



University of Nebraska Omaha  
DigitalCommons@UNO

Higher Education

Service Learning

Fall 2013

# Reading the Community: Helping Students Learn the Process

Judith A. Ramaley

Follow this and additional works at: <http://digitalcommons.unomaha.edu/slcehighered>

 Part of the [Higher Education Commons](#), and the [Service Learning Commons](#)

## Recommended Citation

Ramaley, Judith A., "Reading the Community: Helping Students Learn the Process" (2013). *Higher Education*. Paper 168.  
<http://digitalcommons.unomaha.edu/slcehighered/168>

This Article is brought to you for free and open access by the Service Learning at DigitalCommons@UNO. It has been accepted for inclusion in Higher Education by an authorized administrator of DigitalCommons@UNO. For more information, please contact [unodigitalcommons@unomaha.edu](mailto:unodigitalcommons@unomaha.edu).





# Reading the Community: Helping Students Learn the Process

Judith A. Ramaley

*Partnerships: A Journal of Service-Learning & Civic Engagement*  
Vol. 4, No. 2, Fall 2013

---

**Colleges and universities in the 21<sup>st</sup> century will thrive through extensive collaborations with other higher education institutions and with communities with which they have special affinities. These relationships will create an educational environment that promotes deeper learning and student success, while generating knowledge that can be put to good use in improving the sustainability of local and global communities, and the diversity and strength of the economy. This paper will explore ways to engage students in the life of their communities while they take an active role in addressing challenges that affect local culture, health, economic stability and the environment. To do this, students must develop the ability to learn how to enrich their experience in the neighborhoods where they live by paying attention to aspects of life in their community that they normally would not notice; that is, to “read the community.”**

---

## Higher Education in the 21st Century

In the past 20 years, a new model of higher education has begun to emerge (Ramaley, 1997) that has given rise to new ways of thinking about the role of colleges and universities in society and the nature and purpose of an education. A core element of this emerging model, sometimes referred to as “the engaged university/college,” is the idea that the formal functions of research, teaching and service are actually facets of the same thing (Holland, 2012). These functions can be integrated in several ways by broadening the participants (faculty, staff, students, community members) and by new approaches to how the outcomes will be evaluated and applied. Ernest Boyer (1990) opened up the domain of scholarship to emphasize a deep connection between theory and practice. Boyer was followed by Donald Stokes (1997) who developed the concept of *Pasteur’s Quadrant*, a domain of use-inspired research. These concepts, in turn, shaped the development of a collaborative approach to the discovery process that expanded the context for discovery, validation of knowledge and informed

application of knowledge to include not only the academy but also the world at large (Gibbons et al., 1994).

As these shifts have taken place in our understanding of who is responsible for asking key questions, who gathers evidence and interprets the findings, who validates the outcomes and who undertakes the process of applying the new ideas and information to real world problems, a comparable rethinking has emerged in our understanding of what it means to be educated, and how to create an educational environment to prepare students for a changing world order by employing high impact practices (Kuh, 2008) that link learning and life (Kuh, Kinzie,, Schuh, & Whitt, 2005), and how to add meaning and purpose to learning in a changing world (Greater Expectations, 2002). As the Boyer model (1999) began to influence academic culture and as the discovery process began to link more closely to the process of application of knowledge to practical problems, the role of the academy in knowledge generation and the validation of knowledge began to shift as collaborations with other organizations and various forms of scholarship that engage members of the broader community, including students, in the discovery process have become more common. These developments have been accompanied by a stronger emphasis on constructivist learning theory which emphasizes “the role of the individual in making sense of the world,” through an on-going process that requires “interactions with one another, the community and the environment” (Harasim, 2012, p. 12). To create the capacity for this kind of learning, many institutions and faculty members have opened up their classrooms to create an educational model that draws upon life in the community as the starting point for connecting learning to real world problems.

Early reports that addressed the concept of a quality college education and that explored the challenges of assessing learning seem as fresh today as they did when they were written (Education Commission of the States, 1995). Efforts to explore the educational context for this new form of engaged learning and discovery gave rise to a portfolio of projects designed to identify the core components of a “practical liberal education,” referred to as Liberal Education and America’s Promise (LEAP), that could be pursued in any discipline or professional course of study (Association of American Colleges and Universities, 2007). This approach was followed by a companion document, the Degree Qualifications Profile, a framework to define what to expect from a person holding an associate, bachelors or master’s degree (Lumina, 2011).

The convergence of these two patterns of exploration, one within the scholarly domain and the other in our understanding of how to provide a meaningful education, has led to the development of a portrait of the core elements of an undergraduate education. Using the Degree Qualifications Profile as a starting point (Lumina, 2011), an undergraduate education should foster the following understandings, skills and dispositions:

- Broad and integrative knowledge pursued throughout the undergraduate years in ways that allow for integration across fields and application to real-world problems relevant to the student’s interests.

- Specialized knowledge that demonstrates depth of knowledge in a chosen field as well as integrative skills and methods drawn from multiple fields and disciplines.
- Intellectual skills including communication fluency, the capacity to analyze complex problems, quantitative and information literacy and the capacity to engage diverse perspectives.

Exercised and developed through:

- Civic learning derived from both formal studies and from community-based learning that addresses significant public problems and questions.
- Applied learning that allows students to practice ways to integrate and apply what they are learning by completing complex projects.

Several consistent threads run through this set of learning experiences. The work becomes increasingly more *integrated* over time, more *interdisciplinary*, increasingly *meaningful* to both the learner and to those with whom he or she collaborates, and *progressively more demanding and complex* over time. The outcomes must be evaluated both by what the learner knows and by the *outcomes* of how the learner applies what he or she knows. To create an appropriate context for this kind of development and for exploring what learners are becoming as they reflect upon and build upon their learning experiences, colleges and universities must close the gap between “endorsement and the realities of campus life” (Klein, 2010, p. 3) by creating new approaches to the generation of knowledge, “solutions to urgent societal problems, an edge in technological innovation, and a more integrative educational experience” (Klein, 2010, p. 2). Furthermore, all of this must be done in a way that promotes access to a quality education and support for the success of a much more diverse set of learners.

## Creating a Culture of Engagement

One way to combine these many elements into a progressively more meaningful and demanding set of educational experiences is to connect the campus itself to the world beyond its borders through extensive and collaborative knowledge partnerships with other educational institutions, other sectors of society and other nations. Acknowledging this trend, the Carnegie Foundation for the Advancement of Teaching introduced an elective classification for institutions of all types in 2006 that wished to be counted as engaged institutions (Carnegie, 2013). According to Carnegie,

*The purpose of community engagement is the partnership of college and university knowledge and resources with those of the public and private sectors to enrich scholarship, research, and creative activity; enhance curriculum, teaching and learning;*

*prepare educated, engaged citizens; strengthen democratic values and civic responsibility; address critical societal issues; and contribute to the public good. (2013, # 5)*

Engagement is a scholarly method, an approach to learning and a way of working together. It is an approach to teaching, learning and research that involves participants from within the campus community and outside academia who have expertise, wisdom, insights and experiences that equip them to contribute to the quality and impact of discovery, integration and application of knowledge during the pursuit of a scholarly agenda or an education (Holland, 2012). It is best used in situations where the question to be explored is unclear or unexplored or when solutions to the problem are either unknown or contested. Engaged strategies generally employ a blend of disciplinary perspectives and methods in order to understand and address the issue at hand.

### **Engaging Students in the Life of a Community: Are You Ready to Begin?**

Before launching an effort to open up relationships between the campus and the community that can form a rich and ever-challenging educational context and environment in which to practice the skills that will foster the qualities that we now expect of a college graduate, it is important to ask ourselves several questions that will allow us to determine whether we have a sufficiently developed culture of engagement to support our aspirations. If engagement is still confined to certain academic units or if it is not recognized or supported, then a different approach will be necessary in order to build a critical mass of interest in community-based learning and in integrative and progressively more demanding projects that will prepare students for life and work in the 21<sup>st</sup> century. For the purpose of this essay, we shall assume that your institution already has some interest in the overall trajectory and outcomes of the undergraduate experience and has developed some meaningful collaboration both internally and externally. The challenges of initiating, leading and managing institutional change in order to create the capacity for engaged learning can be a topic for another time.

1. How does your institution approach undergraduate education? Could you pick out one of your graduates from a crowd of other college graduates? If so, what qualities and dispositions would they exhibit?
2. What are the most pressing challenges or opportunities in the communities that matter most to your institution?
3. How well are the intellectual resources and interests of your faculty and students aligned with the issues facing the communities with which you have the closest ties?
4. Are there some themes or clusters of interest upon which you can build in order to find real-world problems of suitable complexity and value for students at each stage of their education?

5. To what extent does your campus have a culture of engagement and how is engagement expressed--as a form of scholarship, designed into the curriculum, a component of the high impact practices that are in active use on your campus to support student learning, others?
6. Who are your students? Do they come from diverse backgrounds? Do they come from the region or is there a significant national or international component in your student body?
7. How serious are your students about their education? How do you know?
8. How well do your students already know the communities that are most significant for your campus? What programs does your campus have in place to foster understanding of and interest in the local area, for students or for faculty?

What proportion of the students have one or more experiences such as volunteering, participation in service-learning classes, community-based research, internships or other high impact practices that can promote deeper learning in a real-world context?

### Learning to “Read” a Community

An integral part of community engagement is learning to listen to many community voices and to study how life plays out in neighborhoods. Parker Palmer (2007) made an eloquent case for the importance of preparing “a new professional who can confront, challenge and help change the workplace.” In my experience, professional practice today relies on the capacity to draw lessons from the environment of practice and the ability to work with others to improve both the profession itself as it is practiced in a particular place, but also the environment in which professionals work, to the benefit of practitioners and clients alike. As Palmer (2007, p. 9) puts it, “We must ask ourselves whether we are preparing students in all fields to recognize what happens in the institutions in which they work.” To this I would add that we need to coach our students in the art of seeing what is really in front of them and in questioning why things are the way they are. It is this process that I call learning to “read a community.”

As I use the term, to “read” a community is to understand the patterns of daily life, to predict how a community will develop and to look beneath the surface to explore why things happen the way they do. To accomplish this, it is important to learn to pay attention to what happens in a community in new ways. Who lives there? Are there green spaces where people can relax and exercise and play? Are there places to obtain healthy food? Is it safe to walk on the streets at night? Is there easy access to health care? Who attends the local schools and how well do the students succeed in school? How stable is the local population? Questions like these can open up new ways of understanding life in a neighborhood or a broader community and open up questions that can engage students in both lively discussion and in practical problem solving.

## Lessons from the Civic Leadership Minor at Portland State University

Let us begin with the course description and overview for the course (Public Administration 414) that will form the “case” that illustrates one way to engage students in an exploration of life in the community. The course was designed using the logic of the Degree Qualifications Profile. It draws upon the collaborative and integrative concepts that now infuse both scholarship and learning in many colleges and universities.

### ***DESCRIPTION: The Civic Leadership Minor***

PA 414 is part of a cluster of courses that make up an undergraduate minor in Civic Leadership offered by Portland State University. Students must take 34 credit hours drawn from a choice of 20 different courses offered across campus. PA 414 is one of those courses. The overall goal of the minor is to provide students with a curricular opportunity to pursue their interests in community and public service while completing the requirements for their chosen major course of study. The minor can be complementary to any field of study.

### ***Overview of PA 414: Civic Engagement and Social Organizations, What we hope to accomplish***

In this course I hope you will practice approaches to exploring a public issue while seeking to probe more deeply into your own motivations and interests, and working out ways to use your knowledge and skills in support of a livable future through the experiences you have with civic learning.

The goals of this course are to expand your awareness of **life in the community**, practice **skills** that you can use to contribute to the quality of life in the communities with which you have an affiliation and interest, and build a deep **commitment** to taking an active role in changing society for the better while displaying **integrity, honesty and ethical reasoning** in doing so.

The course goals are shaped by an understanding that the meaning of an education is changing as we go deeper into the 21<sup>st</sup> century. Among the expectations that have emerged are: (a) Integration across fields--what does this mean and how can we do this? (b) The importance of learning more deeply--what does that concept mean and how can we foster that kind of learning? (c) The importance of bringing together how we think and act (knowledge and skills) with what we know about ourselves (values and motivation), and how we relate to other people in the community, both in this class and within the Portland Metro area. The reason for seeking to bring these three elements together is to support learning that has more meaningful consequences for both you and for the people affected by how you apply your knowledge and skills to understanding and responding to pressing world problems. The framework from which I drew these ideas is posted on our course website and labeled Degree Qualifications Profile (DQP.) The DQP is accompanied by a set of measures called the VALUE Rubric. The elements of the rubric, which was developed by the Association of American Colleges and Universities, are designed to show the development of greater depth

and competency on a number of measures that relate to the four core elements of a quality education: knowledge, intellectual skills, civic learning and applied learning.

The questions that form the framework for the course on Civic Engagement and Social Organizations lead the students through a set of exercises that blend direct experience with a theoretical and analytical framework developed from the literature on the nature of communities, and the various ways that social scientists study the dynamics of communities. Both of these strands are supported by local data sources including *Greater Portland Pulse* (2013) and the *Regional Equity Atlas* (2013) as well as community asset mapping tools and local news coverage.

The course is designed to address five key questions:

1. How do different scholars and practitioners think about a community? How helpful are these different ideas as guides for getting to know a community? Which approaches make sense to you and why?
2. How do you get to know a community? What do you notice? What do you care about? How do you usually make sense of your experiences?
3. What do other people care about in your community, and who speaks for the community? Who identifies and describes problems in the community? Who is asking questions and why are they asking? Who gathers evidence and interprets the findings? Can you discern an underlying set of assumptions or an agenda that shape the information collected and the conclusions reached? Who acts on the findings of these studies and reports, and what use do they make of the findings? How do different social organizations and interest groups define their focus and the problem they want to address?
4. How do you decide where and how to become involved in the life of a community?
5. How do you "read" the organization you choose to affiliate with, how do you learn to see the community through the lens of this organization and make meaningful contributions to its mission?

Since the academic year at Portland State University is divided into quarters, all of this has to be accomplished in 10 weeks. To address the questions that frame the course, the students explore several topics in order to acquire both the intellectual tools and the personal experiences they will need in order to accomplish the goals of the class.

### ***Ways of studying communities***

The primary source for this segment is the text *The Community in Urban Society*, by Larry Lyon (1999) which offers an excellent summary of the primary theories that have been developed to guide the study of community life, and *Community Matters. An Exploration of Theory and Practice*, by Margot Kempers (2002). To bring these ideas closer to home, we also use material



from *Toward One Oregon. Rural-Urban Interdependence and the Evolution of a State*, edited by Hibbard, Selzer, Weber, and Emshoff (2011). In this segment, the students explored different concepts of community both on the ground and in cyberspace, and when each conceptual model might be most useful in focusing questions, shaping the gathering of observations and data, and interpreting the findings.

### **Statistical Reports and Asset Mapping**

Although the majority of students who attend Portland State are from the metropolitan region or elsewhere in Oregon, few of them have paid much attention to the neighborhoods where they grew up or where they live now. It was helpful to start the process of actually paying attention by exploring the portrait of the region that is presented in two different statistical reports, both developed through extensive interactions with people in the community who guided the investigators by talking about what they care about in their communities. As you read through this section, consider the following questions:

1. Do you have similar resources in your own community or region? If so, who developed them and how are they used?
2. Has your institution mapped its strengths and intellectual interests to the portrait of your community or region and to the concerns of the people who live there?
3. What are your particular institutional strengths and how well do they match up with community interests? Are you drawing upon and contributing to those strengths as you plan your course or curriculum?

### **Regional Equity Atlas**

The atlas was constructed to provide information that various agencies and public officials could draw upon to work toward communities where all residents have access to good jobs, transportation choices, a range of parks and natural areas, vibrant public spaces, safe and stable housing, and healthful and regionally produced foods. Underlying this set of goals is the expectation that all residents and communities will be involved as full and equal partners in public decision-making and in the sharing of the benefits and burdens of balancing actions that address the public good while protecting individual rights and responsibilities. The atlas has served as a stimulus for collaborative action in such areas as health care, and the protection and development of green spaces. It offers a starting point for exploring the challenges of framing and then implementing good public policies across a very diverse region.

### **Greater Portland Pulse**

This portrait of the region is developed by the Institute of Portland Metropolitan Studies at PSU and documents a growing partnership that draws upon both data and conversation to encourage coordinated action for better regional outcomes in areas that the citizens of the

metropolitan region care most about--the economy, education, health, safety, the arts, civic engagement, the environment, housing and transportation. The atlas tracks who is being left behind, where there is progress and where there is still much work to be done. Like the *Regional Equity Atlas*, *Greater Portland Pulse* provides a road map for both public and private action by providing a better platform for decision-making and a way to track whether individual and collective actions are paying off in an improved quality of life in the region.

In this segment, students begin to map the assets that they find in their own neighborhoods in an area of their interest, ranging from the availability of healthful food to access to affordable health care. In this exercise, they draw upon several resources including *The Nonprofit Sector* (2013) and the *Community Asset Mapping Workbook*, prepared by the Community Outreach of Our United Villages in Portland, and *Building Communities from the Inside Out* by Kretzmann and McKnight (1993).

### **Direct Experiences**

Once the students have acquired both an intellectual toolkit to help them make sense of what they learn in the community and an initial orientation to the kinds of things that community residents care about, it is time to venture out into the community to see things for themselves and to decide which aspect of community life interests them the most. The first three exercises lead the students into community life by asking: (a) What do you already know about your neighborhood or community? (b) What issue matters most to you and how can you identify an organization to work with that focuses on that issue? and (c) Once you select an organization, how do you learn to see the community through its perspective and how can you contribute to its ability to accomplish its goals?

### **Measuring Impact**

This segment of the course introduces the students to various ways to collect information on the effectiveness of programs and services, and the social return on investment (SROI) that can be calculated for the work of an organization. We focus on both economic impact of non-profits and social impacts.

Economic impact of a higher education institution or another non-profit is relatively easy to measure by collecting data on contributions to employment and compensation, consumption of goods and service and taxes paid, both direct and indirect by the organization itself and by the people it employs and serves (Social Return on Investment Network, 2013). The students discover that social Impact is much harder to measure and should be studied largely through the goals of particular partnerships or projects. Larger community impact suffers from the "attribution problem"--if conditions change, what actually caused that change?

The students are asked to consider the following questions in the context of the community partner they chose to work with. The core ideas come from material on the Social Return on Investment Network (2013).

1. What effects or changes does the organization seek?
2. How does it decide what it will pay attention to and what to measure to track progress toward its goals?
3. How much of the observable change can be attributed to its own efforts?
4. What is the organization learning from its experience?
5. Who else should be included in defining organizational goals and assessing the results because they share some measure of both the burden and the benefit of the work we are doing?

### **Completing a Research project for a Community Partner**

As a final project, the students complete a focused inquiry or research project that addresses a question or challenge facing a community partner organization as it develops and delivers its programs and seeks support from the community for its work. They then present their reports first to the class in order to get advice and feedback and then, to their community partner for review and comment. The class serves as an advisory panel for each other as they each work on the question that they have developed with their partner. Although I selected four possible partners who already were primed to engage the students, I did offer the class a different option. If someone already have a close association with a social organization (e.g., voluntary associations, public interest groups, educational and religious institutions, and nonprofit organizations), he or she could work individually or with another member of the class on a project for that organization after checking with me to be sure that the topic would address the learning goals of the class. Most of the students chose one of the suggested partners, but two of the older students who already were engaged with organizations in their community chose to work with a different partner, in one case Habitat for Humanity, and in another case, a neighborhood watch group.

### **Outcomes**

A course of this nature can accomplish a great deal in the span of a few weeks. Although it is difficult in such a short timeframe to assess how much students have progressed along a path of increasing engagement, capacity for integrative learning and ability to act responsibly, there is some evidence from both the instructor's perspective and from the self-assessment conducted by students using the Valid Assessment of Learning in Undergraduate Education (VALUE) Rubric elements (VALUE Rubrics, 2013 ), to suggest that the students did experience modest gains during the 10 weeks of the course. The six elements that comprised the modified VALUE Rubric were: (a) civic identity and commitment, (b) civic contexts and structures, (c) solving problems, (d) influence of context and assumptions, (e) ability to use information effectively to accomplish a specific purpose, and (f) embracing contradictions. It is reasonable to propose that the use of such measures would be more meaningful and more likely both to guide learning and to enable the demonstration of learning outcomes, if a comparable set

were to be used in each course in the Civic Leadership Minor sequence. In the absence of such a potentially cumulative effect, it still seems likely that this approach to learning to “read” a community and to see it through the eyes of others will provide students with some valuable experiences leading to enhanced intellectual skills, a stronger civic identity and more opportunities for applied learning.

## References

- Association of American Colleges and Universities. (2007). *College learning for the new global century*. Washington DC: AACU
- Association of American Colleges & Universities (2013). *VALUE Rubrics*. Retrieved from <http://www.aacu.org/value/index.cfm>
- Bowden, R. & Gonzalez, L. P. (2012). The rise of contingent faculty: its impact on the professoriate and higher education. *Journal of Applied Research in Higher Education*, 4(1), 5-22.
- Boyer, E.L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.
- Carnegie Foundation for the Advancement of Teaching. (2013). Community Engagement Elective Classification. Retrieved from [http://classifications.carnegiefoundation.org/descriptions/community\\_engagement.php](http://classifications.carnegiefoundation.org/descriptions/community_engagement.php)
- Community Outreach of Our United Villages (2013). *Community asset mapping workbook*. Retrieved from [www.ourunitedvillages.org](http://www.ourunitedvillages.org)
- Education Commission of the States (1995). Making quality count in undergraduate education. *A Report for the ECS chairman's "Quality Counts" agenda in higher education*. Denver, CO: Education Commission of the States.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P. and Trow, M. (1994). *The new production of knowledge: The dynamics of science and research in contemporary societies*. Thousand Oaks, CA: Sage.
- Greater Expectations (2002). *A new vision for learning as a nation goes to college*. National Panel Report 2002. Washington, DC: Association of American Colleges and Universities.
- Greater Portland Pulse. *Measuring results, inspiring action*. Retrieved from <http://portlandpulse.org/>
- Harasim, L. (2012). *Learning theory and online technologies*. New York: Routledge.
- Hibbard, M., Selzer, E., Weber, B. & Emshoff, B. (2011). *Toward one Oregon. Rural-urban interdependence and the evolution of a state*. Corvallis, OR: Oregon State University.
- Huber, M. T. & Hutchings, P. (2004). *Integrative learning, mapping the terrain*. Washington DC: Association of American Colleges and Universities.
- Holland, B. A. (2012, March). Assessing service-learning. *Community Engagement and Social Inclusion*. Workshop presented at Monash University: Clayton, Australia.

- Kempers, M. (2002). *Community matters: An exploration of theory and practice*. Chicago: Burnham Inc.
- Klein, J. T. (2010). *Creating interdisciplinary campus cultures*. Washington DC: Association of American Colleges and Universities and Jossey-Bass.
- Knefelkamp, L. (2008). Civic identity: Locating self in community. *Diversity & Democracy*, 11(2), 1-3.
- Kretzmann, J. P. & McKnight, J. L. (1993). *Building communities from the inside out: A path toward finding and mobilizing a community's assets*. Evanston, IL: Center for Urban Affairs and Policy Research. Neighborhood Innovations Network.
- Kuh, G. (2008). *High impact educational practices: What they are, who has access to them, and why they matter*. Washington, DC: AAC&U.
- Kuh, G., Kinzie, J., Schuh, J. H., & Whitt, E. J. (2005). *Student success in college, creating conditions that matter*. San Francisco, CA: Jossey-Bass.
- Lumina Foundation. Degree Qualifications Profile (January 2011). Retrieved from [http://www.luminafoundation.org/1\\_no\\_parent\\_nav\\_bar\\_fix/publications/special\\_reports/degree\\_profile/](http://www.luminafoundation.org/1_no_parent_nav_bar_fix/publications/special_reports/degree_profile/)
- Lyon, L. (1999). *The community in urban society*. Long Grove, IL: Waveland.
- Palmer, P. J. (2007). A new professional: The aims of education revisited. *Change: The Magazine of Higher Learning* 39(6), 6-12.
- Ramaley, J. A. (1997). Shared consequences: Recent experiences with outreach and community-based learning. *Journal of Public Service and Outreach*, 2(1), 19-25.
- Regional Equity Atlas (n.d.). *Metropolitan Portland's geography of opportunity*. Retrieved from <http://equityatlas.org/>
- The Social Return on Investment Network (2013). *Social return on investment*. Retrieved from <http://www.thesroinetwork.org/>
- Stokes, D. E. (1997). *Pasteur's quadrant. Basic science and technological innovation*. Washington DC: Brookings Institution.
- The Nonprofit Sector: An economic and community asset. Retrieved from [http://www.ucsur.pitt.edu/files/frp/Nonprofit\\_Sector\\_Economic\\_Community\\_Asset.pdf](http://www.ucsur.pitt.edu/files/frp/Nonprofit_Sector_Economic_Community_Asset.pdf)