How Service Learning Affects Students

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Acknowledgements

Table of Contents

Executive Summary

The two major goals of this study were: 1) to explore the comparative effects of service learning and community service on the cognitive and affective development of college undergraduates and 2) to enhance our understanding of <u>how</u> learning is enhanced by service. These questions were explored by means of a quantitative longitudinal study of a national sample of students at diverse colleges and universities and a qualitative study of students and faculty who participated in service learning at a subset of these institutions.

Method

Longitudinal data were collected from 22,236 college undergraduates attending a national sample of baccalaureate-granting colleges and universities. These students were followed up during the fall of 1998; most of them had entered college as freshmen in the fall of 1994. Thirty percent of the students participated in course-based community service (service learning) during college, and an additional 46 percent participated in some other form of community service. The remaining 24 percent did not participate in any community service during college. The impact of service learning and community service was assessed on 11 different dependent measures: academic outcomes (three measures), values (two measures), self-efficacy, leadership (three measures), career plans, and plans to participate in further service after college. Most of these outcomes were pretested when the students entered college as freshmen.

Four additional outcome measures were used on a subsample of students for whom standardized test scores (GRE-Verbal, GRE-Quantitative, LSAT, MCAT) were available. Only students for whom freshmen SAT or ACT scores were available were used in these analyses (sample sizes ranged from 358 for the MCAT to 1,028 for the GRE).

i

Multivariate controls were used for both freshmen characteristics and institutional characteristics (size, type, selectivity, etc.) before the comparative impact of service learning and community service was assessed on the eleven student outcomes.

The qualitative portion of the study involved in-depth case studies of service learning on three different campuses. Individual and group interviews with faculty and students, together with classroom observations, were conducted at each site.

Principal Findings

♦ Service participation shows significant positive effects on all 11 outcome measures: academic performance (GPA, writing skills, critical thinking skills), values (commitment to activism and to promoting racial understanding), self-efficacy, leadership (leadership activities, self-rated leadership ability, interpersonal skills), choice of a service career, and plans to participate in service after college. These findings directly replicate a number of recent studies using different samples and methodologies.

♦ Performing service as part of a course (service learning) <u>adds</u> significantly to the benefits associated with community service for all outcomes except interpersonal skills, self-efficacy and leadership. Positive results for the latter two outcomes were borderline (i.e., $p < .05$).

♦ Benefits associated with course-based service were strongest for the academic outcomes, especially writing skills.

♦ Results with graduate and professional school admissions tests were generally non-significant, with one exception: service participation can have a positive effect on the student's LSAT score, but <u>only</u> if the student is able to discuss the service experience with the professor.

♦ Service participation appears to have its strongest effect on the student's decision to pursue a career in a service field. This effect occurs regardless of whether the student's freshmen career choice is in a service field, a non-service field, or "undecided."

♦ The positive effects of service can be explained in part by the fact that participation in service increases the likelihood that students will discuss their experiences with each other and that students will receive emotional support from faculty.

♦ Both the quantitative and qualitative results suggest that providing students with an opportunity to "process" the service experience with each other is a powerful component of both community service and service learning. Compared to community service, taking a service-learning course is much more likely to generate such student-to-student discussions.

♦ Better than four service-learning students in five felt that their service "made a difference" and that they were learning from their service experience.

♦ The single most important factor associated with a positive service-learning experience appears to be the student's degree of interest in the subject matter. Subject matter interest is an especially important determinant of the extent to which (a) the service experience enhances understanding of the "academic" course material, and (b) the service is viewed as a learning experience. These findings provide strong support for the notion that service learning should be included in the student's major field.

♦ The second most significant factor in a positive service-learning experience is whether the professor encourages class discussion.

♦ The frequency with which professors connect the service experience to the course subject matter is an especially important determinant of whether the academic material enhances

the service experience, and whether the service experience facilitates understanding of the academic material.

♦ The extent to which the service experience is enhanced by the academic course material depends in part upon the amount of <u>training</u> that the student receives prior to service participation.

♦ Qualitative findings suggest that service learning is effective in part because it facilitates four types of outcomes: an increased sense of personal efficacy, an increased awareness of the world, an increased awareness of one's personal values, and increased engagement in the classroom experience.

♦ The qualitative findings suggest that both faculty and students develop a heightened sense of civic responsibility and personal effectiveness through participation in service-learning courses.

♦ Both qualitative and quantitative results underscore, once again, the power of <u>reflection</u> as a means of connecting the service experience to the academic course material. The primary forms of reflection used were discussions among students, discussions with professors, and written reflection in the form of journals and papers.

♦ Both the qualitative and quantitative findings provide strong support for the notion that service-learning courses should be specifically designed to assist students in making connections between the service experience and the academic material.

Chapter 1

Background of the Study

Service learning represents a potentially powerful form of pedagogy because it provides a means of linking the academic with the practical. The more abstract and theoretical material of the traditional classroom takes on new meaning as the student "tries it out," so to speak, in the "real" world. At the same time, the student benefits from the opportunity to connect the service experience to the intellectual content of the classroom. By emphasizing cooperation, democratic citizenship and moral responsibility through service learning, higher education connects to the wider community and prepares students to meet society's urgent needs.

There is a mounting body of evidence documenting the efficacy of participating in service during the undergraduate years (Batchelder & Root, 1994; Eyler, Giles & Braxton, 1997; Eyler & Giles, 1999; Hesser, 1995). However, little is known about how the effects of service learning compare with the effects of volunteer service in general. Moreover, little is known about what forms of, and approaches to, service learning are most effective.

This study has two purposes: First, it directly compares service learning and community service, in order to identify the unique contributions, if any, of course-based service beyond those of community service. Second, the study attempts to understand more fully how service learning enhances learning. We address these issues through a quantitative longitudinal study of a national sample of students at diverse of colleges and universities, and a qualitative study of students and faculty who participated in service learning.

Though there is broad support for engaging students in community service, there has been some resistance to incorporating service into academic courses. The thinking is that the

place for service is outside the classroom – done on a student's "own time." And in fact, research suggests that participating in "generic" community service, for instance as part of an extracurricular organization or individually, has positive effects on student outcomes (Astin, Sax & Avalos, 1999; Sax, Astin & Astin, 1996; Rhoads, 1997). For proponents of course-based service, an important question is whether engaging in service *as part of an academic course*[1] has unique benefits over and above those of co-curricular community service[2].

Research that contributes to understanding the educational value of course-based service is important for several reasons. As a recent study of federally funded service-learning programs points out, "at the institutional level, the most serious obstacle [to expanding and sustaining service programs] is faculty resistance to service-learning. Faculty are reluctant to invest the extra time that teaching service-learning courses entails, and many are skeptical of the educational value of service-learning" (Gray et. al., 1999, p. 103). As a result of research on service learning, faculty may not only gain a broader understanding of how learning takes place, but also be more likely to support service learning if they see evidence documenting its educational value.

Although supporters of service learning can talk (or "preach") about its importance, faculty and administrators want empirical evidence to support the claims of its usefulness or value. If the effectiveness of service learning can be shown, then greater administrative support and greater financial support might be forthcoming. Since adopting a new practice can also present a challenging and demanding commitment for faculty, the existence of staff support via a campus service-learning center may help to reduce faculty reluctance to integrating service learning into their courses. Along similar lines, if faculty are to be

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[1] In this report, we use " 'course-based' service" and "service learning" interchangeably.
[2] In this report, we use "community-service," and "volunteer" interchangeably.

expected to adopt an innovative practice, they must not only have reason to believe in its efficacy, but must also see that the institution will reward their efforts or, at the very least, not penalize them for taking time to incorporate service learning. Although the positive outcomes of service learning can be linked to the mission statements of universities, a message of respect and valuing of the practice will be taken more seriously if it is taken into consideration in the tenure or promotion (peer review) process, or if it has the financial support of the administration.

In short, it is hoped that the results of this study will help to provide a firm empirical base for both faculty and administrators to formulate policy concerning the use and possible expansion of service learning on the campus and, at the same time, offer new insights for faculty regarding how to make service learning courses more effective.

The report is organized in chapters so the reader can distinguish between different parts of the study. Following the executive summary and this introductory chapter, we present the quantitative findings in three chapters. Chapter 2 assesses the comparative effects of community service, service learning and non-service participation, whereas Chapter 3 addresses the question of how participation in service enhances the learning process. Chapter 4 presents a detailed analysis only of students who participated in service learning, in order to determine what happens in the classroom to affect student satisfaction and learning in service-learning courses.

Chapter 5 presents our qualitative findings, focusing on: (1) the tools used by faculty to help students connect the service and learning experiences, and (2) what the students feel they gain from the service-learning experience.

The final chapter (Chapter 6) discusses the implications of our research for practice, for further research, and for the development of theory. Here we share our understanding of the importance of this study, and place it in the context of other work that addresses service learning and college student learning in general.

Chapter 2

Comparing the Effects of Community Service and Service Learning

In this chapter, we report the results of quantitative analyses which directly compare service learning and community service. Our main purpose here is to understand what, if any, are the unique contributions of course-based service beyond those of community service. For this purpose we do a longitudinal comparison of three student groups: service learning participants, volunteers, and non-service participants.

The data from this study were collected as part of the Cooperative Institutional Research Program (CIRP), with sponsorship from the American Council on Education. Conducted by the Higher Education Research Institute (HERI) at the University of California, Los Angeles, the CIRP annually collects data on entering first-year students using the Student Information Form (SIF), a questionnaire which is designed as a pre-test for longitudinal assessments of the impact of college on students. The College Student Survey (CSS), which provides longitudinal follow-up data, is typically administered four years after college entry.

This study uses 1998 CSS data, and draws on SIF data from 1991 through 1997. Most students who participated in the 1998 CSS completed their SIF in 1994. The remaining cases either entered college before 1994, or were at institutions that administer the CSS to students less than four years after college entry. For instance, some schools administer the CSS to students at the end of their sophomore year. The total number of students in this study is 22,236. Detailed information on the data collection process for the 1998 CSS is available from HERI.

The main independent variables used in this study come from the 1998 CSS instrument: "generic" community service and "course-based" service (or service learning). To measure the frequency of "generic" community service, students were asked two questions (on different parts of the survey). The first question asked: "Please indicate how often you performed volunteer work during the past year," and students could mark "frequently," "occasionally," or "not at all." The second question asked students to report how many hours they spent on volunteer work during a typical week in the past year. The eight response choices ranged from "none" to "over 20."

To determine participation in course-based service, students were asked, "Since entering college, have you performed any community/ volunteer service? If yes, how was the service performed?" Students were instructed to mark all that applied: as part of a course or class; as part of a collegiate-sponsored activity (sorority, campus org., etc.); or independently through a non-collegiate group (church, family, etc.). Students who indicated they had performed community/ volunteer service as part of a course (regardless of whether they also marked another choice) were considered to have participated in service learning.

These two service variables were coded into two partially overlapping variables:

♦ "Generic" service participation: participated in service (including service learning) frequently (score 3), occasionally (score 2) or not at all (score 1).

♦ Service learning: a dichotomous variable in which those who took one or more service-learning courses (score 2) were contrasted with non-service learning participants (score 1) (i.e., non-service participants plus volunteers who did not participate in a service learning course).

Note that these two variables differ only in the placement of the volunteers who did not take a service-learning course (see below for how these two variables were used in the analysis).

<u>Dependent Variables</u>

Existing research on community service influenced our choice of dependent variables. Since this part of the study seeks to compare the effect of course-based service with the effect of "generic" community service, we chose outcomes that have been shown to be impacted by participation in any type of service.

Given the existing research, we chose eleven dependent measures, reflecting behavioral and cognitive outcomes as well as values and beliefs. Many of these items were pretested when students entered college. Dependent variables include three measures of values and beliefs:

- degree of commitment to the goal of promoting racial understanding (4 = essential, 3 = very important, 2 = somewhat important, 1 = not important)
- degree of commitment to activism (see below)
- agreement with the statement "realistically, an individual can do little to bring about changes in our society" (4 = agree strongly, 3 = agree somewhat, 2 = disagree somewhat, 1 = disagree strongly);

three measures of academic skills:

- GPA (grade-point-average)
- growth in writing skills ("compared with when you entered college as a freshman, how would you now describe your writing skills?" 5 = much stronger, 4 = stronger, 3 = no change, 2 = weaker, 1 = much weaker)
- critical thinking skills ("compared with when you entered college as a freshman, how would you now describe your ability to think critically?" 5 = much stronger, 4 = stronger, 3 = no change, 2 = weaker, 1 = much weaker);

three measures of leadership:

- growth in interpersonal skills ("compared with when you entered college as a freshman, how would you now describe your interpersonal skills?" 5 = much stronger, 4 = stronger, 3 = no change, 2 = weaker, 1 = much weaker)
- leadership activities (see below)

- leadership ability ("compared with when you entered college as a freshman, how would you now describe your leadership abilities?" 5 = much stronger, 4 = stronger, 3 = no change, 2 = weaker, 1 = much weaker);

and two measures of future plans:

- career choice (see below)
- plans to engage in community service during the forthcoming year (see below).

Several of the dependent variables reflect responses to more than one survey item.

Commitment to activism is a composite measure of the eight items listed below. The first seven items are responses (4 = essential, 3 = very important, 2 = somewhat important, 1 = not important) to the item "indicate the importance to you personally of each of the following:" The last item (about politics) is a response to "for the activities listed below, please indicate how often you engaged in each during the past year" (3 = frequently, 2 = occasionally, 1 = not at all)

- influencing the political structure
- influencing social values
- helping others who are in difficulty
- becoming involved in programs to clean up the environment
- participating in a community action program
- keeping up to date with political affairs
- becoming a community leader
- frequency of discussing politics

The activism composite measure was factorially derived (alpha =.8021). The composite measure "leadership activities" was derived in an *a priori* manner, and includes the following dichotomous items:

- participating in student government,
- being elected to student office, or
- participating in leadership training.

The composite measure of "plans to engage in community service the following year," also derived in an *a priori* manner, includes:

- plans to do volunteer work; and
- plans to participate in a community service organization.

<u>Other Independent Variables</u>

In addition to the two principal independent variables—generic service participation and taking a service-learning course—several freshman "input" or "control" variables were included in the analysis to control for the potentially biasing effect of characteristics such as previously held beliefs and high school activities (Astin, 1993). These input variables from the SIF also include pre-tests for most of the dependent measures on the CSS. In examining writing, critical thinking and leadership ability, we chose to use self-perceived *change* during college as the dependent measure. Although there is no pretest that would allow us to assess actual *change* in writing, critical thinking, or leadership ability, we were able to control for self-rated writing ability and leadership ability at the time of college entry. Similarly, since "plan to engage in community service next year" does not have a pre-test on the SIF, we used the freshman response to "plan to engage in volunteer work" (in college) as a proxy.

Since we were interested in isolating the effect of service during college as distinct from antecedent factors that might predispose the student to engage in service, we also controlled for freshman self-selection factors that are known to predict subsequent participation in service (Astin & Sax, 1998; Sax, Astin & Astin, 1996). These eight variables include: sex (women are more likely than men to participate), doing volunteer work in high school, tutoring another student, attending religious services, being a guest in teacher's home, commitment to participating in a community action program, endorsing "to make more money" as a reason for attending college (which is a <u>negative</u> predictor), and self-rated leadership ability. We also controlled for freshman student characteristics such as religious preference (4 dichotomous variables), parental education and income, and race (8

9

dichotomous variables), because some of the outcome measures may be affected by these characteristics (Astin, 1993). Entering student characteristics thus include 25 measures.

In addition to entering student characteristics, activities and attitudes, we controlled for a set of college environmental variables, reflecting differences in college size, type and control. This was done in order to make sure that any observed effects of community service and service learning are not confused with the environmental effect of attending a given kind of college. The nine institutional variables used in the regression are measures of institutional selectivity, size and seven dichotomous variables reflecting type/control combinations (private university, public university, public college, non-sectarian college, Catholic college, Protestant college, and Historically Black College/University).

Data Analyses

The purpose of the first part of the study was to see if participating in service as part of an academic course has any effects on each of the 11 outcome measures beyond those of "generic" community service.

A secondary purpose of the study is to replicate previously reported effects of service participation using a new sample of students and several new outcome measures. For these purposes we utilized a method of causal modeling which uses blocked, stepwise linear regression analysis to study the changes in partial regression coefficients for all variables at each step in the analysis (Astin, 1991). The advantage of this form of analysis is that it allows us to observe and understand the effects of multicollinearity – especially involving the variables representing community service and service learning – in a complex longitudinal data set.

The approach we use enables us to view each step or block in a stepwise regression as a new model, different from the previous steps or blocks because of the newly added variable in the model. We can see how the new variable or block of variables affects the relationship of the dependent variable to every other variable, both in and out of the model. All such changes in relationships can be seen because SPSS has a feature that computes the "Beta in" for each such variable. "Beta in" shows what the standardized regression coefficient for a nonentered variable would be if it were the variable entered on the next step. By tracking step-by-step changes in Betas (for variables already in the model) and in "Beta-ins" (for variables not yet in the model), we can understand how multicollinearity is affecting the entire data set. Because community service and service learning are treated as independent measures in this study, we are able to examine closely how their relationship with the dependent variable is affected by the entry of every other variable (including each other).

Because the Beta coefficients for all variables are shown at each step, this method allows us to conduct a series of path analyses, seeing how the coefficients for variables already entered into the regression equation are changed when new variables are entered. When an entering variable significantly reduces the Beta coefficient for a variable already in the model, an "indirect" path has been identified. On the other hand, when a variable's coefficient remains significant through the last step of the regression, a "direct" path has been identified. A "suppressor" effect is identified when an entering variable strengthens the effect of a variable already in the model (Astin, 1991). That is, the entering variable is said to have been "suppressing" the true effect of another variable on the dependent measure when its entry into the model causes the Beta coefficient for the other (suppressed) variable to increase or change signs (see Astin, 1991, for a fuller discussion of suppressor effects).

11

For each of the eleven stepwise regressions in this study, there are thus three blocks of variables in the regression equation: (1) entering freshman (input) variables; (2) variables for college size and type; and (3) variables representing participating in generic community service and participation in course-based service (service-learning). By placing all the entering freshman variables in the first block, we controlled for pre-test differences on each outcome measure as well as for each individual's predisposition to engage in service – the self-selection bias.

We entered our primary independent variables in a the third block: "generic" community service and course-based community service. As already noted, the "course-based" service variable is a dichotomous measure of whether the student had taken a service-learning course, and the "generic" community service reflects any kind of community service experience, including service learning.[3] Though students responded to two different questions regarding generic community service, we used only one item in the analysis. We chose the most conservative approach by deleting cases who responded inconsistently to the two items. In the analyses, we use only the item with the response choices "frequently," "occasionally," or "not at all," because preliminary analyses confirmed that this variable is the more accurate predictor of the dependent measure than is the hours per week item.

A separate analysis was conducted for each dependent measure. All subjects who were missing data on either the dependent measure, the pre-test of the dependent measure, or the primary independent variables (community service and service learning) were excluded from the analysis. The final sample sizes thus ranged from 1,374 to 20,254. Analyses with

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[3] We ran preliminary regression analyses using both community service items in the same block. Thus the variables competed directly with each other to enter the regression. In almost all cases, the frequently-occasionally-not at all variable entered first and accounted for all of the predictive power of the hours-per-week variable.

the larger samples (unless noted otherwise in the analysis) used a very stringent confidence level (p < .001) to select input variables in each regression; for several of the regressions, e.g. career choice, the confidence level was set to p < .005 or p < .01, depending on the size of the subsample for the particular analysis.

Overview of Results

This section of the chapter is divided into two parts: an overview of the results and a more detailed discussion of the findings relative to specific outcomes.

Of the 22,236 students in our study, 29.9% indicated that they had participated in course-based community service (service learning), an additional 46.5% reported participation in some other form of community service (the sum of these two define "generic" service), and 23.6% said they did not participate in any community service during college. Service learning participants were more likely to say they performed volunteer work "frequently" (28.5%) compared to those who participated in non-course-based community service (22.7%).

Confirming earlier research (Astin & Sax, 1998), we found that there were certain characteristics that pre-dispose students to participation in community service. Among the strongest predictors of participation in community service are volunteering in high school, being a woman, tutoring other students in high school, expressing a commitment to participate in community action programs, attending religious services, and not placing a high priority on making money.

In addition to confirming earlier research on the predictors of service, this study affirms some earlier findings about the effects of service participation. Thus, all eleven of the student outcomes are positively affected both by community service and by taking

service learning courses, even after "inputs" and "environments" (entering characteristics and institutional type) are controlled. In the next four paragraphs, we will briefly discuss these overall findings, and then address affective, academic and career-choice outcomes in more detail.

In some cases -- most notably with certain affective outcomes -- generic community service appears to have a stronger effect than does participating in service as part of a course. Moreover, while both of these participation measures show significant partial correlations with the affective outcomes after inputs and college-type variables are controlled with one outcome – self-efficacy – the partial regression coefficient for service learning shrinks to nonsignificance when generic service is entered into the equation. In other words, for this outcome, the effect of service learning is accounted for by the fact that students who engage in service learning are also participating in generic volunteer service.

In such comparisons between the effects of community service and service learning, it is important to keep in mind a couple of considerations. First, service learning is an emerging form of pedagogy for faculty. Some faculty may not conduct service learning well, and some students may resent the requirement of service, and therefore benefit less from the experience. We have not attempted to assess the quality of the service experience in these analyses. Given the range of such experiences that students might have, the possible effect of participating in a service learning course may not be as strong as it might be if only "excellent" service learning courses were analyzed.

Second, elements that make course-based service a (potentially) powerful pedagogy can also be found in some "generic" community service. A detailed examination of this possibility will be presented in Chapter 3. For instance, co-curricular leadership

development programs that require service might also have a strong reflection component (such as structured discussions with a student affairs professional). In such cases, one might expect the outcomes of such an experience to resemble outcomes that would be expected in service-learning courses, especially for the affective outcomes.

Despite these considerations, there are a few outcomes for which service learning is a stronger predictor than is community service. **For all academic outcomes as well as for some affective ones, participating in service as part of a course has a positive effect over and above the effect of generic community service.** Service-learning participation is a clearly superior predictor of choosing a service-related career, exhibiting a stronger effect than generic community service in almost all career-choice analyses. We now discuss each group of outcomes in more detail.

Values and Beliefs

We have intentionally chosen affective measures that reflect either social concern, social responsibility, or interest in civic engagement. In this way, our research directly addresses the extent to which community service and service learning are tools that higher education can use to strengthen democracy and foster a sense of civic responsibility and community participation in students. Though there is much debate about what a college education should encompass, there is a good deal of agreement that issues of cultural diversity and pluralism and community involvement must be addressed if American democracy is to thrive in the future (e.g. Barber, 1992; Bellah, 1985).

Two of the three measures of values -- "commitment to promoting racial understanding" and "commitment to activism" -- are significantly affected by participation in course-based service over and above the effect of generic community service. A third

15

outcome -- the belief that an individual can effect change in our society -- is impacted by service, but service learning shows a significant effect only until generic service is controlled. In other words, service learning does strengthen a student's sense of social self-efficacy, but only because it provides an opportunity to do community service. In this connection, it is important to realize that service learning would have shown a significant direct effect on this belief if generic community service had not been included in the analysis.[4] Table 1 shows the Beta values at the end of each regression block for the outcome measures.

Table 1. Affective Outcomes
Community Service (c/s) and Service Learning (s/l) Beta Values

| Outcome | Simple r | | | Beta after Controlling for | | | | | |
| | | | | Inputs | | Institutional Environment | | Service (Final step) | |
	c/s	s/l		c/s	s/l	c/s	s/l	c/s	s/l
Commitment to Activism N=19,789	28	11		19	07	19	07	18	03
Promoting Racial Understanding N=19,439	19	10		12	06	12	06	11	04
Self-efficacy N=19,268	15	07		09	03	09	03	09	01*

Note: unless indicated, all coefficients are significant at the $p < .001$ level of confidence.
*$p < .05$

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[4] Here we have a clear demonstration of the "multicollinearity problem:" our conclusion about whether a particular variable (i.e., course-based service learning) "affects" any given outcome may depend on what other variables (i.e., generic service) are included in the analysis of that outcome.

That service learning has an independent effect both on a student's commitment to promoting racial understanding and activism is noteworthy. This suggests that service learning provides a concrete means by which institutions of higher education can educate students to become concerned and involved citizens. (Recall that our measure of activism includes such things as helping others who are in difficulty, influencing the political structure, influencing social values and participating in community action programs.) In short, while participating in community service positively affects these values, participating in course-based service can strengthen them even more.

Academic Outcomes

One of the most interesting findings of our study is the positive effect that participating in service has on all the academic outcomes: growth in critical thinking and in writing skills and college GPA (grade-point average). Table 2 shows the Beta values for community service and service learning at the end of each of the three blocks of these regression analyses.

For all three academic outcomes, both community service and service learning have a significant effect after controlling for "inputs" (including entering characteristics such as high school GPA) and institutional type. In other words, both kinds of service are associated with greater self-reported gains both in critical thinking and in writing skills, and higher college GPAs.

Table 2. Academic Outcomes

Community Service (c/s) and Service Learning (s/l) Beta Values

			Beta after Controlling for					
	Simple r		Inputs		Institutional Environment		Service (Final step)	
	c/s	s/l	c/s	s/l	c/s	s/l	c/s	s/l
Outcome								
Critical Thinking Skills N=20,129	09	07	07	06	06	04	06	03
Writing Skills N=19,974	06	07	04	06	03	04	02*	04
College GPA N=19,972	08	10	04	07	03	04	02	03

Note: Unless indicated, all coefficients are significant at the p < .001 level of confidence.
*p < .01

Of particular significance is the finding that service learning has an effect on all these cognitive outcomes that is independent of the effect of community service. This is different from what we found with the affective outcomes just discussed, where the impact of service learning is largely due to the fact that it provides an opportunity to engage in community service. In fact, for both writing skills and college GPA, the effect of service learning is stronger than that of generic community service. Since these outcomes are academic in nature, one might expect that course-based service would provide benefits beyond those of generic community service. Though the differences are modest, it is important to keep in mind that we have not limited our analysis to what might be considered "ideal" service learning courses (where academic learning and the service are both meaningful and connected in clear ways).

This is powerful evidence to suggest that <u>connecting service with academic course material does indeed enhance the development of cognitive skills</u>. In other words, even if the only goal of coursework is to strengthen students' cognitive development, this study suggests that service learning has a place in the curriculum, and should not be relegated solely to the extracurricular.

<u>Leadership Outcomes</u>

The leadership measures we examined -- growth in leadership *ability*, involvement in leadership *activities* (being elected to student government office, participating in student office or participating in leadership training) and self-perceived growth in interpersonal skills -- do not appear to benefit more from a service learning experience than from involvement in generic community service. Service learning does not retain its significance once generic service enters the regression, primarily because the effect of generic service is so strong. (The final coefficients for service learning reach the .01 level of confidence for leadership ability and leadership activities, but not the .001 level.) See Table 3 for the Beta values of the leadership measures at key points in the regression analysis.

19

Table 3. Leadership Measures
Community Service (c/s) and Service Learning (s/l) Beta Values

Outcome	Simple r		Beta after Controlling for					
			Inputs		Institutional Environment		Service (Final step)	
	c/s	s/l	c/s	s/l	c/s	s/l	c/s	s/l
Leadership Ability N=20,254	21	09	18	07	17	05	17	02[a]
Leadership Activities N=20,046	25	10	18	06	17	05	17	02[b]
Interpersonal Skills N=20,124	14	07	11	05	10	03	10	01[c]

Note: unless otherwise indicated, all coefficients are statistically significant at the $p < .001$ level of confidence.
[a] $.01 < p < .05$
[b] $.001 < p < .01$
[c] $p > .05$

One possible explanation of these results is that academic courses incorporating service learning focus more on cognitive skill development (critical thinking, writing, etc.) than on the development of leadership and interpersonal skills. Another possible explanation is that co-curricular leadership development programs (in contrast to service-learning courses) may in many cases be designed and operated by the students themselves, thereby affording them an opportunity to develop leadership skills not present in most service-learning courses. Or, co-curricular service programs designed to enhance leadership development may be designed more like service-learning courses, thereby producing the

same effects in students. Chapter 3 provides a detailed examination of such possible

explanations.

Career Outcomes and Plans for Future Service

Choosing a service-related career is more strongly affected by participating in

community service and by service learning than most other student outcomes. For the

preliminary descriptive analyses, freshman career choices were grouped into two kinds of

service-related careers:

- medical careers (clinical psychologist, dentist, nurse, optometrist, physician and

    therapist),

- non-medical service careers (elementary, secondary or college teacher, clergy,

    forester/ conservationist, foreign service, law enforcement, school counselor, and

    principal).

Table 4 shows that students who participate in community service – regardless of

freshman year career choice – are more likely than their nonparticipant classmates to say they

plan to pursue a service-related career on the post-test. Moreover, those students who

complete their service as part of a course exhibit the most dramatic shifts in career choice.

For example, among those 3,942 students who indicated on the Freshman Survey that they

were interested in pursuing a medical career, 71.3% of those who participated in service

learning confirmed their commitment to a service related career on the follow-up survey; of

those who were engaged in generic community service, 64.4% maintained their initial

commitment, while among other students only 54.7% maintained their freshman commitment

to a service-related career. The differences among the 2,635 freshman "undecided" students

are particularly remarkable: 41.3% of those who engaged in service learning during college

21

planned to pursue a service-related career on the follow-up, compared to only 18.5 of

undecided students who didn't participate in service.

Table 4. Effects of Service Participation on Choosing a Service Career

| Freshman Career Choice | Percent Choosing Service Career Four Years Later Among: | | |
	Service Learning Participants	Volunteers	Other Students
Medical n=3942	71.3 (n=987)	64.4 (n=1226)	54.7 (n=357)
Non-Medical Service N=3177	78.7 (n=1022)	68.2 (n=901)	60.6 (n=337)
Non-service N=7604	19.1 (n=380)	13.1 (n=488)	10.3 (n=223)
"other" N=1374	43.5 (n=176)	28.6 (n=178)	24.4 (n=85)
undecided N=2635	41.3 (n=318)	27.8 (n=345)	18.5 (n=116)
All Freshmen N=18,732	29.8 N=5,585	47.0 N=8,806	23.2 N=4,341

Note: N's in parentheses do not sum to row or column totals because of missing data.

The regression results for "plans to participate in community service" mirror those for

the values and beliefs we examined, in that generic community service is the stronger

predictor. However, in this case, service learning maintains a unique (though slight) direct

affect on the outcome measure. Not surprisingly, participation in (any kind of) service

during college is a powerful predictor of plans to do so in the future.

Career choice regression analyses are limited to the sub-group of students for whom

we had post-test career choice information. Since the dependent measure is necessarily

dichotomous (chose a service career or a non-service career), we made a decision to eliminate the cases who marked "other" or "undecided" on the follow-up survey.

Because these different career-choice groups looked so different in our preliminary descriptive analyses, we chose to run four separate regressions, one each for:

1. the entering group that planned to pursue service-related careers (medical and non-medical were combined),
2. the group planning non-service-related careers as freshmen,
3. the group who chose "other" on the freshman survey and
4. those who marked "undecided" on the freshman survey.

Table 5 shows the regression results for these four career-choice groups.

Service learning appears to impact these career outcomes in two different ways. First, it affects the students' career choices indirectly by providing an opportunity to participate in generic community service. This indirect effect is evidenced by the decrease in the Beta value for service learning that occurs when community service enters the regression. For example, in the regression for undecided students, the coefficient for service learning after controlling for inputs and institutional characteristics is .17, but drops to .13 when community service enters the regression. So service learning has a unique ("direct") effect on initially undecided students, but also a weaker ("indirect") effect that is shared with community service. This same shared effect is evidenced in the case of generic community service, where the Betas show a decrease from .19 to .16 when service learning enters the equation. However, the fact that the Betas for service learning in all four groups retain most of their size even after community service is controlled suggests that service learning's primary effect on career choice is a direct one.

Table 5. Future Plans for Service and Career
Community Service (c/s) and Service Learning (s/l) Beta Values

	Simple r		Beta After Controlling for					
			Inputs		Institutional Environment		Service (Final step)	
	c/s	s/l	c/s	s/l	c/s	s/l	c/s	s/l
Outcome								
Community Service plans next yr. N=20,254 p < .001	31	09	28	06	26	07	26	02
service career SIF* service N=5,671 p < .005	12	13	12	09	12	09	11	07
service career SIF* non-service N=6,068 p < .005	12	14	10	12	10	11	08	09
service career SIF* "other" N=814 p < .01	19	18	13	15	13	15	10	12
service career SIF* "undecided" N=1,662 p < .01	23	20	19	17	19	17	16	13

* SIF = freshman survey

Given that one's career choice often represents a lifelong commitment that consumes

a large part of one's waking hours, there is perhaps no stronger expression of commitment to

service than to choose a career that is service-based. Thus, the positive effects of service

learning on the student's career choice may well represent the most significant finding to emerge from this inquiry.

<u>Standardized Test Scores</u>

We chose to examine the dependent measures of standardized test scores in part to address the faculty concern that participating in service learning may adversely affect student learning by taking time away from traditional "academic" work. The 1998 College Student Survey asked students to report their scores on three graduate and professional school admissions tests: the Graduate Record Examination (GRE), the Law School Aptitude Test (LSAT), and the Medical College Admission test (MCAT). Students who reported scores on any of these tests were selected for special sub-analyses of each test score. Since the Scholastic Aptitude Test (SAT) is a reasonably good "pre-test" on these graduate admissions tests (see Astin, 1993), we selected only those students who also had SAT scores as entering freshman four years earlier. Moreover, the self-reported scores on graduate admissions tests were inspected and all out-of-bounds scores were excluded. These selection procedures resulted in 1,028 students with GRE scores, (both verbal and quantitative), 431 students with LSAT scores, and 358 students with MCAT scores.

Each of these sub-samples was subjected to a separate regression analysis in which the graduate admissions test score served as the dependant variable. Since there were two scores on the GRE, this resulted in a total of four separate regression analyses. These regressions were set up in much the same way as the other regressions already discussed, with four blocks of independent variables: entering freshman (input) characteristics (N = 12), characteristics of the college attended (N = 7), two variables representing the frequency of generic volunteer service and participation in service learning, respectively, and a final block

including 11 student "involvement" variables. Again, the purpose of using the involvement variables was to identify variables that might mediate the effects of volunteer service or service learning on graduate admissions test scores. (See the next chapter for a fuller discussion of the use of these involvement variables.)

The results of these four analyses are summarized in Table 6. The mean scores on all four tests are somewhat higher than the norms reported by the test makers, a result which reflects at least two factors: (1) the disproportionate concentration of students from this sample who attended highly selective undergraduate institutions; and (2) the fact that these students are "fast-trackers," in the sense that they were able to complete their undergraduate work and apply to admission to graduate or professional school within four years after entering college as freshmen. Not surprisingly, the GRE is more predictable from entering characteristics ($R = .79$ for both scales) than either the MCAT or the LSAT, a finding which can be attributed to the fact that the SAT is probably an alternate form of the GRE (see Astin, 1993). While neither volunteer service nor service learning showed any significant simple correlation with either LSAT or MCAT scores, both of these variables produced highly significant ($p < .01$) *negative* correlations with the GRE verbal and GRE quantitative test scores (see Table 6). In essence, this means that students with high GRE scores are relatively unlikely either to have performed volunteer service or to have taken service learning courses during their undergraduate years.

Table 6

Summary of Regression Results with Standardized Tests

Test	N	X	S.D.	Final R	Simple r for		Beta[a] After Controlling for Inputs and Environments	
					c/s	s/l	c/s	s/l
GRE V	1,028	552	96.0	.79	-.11*	-.12*	-.02	-.01
GRE Q	1,028	626	106.0	.79	-.09*	-.12*	.01	.02
LSAT	431	155	8.3	.69	.03	.04	.06[b]	.06[c]
MCAT	358	27.4	4.9	.51	-.04	.00	-.02	.01

* $p < .01$
[a] all coefficients are nonsignificant ($p > . 01$)
[b] $p = .15$
[c] $p = .14$

Do these negative correlations mean that students' performance on the GRE is compromised when they participate in community service or take service learning courses during the undergraduate years? Results shown in the last two columns of Table 6 suggest that the answer to this question is a firm "no." Neither of the service variables showed significant partial correlations with GRE performance once student input and college environmental characteristics had been controlled. In fact, an inspection of these two regression analyses shows that the correlation between service participation and service learning become nonsignificant as soon as the SAT "pretest" scores are controlled. In other words, the reason why students who volunteer or take service learning courses during college get lower scores on the GRE is that they also have lower scores on the SAT. Why the high-scoring students should be less likely to volunteer or to take service learning courses is not clear; perhaps it has something to do with their strong commitment to high academic performance, which might lead them to assume that they might compromise their college GPA if they spend time volunteering or taking service learning courses. (Our results indicate that such a fear is unfounded.) Obviously, this is a potentially important topic for future research.

The analyses also failed to reveal any significant effects of volunteering or taking service learning courses on either the LSAT or the MCAT. It may be worth pointing out, however, that both of these dummy variables did show a borderline but nonsignificant positive relationship with LSAT scores (partial Beta = .06, p = .14) after entering student characteristics and college characteristics had been controlled. We point out these borderline relationships primarily because of the one involvement variable which did enter the LSAT regression with a significant weight at the last step (p = .01): discussing the service

experience with a professor! In other words, while neither measure of service participation

showed a significant effect on LSAT scores, discussing the service experience with a

professor <u>does</u> appear to enhance the student's performance on the LSAT.

Indeed, when this latter variable is entered into the regression equation, the partial

betas of .06 (see Table 6) are both reduced to .02. What this suggests is that participation in

service <u>can</u> have a positive effect on the student's LSAT score, but <u>only</u> if the student is able

to discuss the experience with a professor.

While these findings concerning the effects of service learning on standardized test

scores are generally non-significant, it is worth noting that they are also <u>not</u> negative. In

other words, spending time in volunteer work or in service work as part of a course does not

appear to detract from the student's ability to perform well on any of these graduate and

professional school admissions tests.

Chapter 3

What Mediates the Effects of Community Service and Service Learning?

The previous chapter dealt with whether participation in either community service or service learning activities influences a student's beliefs, academic skills, and career choice. In this chapter we take the analysis one step further by exploring just <u>how</u> service affects these outcomes. What is it about the service experience that accounts for differences between participants and non-participants on our dependent measures? Does reflection really make a difference? If so, which forms of reflection are most powerful for different outcome measures? What other mediating activities take place in a service experience that account for the differences in outcomes? In this section we focus on some of the mechanisms whereby service affects student outcomes.

Data Analysis

The method used for this part of the study is basically an extension of the analysis described in Chapter 2. Our intent in these extended analyses was to determine how, for each of the regression analyses described in Chapter 2, the Beta coefficients for community service and service learning are changed when <u>subsequent</u> variables enter the equation. Since these "intermediate outcomes" (Astin, 1993) were allowed to enter the regression only <u>after</u> the effects of service learning and community service were controlled, they can be said to "explain" or "mediate" the effects of service if their entry diminishes the Beta coefficient for either service learning or community service. Thus, we are examining the extent to which the relationship of service with the outcome measure might be "indirect," i.e., accounted for by specific activities associated with service.

Specifically, we examined how the inclusion of any of eleven potential mediating factors affected the relative strength of the service coefficient in predicting student outcomes. The mediating factors (detailed below) consisted of measures – such as reflection, faculty interaction, and student interaction – that might be expected to explain the effects of a student's service experience. Of course, we also included measures that might have an effect on the outcome directly (not only through service), in order to account for as much variance in the dependent measures as possible. Thus, we included such measures as how often a student took interdisciplinary courses, the frequency of cross-racial interactions, and how many hours per week the student spent studying, because past research has shown these to enhance some of the dependent measures in this study (Astin 1993).

The mediating variables include three measures indicating the type of reflection that students may have engaged in as part of their service experience – keeping a journal, discussing the service experience with other students, and discussing the service experience with their professor. For each activity, students were instructed to indicate its frequency (frequently, occasionally, or not at all) in connection with their service.

Four measures of faculty support were also included: two composite measures reflecting general faculty support ("emotional support" and "research support") and two individual items measuring the frequency with which professors a) provided assistance with study skills, and b) gave negative feedback about the student's academic performance.

One composite measure is "Emotional Support" from faculty. This is a factorially-derived measure (alpha = .843) that reflects how much support professors provided the student to further both academic and personal development. It consists of seven items on the CSS, reflecting how often (frequently, occasionally, not at all) professors provided: a) advice

about my educational program, b) respect (treated me like a colleague/peer), c) emotional support and encouragement, d) honest feedback about my skills and abilities, e) intellectual challenge and stimulation, and f) an opportunity to discuss coursework outside of class, and how often professors "took a personal interest in my progress."

"Research Support" from faculty, another factorially derived measure (alpha = .673), assesses support from professors in preparing the student for further academic work. It is the sum of the following four items (professors provided): a) encouragement to pursue graduate/ professional school; b) an opportunity to work on a research project, c) an opportunity to publish, and d) a letter of recommendation.

Two other composite variables include cross-racial interaction and student academic interaction, both of which were created in an "a priori" manner. Cross-racial interaction reflects the frequency (frequently, occasionally, or not at all) with which students a) studied with b) dined with c) dated d) had class interactions with, and e) socialized with someone of a different racial / ethnic group. The items for cross-racial interaction have a high reliability coefficient (alpha = .800). Student academic interaction is a measure of how often students a) discussed course content with students outside of class, b) worked on group projects in class, and c) studied with other students. The reliability coefficient for academic interaction is substantially lower (alpha = .490).

To analyze just how the effects of service might be mediated by these variables, we added them to the regression in a new final block. In this way, by using the regression techniques explained in Chapter 2, we can follow changes in the standardized regression coefficients – the Betas – for community service and service learning as each mediating variable enters. We will comment only on changes in the Beta value of .02 or greater.

For the analysis of GPA, we also control for three college majors which have been shown in previous research (Astin, 1993) to affect GPA: arts & humanities, education and engineering.

Overall Results

In general, two of the mediating variables – discussing the service experience with other students (a measure of reflection) and "emotional" faculty support -- appear to account for more of the effects of service on the dependent measures than do other mediating activities. In other words, at least some of the effects of community service and service learning on the outcomes appear to be indirect, in the sense that they are diminished when we control for the extent to which students either engage in discussions with other students, or experience personal support from professors. Thus, service learning and community service enhance student development in part because they increase the odds that students will interact with each other and experience personal support from professors. What is particularly interesting is that it is <u>discussion with other students</u> that most strongly mediates the effect of service on these outcomes. In other words, the opportunity to "process" the service experience with other students appears to be a powerful component of both community service and service learning. Tables 7 and 8 summarize the mediating variables that affect community service and service learning, respectively.

Table 7. Mediating Variables for the Effects of Community Service

Variable	Mediates Positive Effects of Community Service on
Discussing Service Experience with Other Students	Service Plans Next Year Self Efficacy Commitment to Social Activism Leadership Activities Interpersonal Skills Leadership Ability
"Emotional" Faculty Support	Commitment to Promoting Racial Understanding Critical Thinking Skills Interpersonal Skills Leadership Ability
Discussing Service Experience with a Professor	Choosing a Service Career[1] LSAT Scores
Keeping a Journal	Choosing a Service Career[2]
Service Learning	Service Plans Next year Choosing a Service Career[3]

[1] significant only for students who chose a non service-related career as freshmen.

[2] significant only for students who marked "undecided" as freshmen.

[3] significant for all students except those who initially chose a service career as freshmen.

Table 8. Mediating Variables for the Effects of Service Learning

Variable	Mediates Positive Effects of Service Learning on
Discussing Service Experience with Other Students	Service Plans Next Year Commitment to Social Activism Commitment to Promoting Racial Understanding
"Emotional" Faculty Support	Critical Thinking Skills Writing Skills
Discussing Service Experience with a Professor	Choosing a Service Career[1] LSAT Scores
Keeping a Journal	Choosing a Service Career[2]
"Generic" Community Service	Commitment to Activism Commitment to Promoting Racial Understanding Self-Efficacy Interpersonal Skills Leadership Ability Leadership Activities Choosing a Service Career[3]

[1] significant only for students who chose a non service-related career as freshmen.
[2] significant only for students who marked "undecided" as freshmen.
[3] significant for all students except those who marked "other" as freshmen.

We will now address the specific mediating effects of these variables on values and beliefs, academic outcomes, plans to engage in further service, and career choice.

Values and Beliefs

The effects of service on all of the values and beliefs we measured – commitment to activism, commitment to racial understanding, and the belief that one can make a difference in our society – are mediated in part by discussing the service experience with other students. In other words, the positive effect of service on each of these outcomes can be at least

partially accounted for by the fact that service leads students to engage in reflection with each other. This finding is also supported by our qualitative findings, to be presented in Chapter 5.

For the commitment to activism measure, the Beta values for community service and service learning are .17 and .03, respectively, before "discussion with other students" enters. When "discussion" enters, the community service Beta is reduced to .12 and the service learning Beta is reduced to nonsignificance. No other mediating variable accounts for more than a .01 change in the Beta values of either service learning or community service. In other words, while the positive effect of community service on the student's commitment to activism is only partially explained by students' discussion, the effect of service learning is entirely explained by this mediating variable. Thus, while the effect of community service on this outcome is both direct and indirect, the effect of service learning is entirely indirect.

Similar reductions in Betas occur for the outcome of self efficacy– from .08 to .05 for generic service participation. (Recall that the effect of service learning on self efficacy can be accounted for entirely by the effect of generic service.)

For the third value outcome – commitment to racial understanding – the effect of service learning is entirely mediated by discussing the service experience with other students, with the Beta dropping from .04 to non-significance. However, in the case of generic service, it is the emotional support provided by faculty that appears to mediate part of its effect on the student's commitment to promoting racial understanding. As is the case with commitment to activism, no other mediating variable accounts for more than a .01 change in the Betas in the analysis involving either the self-efficacy measure or the commitment to racial understanding measure.

These results suggest that students learn from each other – no surprise to many educators. Though the changes in the standardized regression coefficients (the Betas) are not of great magnitude, they are significant and consistent across measures. And it is of equal importance to note that interaction with other students in general does <u>not</u> appear to explain the impact of service on the outcomes. Rather, it is the <u>specific discussions about the service experience</u> that appears to mediate the effect of service on values and beliefs. This suggests, as our qualitative findings emphasize (see Chapter 5), that it is important that these discussions be purposefully facilitated.

In short, these findings suggest that students who participate in community service (whether that be done individually or through a collegiate group or a non-collegiate organization) benefit in part because they are reflecting jointly on their experience. However, in the case of service learning, joint reflection by students on the service experience entirely explains the positive effects on these value outcomes. This difference in the degree of mediation may well be explained in part by the fact that students who participate in service learning are much more likely than others to say they frequently engage in all three types of reflection activities. Table 9 compares the responses of community service and service-learning students on the reflection measures. Clearly, one of the added benefits of service learning -- in contrast to mere volunteerism -- is that students are much more likely to discuss the service experience with each other, which in turns strengthens the effect of service on values and beliefs.

Table 9. Frequency of Engaging in Reflection Activities
for Service Learning and Community Service Students

Activity	Percent Engaging in Activity "Frequently"	
	Community Service Students	Service Learning Students
Discussing Service Other Students	18.6	32.8
Keeping a Journal	4.9	19.5
Discussing Service Experience with a Professor	4.8	20.4

Academic Outcomes

For all three academic outcomes – critical thinking ability, writing ability and college GPA – measures of faculty support are the only mediating influences. For both writing skills and critical thinking skills, "emotional" support from faculty is the only mediating variable that causes a drop of more than .01 in the Beta values: for critical thinking the generic service Beta drops from .06 to .04, and the service learning Beta drops from .03 to nonsignificance when emotional support from faculty enters. For GPA, "research" support from faculty is the most powerful mediating influence on service, causing a drop in Beta from .03 to nonsignificance for generic service. By contrast, the effect of service learning on GPA is entirely direct, with no notable mediating influences. It is important to remember that for this analysis, we control for those majors – arts & humanities, education, and engineering –

that previous research has shown to affect GPA. Thus, the possibility that students majoring in arts & humanities or education may be more likely to enroll in service-learning courses would not account for the direct effect of service learning on GPA.

Does this finding imply that service learning raises the student's GPA because service-learning courses tend to be "easy" courses, that is, graded on a more lenient basis than other courses? While it may seem far-fetched to argue that a course or two will significantly improve a student's overall GPA, could it be that students who take service learning courses tend to enroll in other courses that are "easy" as well? An alternative explanation, of course, is that participation in service learning helps to get students more engaged in the overall academic experience, thereby enhancing their overall academic performance. Clearly, these alternative interpretations need to be tested in future research.

<u>Leadership Outcomes</u>

Although service learning's "effect" on the leadership outcomes can be accounted for by the fact that it provides students an opportunity to engage in community service, similar patterns to those found for the values and academic outcomes emerge for these outcomes as well.

For all three leadership measures, the strongest mediating variable is, once again, discussing the service experience with other students. When "discussion" enters the equation, the Betas for community service drop for leadership activities (from .17 to .13), leadership ability (from .14 to .10) and interpersonal skills (from .07 to .05). In addition, "emotional" support from faculty accounts for some of the effects of community service on

leadership ability (with a drop in Beta from .17 to .15) and on interpersonal skills (with a drop in Beta from .10 to .08[5]).

These findings are consistent with earlier research on the development of students' leadership skills (Astin, 1993), which shows that student-student interaction has a stronger positive effect on the development of leadership skills than any other aspect of the college experience. The findings also indirectly confirm earlier findings that the development of leadership skills is impeded by a strong faculty "research orientation" (Astin, 1993), in the sense that faculty who are strongly committed to their research would not be expected to provide their undergraduate students with as much "emotional support" as would faculty who are more committed to their teaching.

Career Outcomes and Plans for Future Service

The effects of the two service variables on students' plans to engage in service the following year – either by doing volunteer work or by participating in a community service organization in the fall of 1998 – follow the now-familiar pattern: both are mediated by discussing the service experience with other students. When this form of reflection enters the regression equation, the Beta for community service falls from .26 to .21, and the service learning Beta from .02 to non-significance.

Like the values and beliefs already discussed, plans for future service are positively affected by participating in service during college. Encouraging service in college can thus be seen as having benefits for society if graduates are more likely to continue their participation in service activities.

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[5] This drop in Beta appears identical to the drop when "discussing the experience with other students" enters the equation; It is slightly less, but appears the same due to rounding.

The effects of service on career choice are unique, in that they don't follow the pattern set by the other outcome measures. For all students, regardless of their initial career choice, community service has a direct (positive) effect on choosing a service career in the follow-up survey. Service learning has the same direct effect for all students *except* those who chose non-service-related careers upon college entry. For this group there is also an indirect effect, mediated by discussing the service experience with a professor. In this case the Beta for community service drops from .08 to .05 and that of service learning drops from .10 to .05.

For those students who were "undecided" as freshmen, there is an indirect effect in addition to the direct effect: when keeping a journal enters the regression, there is a decrease in the Beta value for both community service (from .16 to .14) and service learning (from .13 to .09). For these students, then, participating in service – whether or not it is course-based – increases the likelihood that they will choose a service-related career on the follow-up survey, in part because participating in service affords them the opportunity to reflect by keeping a journal.

Summary

Service learning and community service both have significant positive effects on the outcomes we measured. Thus, students who participate in some form of service show greater change during their college years than do their non-participating peers on all outcomes except standardized test scores. Some of these effects are attributable solely to generic service participation, whereas others are attributable uniquely to the service-learning experience. Finally, both generic community service and service learning increase the likelihood that students will be reflecting on their experience and receiving increased support

from faculty on a range of personal and academic matters. In turn, reflection – which

appears to be most powerful when done with other students – and interaction with faculty

facilitate positive change in the affective and behavioral measures we examined. Table 10

summarizes the direct and indirect effects of community service and service learning.

Table 10. Summary of Student Outcomes
Affected by Community Service and Service Learning

| | Significant Effects of | | | |
| | Community Service | | Service Learning | |
Student Outcome	Direct	Indirect	Direct	Indirect
Commitment to Social Activism	YES	YES	NO	YES
Commitment to Promoting Racial Understanding	YES	YES	NO	YES
Self-efficacy	YES	YES	NO	YES
Leadership Activities	YES	YES	NO	YES
Leadership Ability	YES	YES	NO	YES
Interpersonal Skills	YES	YES	NO	YES
College GPA	NO	YES	YES	NO
Critical Thinking Ability	NO	YES	NO	YES
Writing Skills	NO	NO	NO	YES
Service Plans Next Year	YES	YES	NO	YES

Table 10 (continued). Summary of Student Outcomes
Affected by Community Service and Service Learning

Freshman Career Choice	Significant Effects of Service on Choosing a Service Career (follow-up survey)			
	Community Service		Service Learning	
	Direct	Indirect	Direct	Indirect
Service-related Career	YES	NO	YES	NO
Non service-related Career	YES	YES	NO	YES
Marked "Other" Career	YES	NO	YES	NO
"Undecided"	YES	YES	YES	YES

Chapter 4

Substudy of Service-Learning Courses

In addition to the quantitative analyses of more than 22,000 1998 CSS participants, we conducted a substudy of students identified by their institution as having participated in a service-learning course during the last year. The purpose of the substudy is to better understand what happens in a service learning course that enhances student development outcomes.

The data for the substudy were gathered from nineteen institutions identified by us as having service learning programs. The institutions represent a variety of institutional sizes and types, but we do not claim the sample to be representative of all institutions, nor have we weighted the data to represent all institutions of higher education. Nonetheless, the sample of institutions is diverse, allowing us to make inferences about the impact of service learning across different types of institutions. See Appendix for a list of participating institutions and for a copy of the supplemental questionnaire.

All students who were identified as service learning participants by their institutions were asked to complete a supplementary questionnaire containing 20 items specifically relating to the nature of the service-learning course experience. A total of 433 students who completed the 1998 follow-up questionnaire also returned these supplementary questionnaires.

Why Do Students Take Service Learning Courses?

The supplementary questionnaire included six possible reasons why students might take a service learning course, with a request that they indicate for each one whether it was a major reason, minor reason, or not a reason (see Table 11). By far the most popular reason

— cited by more than 85 percent of the students (including nearly two-thirds who said it was a "major" reason) — was <u>interest in the subject matter of the course</u>. Next-most-popular were "wanted to participate in service" (given by two-thirds of the students) and "it was required as part of a major/minor" (cited by slightly more than half of the students). Somewhat surprisingly, more than half of the students (55 percent) admitted that they took the course in part "to enhance my resumé/application" (about equally divided between "major" and "minor" reasons). The two reasons given least often for taking the course were "the professor" and "it was offered at a convenient time," with about half of the students saying that each was "not a reason."

Table 11. Why Students Take Service Learning Courses
(N=433)

Possible Reason	Percent Responding		
	Major Reason	Minor Reason	Not a Reason
Interested in subject matter	64	22	13
Wanted to participate in service	40	28	32
Required as part of major / minor	41	14	45
To enhance my resumé / application	40	28	45
The professor	21	24	55
Offered at a convenient time	17	33	50

What Happens in Service Learning Courses?

Seven items on the supplementary questionnaire were intended to describe how the service learning course was conducted (see Table 12). Three-fourths of the students reported that service was a course requirement, with the remaining one-fourth reporting that it was a course option. Although the median amount of time spent by students in providing service was 2.7 hours per week, two students in three (69 percent) received less than one hour of formal training prior to their service, and nearly half (46.8 percent) received no training at all. The median hours per week that students reported spending on reflection was 1.7. (It is not known what portion of that reflection time took place during scheduled class hours.)

Half of the students (49.8 percent) reported that their professor lectured "frequently, " with fewer than one in seven (13.7 percent) reporting that the professor never lectured in class. By contrast, nearly two-thirds (64.3 percent) of the students reported that their professors "frequently" encouraged class discussions. Finally, while close to half of the students (46.5 percent) reported that their professor "frequently" connected the service experience to the course subject matter, only 13.5 percent reported that their professors never made such connections.

Table 12. How Service Learning Courses Are Conducted
(N=433)

Service was a course requirement	75.8 %
Median hours per week spent on service	2.7
Median hours per week spent on reflection	1.7

Amount of formal training prior to service:

none	46.8%
less than 1 hour	22.5%
1 - 3 hours	13.6%
3 – 5 hours[b]	5.2%
more than 5 hours	11.8%

Professor[a] :		
	lectured frequently	49.8%
	lectured not at all	13.7%
	encouraged class discussion frequently	64.3%
	encouraged class discussion not at all	11.2%
	connected service to subject matter frequently	46.5%
	connected service to subject matter not at all	13.5%

[a] Percent of "occasionally" responses are not shown, but can be estimated by subtracting the sum of the "frequently" and "not at all" responses from 100.
[b] The categories "1-3 hours" and "3-5 hours" are ambiguous because the questionnaire inadvertently included "3" in both categories.

How Do Students Rate Their Service-Learning Courses?

The supplementary questionnaire included six items which asked the students to report their reactions to the service learning course. Since one of our main interests in this study had to do with the synergistic relationship between the "academic" and "service" aspects of the course, two questions focused on this relationship. Four students in five (79.9 percent) reported that the quality of service they provided was enhanced by the academic

course material, with even more (82.8 percent) reporting that the service experience enhanced their understanding of the academic course material. Indeed, more than half of these students (42.7 percent of all students) indicated that the service experience was "very" useful in increasing their understanding of the academic course material. In short, these results show clearly that both the service and academic components of service learning courses are mutually reinforcing.

Better than four students in five felt that their service "made a difference" (81.3 percent) and that they were learning from the service experience (83.1 percent). By contrast, fewer than one student in six reported being "bored" a good part of the time and about one in four (24.5) reported being "frustrated" a good part of the time.

In short, these findings suggest that service-learning courses are meeting their learning and personal development objectives for most of the students most of the time. Nevertheless, it needs to be kept in mind that between one-fourth and one-sixth of the students feel either bored or frustrated by their service learning courses or that the service has not provided a beneficial learning experience or enhanced their understanding of course material.

<div align="center">

What Factors Are Associated with Course Outcomes?

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In order to identify characteristics of service-learning courses that are associated with positive course outcomes, six regression analyses were conducted, one for each of the six outcomes shown in Table 13. For each regression, thirteen independent variables were entered in a stepwise fashion according to the following procedure. The first block of six variables included the reasons that students reported for taking the service-learning course (see Table 11). The second block included the seven items assessing how the service-

learning course was conducted (see Table 12). In the four analyses which used the "how often did you feel" items as dependent variables (see Table 13), a third block was included containing the two "usefulness" items (see also Table 13).

The rationale for this particular ordering of variables was as follows: (1) students' reasons for taking a service learning course would presumably antedate the other independent variables; (2) the effect of service on academic learning and the effect of academic material on service would presumably antedate the "feeling" reactions of the student to the course. Nevertheless, one should keep in mind that since this is basically a cross-sectional analysis, the implied "causal" connections between the independent and dependent variables should be viewed with considerable caution.

The statistical results for the six dependent variables can be summarized as follows:

(1)   "service" is enhanced by "academic" course material (R = .47, five variables entering);

(2)   "academic" learning is enhanced by the service experience (R = .57, five variables entering);

(3)   service makes a difference (R = .41, four variables entering);

(4)   service is a learning experience (R = .60, five variables entering);

(5)   "bored" (R = .44, four variables entering);

(6)   "frustrated" (R = . 23, two variables entering).

Table 13. Student Ratings of Service Learning Courses
(N=433)

	%

"How useful was the "academic" course material – readings,
lectures, etc. – to the service you performed?"

very useful	26.5
somewhat useful	53.4
not useful	20.1

"How useful was the service experience in increasing
your understanding of the "academic" course material?"

very useful	42.7
somewhat useful	40.1
not useful	17.2

"How often did you feel:

that your service made a difference?

Most (or a good part) of the time	81.3
Seldom or never	18.7

that you were learning from your service?

Most (or a good part) of the time	83.1
Seldom or never	16.9

bored?

Most (or a good part) of the time	16.1
Seldom or never	83.9

frustrated?

Most (or a good part) of the time	24.5
Seldom or never	75.5

The single most important factor associated with positive course outcomes appears to be the student's degree of interest in the subject matter (see Table 14). This variable enters five of the six regressions and frequently has the largest final Beta coefficient. The student's interest in the subject matter appears to be an especially important determinant of (1) how useful the service experience is in enhancing understanding of the "academic" course material; and (2) the extent to which the service is viewed as a learning experience. Among other things, these findings provide strong support for the notion that service learning should be included in the student's major field.

Table 14. Course Outcomes Associated with "Interested in subject matter"
as a Reason for Taking a Service Learning Course

Course Outcome	Simple r	Final Beta
Usefulness of the "academic" material to the service	.26	.12
Usefulness of the service for understanding the "academic" material	.43	.29
Belief that service made a difference	.33	.21
Belief that service was a learning experience	.47	.28
Frequency of feeling bored	-.34	-.21

Note: All coefficients are statistically significant ($p < .01$)

The frequency with which the professor encourages class discussion is a significant factor in four of the six course outcome regressions (see Table 15). Class discussion seems

to be an especially important factor in whether the student feels that the service is a learning

experience and in reducing boredom.

Table 15. Course Outcomes Associated with
How Often Professor "Encouraged Class Discussion"

Course Outcome	Simple r	Final Beta
Belief that service made a difference	.31	.16
Belief that service was a learning experience	.40	.20
Frequency of feeling "bored"	-.30	-.18
Frequency of feeling "frustrated"	-.15	-.13[a]

Note: Unless noted otherwise, all coefficients are statistically significant (p < .01)
[a] p = .012

Another important factor appears to be the frequency with which professors connect

the service experience to the course subject matter (see Table 16). Not surprisingly, making

such connections appears to be an especially important determinant of whether the academic

material enhances the service experience, and whether the service experience is seen as

facilitating understanding of the academic material. Once more, we find strong support for

the notion that service learning courses should be specifically designed to assist students in

making connections between the service experience and the academic material (see also

Chapter 5). Another potentially important finding is that the extent to which the service

experience is enhanced by the academic course material depends in part upon the amount of

training that the student receives (r = .19, final Beta = .11). Amount of training received also

shows significant simple correlations with "service enhances learning the course material"

and "service made a difference," but these correlations are reduced to nonsignificance when the student's degree of interest in the course content is controlled.

Finally, the extent to which learning the course subject matter is enhanced by service is substantially associated with the student's belief that the service constituted a learning experience (r = .45, final Beta = .24). This "intermediate outcome" is also significant in reducing boredom (r = -.31, final Beta = -.18).

Table 16. Course Outcomes Associated with
How Often Professor "Connected Service to Subject Matter"

Course Outcome	Simple r	Final Beta
Usefulness of the "academic" material to the service	.39	.31
Usefulness of the service for understanding the "academic" material	.46	.33
Belief that service made a difference	.29	.13 [a]

Note: Unless noted otherwise, all coefficients are statistically significant (p < .01)
[a] p = .018

Chapter 5

Qualitative Results

To supplement the quantitative data examined in this study, we interviewed faculty and students who had participated in service-learning courses. To this end, we conducted site visits to three campuses: the University of California, Los Angeles (UCLA), Pepperdine University and the University of Richmond. Qualitative data were collected during the Fall 1998 and Winter 1999 quarters.

At each institution we identified several service-learning courses representing a variety of academic disciplines. We interviewed a minimum of five service-learning faculty and conducted a minimum of two focus group interviews at each institution. Two focus groups consisted of two students and the remaining focus groups were made up of from five to nine students. Depending on the timing of these interviews, the students had either recently completed, or were currently enrolled in, a service-learning course. The students were selected using a variety of methods. Some were self-selected, while others were randomly selected by their professors.

All interviews were guided by a structured interview, tape recorded, and later transcribed. Several student and faculty interviews at the University of Richmond and UCLA were also videotaped. The faculty interviews gathered information about the service-learning course design, classroom practices, and student learning. Student interviews focused on how the students interpreted the service experience: the connections they saw between the academic course material they were studying and the community work/service work they were doing, what connections they made between theory and practice, and what

types of things they did in and out of class to help make connections between service and formal course content.

Pepperdine University is a private, independent Christian university located about 25 miles north of Los Angeles, California. The university enrolls approximately 6,500 students annually. Faculty and students at Pepperdine are engaged in service learning through a variety of courses across the disciplines. University of Richmond, which enrolls 3,500 students, is a private, comprehensive university located in the suburbs of Richmond, Virginia. At the University of Richmond, the Jepson School of Leadership has integrated service-learning courses across its curriculum, while other schools and departments on the campus offer only a few service-learning courses. These two private institutions were selected in part because they provide a very different setting for service-learning pedagogy than does UCLA. UCLA is a large, public research university located in the middle of an urban metropolis (Los Angeles, California) with an annual enrollment of over 34,000. The Center for Experiential Education and Service Learning (CEESL) at UCLA currently supports about a dozen service-learning courses each quarter across the campus.

We attempted to reduce the likelihood of misinterpretation of the data by utilizing multiple data collection procedures (observation, in-depth and informal interviews, focus group interviews and document analysis). This procedure, generally referred to as triangulation, involves utilizing a combination of methodologies in the study of the same phenomenon (Creswell, 1994). We used these collective methods to describe and explain the forces shaping the phenomenon (how teachers and students are making meaning of the service experience in relation to learning the course material) (Creswell, 1994; Marshall and Rossman, 1994). The validity of our interpretations was strengthened by using a variety of

56

procedures and sources for gathering data and by critically analyzing the explanations derived from the data (Marshall and Rossman, 1995; Stake, 1994).

Data Analysis

According to Marshall and Rossman (1995), "qualitative data analysis is a search for general statements about relationships among categories of data" (p. 111). Throughout this service-learning study we organized the data so we could identify themes that were emerging from the data and subsequently test those themes. Specifically, in this study we strove to identify any themes that appeared to relate to the manner in which the service experience was connected to student learning.

After transcribing the interviews and transposing any fieldnotes from observation, we read and analyzed these documents and began the process of data reduction by noting regularities in the participants' responses to interview questions (Marshall and Rossman, 1995). This method of initial coding helped to identify emerging themes (Emerson, Fretz, and Shaw, 1995). In an attempt to uncover new insights or typologies, we analyzed the data by gender, service site placement, and course discipline.

We identified salient themes, recurring ideas or language, and patterns of beliefs and behaviors that connected the students and their settings (classrooms and service sites) with the faculty or course instructors. Themes that emerged from the data formed the project thesaurus. A brief description of the themes is described below.

Theme I: Connections Between Service Experience and Academic Course Material. This theme includes faculty and students' perceptions about the connections made between the service experience and the academic course material such as course reading assignments, class discussions, and writing assignments.

Theme II: Interactions and Relationships with Others. Data in this theme reflected students' relationships with their classmates, faculty, service recipients, and community service practitioners. Students spoke of how these relationships or interactions impacted their learning and development.

Theme III: Outcomes Related to Service Learning Course. This theme encompasses the various student outcomes identified by students and faculty, as well as their perception of the manner in which the outcomes came about. Data in this theme included faculty comments about the effects that service learning seemed to have on classroom participation.

Theme IV: The Role of Reflection. Students and faculty spoke frequently about the role of reflection in their service-learning courses. This theme included their comments on the importance of structured reflection, both written and oral.

Results

Seventeen faculty and seventy-two students were interviewed between October 1998 and March 1999. The faculty had all incorporated service learning into their courses, and the students had each taken a minimum of one service-learning course at their institution. The faculty (13 tenured and 4 non-tenured professors) represent a wide range of disciplines: Business, Economics, Education, English, Health Science, Psychology, Public Policy, Sociology, Spanish, and Speech Communication. The majority of the students interviewed for this study were juniors and seniors in college, although some freshmen and sophomores were interviewed as well. The sample of 72 students included 25 males and 47 females.

The results are presented in three sections. The first section describes the different types of student outcomes that occurred in service-learning courses, according to the students and faculty interviewed in this study. The students described what they felt they gained

58

through these courses, while the faculty described the types of outcomes they felt they witnessed among their students in these courses.

The second section describes student and faculty perspectives on how these different types of outcomes came about. Three factors (see below) emerged from the faculty and student interviews as strongly contributing to the outcomes identified in the first section.

Since one of the goals of this study was to identify any tools or strategies that the faculty or students used to connect the service experience to the course material, the third and final section presents a discussion of these strategies. While service-learning classes utilized a variety of approaches including structured reflection opportunities (journal writing, class discussion), fieldnote-taking, and electronic mail exchanges (email), the analysis of the faculty and student interview data reveal that structured reflection is the most common strategy used to connect the service with the academic course material.

Faculty and students were asked to identify various student outcomes that were achieved through service-learning courses. As it happens, these outcomes turned out to be quite similar to outcomes that have been identified in previous service-learning literature. Although faculty and students identified a multitude of cognitive and affective outcomes, only the four most frequently mentioned outcomes are discussed here, together with illustrative excerpts from the interviews and focus groups.

Increased Sense of Personal Efficacy

The most common service-learning outcome identified by students in the interviews was gaining a sense of personal effectiveness. Often this feeling of empowerment is coupled with a heightened sense of civic responsibility, exemplified in the following three quotes:

59

From my experiences I learned something about intellectual leadership...and also, civic responsibility....I think with my service learning you realize that....one person can really make a difference.

I think that people have a tendency to not realize that we're living out history right at this moment. I think that all of a sudden that hit us - that we can change things. We can make a difference.

The service-learning aspect of the curriculum really opened my eyes to what was going on and made me feel like I could make a difference with what was going on around me.

As these three excerpts illustrate, students discovered "what a big difference college students can make." The faculty also noted that the students gained a "sense of empowerment that they can have an impact" through their involvement in the community. One faculty member explained how she attempts to instill a sense of empowerment in her students: "I teach them that through their experiences they are the 'experts.' I am not [the expert] any longer because I wasn't there. So I try to empower them in that way." Another professor describes how service learning provides students with a sense of personal accomplishment:

I had students tell me that that [service-learning] class gave meaning to education. I think there's this kind of crisis of spirit that goes on today in students' lives where they feel that a lot of what they're doing is an exercise in futility. You know, you go to class, you learn, you do things, but it doesn't really seem like there's anything tangible that you can point at to say "I did that" after you're done. You find that in service learning, people actually feel like they can have something that they've accomplished and something that shows that they have kind of a heart and a soul and not just a mind.

One professor stated that a goal of the service-learning course was to "assist the students in recognizing their skills and abilities." He felt that students often entered his class with a lack of confidence about their abilities:

What we try to convince them is that they in fact have a lot of important skills: research skills, information-finding skills, synthesis skills, the abilities to take

and organize complex material...and to make it something that's useful [or "apply it"].

Both faculty and students reported that the service-learning experience strengthened students' sense of personal effectiveness, which often also translated into an increased sense of civic responsibility. That these two outcomes, which are very similar to the self-efficacy and commitment to activism outcomes described in Chapters 2 and 3, have been documented in several other studies (Sax and Astin, 1997; Myers-Lipton, 1994), were consistent with the goals of some of the faculty teaching the service-learning courses is evident from their comments in the interviews.

Increased Awareness of the World

Another outcome that faculty and students identified as resulting from the service-learning experience was increased student awareness of the world around them -- the community outside of the college campus, including people and ideas to which they had not previously been exposed. (Similar outcomes are reported in the quantitative research of Astin & Sax, 1998).

For example, many students describe how service learning impacted the way that they viewed their communities and the world, which often involved reevaluating some previously held beliefs. As one student states, "The most important thing that I learned was probably that there's no typical homeless person. I was very ignorant about outreach populations, basically. In this way, you actually got an opportunity to see what it is really like." Another student: "When you're more educated about something, you kind of have less criticisms about it. So you can kind of learn to forget stereotypes." Students felt that the connection of the service experience with the academic course material provided more than "book smarts."

In the interviews, faculty spoke of how the service experience often exposed students to "things that they may never have seen before." For one instructor, this exposure was crucial since she was teaching a "gender issues class where race matters and gender matters and class matters. And these kids don't know that [socio-economic] class matters." Another professor felt that traditional-age college students may have had limited life experiences, and that it was critical for these students to "break away from their immediate family, their immediate community, the [college name] community, and see that there are a lot of other people out there with different life experiences." These faculty clearly place a value on exposing undergraduates to new and different experiences and see this as an opportunity that the service-learning experience provides.

That students also recognize that their experiences on the college campus might be limited is illustrated by this comment:

> Especially when you're in college, when it's a little bit more secluded campus like ours is, you tend to spend a lot of your time on the campus, or maybe in a certain section of the city doing social types of things. But there's a lot of other areas of the city that you wouldn't ever explore and having to do something like this [service] makes you explore a place that you wouldn't ordinarily have the opportunity to do or take the initiative to do.

Faculty frequently referred to the personal growth that they witnessed in their students through the service-learning experience. As one professor stated, "Our students come in pampered kids and go out in two quarters fledgling adults. It really is a tremendous growth parameter."

Increased Awareness of Personal Values

Still another outcome of the service-learning experience that students identified in the interviews was increased value awareness and value change. Some students, for example, spoke of how the course influenced their attitude towards service and volunteering, as this

statement illustrates: "I think the class made a really big difference in my attitude towards serving. Then from that, it just motivated me to want to volunteer more." For other students, performing service as part of a course caused them to realize that they did "have time for it." Some wondered how involved in service they would have become if they hadn't been introduced to service engagement through a service-learning course:

> Because of my service learning, I kind of got pulled into the whole service aspect and I realized you do have time for it. It's a conscious choice of making time for it. So I'm really glad that I had the service-learning class as my first semester here. I don't know how involved I would have been otherwise.

One professor described how rewarding it was for him when students told him that they wanted to continue providing service in the future:

> When I see students come back, even if it's just two students or one student who comes back in a semester...comes back and says, "This was amazing. I'd never thought about doing something like this." or "I'd no idea that there were jobs like this, that people worked with kids in a setting like this." Those kinds of changes are moving, you know, it's really rewarding. It's not someone who comes back and says, "this is a great theory, I really understand it." It's someone who comes back and says, "This is a part of life that I can now contribute to. And those kinds of things are really touching and moving also.

This excerpt also suggests that the service-learning experience can impact a student's career goals, confirming findings presented in Chapter 2. Service-learning courses appear to provide an avenue for students to explore their values, which in turn can influence their career aspirations. One student described how she came to recognize her own values as different from her mother's through her service-learning experience, and thus, changed her major:

> Three weeks ago I was a Biology major, but because of this [service learning] class I changed to double major in Psychology and Sociology....I changed my major because...I was high school valedictorian, and you have to pick a prestigious major and say, "Oh, I'm a Bio major. I want to be a bio-engineer." My mom always pushed me, "You have to make a lot of money."

And I just call her and tell her "This is what makes me happy inside" and I don't care however much money I make doing whatever I do. As long a I'm doing something like this with people, I think that will be more rewarding than anything.

Another student described how the service-learning course caused her to think a bit differently about the possible career choices she might make. She spoke of how the service experience exposed her to the idea of working for a non-profit agency:

The service thing kind of turned on the light. There was so much more out there that I didn't even know existed. The non-profit agency --that never occurred to me. I think job, I think putting on nice clothes, waking up at 8:00 in the morning, going to some office-type setting, sitting at a desk. That's what I always saw as a job.

This same student went on to explain how, through the service experience, she realized that she wanted to "work hands-on, making a difference, being involved working directly with people." She described feeling "like doors were flying open left and right. All of a sudden I was like, I could go there, I could go there...instead of just that one-track thinking I had before."

Some students felt that the service experience gave them the opportunity to discover a sense of something they might want to "do in the future," while other students claimed that the service experience simply confirmed their intention to pursue a career in a service-oriented field.

Increased Level of Engagement

Several of the faculty witnessed higher levels of classroom engagement among the students in their service-learning courses. A few faculty described seeing a marked difference when comparing students in the service-learning course to those who had taken the course without the service component. As this professor explains:

The primary one [difference between those who performed service and those who did not] is in excitement, commitment, interest in the readings, questioning...they were more critical of the readings, which I thought was very good...They were just so alive in class. They were just...I could hardly contain them. They talked avidly. It was a very lively class.

This observance of change in the level of engagement with the class was not limited to those faculty who had taught the same course previously without the service component. One professor described seeing students sitting "quietly and politely" in their desks during the first few weeks of class. He felt that he witnessed something "really remarkable" as the quarter progressed:

... it turns into a bedlam. You walk in and everybody's talking and everybody's got a discussion going and everybody's trying to interchange information, and they're making arrangements to meet...and you kind of have to settle everybody down before you can get class started. But it's a really good sign of the fact that they've become involved in the class and that it's become important to them.

Overall, this increased level of engagement in the course seems to imply an increased motivation to learn the course material. As this student enthusiastically states:

We don't like these classes because they're easy. I mean, we're definitely not talking about it being that easy here. I've never worked so hard in my life. I was failing out of school because I was taking Social Movements. At the same time, I have never learned more. The work doesn't matter. You have a lot of work to do and you stress out more than anything in the world....but it seems like it's so rewarding. And it's not even like you're doing work! It's like you're learning! We love going to class here! I loved my Social Movements class and I definitely cannot say that about Biology!

Several other students shared similar stories, with great enthusiasm and energy. Even though as much as a year had passed since some of them had taken their service-learning course, their passion and excitement about the class was clearly evident in the interviews.

In Their Words: Explaining the Outcomes

One of the aims of this study was to gain a better understanding of the mechanisms that account for some of the outcomes just discussed. Using the words of the students and faculty interviewed in this study, we now attempt to describe how participation in service learning fosters the outcomes identified in the previous section. Specifically, students and faculty identified three major factors as influencing these outcomes:

- Application of Course Material to Service Experience

- Confronting or Challenging Preconceived Ideas or Beliefs

- Building A Sense of Responsibility and Accountability for Learning

Excerpts from faculty and student interviews illustrate how these factors influence the student outcomes. Interestingly, the interviews did not yield any notable findings concerning the <u>type</u> of service experience that the students were engaged in (i.e., service placement site) nor any patterns based on the type of institution that the students attended (public versus private, size, etc.).

Application of Course Material to Service Experience

In the interviews, both students and faculty said that directly applying the course material to the service experience was instrumental in achieving several student outcomes. Many faculty feel that applying course material to activities in students' lives is not something that the students are accustomed to doing on their own. One professor describes how the students are seeing the relevance of what they are learning in the classroom to the world and to their own lives:

> I think that [application] is perhaps one of the greatest attributes of service-
> learning courses - to maybe organize it in a way that students can connect
> between the community and the real world and the classroom. And suddenly,
> it's like "Oh, there is that connection!" And to me that is intellectual growth -

to actually be able to use and really structure it in a way that makes sense to them.

This professor's thoughts are echoed by the students, who report that service learning provides them with a sense of reality about what is going on in the world around them. They see the service experience as heightening their awareness of the issues that they are studying:

> It [service learning] proves to you that these are not just things in textbooks. They are everywhere around you and there are certainly ways that you can apply the things that you're learning everyday.

Students also feel that applying their course material to "real world" situations motivates them to become involved in finding a solution to some of the problems they encounter. Actually going out into the community and getting involved through a service experience helped these students to realize that the issue had an impact on them, motivating them in turn to "do something about the problem." The students indicate that getting directly involved in the application of the course material helps them to develop a sense of civic responsibility. Similarly, students feel that the service-learning experience leads to an increased awareness of community and societal issues:

> A class like this gives you a chance to get off campus and start learning some of the real-life issues that are going to affect you no matter how you look at it..... These things are <u>as</u> important, if not more important, than the books we read in our core classes. The kind of things you learn while you're doing it are things that maybe you'd ignore if you don't go out there and don't get the mix of things and see these problems.

These interviews also reveal that engaging in service as a part of the course and utilizing the course material may increase students' motivation to learn the course material. One professor describes such a scenario taking place in her service-learning course: "They come back to class wanting to know 'what should I do?' and asking me all kinds of

questions. It's very enlivening." Indeed, one student spoke about how she wants to add the

experiential component to her courses that don't have the service experience:

> Now when I sit in my classes that maybe don't have service learning, it's just
> so flat - so two dimensional and I just think, "Let's get out of here. Let's see
> how this actually works. Does the theory really work in practice?"

Several students feel that they "learned more" because, as one student remarked, they

are "actively involved in something rather than just sitting in a classroom, listening to a

professor stand up in front of you and lecture." One student feels that she learned the course

material in greater depth because she was able to relate what she was learning and

experiencing at the service site to what she was learning in class. Another student describes

her experience in a course focusing on social movements:

> I think that even the things that we learned in class....didn't really gel until we
> actually went out and worked with our [social justice] movement....I really
> think that things started to make a lot of sense, that class really started to have
> a lot of meaning for me after I did go out and work directly with the
> movement....

Another student tells how the service experience stimulates thoughts and discussions

that carry on beyond the classroom:

> When we came back to the class we were really excited about what we had
> learned there and it connected to the readings for the week and our
> internships. Sometimes we just enjoyed something and we'd talk about it the
> whole way home. We had a bus ride home - we'd just talk about it. We
> would discuss it out of class - whether it was with the students in *COMPS*
> (*Community Problem Solving Seminar*), or our families or friends.

Some students believe that the application of course material to the service experience

fosters an increased awareness of their own personal values and beliefs. Several professors

hypothesized that the service-learning experience takes the students out of their "comfort

zones" and causes them to "stretch themselves" and "struggle" with conflicting issues and

feelings. For example, this professor sees an increased awareness to the world outside of

campus as a means by which the students discover who they are and what they believe in:

> I see them become more sensitive to the area and the world around them....
> Students tend to see the world in a bubble, especially when they're in
> college...A lot of times in a university, it becomes such a situation where, I
> know students would be "Wow, what's going on in the world? I have no
> idea." And this[service learning] is almost like an anchor to allow them to
> see....I truly believe that until you get exposure to somebody completely
> different from yourself, you're really not going to know who you are.

The students feel that the service experience provides an avenue for them to test out

the theories that they are learning in the class. One student describes participating in service

learning as putting "theories on trial." In her words:

> You sit there and say "wait, you know, do I really completely agree with
> this?" And it also puts your beliefs...because once you take action in
> something, your purpose is to make change and so it really has to be
> something that you believe in. It helps you to figure out what you believe in.

In testing out the theories being presented in class, the students are thus able to assess where

their own values and beliefs lay on the particular issues.

Clearly, both professors and students believe that the application of the course

material to the service experience is instrumental in increasing students' awareness of their

beliefs and values, as well as the community and world around them. They also believe that

it develops students' sense of civic responsibility and increases their engagement and interest

in the course itself.

Confronting or Challenging Preconceived Ideas

Students repeatedly provided examples of how participation in service learning

increases their awareness of issues in the community by confronting or challenging their

preconceived ideas about the "way the world works" or "certain groups in society." Several

students say that they entered their service sites with certain beliefs or stereotypes about the

people they would encounter, and that the service experiences and the individuals they

encountered, combined with the academic course material, challenged many of these

stereotypes.

> I guess growing up in middle class, you think that if you really work for it,
> you can get it. But there are a lot of people that you see who really, it seems
> like they really did get a bum start and it's tougher for them. And I saw that
> in the mothers. There was one kid for instance that we worked with. His
> mom was awful to him. Even when we were there. We'd be playing around
> with him and she'd yell at him to get in the house and she'd like really hurt
> him - emotionally, with words to him and hit him and stuff. And that's when
> we were there. So taking a kid like that, good gracious, you know....the kid
> was already a little messed up. I guess what I found was that people - there's
> not just one poor person that is just the stereotype. There's a lot of different
> situations, I guess.

Like this student, many students report confronting some of their long-held beliefs

about other people in society. Not uncommonly, the students would share their experiences

of coming to terms with beliefs instilled in them by their parents, as this female student did:

> My mom brought me up thinking "We all have an equal opportunity, and
> people just don't work as hard," and all this stuff. And then I go to my shelter
> and the shelter is a mess. It's dirty, there's rats....but I see these people and
> most of them are mentally ill - they're schizophrenic. They don't know
> what's going on. And you know, they're ecstatic when they get these welfare
> checks. It's just like, they'd be dead. I'd see some of them and they have
> nothing but what is on their backs and they don't know who they are. So it's
> really bad and it's really hard to see them. I talk to my mom and I'm like
> "these people do not have the opportunities that we have by any means."

Another student reports that his conversations with a service provider at his service site

caused him to be more open in considering the life experiences of the people he was

encountering. He described entering his service placement with apprehension because he

was going to be working with people who had recently been released from jail. He said that

he thought "these people went to jail and that's where they belong. When they get out, that's

their tough luck." However, through his interactions and discussions with a woman at this

service site, he began to see these people in a different light and to understand some of the challenges that they are now facing:

> These people get out of jail, and they are becoming mothers and fathers again. They're looking for jobs in a culture that really could care less if they get a job....I changed night and day, becoming willing to listen to their plight.

The interviews with students also suggest that service learning can help not only to break down students' stereotypes and prejudices, but also to realize that merely gathering further information before making judgments can be important. One student reports that her service-learning experience, which involved working with unions and people on strike, "reversed" her prejudice against unions and strikers. Previously she had thought that "strikers in general shouldn't be striking." Her interactions with strikers through her service experience made her realize that "it was okay for me to question people who were striking and actually go and ask for the information and make up my own mind instead of just pre-judging them."

Some students report that the service experience, by relating directly to what they were learning in the classroom, allowed them to "open their eyes" to real-life experiences. This student describes how her service experience took her beyond "book learning":

> For me it [the service experience] reinforced a lot of things because we learned different theories about poverty, why people persistently are in the same predicament, why the children are like that. But it is different to learn it in a book and to have it told to you and to actually see it and to actually talk to people who are living through it and why they are doing the things that they are doing. Not just seeing that they all want to be on welfare because they don't want to do anything to get off. For me it was definitely something that reinforced a lot of things I had learned as well as opened my eyes to what's really out there.

This student's comments are echoed in interviews with faculty. One professor says that the service-learning experience is "for many students, their first experience outside of their own

71

community" and their "first experience to get out and see the real world and be part of that experience." He sees the service-learning course as challenging students to think about service and learning differently. Another professor believes that the service experience enhances students' engagement in her course by helping them to view the subject matter (economics) in a new way:

> I think it [the service experience] changes the dynamics actually of my classroom itself. Especially if you bring it in the first there weeks of class. It also tells them that economics doesn't necessarily have to be dry and you can do domestic violence studies. You don't have to do wage studies or some of the things they typically would expect. So it kind of broadens their horizon -- gives them a completely different viewpoint of what economics could be and what you can use it for.

To summarize, students and faculty believe that service-learning courses heighten the students' awareness both of the world around them and of their own personal values and beliefs by helping them to confront and challenge their preconceived ideas and opinions about people, society, and various world issues. Some faculty also report that the students' views of the course subject matter are also broadened through the service experience.

Building A Sense of Responsibility and Accountability for Learning

Both the students and faculty who participated in this study report that students develop a heightened sense of civic responsibility and personal effectiveness through service-learning courses. The interviews make it clear that these outcomes are the result of an increased sense of responsibility and/or accountability to parties other than the student or the professor. In fact, some students explicitly state that, in their non-service-learning courses, they often feel that their performance in the course impacts no one besides themselves. In other words, if they don't attend class or fail to turn in an assignment, the only person "hurt" would be themselves. The following student is not alone in expressing such an opinion:

I think that once I got into the project, it had to get done. There was just no if, ands, or buts about it. The difference between that and other classes is that many times I have not turned in a paper just because I didn't feel like it, because I knew it was just going to affect me. So it's a whole different type of responsibility.

Another student who had previously felt that she was doing "assignments in class for the professor" reports that the service-learning projects caused her to become more aware that the service was going to "make a difference." As a consequence, she realized that "I want to do the best that I can on it."

It thus appears that students' sense of commitment and responsibility is affected by the fact that there is a "client" involved in the picture. This student makes a similar observation:

I think that it really instills a sense of activism in you that you can't really get from another class when you're not involved with the people that you're working with. But having something at stake - that you're a part of what you're doing - it makes you work so much harder for it. It makes you really believe in it.

In fact, one professor attributed the success of the service-learning course to "the fact that the students work with real clients - not make-believe clients." A student shared his thoughts on the relationship that can develop between the clients and the service provider:

These are real people you're dealing with and the relationships you build and the friendships you form - it's tough when you go on a break or you have to miss a week....Because there's so much accountability there on both ends that you miss them when they're not there too.

A few faculty felt that the students were more likely to be motivated to learn the course material because they "needed it" for their interactions with the clients. Indeed, some students described feeling that there was "an instant obligation" for acquiring such knowledge. As this student explains:

73

Our entire frame of thinking was completely different. It was almost like you no longer needed to be forced into it as an assignment. It just became something that all of us became passionate about....That's what service learning is about. It's "what are you doing right now?" And you can do something and it gives you the confidence and the motivation and the opportunity and they give you the skills so that you're able to go out and do something.

One faculty member reported that his students appeared to get "pretty scared" when they realized "they were going to be sent out to do something that's for real, not hypothetical...and that they're accountable." He mentioned that he structures a class session around the topic of accountability, to assist the students in coming to terms with their feelings of responsibility:

In fact we have to do a whole lecture on accountability, and we bring up the issue of how they're going to show themselves to be accountable to the client as part of the discussion.

Yet another professor described how the students often continued the service projects after the semester had come to an end and the students had completed their requirement for the course. She felt that the students had learned "responsibility and commitment" through the class and thus, "They feel a responsibility for finishing what they started, even though they're not required to anymore."

This increased sense of responsibility or accountability extended over to the level of engagement in the service-learning course itself. Although the faculty did not comment on this, several students spoke about feeling more accountable to their classmates:

We also had responsibility as the students in the class to make the most of the class. If we had not done what we were supposed to and had not come prepared to share and reflect, it would not have been as good an experience as it was. The students are just as important in the class as the professor because you learn so much from each other. I mean, I learned so much from those classmates - as much as we probably did reading however many books.

Another student described how he was impacted by the knowledge that he would be held accountable for the material later, when he presented it to people at his service site. Thus, in

his case, he felt compelled to pay attention in class and ask questions if he didn't understand the material presented:

> You are learning something from an expert that you later need to apply to the community. So you can't say, "Oh, I'll read it in the book later." You have to understand it and ask questions, how it works, so that you can know it and then present it to other people.

Clearly, students' experiences with individuals and groups outside of the classroom impact their sense of civic and personal responsibility, as well as their engagement in the class itself. The nature of service-learning courses, which often includes involvement with members of the community, enhances students' sense of responsibility for their own learning as they realize that they are accountable to someone else in their service site or as they endeavor to provide "good service" to others.

Connecting the Service Experience to the Academic Course Material

One of the goals of this research is to identify strategies that can be used to integrate service with learning. The students and faculty who were interviewed in this study frequently mentioned structured reflection -- journal writing and group discussion -- as a strategy to connect the service experience to the academic course material. Both the quantitative results presented earlier and the literature on service learning indicates that reflection is an important component of service-learning; indeed, it is usually included in most definitions of service learning, and there has even been a guidebook written to assist practitioners in conducting critical reflection in service learning (Eyler, Giles, & Schmiede, 1996). It is thus not surprising that all of the faculty interviewed for this study cited reflection as their principal means of connecting service to the academic course material. In fact, no other strategies were mentioned. Those faculty who mentioned journal writing or class discussion as a strategy for connecting the service experience to the academic course

material saw these as ways of engaging the students in reflection. Consequently, in this section we will discuss three main issues in relation to reflection: (1) faculty and students' views on the overall importance of reflection, (2) different kinds of reflection strategies used, and (3) how faculty integrated reflection in their service-learning courses.

The Overall Importance of Reflection

Both faculty and students indicate that reflection is an important part of service-learning courses. As this student reports, reflection is what makes a course a "service-learning" course: "The part that makes it service learning, I think, is coming back to the classroom, after you've experienced it [service], and reflecting on it, and talking about it, and sharing your experience." This student felt that reflection enabled her to synthesize the knowledge gained from her experience outside the classroom and the "book knowledge" she learned inside the classroom. One student also felt that "the part of service learning that's so important is reflection," because reflecting on the service meant that she was going to "gain something from it." The "something" that these students said they gained was a better understanding of how to ask questions about the readings for the course. Some students described this as being able to "critically analyze" the readings and other information that was being presented to them in the course, as well as in their service experiences.

These comments and assessments of the importance of reflection were echoed in the voices of the faculty. One professor felt that the students didn't realize the full impact of their service experience until after they reflected on what they had done and "processed the experience." A few professors expressed the opinion that the students won't necessarily make the connections between the course material and the service experience on their own. One faculty member shared her own experience in teaching a service learning course where

76

she did not incorporate reflection to facilitate the connection of service and the course material:

> I really believe that the service needs to be facilitated by the instructor to make that connection....It's reflected in my [course] evaluations....When I have incorporated service learning into the classroom, my evaluations have skyrocketed. When I didn't do that, likewise the evaluations reflected it as well, unfortunately in the other direction. A lot of them would write "I thought this was a total waste of time, service learning. I didn't really like it at all...Some people liked it because they have a volunteer spirit within them, but a lot of students didn't see the usefulness; they didn't understand why they were doing it. I think sometimes as faculty we assume, "reflection is there." We assume the students are gonna make the connections, because the reading is reflective. But we have to make it for them.

A student who took two different service-learning courses -- one which incorporated reflection, and one that did not -- seemed to agree. She felt that the professor who did not incorporate reflection into the course had "no idea of what any of us were doing." She felt this lack of reflection prevented connections from being made between what they were experiencing with the service component and what they were learning in the classroom. By contrast, she described her positive experience in the service-learning course that incorporated reflection as follows: "We pulled everybody else's experiences into the class, which improved this class - content and quality - tremendously."

Types of Reflection Utilized

The students described engaging primarily in two types of reflection activities: class discussions facilitated by graduate coordinators or their course professors, and written reflection in the form of journals and papers. Overall, the students' comments about both types of reflection activities were glowingly positive.

Reflection that took place in the classroom setting with the entire class was particularly helpful to some students, who said they enjoyed hearing about what other

students were doing at different service sites. These students reported that reflection assisted

them in developing problem solving skills that were applicable to a variety of different

situations because it "helped us notice things that we might not have noticed, and to relate

different experiences back and to see trends and things like that." One student said that he

felt that reflection helped them deal with the problems that came up because they were able

to see "how other people handle their problems," as well as "get reassurance from other

people." Several other students echoed this latter sentiment, describing how the classroom

reflection sessions created a supportive environment where students could share their

experiences, "good or bad:"

> We shared a lot of our experiences. We would sit down and say, "Okay, who
> had a very good or very bad experience this past week in your service site?
> What happened?" So not only did I get to experience at my site, but I got to
> learn about others' as well.

Again and again students spoke of how the opportunity to "exchange ideas and

stories" was an important part of the service-learning course. One student in particular

thought that hearing other students' experiences "made it a lot easier for a lot of us who were

just starting service out for the first time." He said that it gave him encouragement because

"knowing that other people were going through the same stages and the same frustrations, the

same difficulties, made it much easier" . He felt that it enabled the students to talk about

their difficulties and "give each other suggestions about what to do." Other students felt that

they learned more because they were learning not only from their own service experiences,

but also from those of others. They described the different placements as "really bringing to

life what we were studying." Students clearly felt that the opportunity to share thoughts and

experiences about the service experience with their peers was one of the benefits of a service

learning course:

Discussion is very helpful because we learned from other people's experiences. We get into discussions and we hear what other people face. In some of the other classes, I felt kind of isolated, like we didn't know - if we are in one site, we don't know what is happening in the other site.

Student comments about written reflection were also positive. Several students stated that writing in journals was helpful because it required them to think formally about connecting the course material, often the course readings, to the service experience. One student said that the "directed journal entries" were helpful because they "forced me to think about some aspect of what I was doing," something that he didn't feel he would have done on his own. Another student described how "writing weekly diary entries" helped her to synthesize her ideas. She observed that some people "naturally reflect and enjoy doing that, but a lot of other people won't do it unless they're forced to." While some students described the written reflection as assisting them in understanding the relationship between the course material and the service experience, others felt it helped them to realize the impact the service experience had on them. Either way, most students felt that written reflection was "extremely important."

Some students felt that the journal writing provided an avenue where the graduate coordinator or the course professor could "oversee" what the students were doing at the service site. In this way, there would be some supervision of their activities and guidance would be provided to them if necessary. Thus, the students felt that the journal writing provided them with feedback that was slightly different from the type of feedback that they gained from the class discussions with their peers.

Examples of Integrating Reflection

The faculty interviewees provided several examples illustrating how they incorporated reflection in their service-learning course. Several said that class reflection was

79

an "integral part of the class." As one professor stated, "The secret I think for success for that particular class is because we didn't use the service-learning project as kind of an add-on." She would ask the students to bring the service environment into the class by asking them to reflect on how they could use the theories they had been reading about in the text in their weekly activities at the service site. Another professor provided a similar example: "They spend a weekend at the Union Rescue Mission. They have to talk about what happened to them there, but they also have to refer to texts that they've read to help them understand their experiences." A professor who teaches a course titled *The Rhetoric of Service Learning* in the Speech Communications Department on her campus provided the following example from her course:

> We talked a lot about rhetorical theories and rhetorical constructions and we applied them to the situations they were experiencing, which were diverse....And what we did was, we'd say "Okay, how are all these experiences shaped? How for example, is the message of what this is...going on in this environment? How is that conveyed to the public? How does this message get out?" And then I asked them to pick...a song that you think envisions what it is that this course...that your experiences, service, is about. Then we would take that song and deconstruct it and.... So instead of just deconstructing a song and saying what metaphors are in the song, what we did in this class was we said how are these metaphors reflecting what you're experiencing in your service learning experience? So it became so much more tangible because instead of just being an exercise in metaphorical deconstruction, it became an exercise of "Wow! You mean this metaphor affects the way I experience my service-learning experience?" I always used their service-learning experiences as a point - a jumping point for their reflections in class.

Some professors stated that they used written reflection because they felt that the service experiences were generating a lot of emotional and personal growth in the students. One professor said that in his class he really "encourages students who may be challenging their own thoughts about groups of our society, and to really be open at least to themselves, as they think about them and maybe addressing some of the biases or the thoughts they've

had about different people." He then described how he tries to assist the students to reflect in a more private manner:

> There are some other informal activities like doing logs and submitting logs where they have an opportunity to also reflect, maybe more personally than in a group setting. Because I think, for a lot of our students, the emotional growth and the emotional aspects of the experience perhaps are too personal to really express.

Another professor described utilizing a similar technique - having the students first write their reflections, and then encouraging them to bring them into the class discussion reflection sessions:

> They start writing about it [service experience] in their journals...So I have them do that a couple of times before they open up so that it's a closed venue - I'm exploring how they're feeling - I make comments, turn them back long before we ever have a class discussion. Like, "This is a really good point. Bring this up in class when we talk about it." Gives them a safety feature as well.

Most faculty mentioned that they used a combination of individual written reflection and group discussion reflection in their classes. They described incorporating reflection into their daily classroom encounters by asking students, "okay, you're volunteering here, make a connection for me to your organization." Several professors also spoke of having the students write a "summary" or "final" paper at the end of the term where students had to reflect on their experiences. As one professor observes:

> So they have to step back at the end of the semester and not only say, what is this - or what is this service organization look like? What happened to me? What did I learn, in the process of the course?

Faculty and students both felt quite strongly that reflection is a vital component of service-learning courses. They identified benefits associated with the two reflection strategies utilized in most of their courses, written reflection and classroom discussion reflection. Clearly, reflection is also a key element in achieving the positive outcomes

identified earlier in this chapter, for it is through thoughtful reflection that the students make sense of their service-learning experiences.

Summary

The qualitative portion of our research study addressed three main research questions posed in this study:

- What types of outcomes occur in service-learning courses and how do those outcomes come about?

- What tools are used to integrate service with classroom learning?

- How are students making the connection between course material and the service experience?

Analyses of data from the faculty and student interviews revealed four student outcomes: 1) an increased sense of personal effectiveness (often accompanied by a heightened sense of civic responsibility; 2) an increased awareness of the outside world; 3) an increased awareness of their personal values; and 4) an increased level of engagement in the course. Although several other student outcomes were identified (e.g., improved writing ability and critical thinking skills, increased retention of course material, leadership development, an increase in other-orientation, and a strong commitment to promote racial understanding and other issues of equality), these four outcomes were mentioned most frequently by the students and faculty who were interviewed in this study.

The analyses reported in this section also sought to identify pedagogical factors that facilitate these student outcomes. Applying the course material to the service experience, confronting or challenging preconceived ideas or beliefs, and building a sense of

responsibility and accountability for learning were three of the major facilitators that emerged from the interviews with faculty and students.

Finally, the analyses of faculty and student interviews identified one major tool or strategy that was used by one faculty to integrate the service experience with the course material: structured reflection. There appear to be several different ways in which reflection can be used to assist students in connecting their service experiences to the academic course material.

Chapter 6

Implications

The findings of this study offer nuanced perspectives for practice, theory and research. Having discussed the methods and findings, we now turn to making meaning of the results. These implications offer ways to reconceptualize teaching and learning through service learning as well as to understand how the combined activities that constitute service learning can make it a powerfully effective pedagogical tool.

Implications for Practice

This study adds weight to the argument that participation in service learning supports many of the goals of higher education by enhancing the personal and cognitive development of undergraduate students. Many of the positive outcomes reported in this study correspond closely with the outcomes reported in previous service-learning research (Astin & Sax, 1998; Bringle & Hatcher, 1996; Cohen & Kinsey, 1994; Eyler & Giles, 1999; Giles & Eyler, 1994; Markus, Howard & King, 1993; Myers-Lipton, 1994).

Perhaps most important is this study's contribution to the pedagogy of service learning. Our discussion of pedagogical implications is organized under six sub-headings: Reflection, The Mutually Reinforcing Effects of Service and Academics, Placement of Service Learning in the Curriculum, Shifting the Focus to Learning, Redefining the Student Learning Experience, and Learning as a Shared Mission. Explanations of the possible dynamics that account for service-learning's effectiveness are provided in the following section on Theoretical Implications.

Reflection

This study's findings reinforce the important role that reflection is assumed to play in enhancing learning by connecting the course material to the service experience. Reflection provides "the transformative link between the action of serving and the ideas and understanding of learning" (Eyler et al., 1996, p. 14). Indeed, most students and faculty who were interviewed in this study note the importance of reflection in service-learning courses as a means of understanding how the service experience is related to the academic course material. Supporting these qualitative findings is the consistently positive effect of discussing the service experience with other students found in the quantitative analyses. "Making sense of" the experience with their peers proved to be a powerful mediator for students participating in both service learning and generic service.

Our conclusion on the important role that reflection plays in the learning process is not new. Dewey's writings about experiential learning in the first quarter of this century identified reflection as the key to learning from experience (Siegel & Rockwood, 1993). However, it is especially important that faculty, as the ones held responsible for student learning, understand the importance of including a reflection component in their service-learning courses.

But merely adding a reflection component such as journal writing might not be enough. Both the quantitative and qualitative analysis indicate that the manner in which reflection is utilized in the classroom can impact learning. More specifically, it is the opportunity to engage in a dialogue about the service experience, especially with other students, that seems to make the difference. In short, it is important for faculty to incorporate thoughtful discussions and reflections into their course design.

The Mutually Reinforcing Effects of Service and Academics

The findings also underscore the importance of the reciprocal influence of "academics" and "service," where the quality of service is enhanced by directly applying the academic course material to the service experience, and where learning is enhanced by drawing on the service experience to understand the course content. The belief that these two basic components of service learning are mutually enhancing has been articulated in the preamble to the *Principles of Good Practice in Combining Service and Learning*: "Service, combined with learning, adds value to each and transforms both" (Kendall, 1991, p. 95). And as most of the faculty who were interviewed in this study indicated, it is important that students not perceive the service experience as an "added-on" requirement for the course. At the same time, faculty need to recognize the importance of actively helping students to understand the relevance of the service experience to the course, as well as the applicability of the academic course material to their service activities. Without such active guidance, individual students might not be able to make these connections on their own.

Placement of Service Learning in the Curriculum

Evidence from our study suggests that service learning can be especially useful when placed in either the core curriculum or in the major. If the pursuit of a service career is to be valued, then we can argue that service learning be placed in the core curriculum, due to its dramatic effect on career choice. The logic behind this argument is, of course, that students who have not decided on a major (and some who have) are more likely to choose a service-related career if they participate in service learning. However, there is also evidence underscoring the potential value of placing service learning in the major field, since the

impact of service learning appears to be enhanced when the subject matter of the course is of interest to the student.

Our study found that the students' career choice is particularly sensitive to participation in service learning. These effects operate in at least two ways: to encourage students initially pursuing non-service careers to switch their choice to service career, and to reinforce an initial choice of a service career. Students often choose career paths based on limited knowledge of themselves or the world of work, or simply because of what their parents or friends suggest. Service learning opens new possibilities to such students, who can learn that their vocational calling in life may involve more than making money; it may involve serving others as well. Here we quote from two of the students who mentioned such effects:

> The service thing, kind of turned on the light. There was so much more out there that I didn't even know existed. The non-profit agency – that never occurred to me. I think job, I think putting on nice clothes, waking up at 8:00 in the morning, going to some office-type setting, sitting at a desk. That's what I always saw as a job. It just kind of flipped on this light above my head and all of a sudden I realized everything I could do with my life. I wanted to work hands-on, making a difference, being involved working directly with people. And so much of what I've learned through service learning – that has opened my eyes completely. My frame of thinking is completely different and I…just doors were flying open left and right. All of a sudden I was like, I could go there, I could go there…instead of just that one-track thinking I had before.
>
> As of like three weeks, I was a bio major, but because of this [service learning] class I changed to double major in Psychology and Sociology…I changed my major because…I was high school valedictorian, and you have to pick up a prestigious major and say, "Oh, I'm a bio major. I want to be a bio-engineer." My mom always pushed me, "You have to make a lot of money." And I just call her and tell her "this is what makes me happy inside." And I don't care however much money I make doing whatever I do. As long as I'm doing something like this with people, I think that will be more rewarding than anything.

We also find evidence suggesting that service learning should be included in the student's major field. Given that the students' degree of interest in the subject matter is the

single most important factor associated with feeling that their service work "made a difference," and given the mutually reinforcing nature of the course material and service experience, it seems reasonable to conclude that locating the service-learning experience in the student's major field may enhance its effectiveness.

Shifting the Focus to Learning

Many observers believe that the way we think about teaching and learning in higher education is changing (Barr and Tagg, 1995; Baxter Magolda and Terenzini, 1999; Boggs, 1999; Cross, 1996; Guskin, 1997; Hutchings, 1996; Major, 1999; Palmer, 1997; Terenzini and Pascarella, 1994). Barr and Tagg (1995) identify this change in thinking from "teaching" to "learning" as a "paradigm shift":

> In its briefest form, the paradigm that has governed our colleges is this: A college is an institution that exists to provide instruction. Subtly but profoundly we are shifting to a new paradigm: A college is an institution that exists to produce learning. (p. 12)

Guskin (1997) calls for a shift in focus from "how faculty teach" to "how students learn" (p. 6). He sees this as a way to create a learning environment that focuses directly on those activities that enhance student learning. There is increasing speculation about the true value of the primary learning environment of undergraduate students: the passive lecture-discussion format where faculty talk and students are supposed to listen (Guskin, 1997; Palmer, 1997; Terenzini and Pascarella, 1994; Warren, 1997). Terenzini and Pascarella (1994) identify the belief that teachers should lecture as an undergraduate "myth" that may actually impede the improvement of teaching and learning. They claim that "individualized and collaborative approaches to instruction are more effective because they respond better to differences in students, levels of preparation, learning styles and rates" (p. 29). Astin (1993)

believes that such alternatives work better than lecturing because they get students more involved.

In exploring how learning occurs in service-learning courses, this study supports a shift in focus from teaching to learning. As educators, administrators, and even society begins to rethink what learning in college is, this study provides evidence that students value their service-learning experience because it involves more than the mere acquisition of facts. Students thus feel challenged both affectivity and cognitively in their service-learning courses because they are given an opportunity to apply what they are reading to a real life experience which, in turn, stimulates them to examine and reflect not only on the reading itself but also on their own personal values and beliefs.

Redefining the Student Learning Experience

Cognitive research about the nature of learning informs us that students construct their own knowledge, that they benefit from working collaboratively, and that they do not all learn in the same way (Baxter Magolda, 1996; Major, 1999). Other research indicates that "students learn in a multitude of settings and in a variety of ways: intellectually, emotionally, physically, and simultaneously" (Fried, 1999, p. 10). Indeed, students don't compartmentalize their lives; rather they live complex lives – "an interconnected web of varied experiences" (Magolda, 1997, p. 16). Service learning thus provides an avenue to connect students' living with their learning. Rather than be asked to leave their emotions, opinions, and personal experiences at the classroom door, students are encouraged to reflect on their experiences in relation to the academic course material. Students in this study recognize the interconnectedness of service learning. They see their service activities as lived experiences that are interwoven with their academic experiences.

In short, this study provides information on more than just the processes -- application of course concepts to service experiences, reflection about that application, and the developmental nature of understanding/identifying learning outcomes -- by which students acquire new knowledge and skills. It also contributes to the current efforts to reconceptualize learning outcomes and processes by showing how students make sense of the new ideas, attitudes, people, and experiences that they are encountering through the service experience.

Academic and Student Affairs: Learning as a Shared Mission

By demonstrating the intricacy of the learning process – in particular the connections that students can make between life experience and traditional course work -- this study supports a growing movement to promote a greater sharing of responsibility for student learning between academic and student affairs. The call to enhance the connection between the classroom and student affairs practice can be heard from student affairs scholars and practitioners, and even from some faculty and higher education policy-makers (Baxter Magolda, 1996; Blake, 1996; Chickering & O'Connor, 1996; Engelkemeyer & Brown, 1998; Fried, 1999; Whitt, 1996). A joint report published in 1998 by the American Association for Higher Education (AAHE), the American College Personnel Association (ACPA), and the National Association of Student Personnel Administrators (NASPA) makes the case that "only when everyone on campus -- particularly academic affairs and student affairs staff -- shares the responsibility for student learning will we be able to make significant progress in improving it" (p. 1). Fried (1999) makes a similar comment: "the split in our universities between academic and student affairs diminishes the power of learning." She supports the idea of bridging the gap in order to help students learn as whole human

beings, "using their intellect to enhance their emotional and behavioral competence" (p. 12),
and thus becoming more effective citizens and members of their communities. This holistic
view of learning is becoming increasingly prevalent (Baxter Magolda, 1996; Baxter Magolda
and Terenzini, 1999).

As this study and others illustrate, learning is both a cognitive and an affective
process. When students in this study reflect on their learning outcomes, their comments are
strongly linked to personal, and occasionally emotional, experiences they have had at their
service sites. Students describe the personal connections they make with the people they
encounter at their service sites, and how these interactions strengthen their engagement in the
academic course. Faculty report that service-learning students seem more motivated to learn,
and the students speak excitedly about the interconnectedness of the course and the service
experience.

By connecting students' academic lives with their personal lives, service learning has
the potential to unite and integrate academic and student affairs in new ways. Faculty, who
are more experienced in the traditional classroom, can be teamed up with student affairs
practitioners, who are typically more accustomed to working with communities, student
groups, and community service agencies. As Eyler and Giles (1999) note, "Few efforts in
higher education involve the chaplain's office, student affairs, and members of the faculty as
service-learning does" (p. 10). A recent survey of 27 colleges and universities with model
service-learning programs notes that that 56% of the programs report to academic affairs,
19% report to student affairs, and 26% report to both academic and student affairs
(Schneider, 1998). Many of the respondents report that they "maintained strong relationships
with both areas, regardless of reporting structures" (Schneider, 1998, p. 9). According to

Schneider, these respondents recognize the interconnected nature of service learning. It is also possible that as service-learning centers and programs have developed in recent years, practitioners have strategically housed their programs in academic affairs to strengthen service-learning's appeal to faculty as a legitimate instructional method. Of course, if service learning is to undergo significant expansion in the near future, it will almost certainly have to be connected administratively to academic affairs.

In short, service learning provides both students and faculty with an opportunity to see that the dichotomy between cognitive learning and personal development is a false one (Baxter Magolda, 1996). In fact, service learning offers the opportunity to create what George Kuh (1996) describes as a "seamless learning environment":

> The word seamless suggests that what was once believed to be separate, distinct parts (e.g., in-class and out-of-class, academic and non-academic; curricular and cocurricular, or on-campus and off-campus experiences) are now of one piece, bound together so as to appear whole or continuous. In seamless learning environments, students are encouraged to take advantage of learning resources that exist both inside and outside of the classroom...students are asked to use their life experiences to make meaning of material introduced in classes....(p. 136)

Theoretical Implications

What do our findings tell us when viewed through the lenses of various theories? In this section we discuss the possible theoretical implications of our quantitative and qualitative findings by examining them through the lenses of student involvement theory and standpoint theory.

Student Involvement Theory

In the quantitative analysis, we found that the positive effects of both service learning and of "generic" community service are mediated in part by reflection activities involving faculty-student and student-student interaction. Likewise, our qualitative analysis provides rich, concurrent evidence that confirms the educational value of these same interactions as well as the importance of keeping a journal.

The theory of student involvement (Astin, 1984) maintains that the quality and quantity of the student's academic and personal development is a direct function of the student's degree of <u>involvement</u> in the academic experience. Involvement, in turn, is defined in terms of the amount of time and physical and psychological energy that the student devotes to the learning experience. A substantial body of research (Astin, 1975, 1977, 1993; Pascarella and Terenzini, 1991) suggests that there are at least major forms of involvement that enhance student development: academic involvement (e.g., studying), interaction with faculty, and interaction with fellow students.

The effectiveness of service learning as a pedagogical tool thus appears to involve a combination of the following forms of involvement:

- Academic involvement: e.g., theoretical grounding/course content/journal writing
- Involvement with people at the service site
- Student-student and student-faculty involvement: e.g., reflection
- Student discussions facilitated by faculty

One of the limitations of much of the research evidence concerning involvement is a lack of specifics concerning <u>how</u> each form of involvement might facilitate the learning process. Accordingly, in the next few paragraphs, we discuss how each of these forms of involvement might contribute to the effectiveness of service learning.

Academic involvement. In service learning, the readings provide a theoretical foundation of knowledge or a context for the service experience. Students may thus be able to observe the phenomena described in their readings when they go to the service site. In particular, for abstract phenomena such as differences in social class or access to opportunity, service learning allows students not only to witness what they read about, but also to engage in human interactions that illuminate these readings. It thus seems reasonable to conclude that the student's involvements in both the academic material and the service experience are mutually reinforced as a result.

Another form of academic involvement is keeping a journal. Documenting their feelings and thinking relative to their readings and site experiences offers a way for students to identify relevant feelings and ideas and to speculate on why they feel and think the way they do. Journal writing can be a particularly helpful tool in jogging students' memories and in correcting their selective memory during class discussion. Our study also suggests that a particularly effective technique is for faculty to ask students to focus their journal entries on connections between the academic content and their service experiences. Thus, keeping a journal may also contribute to student-student and student-faculty involvement (see below).

Involvement with people at the service site. As demonstrated by our qualitative findings, spending time at the service site can result in an enormous amount of cognitive dissonance. Beliefs may be contradicted by what students encounter. A student may believe, for example, that all people have sufficient opportunities to succeed if they just work hard enough. The longer they interact with the participants at the site, however, the more likely they may be to reassess such initial beliefs. Their capacity for empathy may also grow as they begin to move their focus from themselves and their internal processes to the feelings

94

and thoughts of clients and staff at the service site. This greater empathy may, in turn, strengthen the student's involvement in both the service and academic work.

Involvement with Faculty. Service learning can foster greater student involvement with faculty by encouraging students to share with faculty questions or insights about the theoretical course material that emerge from the service experience. At the same time, faculty can foster rich discussions among students by asking them to connect their experiences with their course readings and to share their internal processes (thinking and feeling) about engaging in service. They may ask, for example, how do students' observations at the service site correspond/differ from what they've read? Why do they think these similarities/differences exist? What does all of it mean? What are the implications of their service activity? It is thus easy to see why journal writing is critical to getting the most from classroom conversations: If students have not recorded and pondered their service experience and their reactions to these experiences, they may not be able to identify or articulate the major insights, issues and questions that emerge from these experiences.

Involvement with other students: In addition to the classroom reflection already discussed, service learning provides a number of other ways to foster student-student involvement: carpooling to and from the service site, listserves, on-line chat rooms and bulletin boards, exchanging phone numbers, meeting before class as well as informal opportunities for student interaction that often arise at the service site.

It should also be noted that involvement in service learning provides faculty with many opportunities to reflect and learn. Their interactions with students and other faculty can contribute to a deeper understanding of self and of their approaches to their students/courses/teaching/mentoring. At the same time, by interacting with staff and clients

95

at the service site, faculty may be led to re-examine their beliefs concerning members of the community, their views about their subject matter, and, indirectly, themselves. Finally, by observing their students in the community, faculty may begin to perceive them differently and to alter their teaching methods in ways that will enhance student learning.

Standpoint Theory

Standpoint theory offers another lens to interpret service learning. On one hand, it helps us to explain how service learning fosters the development of empathy in students. On the other, standpoint theory raises a question not explored in the present study: the possibility that service learning may not always be perceived as a valuable activity by people in the community.

Sandra Harding describes standpoint theory as a frame from which research originates:

> Standpoint theories show how to move from *including* others' lives and thoughts in research and scholarly projects to *starting from* their lives to ask research questions, develop theoretical concepts, design research, collect data, and interpret findings (1991, p. 40).

Instead of simply accepting the scholarly course material as the only group perspective (i.e., the perspectives of the highly educated scholars and theorists who are responsible for the formal course subject matter) for studying marginalized populations (the "Other") relative to the self, the student has an opportunity to experience the "Other's" perspective directly and to look at how this alternative perspective may compare and contrast not only with the scholarly perspective, but also with the student's preconceived beliefs about marginalized groups.

In conceptualizing inquiry, standpoint theory advocates an abstract shifting of one's mind to another's perspective. Service learning appears to actualize standpoint theory by

requiring students to physically transport themselves to a site where they not only imagine, but are actually able to experience beginning at the "other's" standpoint. Imagining the "Other" becomes reality in a physical sense. However, we might assume too much if we believe that just physically locating students at a service site will automatically enable them to understand the lived experience of the staff and clients of the service site. Students also need to "hear" the stories of these people, and not simply filter them through the scholarly lenses that the course readings and lectures provide.

Service learning has sometimes been criticized on the grounds that it might reflect an attitude of *noblesse oblige*, i.e., the privileged doing good by helping the less fortunate. Standpoint theory offers a way to test such arguments by pushing faculty and students to understand the perspective of members of the service site: do they see college and university faculty and students as engaging in service primarily to benefit themselves? Do they see students as unreliable service providers who engage briefly with clients and then leave abruptly when it suits their purposes? From the perspective of the "Other," what does the "face" of service learning look like and what does this "face" say about service learning as a means by which to establish relations with the community? To what extent does service learning simply confirm community members' perceptions of higher education as a place of privilege, populated by people far removed from their daily experiences? Or, to what extent do community members' interactions and meaning-making with students help them to learn that higher education differs from their original perceptions? By exploring such questions, faculty can learn how best to design courses and to prepare relatively homogeneous groups of middle-class students to serve much more diverse communities effectively. Ideally, the readings, reflections and facilitated discussions, combined with a concerted effort to see the

97

"Other's" perspective, would help to prepare faculty and students to become effective partners with community members and to identify and address their real needs.

Standpoint theory, then, helps us to conceive of service learning as a pedagogical tool for developing empathy and a conscientious reminder of the perspectives of people in the community.

Implications for Further Research

In the still relatively limited research literature on service learning (Eyler and Giles, 1999) this study is unique because it is national in scope, longitudinal, and combines quantitative and qualitative research methods. Specifically, our research has utilized a variety of methodological approaches to shed further light on the efficacy of service learning in producing its intended outcomes. As Shumer (1997) states: "Unlike traditional educational programs, where curricula tend to be fixed, the methods of instruction controlled, and the expected outcomes predictable, service-learning is anything but fixed, controllable and predictable" (p. 79). Indeed, the different aspects of the service-learning experience (i.e. number of hours of service, type of service placement, academic discipline and course structure, type of reflection activities, etc.) need to be systematically assessed to gain a clearer understanding of their influence on the outcomes.

In their 1998 article, "A Service Learning Research Agenda for the Next Five Years," Dwight Giles and Janet Eyler listed the top ten unanswered questions in service-learning research. This study clearly contributes to answering the first question on the list: "How can service learning enhance subject matter learning?" (Giles and Eyler, 1998, p. 65). The fact that our study was longitudinal allowed us to determine relatively long-term effects of

98

service learning on outcomes such as plans to participate in service after college, self-efficacy, and career development.

Perhaps the major limitation of this study—and of most other published studies of service learning to date—is the fact that differences by field and the type of institution have not been examined systematically. Our site visits to various campuses suggested that there may well be important differences in the way that service learning works, depending upon the particular academic discipline concerned. Even within a given discipline such as psychology, for example, there may also be important differences across the different subspecialties (clinical, educational, social, and so forth). In short, what we are suggesting here is that there may well be <u>interactions</u> between some of the key variables identified in this study—reflection, for example—and the subject matter of the academic discipline involved.

It is also possible that there may be important interactions involving institutional type: public vs. private, large vs. small, selective vs. non-selective, historically black vs. predominantly white, rural vs. urban, and so forth. (While the current study <u>controlled</u> for the main effects of such variables, it did not examine their possible interaction effects.) Moreover, we might also expect to find interaction effects depending upon the type of service placement involved (schools, community agencies, and so forth).

Another aspect of this research which needs much greater attention was suggested by our brief description (above) of standpoint theory: how is the service activity and the students who perform it perceived by and experienced by the recipient agency and client? Is the educational value of the experience dependent upon the manner in which the service is perceived and experienced?

Still another issue is the preparation and training of the student service-providers. This study provides some evidence suggesting that the quality of the learning is enhanced when students receive formal training prior to their service, but much more evidence is needed concerning the type and duration of training, and whether the importance of training varies by discipline and type of field placement experience.

A final issue for further research concerns "cognitive" learning as traditionally perceived by many faculty. Our evidence with the graduate and professional school admissions test—LSAT, GRE, MCAT—was inconclusive, although there was some very preliminary evidence suggesting that performance on the LSAT might be enhanced by faculty attempts to generate active reflection among students. The major unanswered question, of course, concerns the specific course content, which is only tangentially related to the contents of types of standardized tests used in this study. Moreover, one might question whether multiple-choice tests of this sort are appropriate ways to assess learning—even cognitive learning—in most undergraduate courses. The whole question of how to assess "academic" outcomes is far from resolved in academe, and there is no way we could take on such a massive conceptual and methodological question in this particular limited study. While it is true that service learning appears to enhance academic performance as traditionally defined by the GPA, the effects were quite weak, and one might question whether the GPA is an adequate measure of course-based cognitive learning. Clearly, this is an area that needs much further research.

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APPENDICES

Institutions Participating in Substudy of Service Learning Courses

The following institutions identified service learning participants for our substudy of service learning courses.

1. Augsburg College (MN)

2. Bentley College (MA)

3. Evergreen State College (OR)

4. Florida State University

5. Georgetown University (D.C.)

6. Loyola College (MD)

7. North Central College (IL)

8. Pacific University (OR)

9. Pepperdine University (CA)

10. Rollins College (FL)

11. Saint Mary's College (CA)

12. Susquehanna University (PA)

13. University of California, Los Angeles

14. University of Idaho

15. University of Michigan

16. University of Richmond (VA)

17. University of San Diego (CA)

18. Valparaiso University (IN)

19. Wheaton College (MA)

Sample Faculty Interview Invitation Letter

October 13, 1998

Dear Colleague:

This letter is to confirm an offer that has already been extended on our behalf by Regan Schaffer of the Office of Service-Learning. We would like to invite you to participate in a national study of service-learning courses at a diverse sample of colleges and universities. We hope to have a conversation with you about your experiences in designing and implementing a service-learning course. If possible, we would also like to visit any service-learning course(s) that you may be currently teaching this semester.

We hope that you will participate in this study. We plan to be on your campus during the weeks of November 9-13 and November 16-20 to conduct one-hour interviews. Regan Schaffer will be contacting you to confirm a time and a place that is convenient for you.

Thank you.

Sincerely,

Alexander W. Astin
Professor,
University of California, Los Angeles

Lori Vogelgesang
Research Analyst,
University of California, Los Angeles

Elaine Ikeda
Research Analyst,
University of California, Los Angeles

Cc: Regan Schaffer

Faculty Information Sheet
A Study of Service Learning

You indicated your willingness to be interviewed as part of a research study of service learning in higher education. The main purpose of this research is to learn more about how service enhances learning in academic courses.

If you participate in this study, you will be asked to take part in an interview with Elaine Ikeda, lasting about one hour, during which you will be asked to comment on the your experiences teaching a service-learning course.

Data collected in this study will be ANONYMOUS. No identifying information will be recorded on tapes or other documents that could link actual participants with information they have provided. Elaine Ikeda will have your name and contact information for purposes of making the interview appointments, but no information that could identify you will be associated with either her notes of the interview or the interview tapes.

With your permission, the interview will be recorded on audio tape and transcribed. You may decline to be recorded, and you may have the recorder turned off at any time during the interview. After the audio tape is transcribed, all names will be removed from the data and the tape will be destroyed. You have the right to review, edit or erase all or part of the tape.

If you have any questions about this research, you can contact Elaine Ikeda at the Higher Education Research Institute at UCLA, 310/825-1925.

Your participation is VOLUNTARY. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have any questions about the rights of subjects, feel free to contact the UCLA Office for the Protection of Research Subjects, 2107 Ueberroth Bldg., Box 95-1694, UCLA, Los Angeles, CA 90095-1694, (310) 825-8714.

My signature indicates that I have read and understand the information provided above, and that I willingly agree to participate in this research study. **I will receive a copy of this form.**

_____   _____

Signature of Research Subject   Date

In my judgment the subject is voluntarily and knowingly giving informed consent and possesses the legal capacity to give informed consent to participate in this research study.

_____   _____

Signature of Investigator   Date

Contact Information:
If any questions arise concerning your role in this study, please don't hesitate to call Elaine Ikeda at (310) 825-1925. Thank you again for your participation.

A-4

Student Interview Consent Form
A Study of Service Learning

You indicated interest in volunteering to be interviewed for a study of service learning courses conducted by Elaine K. Ikeda, a graduate student in the Department of Education at UCLA. The main purpose of the study is to learn more about students' experiences in service learning courses.

The interview will take about 60 minutes in which you will be asked to comment on your experience in a service learning course. The interview will be conducted by Elaine K. Ikeda, a graduate student researcher. Your professor will not be present and will not have access to your interview at any time. Your participation in this interview will have absolutely no bearing on your course grade.

Any information in the interview that can be identified with you will remain CONFIDENTIAL and every effort will be made in the write-up of this study to maintain your anonymity. Pseudonyms will be utilized throughout the manuscript, and any information that can possibly identify you exactly will be omitted to maintain your anonymity.

With your permission, the interview will be recorded on audio tape and transcribed. You may decline to be recorded, and you may have the recorder turned off at any time during the interview. After the audio tape is transcribed, all names will be removed from the data and the tapes will be destroyed.

Your participation is VOLUNTARY, and your willingness to participate will have no effect on your UCLA status. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have any questions about the rights of subjects, feel free to contact the UCLA Office of Protection of Research Subjects at (310) 825-8714.

SIGNATURE OF RESEARCH SUBJECT

My signature indicates that I have read and understand the information provided above, and that I willingly agree to participate in this research study. **I will receive a copy of this form.**

_____ _____
Signature of Research Subject   Date

SIGNATURE OF INVESTIGATOR

In my judgment the subject is voluntarily and knowingly giving informed consent and possesses the legal capacity to give informed consent to participate in this research study.

_____ _____
Signature of Investigator   Date

Contact Information:
If any questions arise concerning your role in this study, please don't hesitate to call
Elaine K. Ikeda at (310) 825-1925 in the office or (818) 362-0306 at home. Thank you again for your participation.

A-6

Service Learning Course

Faculty Interview Protocol

Participant: _____

Date: _____

Interview #: _____

Introduction: Through this study we are hoping to gain a better understanding of how faculty have integrated service into their curriculum. As a faculty member teaching a service learning course, your perspectives are invaluable. Your participation in this interview is completely voluntary, and you may choose to not answer any of the questions I pose today. There are no right or wrong answers. I am most interested in hearing about your experiences, your perspectives, your beliefs, and your stories. (Ask participant to read and sign consent form, review any questions regarding confidentiality, and ask permission to tape record the interview). Do you have any (other) questions before we begin?

1. **Background**
    a. How long have you been at this institution?
    b. How do you identify your field or discipline?
    c. How did you get involved in service learning?
        Probes:
        - Have you attended any service learning trainings?
        - Have you taught any other courses incorporating service?
        - Did you previously teach this course without a service component?

    d. Are you currently teaching this course? If no, do you have plans to teach it again soon?

2.   Service Learning Course

Every course we craft is a lens into our fields and our personal conceptions of those disciplines or interdisciplines. These questions attempt to capture the particulars of classroom practice. I'd like to you to think carefully about the shape and content of your course in answering the following questions:

a.   Tell me about this particular course (service learning course).

b.   What are your overall aims for this course? What would you like to see happen with the students and the course?

c.   How do you see the by-play back and forth between the formal academic content and the service experience? Probes: In what ways do you make connections between the formal academic content and the service experience?

d.   What do you think are the strong points in the course right now? What do you think is having the best impact on the students right now? Probe: ask them to describe a particular situation or provide an example of what they are talking about.

e.   How do you go about conducting the course? Briefly describe how you introduce the course to the student and how you orient them.

f.   Do you incorporate reflection into this course? If so, what kinds, and how?

g.   What do you see as the most effective methods of integrating service learning into the curriculum?
Probes - what was most helpful to you when you were putting this course together? Service learning center staff? Other faculty who have already done service learning?

If there isn't enough time for these remaining questions, skip to section 3 below.

       h.   I'm particularly interested in the learning process in service learning courses and I'd like to understand the process in greater depth if I can. Can you give me some examples (from the current course) of things that happen that lead you to believe that students are changing or really being affected by this course or by the service experience? In what ways are they being changed and affected by the experience?

       i.   Ask any questions that relate to classroom observations, or to student interview comments (maintaining anonymity).

3.   Faculty Impact

       a.   How has teaching this course affected you personally and professionally? Probes: Has it changed the way you look at curriculum reform? Has it changed how you look at your department or undergraduate program? Has it changed your perspective on students? Has teaching a service-learning course had any effect on your collegial relationships or on your status in the department/campus?

       b.   Has service learning impacted your department/colleagues/campus?

      Closing: Do you have any comments you wish to add to any of the issues we have discussed today?

Thank participant. Ask permission to contact them for any follow-up questions if necessary at the end of the data collection process.

Service Learning Course

Individual Student Interview Protocol

Participant: _____

Date: _____

Interview #: _____

Introduction: Through this study we are hoping to gain a better understanding of how you are learning. As a student who participated in a _____ course, your perspectives are invaluable. Your participation in this interview is completely voluntary, and you may choose to not answer any of the questions I pose today. There are no right or wrong answers. I am most interested in hearing about your experiences, your perspectives, your beliefs, and your stories. (Ask participant to read and sign consent form, review any questions regarding confidentiality, and ask permission to tape record the interview). Do you have any (other) questions before we begin?

1. **Background**
   a. What year in school are you?
   b. What is your major?
   c. How does this class fit in with your academic plan? Why did you choose to take this course? Had you heard any comments about the course before? Did you know that there was a service component to this course?
   d. Have you taken any courses before that have had a service component?

2. **Student Learning (General)**
   a. Have you volunteered or worked in an elementary school setting before?
   b. What do you like most about this course?
   c. What do you feel that you are learning in this course?
   d. How are the readings for this course? Do you find them easy, difficult?
   e. Describe any connections you see between the academic material that you are learning about in class, and the work you are doing at Moffett?
      Probes:
         Are you drawing on site to help you understand the readings? How?
         Does it help to write the fieldnotes? Do you reflect on what you are doing at site in the fieldnotes?
         Do your reflections change the way you perform your service?
         Do your reflections enhance the classroom learning?
   f. Describe any kind of impact that this course is having on you, personally and academically.

g. How does this class compare to your other classes? Are they straight lecture? Is there more student participation in this course? Are they all science courses? Does this course require more work?
h. How are you doing in this course? What kinds of feedback have you received from the instructor/T.A.s?

Closing: What other comments do you have on any of the issues we have discussed today?

Thank participant. Ask permission to contact them for any follow-up questions if necessary at the end of the data collection process.

Student Focus Group Interview Protocol

Service Learning Course

Focus Group Interview Protocol

Participant: _____

Date: _____

Interview #: _____

Introduction: Through this study I am hoping to gain a better understanding of how you are learning. As a student who participated in a _____ course, your perspectives are valuable. Your participation in this interview is completely voluntary, and you may choose to not answer any of the questions I pose today. There are no right or wrong answers. I am most interested in hearing about your experiences, your perspectives, your beliefs, and your stories. (Ask participant to read and sign consent form, review any questions regarding confidentiality, and ask permission to tape record the interview). Do you have any (other) questions before we begin?

1. **Background**
   a. What year in school are you?
   b. If not currently enrolled: How long ago did you take this course?
   c. Could you tell me why you decided to take this course?

2. **Student Learning (General)**
   a. Is there anything special or unique about this course? Have you taken similar courses before?
   b. How has this course affected you?
   c. What do you feel that you are learning (did learn) in this course?
   d. What did you enjoy most about this course?

3. **Service Learning**

   I'd like to now focus some questions on the service component of the course.

   a. Please describe the service component of this course for me.
      Probes: #hours per week, types of clients, description and location of the site, type of service performed, training received for the service, etc.

   b. Describe any connections you see between the academic material that you are learning about in class, and the community work/service work you are doing?

Probes: What types of things do you do in class to help make connections between service and learning? What kinds of reflection do you do in this course? What do you reflect on? How is self-reflection structured? In class, out of class? Solo or group setting? Do your reflections change the way you perform your service? Do your reflections enhance the classroom learning?

c. Describe any kind of impact that this course is having on you, personally and academically.

Closing: What other comments do you have on any of the issues we have discussed today?

Thank participant. Ask permission to contact them for any follow-up questions if necessary at the end of the data collection process.

Service Learning Course

Site Administrator Interview Protocol

Participant: _____

Date: _____

Interview #: _____

Introduction: Through this study I am hoping to gain a better understanding of how the service experience enhances learning in service learning courses. As an administrator at the service site, I feel that you can add significantly to this study.   Your participation in this interview is completely voluntary, and you may choose to not answer any of the questions I pose today. There are no right or wrong answers. (Ask participant to read and sign consent form, review any questions regarding confidentiality, and ask permission to tape record the interview). Do you have any (other) questions before we begin?

1.   **Background**
   a.   Please describe how this relationship between UCLA and your site evolved. Probes: Describe your role here and your interaction with the UCLA students. How long have you been working with student volunteers in relation to this course?

   b.   How many students typically volunteer here each quarter? (# hours per week)

2.   **Student Involvement**

   a.   Please describe how students are involved here. What types of activities are students involved in here?

   b.   Please describe any expectations you have of the students.

   c.   What are students learning by volunteering at this service site?

   d.   Please describe the orientation students receive before volunteering here?

   e.   Are there students volunteering here who are not a part of this particular class? If yes, do the students differ in any way?

   f.   What types (if any) of feedback do you provide students with?

3.   Faculty Involvement

> a.   Please describe the relationship you have with the UCLA faculty coordinating this course. How often do you meet with them? How do you communicate your needs (the needs of clients) to them?

Closing: Do you have any other comments on the issues we have discussed today?

Thank participant. Ask permission to contact them for any follow-up questions if necessary at the end of the data collection process.

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University of California, Los Angeles

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