

existing narrative reviews, and theoretical or opinion pieces were used to structure the introduction but were not included in the research synthesis section. Second, studies had to be concerned with programs at the community college level. Empirical studies conducted at the K-12 level or at four-year institutions were excluded. Third, studies had to explore the impact of the program/experience on students. Studies that focused on other samples, such as faculty members, were excluded. Fourth, studies that were incorporated into the review did not have to be published. However, they had to be publicly accessible or archived in summer 2009. Finally, included studies could be conducted in the United States or overseas, but must have been published in English.

Search Procedures

Within the boundaries mentioned above and as part of a larger narrative review process, we searched journal articles, conference presentations, dissertations, unpublished policy reports, and book chapters. We also conducted electronic searches via the following databases: Education Full Text, ERIC via EBSCO, JSTOR, and Project Muse. Next, we completed manual searches in 39 journals, including the top tier higher education journals and those specific to experiential learning, community colleges, evaluation, or student affairs (e.g., *Journal of College Student Development*, *NASPA Journal*, *Journal of Experiential Education*, *Journal of College Orientation and Transition*, *Journal of the Freshman Year Experience*, *Community College Review*). Search terms included different combinations of the following key words: "programs," "student development," "community college," "service learning," "experiential learning," and "student success."

Due to the scarcity of published empirical studies, the review was extended to books and unpublished manuscripts from policy centers and other groups focused on student success among community college students (e.g., *How College Affects Students*, *Student Success in College: Creating Conditions that Matter*). Additionally, websites from 29 organizations and centers that were known to concentrate efforts and/or conduct research on student success (e.g., Community College Research Center (CCRC), MDRC, and the Lumina Foundation) were also searched (see Appendix A). The reference lists of identified books, narrative reviews, and empirical studies were also reviewed for potential inclusions.

Results

Description of Empirical Studies

In total, we reviewed 17 empirical studies on service learning at community colleges (studies are highlighted in the reference list).

Of these, the majority of studies (59%) were published in journal articles, five (29%) were dissertations or theses, one (6%) was a conference presentation, and one (6%) was a book chapter. Eight studies (47%) utilized quantitative methods, five (29%) used qualitative methods, and the remaining four studies (24%) used a mixed methods approach. The most common data collection tools were questionnaires and interviews, though secondary data analysis, multiple choice tests, observations, and document analysis were also utilized.

Community college students were used as participants in all of the reviewed studies. However, faculty members' opinions were also used in several studies as a means to triangulate students' perceptions (e.g., Berson & Younkin, 1998; Reed & Pietrovito, 2000; Weglarz & Seybert, 2004). Courses that utilized service learning covered a wide range of content areas, with health sciences, communications, English, sociology, and psychology courses being the most frequently used. The service learning experience was also examined within the context of several specific student populations such as English language learners and developmental students (i.e., Elwell & Bean, 2001; Prentice, 2009). It is also noteworthy that service learning was operationalized or measured in different ways across the reviewed studies (e.g., 20-hour extracurricular experience, working with an aging population).

Programmatic Outcomes

Within the context of a community college setting, researchers have found generally positive outcomes for participation in service learning. The following section synthesizes these outcomes (see Appendix B).

Student success. Four of the reviewed studies examined the impact or relationship between participation in service learning and student success as measured by course completion, grades, or students' decisions to persist. For instance, results of a quasi-experimental study involving 286 students enrolled in six paired community college courses in history, sociology, and English classes found that service learning activities were associated with higher final course grades as well as more stimulating class discussions (Berson & Younkin, 1998). Similarly, Hollis (2002) utilized a quasi-experimental design to compare reflective essays and test scores of two comparable sociology courses (i.e., experimental and treatment groups). Among other findings, Hollis (2002) found that students in the service learning class earned higher grades.

Moreover, findings by Hodge et al. (2001) indicated that participation in service learning was positively related to student retention. Although the study used longitudinal data to support the validity of the findings, it should be noted that the design utilized by the researchers involved an

examination of multiple treatments (i.e., combination of service learning activities in a learning community setting) in multiple courses that had different service learning requirements. As such, it is not entirely clear if students' experiences with service learning were solely responsible for higher retention rates or whether participants were more likely to be retained due to a combination of service learning and the supportive learning environment provided by a learning community.

In contrast, mixed findings were found by Prentice (2009), who compared student outcomes in eight sections of a developmental reading and writing and student life skills course that contained a service learning component with outcomes in eight comparable courses that did not contain a service learning component. Findings indicated that students enrolled in the courses that utilized service learning were less likely to earn a satisfactory grade than students enrolled in non-service learning sections. However, retention to subsequent semesters was found to be higher for students who were provided a service learning experience (Prentice, 2009).

Attitudes/perceived personal benefits. Many of the reviewed studies examined students' attitudes about civic involvement (e.g., understanding democratic ideals, social linkages to poverty, awareness of community needs) and/or perceived personal benefits to participating in service learning (e.g., sense of personal or moral growth, gains in interpersonal skills or self-esteem). Overall, findings were positive, indicating a positive relationship between students' attitudes with civic involvement and/or positive student perceptions of the experience (e.g., Eklund-Leen, 1994; Exley, 1996; Gutheil, Chernesky, & Sherratt, 2006; Hodge et al., 2001; Hollis, 2002; Hughes, 2002; Prentice, 2007; Prentice, 2009; Weglarz & Seybert, 2004).

For instance, a grounded theory investigation by Hughes (2002) involving interviews with 24 students at Virginia Highland and Mountain Empire Community Colleges found that participation in service learning was perceived by participants to lead to benefits in civic responsibility, civic mindedness and community building, personal efficacy, developing a meaningful philosophy on life, appreciation for diversity, and altruism. Similarly, although the study design did not utilize a control or comparison group, observations, interviews and questionnaires collected and analyzed by Elwell and Bean (2001) revealed that students benefitted from the infusion of service learning into the course curriculum. Moreover, qualitative findings involving 11 women enrolled in a course on aging suggest that participation in a service learning experience improved students' attitudes toward older adults as well as increased their interest in working with older adults in the future

(Gutheil, Chernesky, & Sherratt, 2006).

The only reviewed study that failed to find gains in students' attitudes toward civic engagement or personal outcomes was a dissertation by Cram (1998). The study utilized a quasi-experimental design to compare students' scores on the defining issues test (DIT) and the self-esteem questionnaire (SEQ-3) among students enrolled in a section of an ethics course that included a service learning component with two sections that did not involve service learning. In contrast to the other reviewed studies, the researcher found no statistical evidence to support growth of self-esteem or significant moral growth among students who did and did not engage in a service learning experience.

Participants' satisfaction. In regard to satisfaction with a service learning experience, many studies have identified positive feelings toward participation in service learning programs (e.g., Amtmann et al., 2000; Berson & Younkin, 1998; Elwell & Bean, 2001; Exley, 1996; Largent & Horinek, 2008; Reed & Pietrovieto, 2000; Weglarz & Seybert, 2004). In particular, Berson and Younkin (1998) found that students who participated in a section of a history, sociology, or English course that incorporated a service learning experience reported higher overall satisfaction with the course when compared to students who enrolled in classes without a service learning requirement. In addition, findings of program evaluations at Mount Wachusett Community College and Johnson County Community College both revealed that service learning program participants were satisfied and felt that the programs had merit and worth (Reed & Pietrovito, 2000; Weglarz & Seybert, 2004). Similarly, data collected by Largent and Horinek (2008) indicated that students enrolled in nursing, humanities, communications, and occupational therapist assistant courses were satisfied with the service learning program. However, older students, defined as students older than 23 years of age, were found to be less satisfied than traditional aged students. Interviews with older students were conducted to investigate the causes for their lower levels of satisfaction with the program, and responses revealed that older students desired service learning assignments that were clearly meaningful and that connected their prior knowledge to activities.

Application of knowledge. The value of service learning programs in the application of course knowledge was examined in three of the reviewed studies. The first, a case study by Amtmann et al. (2000), revealed the importance of service learning to students' ability to apply what they learned in their classes, as community college students in a health program were required to participate in service learning via work with a prison wellness program, giving them both challenging

and practical work experience. Similarly, faculty-reported data as part of a program evaluation by Reed and Pietrovito (2000) suggested that service learning allowed participants to apply the course material and provided an opportunity for real learning about work and life. Moreover, qualitative findings by Hughes (2002) indicated that many service learning participants emphasized the benefits of "hands-on experience" provided by service learning activities.

Program challenges. Finally, several of the reviewed studies examined challenges to implementing service learning on a community college campus (i.e., Hughes, 2002; Largent & Horinek, 2008; Reed & Pietrovito, 2000; Ward, 1996). Findings indicated that both students and faculty identified finding time for the additional work as a major challenge to service learning (Hughes, 2002; Largent & Horinek, 2008; Prentice, 2009; Reed & Pietrovito, 2000). Other challenges included multiple competing priorities, such as job and family responsibilities (Hughes, 2002; Largent & Horinek, 2008). Moreover, a case study on institutional support for service learning at a tribally controlled community college and three four-year institutions also identified funding as a frequent barrier to the implementation of effective service learning (Ward, 1996).

Critique of Service Learning Studies

We noted numerous methodological strengths across the reviewed studies focused on service learning programs at community colleges. For instance, several of the reviewed studies were theoretically grounded (e.g., Eklund-Leen, 1994), which allowed the researchers to understand the findings within the broader context of the higher education literature. Second, although few studies utilized experimental designs to measure the causal effect of service learning (Smith, 2008), several of the reviewed studies utilized well-designed quasi-experimental designs that made attempts to control for extraneous variables and/or included a comparable control group (e.g., Berson & Younkin, 1998; Cram, 1998; Hollis, 2002). Third, we observed that many of the studies that utilized a qualitative or mixed methods design used one or more forms of triangulation (i.e., data, method, investigator) in an effort to promote validity (e.g., Burr, 1999; Elwell & Bean, 2001; Gutheil, Chernesky, & Sherratt, 2006). Finally, several of the reviewed studies provided a detailed description of the program to allow future researchers the ability to replicate the implementation of the service learning activities/experience (e.g., Cram, 1998; Prentice, 2009).

We also observed several weaknesses in the reviewed studies. For example, like Kozeracki (2000), we determined that much of the service learning literature is descriptive, focusing on the structure of and participation in service learning programs rather than measuring the impact of

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Synthesis,
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The purpose of this paper is to review and critique empirical work done, to date, specific to service learning experiences at the community college level. A review of the literature was conducted in order to examine the empirical work that has been developed regarding service learning, a form of experiential learning, at community colleges. The narrative defines service learning, describes types of service learning taking place on community college campuses, and synthesizes and critiques the service learning empirical work done to date. The review closes with specific recommendations for both researchers and practitioners regarding future research.

Keywords: service learning, experiential learning, community college, programs, student development

With the exception of the 2008 presidential election that saw the second-largest youth voter turnout in American history (Morgenstern, 2008), the American public has recently demonstrated a decline in civic and social participation. This decline has been shown to be particularly evident among college students (Hodge, Lewis, Kramer, & Hughes, 2001). As such, civic engagement has reemerged as a central goal of higher education (Jones & Abes, 2004),