

Undergraduate Research and Service Learning

Center for Service Learning
Western Carolina University



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Service learning is a teaching and learning strategy that integrates community service with academic instruction and structured reflection in such a way that students gain further understanding of course content, meet community needs, develop career-related skills, and become responsible citizens. The Center for Service Learning at Western Carolina University (WCU) organizes and manages a comprehensive program in collaboration with faculty, administrators, staff, students, and community partners to promote engagement, encourage academic excellence, and foster civic responsibility.

Service learning provides an avenue for undergraduate research. At WCU, there are three principal approaches to undergraduate research through service learning: problem-based service learning, community-based research, and participatory action research.

Problem-Based Service Learning

Problem-based service learning (PBSL) engages students in seeking solutions to real, community-based problems. Students, usually working in teams, relate to the community like consultants working for a client. They work with community members to understand a particular social problem or need. This service-learning approach calls for students to have some knowledge that they can draw upon to formulate and propose authentic, viable solutions to community problems. Such knowledge is gained through research.

Community-Based Research

In community-based research (CBR), students and faculty collaborate with community partners on research projects that address community-identified needs and promote positive social change. Research questions emerge from the needs of communities. CBR aims not merely to generate knowledge but also to ensure that knowledge contributes to making a concrete and constructive difference in a community. CBR emphasizes the use of multiple methods of discovery and the dissemination of the knowledge produced.

Participatory Action Research

Participatory action research (PAR) has emerged in recent years as a significant methodology for intervention, development, and change within communities and groups. PAR seeks both to understand and to alter the problems generated by a social system. In this service-learning approach, the community indicates the research needs and students bring their research skills to bear on community issues or concerns. With guidance and support from faculty members, students gather, analyze, and interpret data and then report the research results.

The term *community-based participatory research* (CBPR) has gained currency. CBPR is characterized by authentic partnerships, meaningful community engagement, and

community capacity building that combine knowledge with action to achieve social change.

BENEFITS OF THESE APPROACHES

The undergraduate research enterprise benefits the institution, its faculty, and its students. Benefits accrue to students academically, personally, and professionally as they experience the excitement of discovery and become members of the community of scholars in a significant way. Through problem-based service learning, community-based research, and participatory action research, the local and regional communities also benefit considerably. Specific benefits are outlined below.

For Students:

- Active, engaged learning through hands-on, real-life experiences
- Improved critical-thinking, problem-solving, and communication skills
- Heightened awareness of community needs
- Collaboration with faculty and community partners
- Graduate study and career options
- Enhanced résumé

For Faculty:

- Integrated teaching and research approach
- Increased student engagement
- Heightened awareness of community needs
- Reciprocal relationships with students and community partners
- Support for research and publication
- Opportunities for professional recognition and awards

For the University:

- Increased awareness of community issues, needs, and resources
- Purposeful, relevant educational offerings that meet community needs
- Public recognition of contributions through student and faculty involvement
- Opportunities to recruit students and faculty
- Expanded base of support (e.g., funding)

For Community Partners:

- Enhanced research and problem-solving capabilities
- Increased capacity to advance the mission of the community agency
- Heightened awareness of university roles and resources
- Research-based knowledge about program effectiveness
- Better quality of life in local communities

RESOURCES AND SERVICES

The Center for Service Learning provides a variety of services and resources to assist students engaging in undergraduate research and faculty employing service-learning approaches. Services include research assistance, funding support, and internships; resources include literature on (or related to) undergraduate research through service learning. The Center also creates and manages the processes by which community partners' needs, students' interests, and faculty members' research and teaching agendas are matched and crafted into appropriate research projects.

Research Assistance

Center for Service Learning staff members provide research assistance to both students and faculty members who request it. Such assistance is typically in the form of library resources - books, articles, and sample syllabi. The Center also offers research ideas to students and faculty.

Funding Support

The Center for Service Learning collaborates with other centers and departments of the University - including the Institute for the Economy and the Future (IEF) - to tap sources of monetary support for problem-based service learning, community-based research, and participatory action research. In particular, such collaboration is designed to identify grant sources, as well as to prepare and submit proposals to grant-making organizations.

Internships

Service-learning internships provide practical experience in problem-based service learning, community-based research, and participatory action research. Students conduct research under the joint supervision (mentorship) of faculty and Center for Service Learning staff. Research outcomes might take the form of documentaries, newspaper or magazine articles, oral history segments, feasibility studies, business plans, grant applications, project manuals, or program brochures.

Literature

Copies of books, journal articles, and conference presentations are available from the Center for Service Learning. Most of the library resources may be checked out for short periods.

BOOKS, ARTICLES, AND PRESENTATIONS

Available from the WCU Center for Service Learning

Benson, L, & Harkavy, I. (1998). Communal participatory action research & strategic academically based community service: The work of Penn's Center for Community Partnerships. In Zlotkowski, E. (Ed.), *Successful service-learning programs: New models of excellence in higher education* (pp. 124-149). Boston: Anker.

For the University of Pennsylvania (Penn), as well as all other urban universities, the strategic world problem concerns what should be done to overcome the deep, pervasive, interrelated problems affecting the people in its local environment. This concrete, immediate, practical, and theoretical problem requires creative, interdisciplinary, and interactive scholarship involving the broad range of human knowledge located within the American research university. The Center for Community Partnerships is Penn's primary vehicle for bringing that broad range of human knowledge to bear so that West Philadelphia (Penn's local geographic community and the primary site for its strategic academically based community service), Philadelphia, the university itself, and society will benefit. The primary goal of strategic academically based community service is to contribute to the well-being of people in the community. It is service-rooted and intrinsically tied to teaching and research, and it aims to bring about structural community improvement (i.e., effective public schools, neighborhood economic development, and strong community organizations).

Blundo, R. (2003). Participatory research and service-learning: A natural match for the community and campus. *The Journal for Civic Commitment*, Issue 2. Retrieved from <http://www.mc.maricopa.edu/other/engagement/Journal/Issue2/Blundo.pdf>

The happenstance of a requirement of a grant for interdisciplinary efforts and the intent to address a community's health needs in a holistic way came together to produce a unique opportunity to merge service-learning pedagogy and participatory research methodology. The result was a "two-pronged" finding. On the one hand, service learning was found to be a significant pedagogical means to teach participatory research as well as other forms of qualitative research methods. On the other, participatory research methodology was found to have commonalities with the service-learning process for engaging communities and providing the structure and means for accessing community service for students. This article describes these elements and how each contributed to conceptualizations about the commonalities of participatory research and service learning.

DeBlasis, A. L. (2006). From revolution to evolution: Making the transition from community service learning to community based research. *International Journal of Teaching and Learning in Higher Education*, 18(1), 36-42.

Since 1989, Cabrini College has integrated community service learning (CSL) into its core curriculum. Like many early adopters of CSL, the non-traditional world of service learning has become an institutional tradition. In the past decade, CSL has expanded widely to the secondary and primary education levels. However, as the CSL tradition expands, so does the use of the term “service learning.” Community-based research (CBR), once considered a “separate but equal” branch of CSL, is emerging as a more demanding pedagogy, teaching students to empower community members and alter social structures. Colleges with institutionally established CSL programs are well prepared to take the next step into CBR. They have an institutionalized knowledge of how to do CSL and have established strong community partnerships, elements essential to the success of any community-based program. For Cabrini and other early adopters, the revolution is complete. Now, evolution must take place if programming is to remain fresh, rigorous, and relevant to students and communities.

Gordon, R. (Ed.) (2000). *Problem based service learning: A fieldguide for making a difference in higher education* (2nd ed.). Bedford, NH: Campus Compact for New Hampshire.

This monograph is a practical, user-friendly guide for faculty and others interested in problem-based service learning (PBSL). Various authors in the field address all aspects of integration: an introduction, project design, community partner relations, building community in the classroom, building student capacity, problem statement, project management, assessment of learning, and reflection and connection. *Problem Based Service Learning* provides clear guidance on how to implement successful learning-focused service in higher education. The college faculty who contributed to this guide describe their real-world experiences using problem-based learning to achieve their course learning outcomes through service to the community. Each chapter of the guide addresses a particular component of PBSL, explaining its importance; offering concrete tools, strategies, and tips for faculty and students; and sharing a relevant case study.

Harkavy, I., Puckett, J., & Romer, D. (2000). Action research: Bridging service and research. *Michigan Journal of Community Service Learning*, Special Issue, 113-118.

Action research is an approach to knowledge generation that can strengthen communities and institutions and is ideally suited to the advancement of academically based service learning. The authors present a brief history and the goals of this approach to service learning, defining current challenges, providing examples from three action research projects that respond to those challenges, and identifying questions for research on this approach.

Heffernan K. (2001). *Fundamentals of service-learning course construction*. Providence, RI: Campus Compact.

This manual contains an overview of six service-learning models, one of which is Problem-Based Service Learning (PBSL). A particularly helpful section is located in Chapter 2, "Implementation," which lists model syllabi in PBSL courses.

Knapp, E. P., Harbor, D. J., & Ginwalla, Z. F. (2003). Testing the waters: Can you involve community action in your college curriculum? *Journal of Geoscience Education*, 51(3), 294-298.

The Maury River Alliance (MRA) was developed at Washington and Lee University (W&L) as a cooperative program involving local colleges, high schools, government agencies, and conservation groups. The MRA is a mostly volunteer organization (42 volunteers currently) that samples the Maury River and its tributaries, including the urban stream flowing through the W&L campus. Its purpose is both to serve the community and to provide students and faculty with research opportunities. MRA is addressing the connection between land use and water quality with a creative merging of technical, social, and educational aspects of local watershed management. During the first year and a half of the program, MRA has developed a baseline water quality for low flow conditions. MRA has observed that water quality degrades as the river passes through the county, especially with the addition of urban and agricultural tributaries. Nutrients and bacteria are of greatest concern, with storm water high in heavy metal concentrations. In addition to exposing students to a community effort, the ultimate interest for the faculty is to focus on the scientific results. The proximity of the study site to the university and the large numbers of volunteers involved in the project contribute to the success of the project. These numbers facilitate the collection of large data sets and a plethora of research possibilities, and yet also present a challenge of organization and management. While professors focus on data analysis, students (and now a recent graduate as director) have acted as managers of the program, thus furthering the educational opportunities.

Kowalewski, B. M. (2004). Service-learning taken to a new level through community-based research: A win-win for campus and community. In M. Welch & S. H. Billig (Eds.), *New perspectives in service-learning: Research to advance the field* (pp. 127-147). Greenwich, CT: Information Age Publishing.

A community-based research (CBR) project employed as service-learning pedagogy in a research methods course is first described and then evaluated against a well-defined theoretical model. The perspectives of faculty, students, and community partners are considered in this evaluation. The impact of this service-learning pedagogy on student learning is also assessed using feedback from course evaluations and project evaluations administered to both students and community partners. Findings suggest that the CBR project is a very

powerful learning experience for students and produces important outcomes for community partners.

LaRoche, K. (2004). Advantages of undergraduate research: A student's perspective. *Eye on Psi Chi*, 8(2), 20-21.

A student – the Psi Chi Chapter Vice President at Saint Anselm College in Manchester, NH – discusses three focal points from the undergraduate research experience: (a) development and application of skills, (b) higher level insight and analytic abilities, and (c) collaborative experience.

Marullo, S., Cooke, D., Willis, J., Rollins, A., & Waldref, V. (2003). Community-based research assessments: Some principles and practices. *Michigan Journal of Community Service Learning*, 9(3), 57-68.

This article examines the benefits and challenges of undertaking assessments in community-based research (CBR) as compared to more traditional research processes. It presents five principles to guide CBR assessments and develops a three-dimensional conceptual framework for implementing them. Finally, it offers a decision tree with guiding questions to help practitioners consider the range of assessments they may undertake.

McGoldrick, K. (2007). Service-learning: The application of a non-traditional form of undergraduate research within an existing course. *Undergraduate research in economics*, Chapter 7 [case study]. Retrieved from <http://www.economicsnetwork.ac.uk/handbook/ugresearch/72.htm>

This case describes the integration of a service-learning project as an undergraduate research project developed for an existing course. Women and Gender Issues in Economics is an elective course requiring consideration of both micro- and macro-economic principles. It is designed to point out differences in economic circumstances between men and women. Topics covered in this course are similar to those covered in a traditional Labor Economics course (although focused on gender differences), including the definition of work, labor-force participation, earnings differentials, discrimination, health and housing, poverty and policies. Development of the service-learning research project is described using a three-step process: identifying issues and organizations in the community, linking economic theory to issues and community activities, and presenting research outcomes.

Merkel, C. A. (2001). Undergraduate research at six research universities: A pilot study for the Association of American Universities. Pasadena, CA: California Institute of Technology.

Over the past 15 years, a spate of articles, reports, and books have been written criticizing the research universities for emphasizing faculty research at the expense of teaching. These articles helped to reinvigorate undergraduate

education and increase opportunities for students to engage in research. As a result, students have gained advantages, faculty have benefited, and institutions have profited. An ever-growing accumulation of anecdotes about the benefits of undergraduate research attests to the importance of the enterprise even as the criticism continues to push universities further into teaching and educational reform. The controversy piqued the author's interest in what makes the undergraduate research enterprise flourish within the culture of some institutions and not in others.

Mettetal, G., & Bryant, D. (1996). Service learning research projects. *College Teaching*, 44(1), 24-28.

The authors present a model of service learning that can serve as a vehicle for teaching, research, and community service. Two specific projects are described: a project providing parent education to young families while exploring the effectiveness of temperament education, and an intergenerational program to determine whether community theater can enhance self-esteem and life satisfaction. The authors make program design recommendations.

Murphy, D., Scammell, M., & Sclove, R. (Eds.) (1997). *Doing community-based research: A reader*. Amherst, MA: Loka Institute.

This reader includes chapters on community-based research (CBR) in the United States, researching for democracy and democratizing research, and the community research partnership. It also includes a case study of CBR in relation to neighborhood planning for community revitalization.

Reardon, K. M. (1998). Participatory action research as service learning. *New Directions for Teaching and Learning*, 73, 57-64.

Participatory action research (PAR) is a form of service learning that involves analyses of the needs of society's most economically, politically, and socially marginalized groups/communities and focuses on issues determined by their leaders. PAR provides faculty with opportunities to conduct research relevant to community needs while providing service-learning opportunities for students. The author highlights how one community's needs were resolved through action research. He uses the development of a St. Louis (IL) community-owned farmers' market to illustrate action research principles and methods.

Renner, R. S., & Juliano, B. A. (2007, March). Integrating service learning with undergraduate robotics research. Retrieved from http://www.cs.hmc.edu/roboteducation/papers2007/c36_renner_chico.pdf

(Also available as a PowerPoint presentation)

Through a National Science Foundation (NSF) grant, the authors have forged an interdisciplinary effort to integrate graduate and undergraduate research,

curriculum, and outreach projects that promote service learning in robotics and intelligent systems. The authors founded the Institute for Research in Intelligent Systems (IRIS) at California State University, Chico, and the Intelligent Systems Lab (ISL) as advisory and resource centers, respectively, to support these endeavors. The ISL typically invites four to six students per semester to join its Research Team. As ISL Research Team members, these students are expected to participate in all three focal areas of the IRIS mission: They participate in individual and team research projects, assist in the development and implementation of course workshops, and contribute to multiple outreach activities throughout the year. Hence, the ISL provides its team members with the opportunity to take on many roles, from researcher to educator. It is their role as educators that is the focus of this paper.

Rizzo, E. (2005). The transformational power of integrative service-learning and participatory research. *Creative College Teaching Journal*, 2(1) (Service-Learning: Enhancing Students' Learning Experiences), 47-54.

Establishing a connection among theory, research, and application furthers academic and disciplinary goals and advances the secondary goal of formal education as a means of developing the whole person. Linking the academic content of courses and real-world problems promotes a stronger awareness of mutual human interconnectedness and of the responsibilities that coexist with the benefits derived from social life. This paper provides a case description of a service-learning project, developed initially in a single course, that resulted in a more integrated approach to learning. The project synthesized the learning objectives of two substantively different courses, increased reciprocity between the campus and the community, and generated socially responsive knowledge.

Rueda-Riedle, A., & Stockmann, D. (2006, June). Evaluating a community-based research program: Methods, findings & lessons learned. Presentation at the DSA Symposium.

This is a PowerPoint presentation that provides information on the background and structure of the Community Based Research Fellowship Program (CBRF) at the University of Michigan (through the Undergraduate Research Opportunity Program – UROP). It includes a literature review, a description of the CBRF evaluation design and methodology, the key findings and applications of findings (within CBRF and generally), and an outline of evaluation plans.

Schaffer, M. A., & Peterson, S. (1998). Service learning as a strategy for teaching undergraduate research. *The Journal of Experiential Education*, 21(3), 154-161.

Teaching the research process through service-learning projects increased student interest in research at Bethel College (MN). Examples of eight such research projects in nursing education are discussed, including their impact on community partners and students. Guidelines for academic-community research partnerships cover four requirements: building partnerships, involving students, ensuring quality research, and structuring student reflection on learning.

Stoecker, R. (2002). Practices and challenges of community-based research. *The Journal of Public Affairs*, VI, Suppl. 1 (Civic Engagement and Higher Education), 219-239.

This article identifies common challenges related to community-based research (CBR). It describes the steps of a typical CBR project and discusses the challenges involved, including conflicts between career, curricular, and community needs; conflicts between teacher and facilitator roles; conflicts between researcher and activist roles; the different life rhythms of community and higher education; community politics; distribution of funding and other benefits; and student services versus academic affairs orientations to CBR.

Strand, K. J., Cutforth, N., Stoecker, R., Marullo, S., & Donohue, P. (2003). *Community-based research and higher education*. San Francisco: Jossey-Bass.

A guide to incorporating a powerful and promising new form of scholarship into academic settings, this book presents a model of community-based research (CBR) that engages community members with students and faculty in the course of their academic work. Unlike traditional academic research, CBR is collaborative and change-oriented and finds its research questions in the needs of communities. This dynamic research model combines classroom learning with social action in ways that can ultimately empower community groups to address their own agendas and shape their own futures. At the same time, it emphasizes the development of knowledge and skills that truly prepare students for active civic engagement.

(Note: Only an excerpt – Chapter 1, “Origins and Principles of Community-Based Research” – is available from the Center for Service Learning)

Strand, K., Marullo, S., Cutforth, N., Stoecker, R., & Donohue, P. (2003). Principles of best practice for community-based research. *Michigan Journal of Community Service Learning*, 9(3), 5-15.

Community-based research (CBR) offers higher education a distinctive form of engaged scholarship and a transformative approach to teaching and learning. In this article, the authors propose a CBR model that is genuinely collaborative and driven by community rather than campus interests – one that democratizes the creation and dissemination of knowledge and that seeks to achieve positive social change. The authors demonstrate how this model translates into principles that underlie the practice of CBR in four areas: campus-community partnerships, research design and process, teaching and learning, and the institutionalization of centers to support CBR.

Wagner, J. (1990). Beyond curricula: Helping students construct knowledge through teaching and research. *New Directions for Student Services*, 50, 43-53.

This book chapter examines different kinds of activities that can provide students with opportunities for integrating community service and curricular concerns; discusses how these service-learning activities are consistent with the academic goals of higher education; and identifies the structural contradictions that are revealed through efforts to promote service-learning activities within colleges and universities. The author uses the constructivist model of the relationship between knowledge and learning, which suggests that for students to understand their curricula, they must participate in activities similar to those through which curricula are designed and implemented in the first place.

Additional Articles

Available from the Publishers

Polanyi, M., & Cockburn, L. (2003). Opportunities and pitfalls of community-based research: A case study. *Michigan Journal of Community Service Learning*, 9(3), 16-25.

This case study is derived from a recent community-based research (CBR) project with injured workers. The authors identify challenges faced when academics engage in CBR at a university. The article includes information on dealing with the constraints and requirements of academic research funding, bridging the goals of academics and community members, and functioning within the university's institutional structures.

Reardon, K. M. (1994). Undergraduate research in distressed urban communities: An undervalued form of service-learning. *Michigan Journal of Community Service Learning*, 1(1), 44-54.

Increasing rates of urban poverty are stretching the human and capital resources of many community-based organizations. Such groups are finding it increasingly difficult to assist local residents in responding to new community issues or problems. Undergraduates can assist these organizations in addressing such issues by completing participatory action research (PAR) projects in collaboration with local residents and leaders. This article describes two PAR projects completed by undergraduates for community-based organizations in New York City, NY, which dramatically affected municipal economic development and affordable housing policies in two low-income minority communities. The author argues that such projects are valuable in helping students gain understanding of social, economic, and political dynamics of urban poverty and racial discrimination.

Stoecker, R (2003). Community-based research: From practice to theory and back again. *Michigan Journal of Community Service Learning*, 9(2), 35-46.

Community-based research (CBR) is a recently popular model of community-higher education collaboration that combines various forms of action-oriented research with service learning to support social action for social justice. This paper explores the theoretical strands being combined in CBR—charity service learning, social justice service learning, action research, and participatory research. Charity service learning and action research combine to produce the dominant mainstream CBR model. Social justice service learning and participatory research combine to produce the radical CBR model. The paper shows how these different models of CBR, based in different theories of society and different approaches to community work, may combine or conflict.

Vogelgesang, L. J., & O'Byrne, K. (2003). Undergraduate research as community service. *Academic Exchange Quarterly*, 7(2), 146-150.

The authors present a model of combining research and service learning at an urban research institution. The Community Based Research Institute is an interdisciplinary summer academic experience in which undergraduates and community partners collaborate to meet a community-defined research need. The researchers find that students are less likely than faculty to recognize the connections between the discipline-based course and the service-learning experience.

Note: These Abstracts were compiled and adapted from various sources. – GB