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This chapter defines service-learning and reviews the evidence regarding its academic, civic, personal, and other learning outcomes. Although service-learning produces positive outcomes in many areas, the pedagogy's most significant outcome may be the transformative learning that can result for all participants.

Service-Learning

Peter Felten, Patti H. Clayton

Institutions of higher education institutions in the United States have always had public as well as academic purposes. The earliest colleges aimed to prepare religious and civic leaders for colonial communities. Thomas Jefferson and others conceived of universities as cultivating capacities for self-governance. The 1862 Morrill Act created land-grant colleges to make higher education widely accessible and thereby enhance the nation's economic, technological, and civic development. This theme echoes in contemporary calls for institutions of higher education to become more engaged with broader communities and to focus on the education of young people as citizens (Boyer, 1996; Bringle, Games, and Malloy, 1999; Colby and others, 2003; Saltmarsh and Hartley, 2011).

The question of how best to fulfill the academy's role in civic life animates many discussions about the identity and function of higher education in the twenty-first century. Service-learning is emerging as a central component of efforts to connect both disciplinary learning and general education with this historic and increasingly salient commitment to public purposes. *Educating Citizens: Preparing America's Undergraduates for Lives of Moral and Civic Responsibility* (2003) by Colby and others and "How Civic Engagement Is Reframing Liberal Education" (2003) by Rhoads are but two influential calls for conceptualizing teaching and learning in ways that connect campus with community. Building on this renewed emphasis, in 2006, the Carnegie Foundation launched an elective "Community Engagement" classification that highlights curricular integration of civic with academic learning.

Service-learning is embraced as both a mechanism for community engagement and high-impact pedagogy across institution types and disciplines and at undergraduate and graduate levels. For example, the Series on Service-Learning in the Disciplines includes volumes for over twenty fields. Recent years have also seen growth in research on service-learning, including the establishment of the peer-reviewed *Michigan Journal for Community Service Learning* in 1994 and of the annual International Research Conference on Service-Learning and Community Engagement in 2000. The evidence base on the impact of service-learning, and on the design variables that shape its outcomes, continues to expand and deepen.

Defining, Designing, and Implementing Service-Learning

Since Sigmon's foundational article "Service-Learning: Three Principles" (1979) formalized the pedagogy, numerous definitions of service-learning have emerged. Ehrlich (1996) provided a general framework:

> Service-learning is the various pedagogies that link community service and academic study so that each strengthens the other. The basic theory of service-learning is Dewey's: the interaction of knowledge and skills with experience is key to learning. (p. xi)

Bringle, Hatcher, and McIntosh (2006) offered perhaps the most cited operational definition:

> Service-learning is a course-based, credit-bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of personal values and civic responsibility. (p. 12)

As the field has matured, the range of definitions has converged on several core characteristics. Service-learning experiences:

• Advance learning goals (academic and civic) and community purposes
• Involve reciprocal collaboration among students, faculty/staff, community members, community organizations, and educational institutions to fulfill shared objectives and build capacity among all partners
• Include critical reflection and assessment processes that are intentionally designed and facilitated to produce and document meaningful learning and service outcomes

Within these parameters, service-learning experiences vary based on local context and the objectives and constraints of those involved. Service-learning courses range across the curriculum, from first-year surveys to

graduate seminars. Service-learning experiences include short-term modules, semester-long activities, and multiyear as well as multicourse projects. The service may be direct or indirect, may involve low or high levels of responsibility, and may have a research component. "Community" may be construed as on-campus, in the local neighborhood, in a nearby municipality, in another state or country, or online. The term may refer to one or more partners, from small grassroots initiatives to large nonprofit or for-profit organizations. Reciprocity is essential to the collaboration between community and campus, creating a strong connection between the academic context and public concerns. Reflection enables and reinforces this linkage. Reflection may take written and/or oral forms, may be undertaken individually and/or collaboratively, and may occur with varying degrees of frequency and feedback. Critical reflection is the component of service-learning that generates, deepens, and documents learning (Ash and Clayton, 2009a, 2009b).

Service-learning experiences can be understood and designed through the lens of a simple conceptual framework shown in Figure 1. As this model illustrates, service-learning aims to develop academic knowledge/skills/dispositions as well as civic learning and personal growth—either of which may be defined to include such widely valued outcomes as intercultural competence and teamwork. Developing critical-thinking skills is often an explicit goal, as is learning at the intersections of the categories.

The interdependence of learning processes and outcomes with community processes and outcomes not only renders service-learning powerful as a vehicle for learning and social change, but also makes it challenging to implement effectively. As one example of this complexity, community organizations are not mere learning laboratories but rather realms of significant problem solving and human interaction, which means that much more than student learning is at stake. With its interdisciplinary, experiential, reflective, nonhierarchical, and unpredictable nature, service-learning is among the most "counternormative" of pedagogies, by design deviating in significant ways from traditional teaching and learning strategies with which students and faculty alike may well be more familiar (Clayton and Ash, 2004; Howard, 1998). Among other implications, the range and nature of evidence regarding its impact—and how we go about generating and documenting that evidence—is in some ways familiar and in other ways nontraditional.

Review of the Empirical Evidence

As summarized by Eyler (2010), "A good deal is now known about the impact of service learning on students' outcomes and on the particular characteristics of service learning that affect specific types of results" (p. 225). Her review of research to date confirms "a fairly consistent pattern of small but significant impact . . . on college students' personal, academic,

Figure 1. Conceptual Framework for Service-Learning

Components of Service-Learning

Learning Goal Categories of Service-Learning (critical thinking in all)

Partners in Service-Learning
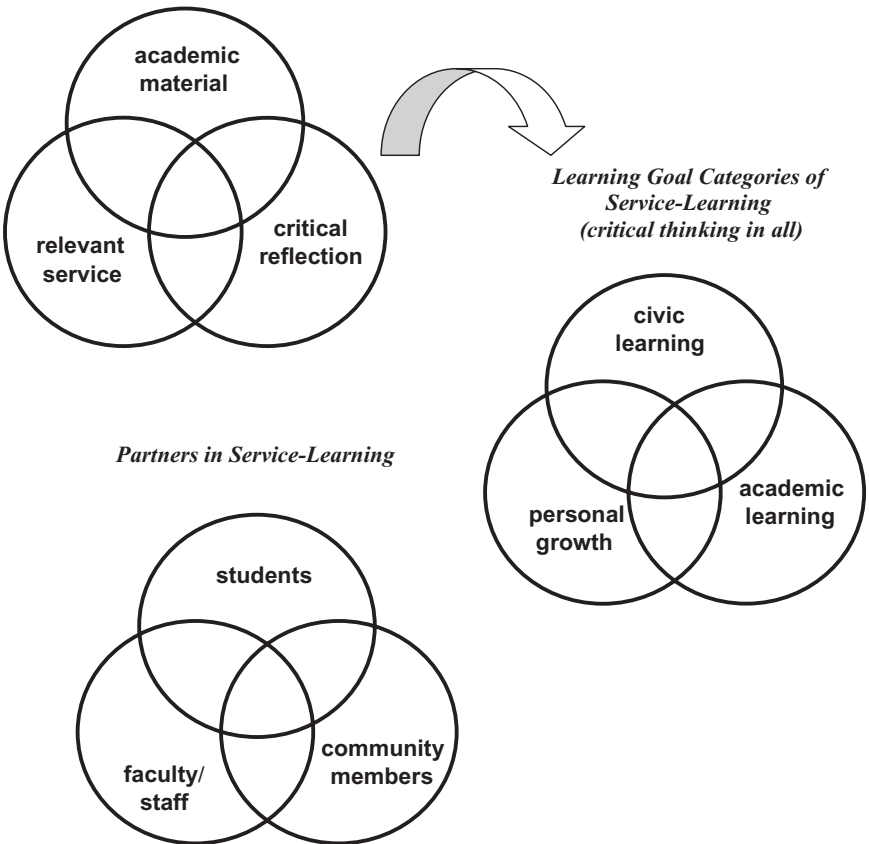
and social outcomes . . . and growing evidence of . . . impact on behavior and civic engagement" (p. 225).

In 2008, the Association of American Colleges and Universities published Kuh's report on *High-Impact Educational Practices*. This analysis drew on years of data collected through the National Survey of Student Engagement (NSSE), supplemented by other research, to identify educational practices that "are correlated with positive educational results for students from widely varying backgrounds" (p. 1). NSEE relies on students' reports of their experiences and takes as a reasonable proxy for learning various well-established indicators of "engagement," such as close faculty–student interaction (Carini, Kuh, and Klein, 2006). Service-learning correlates strongly with deep learning and personal development for both first-year

and senior-level undergraduates (the populations targeted by NSSE). Significantly, "historically underserved students tend to benefit *more*" from engaged pedagogies, like service-learning, than majority students do, although these practices are "high-impact" for *all* types of students (Kuh, 2008, p. 17).

A frequently cited investigation of service-learning's outcomes (Astin, Vogelgesang, Ikeda, and Yee, 2000) included a mix of quantitative and qualitative methods to generate longitudinal data from over 22,000 undergraduates on campuses across the United States. Some students participated in service-learning, some in community service, and some in neither. The authors examined the impacts of community service and service-learning in several areas including academic performance, values, self-efficacy, leadership, career plans, and intention to engage in service after graduation. Participation in community service was correlated with significant positive results in all areas examined, with service-learning outcomes further enhanced on all measures except self-efficacy and leadership. The strongest service-learning outcomes appeared in the category of academic performance, and the most significant factors influencing academic outcomes were student preparation for service, reflection, and subject-matter interest, which the authors suggested indicates the value of using the pedagogy in major courses. The authors concluded that in well-designed service-learning activities, students are prompted to evaluate differing perspectives and complex situations, which can lead to development of their capacity to think critically and to understand social issues.

In another influential study, Eyler and Giles (1999) used pre– and post–problem-solving interviews to gather evidence about various aspects of student reasoning, including the application of knowledge in new situations. This study revealed that "participation in well-integrated and highly reflective service-learning courses was a predictor of increased complexity in analysis of both causes and solutions to social problems" (p. 75). Drawing on cognitive theory to help explain the pedagogy's ability to promote intellectual growth, the authors suggested that service-learning encourages students to consider perspectives other than their own and helps them cultivate capacities for making informed judgments.

Researchers have found it more challenging to authentically assess specific disciplinary learning associated with the pedagogy. Eyler and Giles (1999) contended that traditional measurements, especially of factual knowledge and other lower-level learning goals, might not adequately capture service-learning's most significant contributions to students' academic development. Direct comparisons of student learning in service-learning and non–service-learning courses in fields as disparate as child development (Strage, 2000), composition (Wurr, 2002), and rehabilitation services (Mpufo, 2007) demonstrate consistent patterns. Service-learning did not appear to enhance factual knowledge as measured, for example, by standard exams—students in service-learning sections performed comparably

to their traditionally taught peers on those measures. However, on higher-order thinking tasks, such as analytical essays and case-based assignments, students in service-learning sections consistently performed better than their peers. Reviewing these and other studies, Jameson, Clayton, and Ash (forthcoming) noted that service-learning appears to contribute to equivalent basic knowledge acquisition but enhanced critical thinking within disciplinary contexts. They also explored and called for research on the pedagogy's role in cultivating student capacities to think from disciplinary and interdisciplinary perspectives.

Ash, Clayton, and Atkinson (2005) reinforced the emerging consensus that service-learning is particularly well suited to cultivate higher-order reasoning and critical thinking with a study that examined iterations across time of student reflection products. The curricular context for the study included careful guidance of student reflection to support the integration of service-learning experiences with academic (and other) learning objectives. The level of students' reasoning about disciplinary concepts as measured with two rubrics—one based on Bloom's (1956) taxonomy and the other on Paul and Elder's (2006) standards of critical thinking—increased over time, although not so significantly as their thinking in the categories of civic learning and personal growth. This study confirmed the central role of well-integrated critical reflection and suggested that students may require scaffolding and guided practice to move beyond application of course concepts to, for example, critical evaluation of those concepts. Students often may need to learn how to learn through critical reflection, and doing so helps develop their capacities for higher-order reasoning and critical thinking.

Evidence for service-learning's civic learning outcomes is compelling. A large study (Astin and others, 2006) following students at more than 200 institutions from their first year in college to six years after graduation demonstrated that service-learning and other community-based experiences contribute to long-term student political and community involvement, especially when supported by faculty-led reflection. Eyler (2010) summarized the findings of several major studies comparing students who participated in service-learning with those who did not, reporting that service-learning contributed to political interest and efficacy, a sense of connectedness to community, social responsibility, future intent to participate in community life, and life skills. Pascarella and Terenzini (2005) claimed the evidence is "conclusive" (p. 304) that service-learning contributes to enhanced civic engagement.

More than two decades of research also provides consistent evidence that "service-learning has a positive effect on student personal development" (Eyler, Giles, Stenson, and Gray, 2001, p. 1). As summarized by Brandenberger (forthcoming), personal growth outcomes that have been investigated include sense of efficacy, spiritual development, identity formation, self-authorship, moral development, agency, career development,

leadership, and well-being. Service-learning often exposes students to people and experiences that are new to them, potentially leading to openness to diverse perspectives and ways of being (Fitch, 2005; Jones and Abes, 2004) as well as enhanced empathy (Lundy, 2007). For example, multiple studies (Astin and others, 2000; Kahne and Westheimer, 2006; Stewart, 2009) suggested that service-learning contributes to significant gains in self-efficacy, although Pascarella and Terenzini (2005) posit that service-learning experiences may prompt students to understand more fully the true complexity of social problems and thereby cause them to lose previously held, often naïve, confidence in their individual capacity to effect systematic change.

Key to many of these outcomes is the way in which service-learning evokes integrated cognitive and affective responses. In service-learning, students often come face-to-face with troubling social realities, making connections between emotion and learning, a particularly salient consideration for this pedagogy. Building on Dewey's ([1933], 1997) theorizing about the central role of dissonance in learning, service-learning practitioner-scholars have begun to explore the positive roles emotion can play in learning, emphasizing how the emotional dimensions of experience can contribute to developmental outcomes, including enhanced motivation, empathy, and persistence (Felten, Gilchrist, and Darby, 2006).

Conclusion: Service-Learning's Transformative Potential

Generic conclusions regarding the effectiveness of service-learning or any other pedagogy are less meaningful than critical determination of the conditions under which it is effective in producing specified types of outcomes. Our synthesis of the research suggests that service-learning is most effective at generating significant educational outcomes in these cases:

- Learning and service goals are appropriate and integrated.
- Student work is designed so that goals, experiences in the community and in the classroom, reflection activities, and assessment are aligned and complementary.
- The community partnership is collaborative throughout, from initial planning to completion.
- The experience is integrative, bridging what students do in and out of class and connecting perspectives and knowledge from the full range of participants.
- The pedagogy is intentionally designed yet flexible enough to accommodate dynamic situations and to respond to capacity-building needs and opportunities for everyone involved.

Underlying these design characteristics is a set of epistemological commitments that give service-learning its unique power to cultivate

wide-ranging and deep outcomes. Fundamentally, service-learning challenges the traditional identities and roles of students and calls on them not only to consume knowledge but also to produce it. Given the associated radical shifts it evokes, well-designed service-learning can facilitate significant transformation of student perspectives and practices (Clayton and Ash, 2004), providing what Eyler and Giles (1999) called a "new set of lenses for seeing the world" (p. 129) and new ways of being in it. Such "transformative learning" (Cranton, 2006; Mezirow and Associates, 2000) occurs when learners change their frames of reference by critically reflecting on their assumptions, beliefs, and understanding of the world.

Service-learning also holds the potential for such transformational outcomes because it fosters what Vandenberg (1991) referred to as the capacity to engage with others "as 'cobeings' and not as objects" (p. 1281). Reciprocal, authentic relationships—such as those that underlie service-learning at its best—provide conditions well suited to transformative learning. Several practitioner-scholars (e.g., Jameson, Clayton, and Jaeger, 2010; Saltmarsh, Hartley, and Clayton, 2009) posit that service-learning's potential is maximized when it positions students, faculty, and community members as colearners, coeducators, and cogenerators of knowledge. Thus, unlike much other pedagogy, the defining learning outcomes of service-learning transcend students to encompass learning and development for everyone involved. The claim of former service-learning student leaders that "ultimately, students best undertake [service-learning as] a developmental journey when those who support and mentor them are also striving for growth through the same process" (Whitney, McClure, Respet, and Clayton, 2007, p. 195) is a powerful argument for intentionally cultivating the full range of learning outcomes across all partners and for gathering evidence based on service-learning's mutually transformative potential.

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