Service Learning as Pedagogy and Civic Education: Comparing Outcomes for Three Models

Rachel Parker-Gwin; J. Beth Mabry


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SERVICE LEARNING AS PEDAGOGY AND CIVIC EDUCATION: COMPARING OUTCOMES FOR THREE MODELS*

Two primary goals of service learning for students are positive civic and academic outcomes. Most research has focused on service learning's effectiveness as civic education. In this study, we examine both civic and academic outcomes for 260 students participating in three models of service-learning courses. After one semester, student outcomes were mixed. We consider two pedagogical issues: requiring student participation in service learning and the role of reflection activities in positive outcomes. Faculty members should consider carefully whether to require participation in service learning. Students' academic outcomes may be enhanced by regular critical reflection and extensive integration of service activities with course material throughout the semester. As with any teaching strategy, service learning's value depends on its implementation.

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In recent years, national and community leaders have promoted volunteer service in the United States. In 1990, Congress passed the National and Community Service Act, and two years later, President Clinton sponsored the National and Community Service Trust Act. In April 1997, former Presidents Ford, Carter, and Bush met with President Clinton in Philadelphia to highlight the importance of volunteer service. In the National Community Service Trust Act, Congress charged the Commission on National and Community Service to develop and promote service-learning programs in colleges and universities nationwide.

Service learning enables students to apply classroom material to community service (Parker-Gwin 1996; Shumer and Belbas 1996). Through partnerships between a college or university and community groups and agencies, students receive course credit for volunteer work and for reflecting in journals, class discussions, papers, or class presentations on how their service relates to course material, their academic discipline, and larger social issues. As a form of experiential learning, service learning allows students to apply what they are learning to "real life" issues and to cultivate a commitment to community service and an understanding of social processes.

Service learning has been incorporated in a variety of courses and disciplines, such as anthropology, environmental science, psychology, education, urban planning, economics, political science, and composition (Batchelder and Root 1994; Herzberg 1994; Kennedy and Mead 1996). At Virginia Tech, service learning has also been used in biology, computer science, mathematics, and physics, as well as the social sciences.

All partners involved can benefit from service learning. Colleges and universities can help meet the economic, social, and cultural needs of their communities and regions (Harkavy 1996). Community organizations and their clients can gain assistance with specific projects (Kennedy and Mead 1996). Faculty members may find that in-

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Editor's note: The reviewers were David Long, Peter Kaufman, and Jodi O'Brien.
corporating service learning into their courses makes teaching more enjoyable and brings new energy to the classroom (Bringle and Hatcher 1996).

Students who participate may also benefit. They may view the course material as more relevant, they may learn more, and they may enjoy a course more, as well as increase their ability to think critically and solve practical problems (Markus, Howard, and King 1993; Mettetal and Bryant 1996). Participation in service learning can also promote students' civic involvement and sense of social responsibility, and it can lead them to become involved in their communities as active citizens and volunteers after they leave college (Conrad and Hedin 1982; Exley 1996).

In this paper, we examine how participation in service learning affects students' civic and academic outcomes. Our data are from a survey completed by students who participated in three different types of service-learning courses (21 total courses) at Virginia Tech during the 1997 spring semester. To measure civic outcomes, the survey included questions about students' attitudes toward community service, citizenship, and social responsibility. We examine whether these attitudes change after students participate in the three types of service-learning courses. To measure academic outcomes, we examine students' reports on whether participation in service learning affected their interest in the course, improved their analytic and problem-solving skills, or enhanced their critical-thinking ability. We again compare students in the three types of service-learning courses. Finally, we consider the pedagogical implications of our findings.

GOALS OF SERVICE LEARNING FOR STUDENTS

Two primary goals of service learning for students are positive civic and academic outcomes. Most research has emphasized the first of these goals; that is, how service learning promotes positive attitudes toward volunteering and citizenship and enhances students' sense of social responsibility. Regardless of academic discipline, service learning can expand course objectives to include civic education (Bringle and Hatcher 1996; Kraft 1996). For example, faculty members at Alma College designed service-learning courses in eight disciplines that increased students' social conscience, public responsibility, and civic participation (Batchelder and Root 1994). Students at Miami-Dade Community College reported a greater sense of social and citizenship responsibility after participating in service learning (Exley 1996). Service-learning students at Rutgers University and the University of Michigan reported a stronger civic capacity and orientation to the community (Battistani 1996).

A second goal of service learning is to enhance academic learning by integrating community service and academic course content. For example, students at the University of Southern California who volunteered in neighborhood schools and adult learning centers found sociological concepts more meaningful after writing guided reflections on their experiences (Hondagneu-Sotelo and Raskoff 1994). Markus, Howard, and King (1993) find that students evaluate service-learning courses more positively and earn higher grades in these courses than in other classes. Service learners also can gain new skills through volunteering. For example, service-learning students in an urban planning course learned the rudiments of conducting needs assessments, participating in interactive goal setting, designing and implementing evaluations, and developing proposals (Kennedy and Mead 1996).

Much of the evidence as to the benefits of service learning has been anecdotal rather than systematic (Giles and Eyler 1994; Giles, Honnet, and Migliore 1991; Kraft 1996). One reason is that it is difficult to find suitable instruments and to identify and

\[1\] For reviews of research on service-learning outcomes, see Conrad and Hedin (1991) and Shumer and Belbas (1996). For an empirical
define relevant variables, such as those that mediate the influence of service-learning experiences (Batchelder and Root 1994; Olney and Grande 1995). Another reason is that service learning is a relatively new pedagogical tool.

Even if service learning makes students more civic minded and increases their social awareness, does it function effectively as a pedagogical tool? For service learning to enhance academic outcomes, such as critical-thinking skills, it must be paired with critical analysis of issues; otherwise, it is simply charity (Herzberg 1994). Merely having students do charity encourages the notion that they do service for disadvantaged people. It does not help them understand how people are disadvantaged. Therefore, service is done as long as the recipients are grateful, and it makes students feel good, rather than seeing service as an activity done with those who are disadvantaged to help address social problems. If students are challenged to use their service experiences to better understand concepts, then they can begin to understand the causes of the problems their service addresses (Long 1995).

Because service learning potentially can benefit students academically and encourage future participation in their communities, it is important to understand how students evaluate their experiences. In this paper, we contribute to the growing literature on the outcomes of service learning for students by focusing on academic and civic outcomes in three different types of service-learning courses.

DATA AND METHODS

Virginia Tech is a land-grant university, and service to the Commonwealth was an integral part of its founding mission. Academic departments engage in education beyond campus boundaries, and many faculty members had already incorporated service into their course curricula. In January 1995, the university established a Service-Learning Center to coordinate service-learning activities for the university’s eight colleges. During the 1996-97 academic year, over 1,000 students completed over 20,000 hours in community service as part of academic course work arranged through the Service-Learning Center.

The Three Models

Students participated in one of three types of service-learning courses. The first two types used a placement model, in which individual students chose among various community sites. Based on course content, instructors identified appropriate sites from those available through the Service-Learning Center. The third type used a consulting model, in which an entire class engaged in a community project at a single site.

Placement-service optional. In the first type of placement model course, service was an option for partial fulfillment of course credit. For example, students in a sociology course on community organization and leadership could base 25 percent of their course grade on participating in service learning. They volunteered in various community organizations, such as helping to restore an architecturally significant theater, establish short- and long-term goals for a nearby historic community, or develop a leadership program in the local high school. Students could either write a paper or give a class presentation connecting their service to course concepts. Students in a course in horticulture and the community could volunteer at a local elementary school or a museum of natural history. They were required to reflect on their service experiences weekly through in-class discussions, journals, and an electronic chat room. They also presented midterm and final reports on their service activities to the class.

Placement-service required. The second type of placement model required service of all students. For example, in a course on aging, students volunteered at a community senior center or at the university’s adult day study of the impact of service learning on students’ citizenship outcomes, see Eyler, Giles, and Braxton (1997).
care program. Throughout the semester, service learners reflected on their service experiences through an electronic course listserv. At the end of the semester, they gave class presentations. A course on Appalachian communities required students to volunteer in a nearby Appalachian town. They worked at the volunteer center, helped restore the town’s historic mill, helped plan a village-green park, or worked with the elementary school arts festival committee. Students kept journals relating their service to course issues and wrote final papers incorporating their fieldwork.

Consulting group. The third type of service-learning course was a consulting model, in which an entire class worked in teams to complete a community project. In a psychology class, service learners developed an alcohol awareness program for college students. Students in a course on pollution control planning and policy assisted Virginia Tech’s environmental health and safety program to develop a pollution prevention plan for the university. A travel and tourism course required students to conduct tourist interest surveys with nearby highway and parkway travelers to support marketing efforts for a regional historic park. None of these courses required students to reflect on how their service related to the course, but did require a final project report.

The Sample and Questionnaire
At the beginning of spring semester 1997, 525 of the 557 students who participated in 21 service-learning courses completed a precourse questionnaire. Twelve courses used the placement model with optional service, four courses used the placement model with required service, and five courses used the consulting model. During the last week of the semester, the Service-Learning Center distributed a follow-up questionnaire. Two hundred sixty (50%) of the students who responded to the precourse questionnaire also completed the follow-up questionnaire. The response rate by course type was: placement model, optional service—46 percent (N=121); placement model, required service—44 percent (N=60); consulting model—61 percent (N=79). In our analysis, we used data from students who completed both the pre- and postcourse questionnaires. Background information included gender, age, year in school, prior volunteer participation, grade point average, and frequency of religious service attendance.

Civic outcomes. Both pre- and postcourse questionnaires elicited Likert-scaled measures of students’ attitudes about the importance of community service and personal social responsibility, their civic awareness, and their motivations for volunteering. These items were coded to reflect positive, negative, and neutral responses. For example, 5-point “agree/disagree” items were coded so that “strongly disagree” equals -2, “neither agree nor disagree” equals 0, and “strongly agree” equals 2.

A factor analysis (oblique rotation) of these items revealed three factors. The first is labeled Personal Social Responsibility and consists of five items (e.g., “importance of developing a personal value system”). This scale ranges from 0 to 15 (precourse \( \alpha = .77 \), postcourse \( \alpha = .74 \)). The second factor, labeled Importance of Community Service, consists of three items (e.g., “Adults should give some time for the good of their community or country”). This scale ranges from -6 to +6 (precourse \( \alpha = .77 \), postcourse \( \alpha = .83 \)). The third factor is Civic Awareness, consisting of five items (e.g., “Rate yourself compared to others your age on understanding the problems facing your community”). This scale ranges from -1 to +19 (precourse \( \alpha = .72 \), postcourse \( \alpha = .71 \)).

Students’ motivations for volunteering

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2Instructors distributed the questionnaires in class, and students were not required to complete them. There was no significant \( (p < .05) \) difference on any variables in the precourse questionnaire between students who completed the postcourse questionnaire and those who did not complete it.

3These items are adapted from Astin et al. (1991, 1995), Markus et al. (1993), and Myers-Lipton (1994).
comprise two factors. The first, Self-Oriented Motives, consists of four items (e.g., volunteering to "enhance my resume" or "develop new skills"). This scale ranges from 0 to 8 (precourse $\alpha = .68$, postcourse $\alpha = .79$). The second, Service-Oriented Motives, has three items (e.g., volunteering to "improve my community" and "help other people"). The scale ranges from 0 to 6 (precourse $\alpha = .77$, postcourse $\alpha = .80$).

**Academic outcomes.** On both the pre- and postcourse questionnaires, students rated themselves compared to others their age on their analytic and problem-solving skills and their critical-thinking abilities. In national surveys of first-year college students, students' self-perceptions on these measures are typically positively skewed, and they are also reasonably consistent with students' SAT scores, grade point averages, and class rankings.\(^4\) Thus, these ratings should be fairly reliable indicators of students' abilities and skills relative to other students. Response categories ranged from lowest 10 percent (coded one) to highest 10 percent (coded five), with average (coded three) in the middle. To discover whether service learning contributed to students' interest in the substantive material of the course, we asked students to what extent they agreed or disagreed with the statement: "Participating in service learning deepened my interest in the subject matter of this course." The same response categories and coding used with other agree/disagree items were used for this item.

It may seem most straightforward simply to ask students whether they enjoyed their service-learning experience. We did not ask this question for two reasons. First, previous surveys of service learners at Virginia Tech consistently found that over 80 percent of students would recommend service learning to others. Second, we were more interested in investigating service learning's effectiveness as an academic and civic pedagogy than its popularity.

The postcourse questionnaire elicited students' perceptions of course effects,\(^3\) likelihood of future service, and comments about their experiences. Students' perceptions of course effects comprise two factors. The first scale, Awareness of Social Problems, contains two items (e.g., "In this course I developed a greater awareness of societal problems"). It ranges from -4 to +4 ($\alpha = .75$). The second factor, Civic Duty, has four items (e.g., "the degree to which this course increased or strengthened your intention to serve others"). This scale ranges from 0 to 12 ($\alpha = .89$).\(^6\)

We first performed paired t-tests of mean differences between individuals' precourse and postcourse responses. We then used one-way ANOVA and equality of means t-tests to analyze mean differences among students in the three different types of service-learning courses.

**FINDINGS**

**Characteristics of Service-Learners**

Students who participated in service learning during spring semester 1997 at Virginia Tech are similar to other students at this university in several ways. The majority (92%) are 17 to 24 years old and represent all four undergraduate class years relatively evenly. Only 16 percent have grade point averages higher than 3.5 or lower than 2.0. Eighty-two percent of service learners are weakly or not significantly correlated with high school GPA or SAT scores. We, therefore, take these measures to be reasonably valid indicators of domain-specific abilities, not simply a reflection of students' general sense of self-worth.

\(^3\) These items are adapted from Markus et al. (1993) and Myers-Lipton (1994).

\(^6\) The scales, ranges, and reliability are in the Appendix.
white, as compared to 90 percent of all students. Based on incoming freshmen data (Cooperative Institutional Research Program 1996), service learners do not differ from other students at Virginia Tech in their religious affiliation or frequency of attending religious services.

The gender composition of service learners differs from that of the university, as 42 percent of all students are women, while 69 percent of service-learning students are women. Service-learning students also have more prior volunteer experience than other Virginia Tech students. Among all 1996-97 first-year students, 34 percent spent no time volunteering in the year before entering the university (Cooperative Institutional Research Program 1996). In contrast, only 20 percent of all service learners and 14 percent of first-year service learners had volunteered less than once a year or had never volunteered.

The extent to which students select themselves into these service-learning courses is unknown, although self-selection probably does differ by course type. In placement model courses with optional service, students obviously may choose service learning. The proportion of students who participate in the option would be affected by the emphasis placed on service learning by the course instructor, the alternative assignments, and, as our data show, by prior community service. In placement model courses with required service, students may select the class, but not the service. These courses, however, tend to be human services and humanities courses such as Issues in Aging, Families and Children under Stress, Appalachian Communities, and Introduction to Black Studies. We would therefore expect students in those courses to have more service experience and more positive attitudes about community service than other university students. In consulting courses, students again may choose the course, but are required to participate in service learning. These courses, such as Interior Design, Introduction to Travel and Tourism, Pollution Control Planning and Policy, and Catering Management, are concentrated in academic areas not typically associated with community service. Of all these service-learning classes, only one consulting model course in Interior Design was a required class.

Mean Change for Paired Individual Responses
Table 1 shows the paired t-tests of mean differences between students’ precourse and postcourse responses. There are two significant mean changes among all service-learning students for the pre- and postcourse items. First, the Importance of Community Service declines significantly. At the end of the semester, for example, students agree less with the statement: “Adults should give some time for the good of their community or country.” In contrast, Self-Oriented Motives for service also decrease significantly. By the end of their courses, for example, students assign less importance to developing new skills as a reason to participate in community service.

Table 1 also shows that the significant differences noted above are specific to the type of service-learning course. Students in the placement model with required service are the only group to show a significant decline in the mean Importance of Community Service. The only students to show a significant decline in Self-Oriented Motives for service are those in the placement model with optional service.

Civic Outcomes
Table 2 analyzes the civic outcomes of service learning and motives for participating in service learning, comparing students in the three types of courses. In data not shown, the three types of service-learning students do not differ on the importance they place in keeping up with current events, participating in politics, and developing a personal value system. They also do not

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7For a discussion of differences between students who choose service learning and those who do not, see Eyler, Giles, and Braxton (1997).
Table 1. Mean Changes in Paired Responses for Precourse and Postcourse Attitudes and Motivations

<table>
<thead>
<tr>
<th></th>
<th>Placement Service Optional</th>
<th>Placement Service Required</th>
<th>Consulting as a Group</th>
<th>All Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n = 121^a )</td>
<td>( n = 60^b )</td>
<td>( n = 79^c )</td>
<td>( n = 260^d )</td>
</tr>
<tr>
<td>Personal Social Responsibility</td>
<td>-0.08</td>
<td>-0.29</td>
<td>0.18</td>
<td>-0.05</td>
</tr>
<tr>
<td></td>
<td>( t = 0.04 )</td>
<td>( t = -0.89 )</td>
<td>( t = 0.73 )</td>
<td>( t = -0.36 )</td>
</tr>
<tr>
<td>Importance of Community Service</td>
<td>-0.31</td>
<td>-0.69**</td>
<td>-0.23</td>
<td>-0.37**</td>
</tr>
<tr>
<td></td>
<td>( t = 1.83 )</td>
<td>( t = -2.92 )</td>
<td>( t = -0.93 )</td>
<td>( t = -3.06 )</td>
</tr>
<tr>
<td>Civic Awareness</td>
<td>-0.39</td>
<td>-0.32</td>
<td>0.05</td>
<td>-0.24</td>
</tr>
<tr>
<td></td>
<td>( t = -1.72 )</td>
<td>( t = -1.05 )</td>
<td>( t = 0.15 )</td>
<td>( t = -1.49 )</td>
</tr>
<tr>
<td>Self-Oriented Motives</td>
<td>-0.60***</td>
<td>-0.10</td>
<td>-0.36</td>
<td>-0.42***</td>
</tr>
<tr>
<td></td>
<td>( t = -3.53 )</td>
<td>( t = -0.40 )</td>
<td>( t = -1.52 )</td>
<td>( t = -3.37 )</td>
</tr>
<tr>
<td>Service-Oriented Motives</td>
<td>-0.03</td>
<td>-0.12</td>
<td>0.17</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>( t = -0.22 )</td>
<td>( t = -0.76 )</td>
<td>( t = 1.09 )</td>
<td>( t = 0.10 )</td>
</tr>
<tr>
<td>Critical-Thinking Ability</td>
<td>0.01</td>
<td>-0.03</td>
<td>0.18</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>( t = 0.14 )</td>
<td>( t = -0.38 )</td>
<td>( t = 1.54 )</td>
<td>( t = 1.02 )</td>
</tr>
<tr>
<td>Analytical and Problem-Solving Skills</td>
<td>-0.01</td>
<td>0.02</td>
<td>0.10</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>( t = -0.13 )</td>
<td>( t = 0.17 )</td>
<td>( t = 1.18 )</td>
<td>( t = 0.68 )</td>
</tr>
</tbody>
</table>

\* \( p < .05 \) \quad \*\* \( p < .01 \) \quad \*\*\* \( p < .001 \)

\( ^a \)df ranges from 115 to 119, depending on the number of missing cases.

\( ^b \)df ranges from 56 to 59, depending on the number of missing cases.

\( ^c \)df ranges from 69 to 77, depending on the number of missing cases.

\( ^d \)df ranges from 243 to 257, depending on the number of missing cases.

differ on self-rated cooperativeness, understanding of community and national social problems, and interpersonal, communication, and leadership abilities.

**Precourse differences.** Table 2 shows that students in the two types of placement model courses have significantly more prior volunteer experience than students in the consulting courses. (A value of 2 indicates that students have volunteered a few times a year; a value of 3 indicates a few times per month.) In addition, service learners in the three types of courses differ significantly in precourse levels of Personal Social Responsibility and Importance of Community Service. In the placement model with required service, students have the highest means on both these measures. There is also a significant difference in Civic Awareness, with students in the placement model with optional service having the highest initial mean. Finally, there are significant differences among students in their Service-Oriented Motives for community service, with placement model students having significantly higher means than those in the consulting model. These differences may be due to self-selection and prior service experience.

**Post-course outcomes.** Table 2 also shows two significant differences among students in the three course types at the end of the semester. First, students continue to differ significantly in Personal Social Responsibility, although the differences have diminished. Students in the placement model with required service and consulting model students have significantly higher means in Self-Oriented Motives than students in the placement model with optional service. Students in the three course types no longer differ in the importance they place on community service, civic awareness, or service-oriented motives, not because consulting
<table>
<thead>
<tr>
<th>Placement</th>
<th>Means</th>
<th>ANOVA Results</th>
<th>Equality of Means†</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Service Optional</td>
<td>Service Required</td>
<td>Consulting Group</td>
</tr>
<tr>
<td></td>
<td>(n = 121)</td>
<td>(n = 60)</td>
<td>(n = 79)</td>
</tr>
<tr>
<td>Prior Volunteer Experience</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>2.24 (0.94)</td>
<td>2.35 (1.19)</td>
<td>1.76 (0.81)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Social Responsibility</td>
<td>Precourse</td>
<td>10.83 (2.39)</td>
<td>11.58 (2.43)</td>
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<tr>
<td></td>
<td>Postcourse</td>
<td>10.76 (2.30)</td>
<td>11.28 (2.55)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Importance of Community</td>
<td>Precourse</td>
<td>4.07 (1.71)</td>
<td>4.59 (1.59)</td>
</tr>
<tr>
<td></td>
<td>Postcourse</td>
<td>3.71 (2.06)</td>
<td>3.81 (1.96)</td>
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<td></td>
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</tr>
<tr>
<td>Civic Awareness</td>
<td>Precourse</td>
<td>12.74 (2.43)</td>
<td>12.48 (2.19)</td>
</tr>
<tr>
<td></td>
<td>Postcourse</td>
<td>12.33 (2.73)</td>
<td>12.17 (2.90)</td>
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<tr>
<td>Self-Oriented Motives</td>
<td>Precourse</td>
<td>5.73 (1.68)</td>
<td>6.20 (1.46)</td>
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<td></td>
<td>Postcourse</td>
<td>5.13 (2.02)</td>
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<td>Service-Oriented Motives</td>
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<td>Postcourse</td>
<td>5.16 (1.16)</td>
<td>5.24 (1.12)</td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

† Equal variance $t$ values and significance levels are shown.

* $p < .05$  ** $p < .01$  *** $p < .001$

$^a$df ranges from 170 to 179, depending on number of missing cases.

$^b$df ranges from 127 to 137, depending on number of missing cases.

$^c$df ranges from 185 to 198, depending on number of missing cases.
students' means increased substantially, but because placement students' means declined.

**Academic Outcomes**

Table 3 analyzes the academic outcomes of service learning, comparing students in the three types of courses. Students spent 15 to 25 hours during the semester in their service activities. Students in the consulting courses invested the most hours in their service projects, nearly 22 hours on average. The three course types also differ significantly on the extent to which students were required to reflect on their service learning. Both types of placement model classes required significantly more types of reflection than consulting model courses. (Courses with no required reflection are coded 0, courses with one type of reflection activity are coded 1, and courses with more than one activity, such as a required journal and a paper, are coded 2.)

**Precourse differences.** Table 3 shows that at the beginning of the semester, service learners in the placement model with optional service have significantly higher means on their self-ratings of Analytic and Problem-Solving Skills than students in the other two course types. Service-learning students in the placement model with optional service also differ significantly in their self-rating of Critical-Thinking Ability from students in the placement model with required service.

**Postcourse outcomes.** Table 3 shows that at the end of the semester, service learners in the placement model with optional service continue to have significantly higher self-assessments of Analytic and Problem-Solving Skills than students in the placement model with required service, but no longer differ from consulting model students, whose mean increased. Service-learning students in both the consulting model and placement model with optional service have significantly higher means in Critical-Thinking Ability than students in the placement model with required service.

Students in both types of placement model courses report significantly higher means in their Awareness of Social Problems than students in consulting model courses. Service learners in the placement model with required service have a significantly higher mean in Civic Awareness than students in the consulting model, despite not differing significantly in their Civic Awareness attitudes on either pre- or postcourse measures. Students who participated in both placement model courses have significantly higher means on the measure of whether service learning deepened their interest in the course's subject matter than students in the consulting model.

**DISCUSSION**

Service learning is one of many pedagogical tools and, as with any teaching strategy, the amount it can facilitate learning depends on how it is used. Although our findings show little significant impact of service learning on civic and academic outcomes during one semester, we nonetheless believe we can glean important insights about how to use service learning effectively.

Our findings regarding how participation in service learning affects civic attitudes are mixed. Contrary to expectations, service-learning students held slightly less favorable attitudes toward community service at the end of the semester than at the beginning. These findings suggest that instructors should not expect students' attitudes to become more favorable after only one semester of service learning.

At the beginning of a course, students may be somewhat naively excited about what they believe they can accomplish. Some students may regard their service simply as "doing good" or helping the "less fortunate" by meeting direct needs. As a consequence, if the service does not make these students "feel good," they may hold less favorable attitudes than before their service. For example, one student commented at the end of the semester: "I thought service learning would be about people who had nothing or next-to-nothing." Other students may recognize that many problems require long-term
Table 3. Means, Standard Deviations, Univariate F-Tests, and Equality of Means on Service and Academic Measures, and Course Effects

<table>
<thead>
<tr>
<th>Placement</th>
<th>Means</th>
<th>ANOVA Results</th>
<th>Equality of Means†</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Service Optional (n = 121)</td>
<td>Service Required (n = 60)</td>
<td>Consulting Group (n = 79)</td>
</tr>
<tr>
<td>Service-Learning</td>
<td>18.75 (7.14)</td>
<td>16.00 (4.98)</td>
<td>21.50 (12.79)</td>
</tr>
<tr>
<td>Hours</td>
<td></td>
<td></td>
<td>F = 6.43**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>t = 2.77**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>t = 3.13**</td>
</tr>
<tr>
<td>Number of</td>
<td></td>
<td></td>
<td>t = 1.84</td>
</tr>
<tr>
<td>Reflection</td>
<td>1.74 (0.48)</td>
<td>1.80 (0.61)</td>
<td>0.02 (0.43)</td>
</tr>
<tr>
<td>Activities</td>
<td></td>
<td></td>
<td>F = 233.90***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>t = 0.08</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>t = 17.20***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>t = 21.66***</td>
</tr>
<tr>
<td>Analytic and</td>
<td>Precourse</td>
<td>3.74 (0.70)</td>
<td>3.43 (0.67)</td>
</tr>
<tr>
<td>Problem-Solving</td>
<td></td>
<td></td>
<td>3.54 (0.64)</td>
</tr>
<tr>
<td>Skills</td>
<td>Postcourse</td>
<td>3.73 (0.72)</td>
<td>3.42 (0.61)</td>
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<td></td>
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<td>3.65 (0.43)</td>
</tr>
<tr>
<td>Critical-Thinking</td>
<td>Precourse</td>
<td>3.80 (0.61)</td>
<td>3.53 (0.75)</td>
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<td>Ability</td>
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<td>3.65 (0.79)</td>
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<tr>
<td></td>
<td>Postcourse</td>
<td>3.80 (0.64)</td>
<td>3.47 (0.60)</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>3.84 (0.94)</td>
</tr>
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<td></td>
<td>F = 4.69**</td>
<td></td>
<td>t = 2.81**</td>
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<td></td>
<td>t = 0.99</td>
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</tr>
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<td></td>
<td>t = 1.48</td>
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<td></td>
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<tr>
<td>Course Effects on</td>
<td>Social Problems</td>
<td>1.55 (1.52)</td>
<td>1.47 (1.49)</td>
</tr>
<tr>
<td>Awareness of:</td>
<td></td>
<td></td>
<td>0.19 (1.91)</td>
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<tr>
<td>Civic Duty</td>
<td></td>
<td>F = 17.24***</td>
<td>t = 0.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>t = 4.24***</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>t = 5.43***</td>
</tr>
<tr>
<td>S-L Deepened</td>
<td>7.40 (3.22)</td>
<td>7.97 (2.83)</td>
<td>6.45 (3.25)</td>
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<tr>
<td>Interest in the</td>
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<td>Subject Matter</td>
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<td>t = 2.82**</td>
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<td>t = 1.97</td>
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<td>Likelihood of</td>
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<td>0.53 (1.20)</td>
<td>0.08 (1.15)</td>
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<td>Future Community</td>
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<td>Service</td>
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<td></td>
<td></td>
<td>t = 2.14*</td>
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<td></td>
<td>t = 1.19</td>
<td></td>
<td>t = 2.09*</td>
</tr>
</tbody>
</table>

† Equal variance t values and significance levels are shown.
* p < .05      ** p < .01      *** p < .001

a df ranges from 170 to 179, depending on number of missing cases.
b df ranges from 127 to 137, depending on number of missing cases.
c df ranges from 185 to 198, depending on number of missing cases.
solutions, but become discouraged because they may view their service merely as a "band-aid." A student who mentored a young person for the local county's Office on Youth noted: "Putting at-risk children in a situation where their mentor will be leaving them is not helpful to their familial situation."

On the other hand, civic attitudes also show some encouraging changes. Self-Oriented Motives for volunteering for community service significantly declined. Students assigned less importance to developing skills or enhancing their resumes. One student wrote on her evaluation: "This course caused me to think about changing my future career to one where I can be of service to other people." Moreover, despite the differences by course type in students' prior volunteer experience, on average, service-learning students in all three course types rate the chance of their future participation in community service between "some" and "very good."

The findings for academic outcomes are positive for students in consulting model courses, who reported that their critical-thinking ability and analytic and problem-solving skills had increased slightly over the semester. In the interior design course that developed an intergenerational space, a student noted: "We developed an unused space into a space that can be utilized by many people, and I gained knowledge on how adults and children interact together." Some students in placement model courses also connected their service to positive learning outcomes. A student in the course on community organization and leadership wrote: "My experience was instrumental in my learning...the organization and leadership skills [at the site] were weak, so I decided to take the program under my direction next semester and work for advancement in the project and service site."

With service learning, students can also better understand the advantages and disadvantages of collective attempts to deal with problems. A student who participated with a group that worked to restore an architecturally significant community theater wrote: "The group is helping to keep the Lyric up and running...we have a sense of community bonding and concern with preserving our community's culture." Another student who volunteered at the Free Clinic noted: "It was a challenge working with people of different backgrounds than myself....I gained a better understanding of the bond among people working for a cause."

The findings about civic and academic outcomes by course type bear on two principal pedagogical issues: requiring student participation in service learning and the importance of reflection activities in getting positive outcomes. Our findings suggest that instructors should consider carefully whether to require student participation in service learning. Students in the placement model with required service declined more in Personal Social Responsibility, Importance of Community Service, and Service-Oriented Motives than students in the placement model classes with optional service. Students may resent what they see as the additional time necessary to fulfill course requirements. Making service learning optional rather than required in placement model courses recognizes that students have different learning preferences and demands on their time.

The decline in Importance of Community Service among students in placement model courses with required service may be unrelated to service as a requirement, however. These courses are predominantly upper-division human resources and humanities courses. One might assume, as the data reveal, that students in these courses already place a high value on community service. Therefore, service learning might have a limited impact on their attitudes.

Required service in itself may not necessarily have poor outcomes. Students in consulting model courses also must participate in service, but they acquire more positive attitudes than students in the placement model with required service. Perhaps this is because a single project is central to the consulting model course in contrast to multi-
ple service sites as in the placement model. When students participate in service learning as a consulting group, they have others with whom to share their experiences. One student in a consulting class wrote: "My group and I benefited by having the opportunity to participate in the challenges [of the project] together." Similarly, of the three models, consulting students report the greatest gains in Analytic and Problem-Solving Skills and Critical-Thinking Ability during the semester.

Requiring students to participate in service learning can potentially have positive outcomes by "pushing" students into new situations that they may consider ultimately beneficial. One student in a placement model course with required service noted: "Service-learning has opened the doors for me to establish a friendship with a kid who has someone he can trust and that can make a kid realize that they are important after all."

Our findings also indicate that reflection in service-learning courses is crucially important for positive outcomes. Students in the placement model with required service are most likely to report that service learning deepened their interest in the course's subject matter, and these courses had the greatest number of reflection activities. These included journal writing, in-class discussion sessions, class presentations by students, and papers. In contrast, students in the consulting model class are least likely to report that service learning deepened their interest in the course, and these courses have the fewest number of reflection activities. Because there is little critical reflection in the consulting model courses, students may view the class's service activities more as occupational training or professional socialization than civic involvement.

Reflection can be successfully integrated into service-learning courses across disciplines. Civic and social issues are part of reflection when students make connections between their service and its benefit to others. Students in a hotel and tourism management course thought about the connections between their service-learning project and a long-term community goal of enhancing a local park. One student noted: "The community and my group benefited by learning about tourist motives...the community gained by the research about the park."

In social science courses, instructors can explicitly connect students' volunteer service to the social structure, emphasizing that there are no "quick fixes" to complicated issues. For example, if students volunteer at a homeless shelter, an in-class reflection can involve discussing the extent to which the students' service treats the "symptoms" of the problem, rather than the structural sources of homelessness. One service learner wrote at the end of the semester: "I changed my attitudes toward [the clients]...I have more sympathy and a greater understanding of the circumstances that cause their situation."

Experiential learning through service can enable students to move beyond individualistic explanations of social phenomena. Sociology courses are particularly well suited to explore the social and structural factors that contribute to the problems that students' service addresses (Corwin 1996; Lena 1995).8

For reflection activities to result in critical analysis of issues, they must be more than students' "discovery" of a predetermined, ideologically "correct" interpretation of the service experience (Long 1995; Zlotkowski 1995). For students to move beyond individ-

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8In data not shown, we compared civic and academic outcomes for 26 service-learning students in two sociology courses using the placement model with optional service. These service learners showed a significant (p < .05) negative mean change in self-oriented service motives and a significant (p < .05) increase in self-rated analytic and problem-solving skills. These students also had significantly higher postcourse means on Personal Social Responsibility and Importance of Community Service compared with other students. Sociology service learners agreed most strongly that service learning deepened their interest in the subject matter of the course.
ualistic explanations of social problems, reflection must raise questions about social structures, ideology, and social justice. This does not occur automatically by including service learning in a course, but must be explicitly raised by the instructor. Students will not spontaneously gain critical self-consciousness—an awareness of how social forces have shaped their own lives (Herzberg 1994). Instructors must challenge students to identify and analyze the social forces that produce social problems such as homelessness, illiteracy, community economic decline, and injustice. In this way, students may come to see the connections among their individual service, the social structure, and the potential for social change.

CONCLUSION

We need to know a great deal more about what occurs at the service site and in the classroom to understand the civic and academic outcomes of service learning. Although virtually no research exists on conditions at the service site, we can speculate that the type of training students receive, the amount of responsibility students have, and the extent of coordination and communication between the service site and the course instructor may influence student outcomes. In the classroom, an important variable is the extent to which faculty members incorporate reflection activities and how well these activities connect students’ service experiences with course concepts.

What academic skills might be enhanced through service learning, and how can faculty members assess these? Ideally, service learning has the potential to move students from identifying concepts, rote memorization, and summaries to higher-order processes of analysis, synthesis, and critique. Using service experiences, faculty members can guide students to see academic concepts in action, identify and test theories through observation, make connections among multiple concepts and processes, and analytically and critically assess social structures and processes in relation to outcomes for individuals and groups. Faculty members can use students’ service to challenge students to work through an increasingly complex intellectual hierarchy in which academic knowledge becomes working knowledge because students have used it, applied it, and analyzed it in relation to a specific realm.

Faculty members can assess evidence of these skills through written and oral work that requires students to do more than identify, classify, and report. Assignments should require students to explain, relate, and synthesize how course concepts and theories are at work in their service experiences. For example, class discussions might focus on a comparison between stereotypes and the actual populations served at students’ sites. Written assignments can guide students to think and reflect critically, with questions that move from reporting experiences to connecting them with concepts, then putting several concepts together, then analyzing theoretical explanations of the situation they are encountering. For example, students can compare two theories of deviance and analyze them based on their service experiences at a juvenile detention center. Students can also synthesize learning and experience by using course material to explain causes, consequences, and possible solutions of the problems their service addresses. An assignment might require students to analyze the social conditions that brought their volunteer organization into existence and if and why these conditions have changed over time.

Our findings suggest that a sequence of service-learning courses might maximize the potential civic and academic outcomes of service learning for students. In this way, students could build upon their prior experiences and better integrate their volunteer activities with course concepts and issues. Herzberg (1994) describes a course sequence in English on the causes and consequences of illiteracy where students tutor adult literacy.

Evaluating service-learning programs is challenging. Longitudinal studies are still
absent from the service-learning evaluation research (Kraft 1996; Morton 1995). To help fill this gap, the Service-Learning Center at Virginia Tech is instituting a longitudinal study of service-learning students. We would also suggest that future research investigate some of the explanations we propose for our mixed findings. For example, we could ask students how they feel about required service and if they view their service as an integral part of the course or material that is “tacked on.” Future research should also systematically evaluate faculty assessments of whether service learning is beneficial to student outcomes.

Our study supports service learning as a potentially valuable option for students who choose to participate in this experiential method and have the opportunity to reflect critically on their activities. As a form of civic education, the effects of service learning during a single semester are small, but may accumulate over repeated experiences. As Myers-Lipton (1994) finds, service learning may have greater impact if it is further integrated into the curriculum. We suggest that instructors should not make service the goal of service learning, seeking to institutionalize programs through involving as many students as possible. Rather, real academic gains may come through intensive investments to develop meaningful partnerships between faculty members and community organizations and carefully coordinated curricula that take students beyond merely identifying with those they serve, but identifying the causes that result in the need for their service.

### APPENDIX. SCALES, INDIVIDUAL ITEMS, RANGE, AND PRECOURSE AND POSTCOURSE SCALE RELIABILITY

<table>
<thead>
<tr>
<th>Scale</th>
<th>Individual Items</th>
<th>Range</th>
<th>Reliability (Pre-Course)</th>
<th>Reliability (Post-Course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Social Responsibility</td>
<td>• Importance of influencing social values</td>
<td>0 to 15</td>
<td>.77</td>
<td>.74</td>
</tr>
<tr>
<td></td>
<td>• Importance of developing a personal values system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Importance of finding a career that provides me the opportunity to be helpful to others or useful to society</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Importance of helping others who are in difficulty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Importance of volunteering my time helping people</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Importance of Community Service</td>
<td>• Adults should give some time for the good of their community or country.</td>
<td>-6 to 6</td>
<td>.77</td>
<td>.83</td>
</tr>
<tr>
<td></td>
<td>• It is important to help others even if you do not get paid for it.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• People, regardless of whether they have been successful or not, ought to help others.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civic Awareness</td>
<td>• Individuals have a responsibility to help solve our social problems.</td>
<td>-1 to 19</td>
<td>.72</td>
<td>.71</td>
</tr>
<tr>
<td></td>
<td>• I feel that I can make a difference in this world.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rate yourself compared to the average person your age on:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• understanding the problems facing your community</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• understanding social problems facing our nation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• commitment to serving your community</td>
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</table>
### TEACHING SOCIOLOGY

**Appendix con’t.**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Individual Items</th>
<th>Range</th>
<th>Reliability (Pre-Course)</th>
<th>Reliability (Post-Course)</th>
</tr>
</thead>
</table>
| Self-Oriented Motives         | • To enhance my academic learning  
• To develop new skills  
• To enhance my resume  
• To feel personal satisfaction | 0 to 8 | .68                      | .79                        |
| Service-Oriented Motives      | • To improve my community  
• To help other people  
• To improve society as a whole | 0 to 6 | .77                      | .80                        |
| Course Effects on Awareness of Social Problems | • In this course, I developed a greater awareness of societal problems.  
• In this course, I reconsidered some of my former attitudes. | -4 to 4 | n/a                      | .75                        |
| Course Effects on Civic Duty  | The degree to which this course increased or strengthened your:  
• intention to serve others  
• belief that helping others is one’s social responsibility  
• belief that one can make a difference in the world  
• tolerance and appreciation of others | 0 to 12 | n/a                      | .89                        |

### REFERENCES


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**Rachel Parker-Gwin** is an assistant professor of sociology at Virginia Polytechnic Institute and State University. She has served as a member of the Advisory Board and cochair of the Academic Council of the university’s Service-Learning Center.

**J. Beth Mabry** is a doctoral candidate in sociology at Virginia Polytechnic Institute and State University. She has served as an evaluation specialist to the university’s Service-Learning Center.
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References

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