-----2-----3-----4-----5-----6-----7-----8-----9-----10

Quite

Certain

Uncertain

Q1 If I choose to participate in community service in the future, I will be able to make a meaningful contribution.

Q2 In the future, I will be able to find community service opportunities which are relevant to my interests and abilities.

Q3 I am confident that, through community service, I can help in promoting social justice.

Q4 I am confident that, through community service, I can make a difference in my community.

Q5 I am confident that I can help individuals in need by participating in community service activities.

Q6 I am confident that, in future community service activities, I will be able to interact with relevant professionals in ways that are meaningful and effective.

Q7 I am confident that, through community service, I can help in promoting equal opportunity for citizens.

Q8 Through community service, I can apply my knowledge in ways that solve “real-life” problems.

Q9 By participating in community service, I can help people to help themselves.

Q10 I am confident that I will participate in community service activities in the future.

**Appendix C: Personal Beliefs About Diversity Scale (Pohan & Aguilar, 2001)**

Q1 There is nothing wrong with people from different racial backgrounds having/raising children.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q2 America's immigrant and refugee policy has led to the deterioration of America.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q3 Making all public facilities accessible to the disabled is simply too costly.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q4 Accepting many different ways of life in America will strengthen us as a nation.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q5 It is not a good idea for same-sex couples to raise children.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q6 The reason people live in poverty is that they lack motivation to get themselves out of poverty.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q7 People should develop meaningful friendships with others from different racial/ethnic groups.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q8 People with physical limitations are less effective as leaders than people without physical limitations.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q9 In general, White people place a higher value on education than do people of color.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q10 Many women in our society continue to live in poverty because males still dominate most of the major social systems in America.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q11 Since men are frequently the heads of households, they deserve higher wages than females.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q12 It is a good idea for people to develop meaningful friendships with others having a different sexual orientation.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q13 Society should not become more accepting of gay/lesbian lifestyles.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q14 It is more important for immigrants to learn English than to maintain their first language.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

Q15 In general, men make better leaders than women.

- Strongly Disagree (4)
- Disagree (5)
- Neither Agree nor Disagree (6)
- Agree (7)
- Strongly Agree (8)

## **Appendix D: Focus Group Interview Guide**

### Introductory Script for the Focus Group

“Good afternoon and welcome to the final activity for the SOURCE online Community of Practice. First, let me thank all of you for participating in this pilot intervention this year. Today, we will engage in an exit focus group of your experiences with and in the online community. As discussed at the beginning of the study and in a more recent email, this session will be recorded and transcribed. The data collected from the discussion will be kept confidential and in a password protected file and computer belonging to the principal investigator. At any time during this session, if you feel uncomfortable with the recording please let me know and we will cease to record it until everyone agrees to continue. The session should last around one hour and will explore your experiences with the community, its potential value to you, as well as your suggestions and recommendations about what worked and did not work. Your honest and illustrative responses are greatly appreciated. If no one has any questions, lets go ahead and get started.”

### Research Plan:

The goal of the focus group aligns with Aim 1d from the SOURCE Data Collection Research Plan: “Evaluate experience and determine impact of an online Community of Practice (CoP) on faculty service-learning knowledge, skills, and attitudes.” The focus group will serve as a means to debrief about faculty overall experience with the online CoP and investigate more specifically the perceived value (if

any), how it may have changed their perspectives about service-learning, did the community contribute to their own self-efficacy around this pedagogy and provide useful resources for their current or further service-learning classes. Finally, the focus group also provides a way to catalogue advice, suggestions, and potential recommendations from faculty in order to improve the experience for future members.

### Focus Group Questions

1. Value of the community:
  - a. What value did/does this online community of practice contribute to your personal and professional needs?
  - b. Did you establish any new connections from participating in this community? Approximately how many connections?
  - c. Describe the benefits received from these newly established connections. Be specific.
  - d. Did these personal connections lead to the initiation or completing of new professional tasks/projects?
2. Did participating in this community change your perspective about service-learning? Teaching at Hopkins?
3. What if any new knowledge and/or skills to you acquire as a result of your work in the online community of practice?
4. Did you apply any of the new knowledge in a different setting outside of service-learning?

5. Did working with a community of faculty interested in service-learning increase your confidence around implementing this pedagogy into your classes?
6. Resource sharing:
  - a. Provide examples of a resource shared with the community?
  - b. In what way did you use a resource posted by a colleague?
  - c. What kinds of resources did the community accumulate?
7. Satisfaction:
  - a. Overall, how would you describe your satisfaction with this online community of practice?
  - b. Will you continue using the community?
  - c. Would you recommend or invite colleagues to join this community of practice?
8. Suggestions:
  - a. What aspects of the community did not work in this setting and why?
  - b. Which elements of this experience would you like to see in future online communities?
  - c. Are there pieces to an online community that were missing that you believe are critical to its success? If so, can you provide specific examples?
  - d. Any other advice or recommendations for future online CoPs in service-learning?

Recruitment Plan:

Faculty participants in the focus group come from previous SOURCE faculty fellows programs as well as the current participants. While all members of the online Community of Practice will be encouraged to participate in this exit focus group, participation will be voluntary. Participants will be asked at the beginning of the study to consider participation in this focus group and will be reminded and invited again to participate at the conclusion of the intervention in March 2016. The follow-up reminder will be sent in an email and posted as an announcement within the online Community of Practice.

Consent Process:

Participants will be asked to complete the consent form for the overall study at the beginning of the intervention. The consent form will cover participation in the online community as well as any other data collection through surveys and the focus group.

Focus Group:

The focus group will take place at the end of the intervention on the Johns Hopkins University East Baltimore Campus. The principal investigator for this study will facilitate the questions and discuss but will record the session and have the audio transcribed for review during the data analysis process. Respondents will not receive unique identifiers for this data collection but member identity will not be revealed during data analysis or reporting of findings.

The principal investigator facilitating the group received qualitative training through her current Ed.D. program at Hopkins and has some experience doing this kind of data collection from previous research activities.

Data collection through this focus group will happen only once and will include those online community members who volunteer to participate. Given that most of the members will have interacted either face-to-face or online at some point during the year the principal investigator feels that positive dynamics will already be established and do not warrant any specific group member selection or composition.

Follow-up Protocol:

The focus group does not require any follow-up with member participants.

Data Analysis Plan:

The data analysis plan will rely on a framework that includes familiarization, identification of themes, indexing, charting, and mapping and interpretation (Ritchie & Spencer, 2002).

1. Familiarization: The principal investigator will spend time reviewing the transcripts and audio recordings from the focus group to identify key themes, messages, and recurring ideas from participant responses and dialogue. This will also involve noting and organizing the range of responses within the recurring themes and messages in order to move on to the next step of this process.

2. Themes – after several reads of the focus group notes, the principal investigator will try to identify the main themes in order to organize and catalogue them to identify and describe patterns that emerged.
3. Indexing – with the thematic framework determined, the principal investigator will reexamine the notes from the focus group and index all the data within this framework.
4. Charting provides an opportunity to create a picture of the data collected based on the thematic framework.
5. Mapping – this will be the final stage of the data analysis process where the principal investigator attempts to summarize the data from the focus group and make connections within the group of themes but also across other data points collected during the intervention.

## **Appendix E: Value Creation Stories**

This toolkit offers two templates for telling stories about the value of participating in a community or network. These templates were originally designed for teachers in a learning network, but they can be used as templates for any profession belonging to a community or a network. The first template is meant to capture your overall experience of participation in a community or network and what you gained from it.

Use this template to describe your overall experience of participation. You might feel that you are connected to more than one particular community or network. Please feel free to use a different template for each particular network and give them a name. This template served as a guide for participants to tell their stories.

Personal Value Narrative – EXAMPLE

<b>Name: CoP</b>	How participation is changing <u>me as a teacher</u> (e.g. skills, attitude, identity, self-confidence, how you feel)	How participation is affecting <u>my social connections</u> (e.g., number, quality, frequency, emotions)	How participation is helping <u>my teaching practice</u> (e.g., ideas, insights, lesson material, procedures)	How participation is changing <u>my ability to influence</u> my world as a teacher (voice, contribution, status, recognition)
Reasons for participation (e.g., challenges, aspirations, professional development goals, meeting people, etc.) +/-	My reason for participating in this network is to be inspired by other teachers. This helps me a lot. Talking with each other about how to experiment with new things in your class is a real eye-opener.  I have learned more about teaching music, we shared know how, which is useful for me.	This network helps me meeting new people interested in music education. I feel less lonely when it comes to talking about music education. In my school there is only a little group of colleagues interested in this.	I have gained some new insights and ideas. Also we have been developing some lesson plans together.	Together we have some influence on how we would like to teach music education in our schools. I have a very positive conversation with our head master about our network the other day.

Activities, outputs, events, networking (e.g. lesson material, discussion, visits) +/-	Participation is fun and I feel more involved when it comes to music education. In the beginning I felt insecure and a little dumb, but now I feel I can say and share what I like,	I know whom to turn to for help and information when I have a question. There is a lot of trust in our network, they feel like	Some outputs are the production of new lesson materials and fun music activities I can do with the	Talking about our shared experience when we have tried new musical approaches in our own classrooms. Presenting new ideas to my

	which is important to me.	friends to me.	pupils in my class.	colleagues.
Value to me (e.g., being a better teacher, handling difficult students, improving student learning and performance) +/-	Direct value for me is to be better prepared, because I have talked about it in our network. I worry less and have fewer headaches when it comes to experimentation with music education.	It feels good to know what others are doing and how they feel about this. This helps me to reflect in my own work.	I feel that the pupils in my class are more engaged.	Seeing ideas come to life. Receiving recognition from my colleagues in the school about innovative ideas around music education.

Note: +/- indicates that you can provide positive and negative experiences

Personal Value Narrative -Blank Template

Name: CoP	How participation is changing <b>me as a teacher</b> (e.g. skills, attitude, identity, self-confidence, how you feel)	How participation is affecting <b>my social connections</b> (e.g., number, quality, frequency, emotions)	How participation is helping <b>my teaching practice</b> (e.g., ideas, insights, lesson material, procedures)	How participation is changing <b>my ability to influence</b> my world as a teacher (voice, contribution, status, recognition)
Reasons for participation (e.g., challenges, aspirations, professional development goals, meeting people, etc.) +/-				
Activities, outputs, events, networking (e.g. lesson material, discussion, visits) +/-				
Value to me (e.g., being a better teacher, handling difficult students, improving student learning and performance) +/-				

Note: +/- indicates that you can provide positive and negative experiences

Curriculum Vitae

**CURRICULUM VITAE**

Carey C. Borkoski, Ph.D.

**PERSONAL DATA**

*Home Address*

384 Steven Way

Severna Park, MD 21146

*Business Address*

382 Hampton House

Baltimore, MD

[cborkoski@jhu.edu](mailto:cborkoski@jhu.edu)

**EDUCATION AND TRAINING**

August 2016      Ed.D in Education, Johns Hopkins University (expected)

August 2004            Ph.D. in Public Policy, University of Maryland – Baltimore  
County

May 1999              M.A. in Applied Economics, University of North Carolina –  
Greensboro

May 1993              B.A. in Economics, Wake Forest University

*Significant Course Work:*

Disciplinary Approaches to Education (JHU-SOE), Foundations to Innovation: Adult Learning (JHU-SOE), Evidence-Based Teaching (JHU-SOE), Instructional Strategies I (JHU-SOE), Advanced Microeconomics, Econometrics I, Econometrics II, Applied Microeconomics, Data Analysis and Methods, Advanced Econometrics I and II, Advanced Research Methods, Survey Methods, Cost-Benefit Analysis and Labor Economics

*Significant Computer Skills*

Statistical Packages: SAS, STATA, SPSS and Microsoft Excel, also proficient in MS Word, Excel and PowerPoint

Experience working with a variety of data sets including the Current Population Survey, the National Longitudinal Survey of Youth and the National Educational Longitudinal Survey.

## PROFESSIONAL EXPERIENCE

**September 2013 – Present**

**Johns Hopkins**

**University**

*Director of the Graduate Program in Public Policy, Institute for Health and Social Policy (IHSP)*

**October 2007 – Present**

**Johns**

**Hopkins University**

*Assistant Director of the Graduate Program in Public Policy, Institute for Health and Social Policy (IHSP)*

*Instructor, Dept. of Health Policy and Management, JHSPH (7/09-12/12)*

*Assistant Lecturer, Dept. of Health Policy and Management, JHSPH (1/13-Present)*

### Administrative Duties

- Review and approve international student requests to participate in internships (off campus work).
- Manage and update the IPS/MPP website
- Advise financial office on fiscal matters related to the MPP Program
- Identify and help fill part-time teaching needs

## Teaching Duties

- JHU Bloomberg School of Public Health Teaching: Policy Communications, Policy Analysis in Practice (Policy Methods), Data Analysis (Stata and Service-Learning), Applied Microeconomics for Policymaking, MPP First-Year Seminar
- JHU-School of Education Teaching: Applied Statistics (MEHP), Educational Research (MEHP), Research Methods I (EdD), Research Methods II (EdD – Fall 2015)
- Developed two new courses for the HPM policy sequences including Policy Communications I & II and Policy Analysis in Practice.
- Data Analysis for Public Policy is a multi-term course that integrates service-learning in the course curriculum. Students work with a Baltimore Community Based Organization (CBO) on a project created by the CBO and me.
- PhD Teaching Seminar – seminar facilitated to train and support HPM PhD students in their role as TAs and future teachers.

## Student Advising

- Act as primary advisor to first year students.  
Conduct individual meetings to initiate conversation about their academic and professional plans for their time in the program.

Work with each student on a Goals Analysis Exercise to better articulate these goals and devise a plan to reach these identified goals. Assist first-year students with identifying internship and other part-time work opportunities.

- Assist second year students with employment search.

Review resumes and cover letters.

Write recommendation letters.

Provide general guidance through the employment process.

#### Lead Admissions Committee Work

- Organize and manage incoming applications
- Complete first-reads of every completed application.
- Manage logistics related to admissions committee meetings and review of applications.
- Recommend final list of applicants for admission and scholarship levels.

#### MPP Program representative

- Member of HPM APAC Committee
- Represent MPP at school-wide meeting of academic program directors

**January 2014 – Present**

**Johns**

**Hopkins University**

*Adjunct Faculty, School of Education*

Teach online courses in Applied Statistics (FA14, FA15) and Educational Research (SP15 & SP16); Doctoral-level Research Methods I & II (FA15-SP16)

**November 2009-2012**

**Johns**

**Hopkins University**

*Professional Faculty, Carey Business School*

Taught courses in Business Statistics for undergraduate students.

**August 2007 – Present**

**Anne Arundel**

**Community College**

*Adjunct Professor of Business Administration*

Teach sections of Business Statistics and Introduction to Business to first and second year students majoring in accounting, economics and other disciplines related to business administration.

Duties include:

**December 2005 – October 2007**

**Regal**

**Decision Systems, Inc.**

*Program Manager - CanSim™*

Worked with the Canada Border Services Agency (CBSA) REGAL developed CanSim™ to analyze the processing of commercial vehicle, traveler, bus and pedestrian traffic entering Canada at land border stations in support of the Smart Border Declaration. Our current contract includes software upgrades, continued help desk support and the addition of eight port configuration layouts to the CanSim™ model. To add the layouts a REGAL team will be deployed to collect and analyze data as well as create and test the port configurations.

Responsibilities included managing budgets, contracts and team workloads and schedules. Supervised and oversee the work of the software development and data collection teams. Provided excellent customer service to clients through frequent contacts and assessment of services delivered.

*Program Manager/Senior Analyst – TSA Staffing Model*

For this project, REGAL developed a simulation model to determine staffing requirements for screening passengers and baggage at all U.S. airports while minimizing inconveniences to the traveling public. This complex model relies on a variety of elements including, flight schedules (OAG), passenger arrival distributions, percent originating passengers, baggage and other vital information to recreate anticipated conditions at the airport. With this data, the TSA Staffing Model provides passenger demand output that can be used to generate weekly scheduling at the airports. Responsibilities include managing budgets and team

workloads, writing proposals and contracts related to the REGAL contract with the Transportation Security Administration (TSA).

Other responsibilities included conducting performance reviews, establishing performance standards. Assisted with the development of a software manual and training curriculum. Supervised a team that included technical and professional staff. Provided excellent customer service to clients through frequent visits and discussions of client needs.

*Other Duties*

- Lead proposal writer and editor.
- Drafted and finalize revised REGAL business plan and marketing plans for various REGAL products and services.
- Acted as education liaison for Regal's evacuation planning software, SafePlan.
- Assisted with marketing initiatives related to emergency management/planning software and training.

May 2004 – June 2007  
Community College  
*Associate Professor of Economics*

Anne Arundel

Taught courses in Business Statistics, Microeconomics, Macroeconomics and Economic Problems. Advised students on course selection, transfer options and career decision-making. Served as Chair of the Academic Standards Committee

and member for two years. Committee determined academic policies and standards, assessed academic credentials and reviewed course curriculum from other institutions. Advised Vice President on curriculum changes to improve delivery of online courses. Adapted learning outcome assessment tool to enhance department courses. Assisted students with math readiness.

**May 2004 – August 2000**

**Anne Arundel**

**Community College**

*Assistant Professor of Economics*

Taught courses in Business Statistics, Microeconomics, Macroeconomics, Introduction to Economics and Economic Problems. Advised students on course selection, transfer options and career decision-making.

**January 2002-June 2004**

**University of Maryland,**

**Baltimore County**

*Teaching/Research Assistant*

Responsibilities include teaching and research. My role as a teacher included helping graduate students with labor economics and graduate-level statistics. I

also helped undergraduate students with labor economics and cost-benefit analysis classes. Finally, I developed a short course to help graduate students learn the basics of SAS. As a researcher I was involved in all aspects of the research process including literature review, data gathering and construction, data analysis and writing sections of publishable papers.

**June 1999-August 2000**

**University of North**

**Carolina at Greensboro**

*Lecturer*

I joined the faculty at UNC-G after finishing graduate school. Responsibilities included teaching several sections of Statistics for Business and Economics. Students learned basic statistical theory including measures of central tendency and variation along with topics in Probability, Normal Distribution, Estimation, Hypothesis Testing and Regression Analysis. In addition, to teaching these topics, students were introduced to the statistical tools in Microsoft Excel.

**August 1997 –May 1999**

**University of North**

**Carolina at Greensboro**

*Research Associate (8/98-5/99)*

Under a grant from the National Bureau of Economic Research (NBER), analyzed “Non-Profit Wage Differentials” under the direction of Professor Chris Ruhm,

Ph.D. Duties included gathering and merging data from current population surveys (Outgoing Rotational Groups) and the Displaced Worker Supplement. Contributed to the decision making process regarding variable construction and selection. Assisted with analysis of the data and writing up of the findings for an NBER working paper. Data analysis was performed using STATA, SAS for Windows and SAS within a UNIX Environment. Assistant duties included teaching graduate students in Applied Microeconomics.

*Research Assistant (5/98-9/98)*

Performed intense data work using the Bureau of Labor Statistics unemployment data. Became fluent with “Healthy People Supplements Survey” and the “Behavior Risk Factors Surveillance Surveys”. Created data sets using STATA programs under the supervision of Chris Ruhm, Ph.D., who published research results in major economic journals. Duties also included teaching undergraduate students in Macroeconomics and Economics and Business Statistics.

*Graduate Assistant (8/97-5/98)*

Created spreadsheet models to track student information and feedback mechanisms. Developed class syllabus, lectured classes (in professor’s absence). Graded assignments and exams; met with students to develop individual learning objectives and evaluation techniques.

**November 1994-April 1995**

**Diversified International Sciences**

**Corporation**

*Systems Analyst/ Trainer*

Performed database analyst duties and delivered training programs to new U.S. Army Deputy Chief of Staff, personnel staff members. Training assignment included classroom orientation and exercises to all newly arriving DCSPER staff members, of all ranks and backgrounds. Subject matter included all Microsoft Office Programs, basic DCSPER network operations, network architecture and various help desk duties.

**PROFESSIONAL ACTIVITIES**

Johns Hopkins University, SOURCE

2013-

Present

Serving as a Senior Faculty Fellow

Lead several sessions during the three-day seminar to welcome Faculty Fellows

Participate and lead monthly meetings with current faculty fellows

Support SOURCE in various activities including workshops, presentations and other efforts to promote the service-learning pedagogy and SOURCE services related to community engagement.

Member of the Association of Public Policy and Management (APPAM)

Member of the National Association of Schools of Public Affairs and Administration  
(NASPAA)

### **HONORS AND AWARDS**

Awarded the Service-Learning Faculty Award (2015)

Awarded the Health Policy and Management Faculty Award (2015)

Awarded the JHU Advising, Mentoring, and Teaching Recognition Award  
(AMTRA) (2014)

Awarded the Health Policy and Management Faculty Award (2014)

Awarded JHU SOURCE Senior Faculty Fellowship (2013-2015)

Awarded JHU SOURCE Faculty Fellowship (2012-2013)

Inducted into the Severna Park High School Athletic Hall of Fame (Fall 2006)

Anne Arundel Community College

Awarded Tenure in the Economics Department at Anne Arundel  
Community College (2005)

Received the National Institute for Staff and Organizational Development  
(NISOD) Award for Teaching Excellence (Spring 2004).

Teaching Excellence Award, Anne Arundel Community College, Rookie  
Professor of the Year (2001).

Awarded a Tenure-Track Slot in the Economics Department at Anne  
Arundel Community College (2001).

University of North Carolina - Greensboro

Academic Achievement Award for earning a GPA of 3.9 in the Master's  
of Applied Economics at UNC-G.

John Formby Award for Best Master's Thesis in Economics (1999).

Wake Forest Varsity Field Hockey, 1989-1993

Co-Captain, 1992

Most Valuable Player, 1992

Nationally Ranked Goalkeeper, 1992

ACC Leading Goalie, 1991-1992

National Hockey Festival, 1990

Deep South All-Conference Team, 1989-1990

## **PUBLICATIONS**

*Publications*

Peer-Reviewed Journals

Borkoski, C., Jones, V., Levin, M., and Doerr, E. (submitted for review, December 2015). "It's About Complexity of Culture: Faculty Professional Roles and Perceptions of Service-Learning." *Journal of Experiential Education*.

Levin, M., Doerr, E., Borkoski, C., and Jones, V. (submitted for review, January 2016). "Using the RE-AIM Model for Faculty Development in Service-Learning Course Design: Johns Hopkins University SOURCE Service-Learning Fellows Program" *American Journal of Public Health*.

Marcotte, D., Borkoski, C., Bailey, T. and Kienzl, G. (2005). "The Returns to Education

at Community Colleges: Evidence from the National Educational Longitudinal Survey." *Educational Evaluation and Policy Analysis*, V27 (2), pp. 157-75.

Wilcox-Gok, V., Marcotte, D., Farahati, F. and Borkoski, C. (2004). "Early Onset Depression and High School Dropout" published in *Economics of Gender and Mental Illness*.

Ruhm, Chris and Borkoski, Carey (2003). "Compensation in the Non-Profit Sector." *Journal of Human Resources*, V38. No4.

Ruhm, Chris and Borkoski, Carey (2000). "Compensation in the Non-Profit Sector." National Bureau of Economic Research #7562.

*Business Publications*

Borkoski, Carey (October 2006). "Simulations Streamline the Business Process." *T3: Transportation Technology Today*, V1, No10, p22.

Borkoski, Carey (August 2006). "Security Issues on Peace Bridge." *Government Engineering, The Journal for Public Infrastructure*, p58.

Borkoski, Carey (July-August 2006). "Simulate an Evacuation – New Business Basics."

Security: Solutions for Enterprise Security Leaders, pp32-33.

Proposals

"Evacuation Time Estimate Study for the District of Columbia and Surrounding Jurisdictions", District Department of Transportation, April 2007.

"Building Evacuation Implementation Study Technical Support", Toyon Research Corporation (DHS), March 2007.

"Truck Drayage Environment and Energy Model and Case Studies", EPA, October 2006.

"Simulated Evacuation Planning Tool", Technical Support Working Group (TSWG) BAA, October 2006.

"Data Maintenance and Staffing Analysis Model", Transportation Security Administration (TSA), October 2006.

“Support for TSA Staffing Model”, TSA Blanket Purchase Agreement (BPA),  
May 2006.

“Help Desk Support and Training”, Task Order 1 under TSA BPA, June 2006.

“Software Development – Enhancements and Bug Fixes”, Task Order 2 under  
TSA BPA, June 2006.

## **PRESENTATIONS**

“Service-Learning Faculty and Community Development: Expanding Our Reach in the Academy and Community”, National Society for Experiential Education Conference, October 2014

“Utilizing Service-Learning in the Classroom”, Workshop provided by SOURCE and the Center for Teaching and Learning. Discussed course objectives and specific curriculum development around service-learning pedagogy. Offered suggestions and best practices for integrating this pedagogy into a new or an existing class. November 2013

“Dispelling Myths, Providing Tips”, part of JHU’s SOURCE Baltimore Week. A panel discussion on topics including working with the Baltimore community, service-learning and student learning and other community engagement topics. October 2013

“Designing an MPH Practicum Course or Project”, discussed my experiences in the SOURCE Faculty Fellows Program designing a service-learning course and participated in question and answer session with interested faculty. October 2013