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IS SERVICE-LEARNING REALLY BETTER THAN COMMUNITY SERVICE?

A STUDY OF HIGH SCHOOL SERVICE PROGRAM OUTCOMES

Andrew Furco

BACKGROUND AND OVERVIEW

In their 1981 study, the *Experiential Education Evaluation Project*, Dan Conrad and Diane Hedin investigated the impact of a range of experiential education programs on secondary school students. The study, which involved more than 1000 secondary school students, compared the effects of five different types of experiential education programs—community service, internships, political action, community study, and adventure education—on students' psychological, social, and intellectual development. The study found that the various programmatic forms of experiential education showed significant, positive effects in all three student outcome areas. It also revealed that certain programmatic features, such as clearly articulated program goals and well-delineated program structures, create the conditions under which the student outcomes are manifested.

Recent federal legislation, namely the passage of the 1990 National and Community Service Act and the 1994 School-to-Work Opportunities Act, has further promoted the development of experiential learning activities for K-12 students. Much of the recent emphasis of school-based experiential education programs has been on student *service* programs. These programs provide experiential learning opportunities to students by engaging them in service-based experiences that address an authentic social issue in the community.

Three predominant forms of school-based service programs are community service, service-learning, and service-based internship programs. Although distinct on several dimensions, all three types use *service* as the primary means to engage students in experiential learning activities. Building off of Conrad and Hedin's study, the study described in this paper investigated how these three forms of school-sponsored service programs affect students' academic, career, personal, social, civic, and ethical development.

SIMILARITIES AND DIFFERENCES IN SERVICE PROGRAMS

Although all types of school-sponsored service programs seek to provide opportunities for students to engage in authentic community service activities that extend beyond the classroom, each type is intended to serve a specific set of educational purposes. Table 1 contrasts the educational purposes, intentionality, and focus of community service, service-learning, and service-based internship programs. As the table describes, each program type places a different amount of emphasis on service and/or learning and is defined by whether the primary intended beneficiary of the experience is the *service provider* or the *service recipient*.

Table 1. Distinctions Among Three Types Of Service Programs

	<i>Community Service</i>	<i>Service-Learning</i>	<i>Service-Based Internship</i>
Primary Intended Beneficiary	Recipient	Recipient AND Provider	Provider
Primary Focus	Service	Service AND Learning	Learning
Intended Educational Purposes*	Civic Development Ethical Development	Academic Development Civic Development	Career Development Academic Development
Integration with Curriculum	Peripheral	Integrated	Co-curricular/ Supplemental
Nature of Service Activity	Based on a Social Cause	Based on an Academic Discipline	Based on an Industry or Career

Notes: * In addition to their primary intended educational purposes, most service programs types intend to develop personal and social outcomes (Conrad & Hedin, 1989).

Having a strong emphasis on providing a "service," *community service* programs are primarily intended to benefit the recipient of the service activity (Furco, 1996). In high schools, for example, community service activities typically address a social issue (e.g., recycling, homelessness, AIDS, the environment) and are often part of after-school clubs that are not formally related to any academic course or curriculum. School-sponsored community service programs are intended primarily to foster students' civic participation and ethical (values) development (Delve & Mintz, 1990).

In contrast, *service-learning* seeks to engage students in activities that both combine community service and academic learning. Because service-learning programs are typically rooted in formal courses (core academic, elective, or vocational), the service activities are usually based on particular curricular concepts that are being taught. Many service-learning activities provide students with opportunities for further academic development by allowing them to apply their knowledge to address a curriculum-related need in the community (e.g., students in a geometry course use their understanding of geometry to design and build wheelchair access ramps for disabled persons). While students may develop socially and personally, the primary intended purpose of service-learning is to enhance students' academic development and civic responsibility (Conrad & Hedin, 1989; National and Community Service Trust Act, 1993).

In service-based *internship* programs, students tend to spend time at an agency to learn about a particular career industry while applying their academic knowledge and professional skills to complete specific projects at the agency. For the most part, the program emphasizes the students' learning (rather than the serving the agency). According to the American Vocational Association (1994), internship programs are concerned primarily with preparing students to be productive workers. Some experts have argued that internships are not truly a type of *service* program but rather refer to a *work-based learning* or "job readiness" program (Hamilton & Fenzel, 1988; Kendall & Associates, 1990). However, according to Dwight Giles and Jamille Freed (1985), *internship* is a generic term that is part of a cluster of educational methods (including community service and service-learning) known as "off-campus" education (in Kendall & Associates, 1990, p. 349). And not only do students in internship programs often provide a "service," but students who perform service as part of a school-sponsored program are oftentimes said to be performing an "internship."

FOCUS OF THE STUDY

Recent reviews of the research on school-sponsored service programs reveal a broad range of possible student outcomes. The outcomes of stu-

dents engaged in community service, service-learning, and service-based internships programs have included positive effects on students' academic, social, personal, career, ethical, and civic development (Alt & Medrich, 1994; Andersen 1998; Billig, 2000; Conrad & Hedin, 1991; Furco, 1994). However, despite a growing body of research that supports the educational benefits of service programs, there is still much that remains unknown about the programmatic features of service programs that have the greatest effect on students or how different types of service programs affect students (Billig, 2000; Waterman, 1997).

In the last few years, a growing amount of attention has been given to *service-learning*. Some educators believe that service-learning helps legitimize the engagement of students in service activities because of its intentional learning component (Wade, 1997). In describing the difference between community service and service-learning, Carole Kingsley and Kate McPherson (1995) write, "The added dimension of learning provides depth to young people's experiences, helps support their social and personal development, and provides integrated curriculum and instruction to support school reform experiences" (p. 3).

On many fronts, service-learning is touted by educators as an academically rich form of service-based experiential education. Service-learning is viewed by some educators as more educationally beneficial than community service because service-learning provides opportunities for formal reflection, whereby students deepen their understanding of the academic content they are studying and the social issue they are addressing (Eyler & Giles, 1999). A number of states, such as California, Florida, Pennsylvania, and Minnesota, have established statewide service-learning initiatives that support intentional and strategic ties between community service and students' academic work. Service-learning advocates purport that the intentional academic connections that service-learning provides raise the academic legitimacy of school-sponsored service programs (Bhaerman, Cordell, & Gomez, 1998). Some educators have gone as far to say that service-learning goes beyond community service because service-learning experiences "connect students to their communities, enrich students' learning, and help them develop personally, socially, and academically" (Kinsley & McPherson, 1995, p. 1).

But is service-learning really better than community service? Are the educational and developmental outcomes of students engaged in service-learning better than for students engaged in community service or service-based internship programs? The goal of this study was to determine if community service, service-learning, and service-based internship programs, with their respective intended beneficiaries, foci, and educational purposes, affect students in different ways.

To answer this question, the study investigated the ways in which 529 high school students participating in high quality community service, service-learning, and service-based internship programs at two schools were affected by their involvement in the respective programs. Specifically, the one-year study addressed two research questions:

1. Are there significant differences in educational development between students who perform service (through any type of service program) and students who do not perform service?
2. Are there significant differences in the educational development of students who participate in different types of service programs?

The first question sought to ascertain the extent to which this research supports earlier research findings about the overall outcome of service programs. While the findings have not been definitive, a growing body of research suggests that service programs, in general, have positive educational outcomes for students (Billig, 2000). The second question sought to determine if particular types of service programs lend themselves to fostering particular student outcomes. An exploration of this question will help move us closer to determining if indeed there are significant differences in the way different types of service programs affect students.

ASSESSING THE EDUCATIONAL OUTCOMES OF SERVICE PROGRAMS

As forms of experiential learning, community service, service-learning, and service-based internship programs are rooted in well-established educational and cognitive theories of constructivism, pragmatism, progressivism, and experiential education (Bruner, 1960; Dewey, 1938; Freire, 1970; Gardner, 1984; Kohlberg, 1984; Kolb, 1984; Lave, 1988; Piaget, 1954). These theoretical foundations, especially those focused on experiential education, cover a broad range of cognitive and affective outcomes for students. The educational domains of experiential learning programs encompass students' intellectual, social, personal, civic, moral, and vocational development (Boud, Cohen, & Walker, 1993; Conrad, 1980; Dewey, 1938; Kolb, 1984; Perry, 1970).

Experiential education supports the idea that the purposes of education extend beyond the academic or cognitive development of students. Although some service programs (namely, service-learning programs) are intended to advance students' development in the academic domain, other types of service programs are intended primarily to foster development in the non-academic or affective domains. Goodlad (1984) defines the affective

tive educational domains as personal, career, social, ethical, and civic development. In his book, *A Place Called School: Prospects for the Future*, Goodlad proposed a set of educational goals (or purposes) for all K-12 schools.

What is most striking about Goodlad's (1984) goals for education is their close alignment to the overarching educational goals of school-sponsored service programs. Conrad and Hedin's (1981, 1989) assessments of the benefits of service programs for young people resulted in a list of student outcomes that not only span a broad range of cognitive and affective domains, but also match Goodlad's educational goals for K-12 schools. Specifically, Goodlad's goals and Conrad and Hedin's service program aims and outcomes focus on following six educational domains:

1. *Academic domain:* developing students' mastery of course content, thinking and problem solving skills, and attitudes toward school and learning.
2. *Vocational (Career) domain:* developing students' ability to select a gratifying and rewarding occupation, knowledge of career options, positive attitudes toward work, and realistic ideas about the world of work.
3. *Personal domain:* developing students' self-concept, self-esteem, resiliency, leadership, independence, local of control, and personal power.
4. *Civic and cultural domain:* developing students' understanding of the working of government, willingness to participate in civic life and the community, and awareness of their cultural heritage.
5. *Ethical domain:* developing students' judgements of good and evil, moral values, moral integrity, and ability to take responsibility and deal with consequences of actions.
6. *Social domain:* developing students' interpersonal understandings, ability to work productively with others, appreciation of opposing value systems, appreciation of cultural differences, concern for others, and skill in caring for others.

These six educational domains provide the framework for studying the outcomes of the various types of school-sponsored service programs.

PREVIOUS STUDIES OF SERVICE PROGRAM TYPES

Despite the growing body of evidence that well-designed service programs can foster positive educational outcomes for students, it is unknown, at this time, which educational domain is affected most by which type of service program. To date, only a handful of studies have attempted to compare the outcomes of different types of K-12 service programs.

In his original 1980 study, Conrad explored the outcomes of four types of experiential education programs—community service, community study, internships, and outdoor adventure—and a set of non-experiential comparison classrooms on the personal, social, academic, career, and ethical development of high school students ($n = 612$). Although the experiential education programs all had a strong service component, none of the programs were integrated into students' daily academic curriculum. Using a combination of researcher developed scales, well-tested psycho-social scales, and student report data on attitudinal scales, Conrad investigated the differences between the experiential and non-experiential groups in students' self-esteem, social responsibility, personal responsibility, attitudes toward adults, attitudes toward others, career maturity, moral reasoning, and problem solving skills. Conrad found that for every scale used in the study, students' gain scores (posttest score minus pretest score) were significantly higher ($p = .05$) than they were for those in the comparison group. However, in all cases, the effect sizes were quite small. In exploring the differences between each of the service groups (four experiential learning groups and the non-experiential group), Conrad found no significant differences in gain scores ($p = .05$) for any of the scales between any of the service program types. According to Conrad (1980), the greatest predictor of positive change for students was students' individual reports of their experiences. Conrad concluded that experiential education program outcomes are primarily based on students' individual experiences with particular activities rather than on any overall group outcome.

In 1981, Conrad, along with his colleague Diane Hedin, replicated this study with a larger sample. In this investigation, Conrad and Hedin studied 1000 secondary school students in 27 experiential education programs that were based on five programmatic types—community service, internships, political action, community study, and adventure education. They studied the differential effects of these programs on students' psychological, social, and intellectual development. Like the 1980 study, the findings revealed no significant differences in any of the domains between service program types. Conrad and Hedin concluded that the idiosyncratic nature of service experiences poses many challenges to studying the effects of service experiences within individual programs and across the five programmatic types.

In 1988, Hamilton and Fenzel compared the outcomes of two experiential education programs—a community service program and a child care assistance program—on youth's general knowledge acquisition, overall skill development, attitudes toward personal responsibility, and attitudes toward civic responsibility. This smaller study involved 73 youth, aged 11 to 16, who were part of a 4-H Series program in New York. This study utilized written questionnaires as well as interviews of the youth and the adults with whom they worked. The study findings revealed no significant differences ($p = .05$)

between the two groups. The study found that the youth in both groups gained in their general knowledge acquisition and overall skill development. In addition, the study found modest gains in both groups' levels of self-esteem and personal responsibility, as reported by the adults ($n = 11$) included in the study. Like Conrad, Hamilton and Fenzel found that gains in the youth's development varied more according to the participants' individual needs and experiences rather than by service program type.

Collectively, the findings from these studies suggest that there are no discernible differences in outcomes among types of school-sponsored service programs. As far back as 1981, Conrad and Hedin acknowledged that it is difficult to make broad generalizations about the outcomes of experiential education programs because of the idiosyncratic, individualized nature of students' learning experiences. And because individual studies have addressed different combinations of educational outcomes and have used different methodologies, data sources, instruments, and data analyses techniques to arrive at their conclusions, it remains unclear which educational outcomes are manifested by which service program type. As Billig (2000), Waterman (1997), and Shumer (1994) have suggested, the field of youth service needs more and better research on the effects particular types of service experiences have on students.

DESIGN OF THE STUDY

The study presented here utilized a quasi-experimental design to measure students' development across the six educational domains (academic, career, personal; social, civic, and ethical) identified by Goodlad (1984) and Conrad and Hedin (1989). Using 11 quantitative and qualitative measures, the one-year study compared the educational development outcomes of students in three service program categories (community service programs, service-learning programs, service-based internship programs) and a comparison group (students not engaged in any of the school-sponsored service programs). The constructs for each domain were based on the purported outcomes of service programs described in the service literature (Alt & Medrich, 1994) and on constructs defined in previous studies of community service, service-learning, and service-based internship programs.

Sample

The study involved 529 high school students who participated in a variety of service programs sponsored by two high schools in California. The two sites (School Site A and School Site B) were chosen because they each

offered three types of service programs (community service, service-learning, and service-based internship programs) to students and because all of the service programs had been formally acknowledged as being well-designed and of high quality. The two sites were both large comprehensive high schools with diverse ethnic populations.

To be eligible for the study, the classrooms and service programs at these sites had to have clearly defined educational objectives for students, experienced teachers who had been with the program for at least two years, identified service placements, and structured reflection activities. Based on each program's primary intended beneficiary, degree of emphasis on service or learning, intended educational purposes, the degree to which service was integrated with the curriculum, and the nature of service activities, the classrooms and programs were divided into three experimental groups—community service, service-learning, or service-based internships. In addition, ten classrooms (comparable to the experimental classrooms on grade level, subject matter, teacher experience, and student abilities) were selected from the two school sites to serve as a "no service" comparison group. In all, 34 classrooms/programs were included in the study. Table 2 details the breakdown of the student and classroom samples from the two school sites.

Table 2. Number of Classroom and Student Participants

Program Type	# of Classes/ Programs		Total Enrollment of Participating Classes/ Programs		# of Enrolled Students Participating in Study		# of Different Service Projects	
	School A	School B	School A	School B	School A	School B	School A	School B
Community Service	4	3	118	72	82	38	61	38
Service-Learning	3	6	92	161	72	56	11	43
Internship	4	4	89	84	51	45	48	45
No Service (Comparison)	8	2	231	59	131	54	0	0
TOTAL	19	15	530	376	336	193	120	126

Note: Not all students who were enrolled in the class or the program participated in the study. Students' participation in the study was based on active parental consent and students' enrollment in the course or program for the full academic year. In addition, parents consented to allow their child to participate in one, some, or all portions of the study. Therefore, not all students participated in all components (surveys, interviews, observations, etc.) of the study.

Instrumentation

Given the complex and idiosyncratic nature of service programs, the researcher sought to collect a wide range of data from a variety of data sources by using quantitative and qualitative approaches. Along with collecting pre/posttest survey data, which were analyzed quantitatively, data were also collected through focus group interviews, samples of student work, responses to journal questions, and classroom/program observations, all of which were analyzed qualitatively.

For this study, a 41-item pre/post attitudinal survey was developed to measure student outcomes in the six educational domains. The survey asked students to indicate their attitudes toward school and their local community as well as indicate attitudes about themselves and others. Most of the survey items were taken directly from a number of relevant, previously tested survey instruments (e.g., Rosenberg Self-Esteem Test, Pier-Harris Children's Self-Concept Scale, etc.) as well as from the survey used by Conrad and Hedin in their 1981 study. Specifically, the 41 item pretest and posttest measured the following constructs:

Academic domain: The survey measured changes in students' attitudes and motivation toward school and learning, understanding of relevance of academic content, and overall school performance.

Career domain: The survey measured changes in students' formulation of career plans and emphasis on finding a career that was personally rewarding and/or beneficial to others.

Ethical domain: The survey measured changes in students' attitudes toward standing up for what is right, willingness to participate on behalf of justice, and their ability to better distinguish between right and wrong, good and bad.

Social domain: The survey measured changes in students' ability to work with others and in attitudes toward those who are culturally and racially different.

Personal domain: The survey measured changes in students' self-esteem, self-concept, sense of self-empowerment, and overall leadership skills.

Civic participation domain: The survey measured changes in students' awareness of societal issues and willingness to take on active roles in the community.

A reliability test of the survey items in each domain revealed only fair to moderate Cronbach alpha levels (ranging from .43 to .72).

The pre/post survey instrument was supplemented with a series of qualitative instruments to form the *Evaluation System for Experiential Education*

(ESEE). ESEE system utilized the following set of 11 data collection instruments, protocols, and approaches as a means to capture the idiosyncratic essences of individual service programs as well as the broader, more generalizable data common to all service programs:

1. A researcher-designed student pretest/posttest survey instrument;
2. Student journals;
3. Semi-structured focus group interviews;
4. A content analysis of samples of student produced work (papers, portfolios, and presentations);
5. A student placement questionnaire;
6. Teachers' program goals and objectives;
7. Classroom site visits and observations;
8. Teacher focus group interviews;
9. A teacher questionnaire;
10. A community-based organization questionnaire; and
11. Formal and informal meetings with site administrators.

These instruments and protocols were designed specifically to capture the full range of students' service experiences as they related to each of the six educational domains. Collectively, they helped produce a comprehensive and rich data set that allowed for a variety of quantitative and qualitative analyses to be conducted.

Collection of Data

Over the course of the one-year study, data were collected from students ($n = 529$), teachers ($n = 24$), service coordinators ($n = 3$), site administrators ($n = 2$), and community agency representatives ($n = 17$). Based on parental consent, the pretest of the attitudinal survey was administered to 158 students in the service experimental groups and to 125 students in the no service comparison group at the start school year (prior to the start of the service activities). The posttest was administered to the same group of students near the end of the school year, after all the students in the service programs had completed their service activities.

Along with the survey administration, other complementary data from students, which included information from direct observations, interviews, journal entries, samples of student work and completed field placement forms, were collected. Each of these sets of data provided the researcher with additional information about the various aspects of the program and the students' individual development in the six outcome areas. At each of the two school sites, four in-depth student focus group interviews were con-

ducted using a sample of 32 randomly selected students (selected from the pool of 529 study participants).

Data about the students' educational development were also collected from teachers, site and program administrators, and community agency representatives. Teachers were asked to participate in a short interview designed to help provide the researcher with a clearer sense of the nature of the classroom and the service programs. All participating teachers ($n = 24$) completed a brief questionnaire that asked them to provide examples of the various ways students have developed through service. References to or descriptions of any of the six educational domains were coded and analyzed. Additional data were collected from the site service program coordinators ($n = 3$) and community-based agency representatives ($n = 17$).

Analysis of Data

The analysis process involved traditional quantitative statistical analyses and employed a variety of qualitative data analysis techniques.

Quantitative Data Analysis

The quantitative data analyses focused on answering the two hypotheses central to this study. The first hypothesis focused on the differences in outcomes between students who perform service and students who do not ($H_0: \mu_{\text{service}} = \mu_{\text{no service}}$; $H_1: \mu_{\text{service}} \neq \mu_{\text{no service}}$). This hypothesis sought to answer the question: Are there significant differences in educational outcomes between students who perform service (of any type) and students who do not perform service?

To test the null hypothesis, the community service, service-learning, and service-based internship student groups were combined to form the *service* group. The group of students who did not participate in a service program served as the *no service* or comparison group. After no serious violations of assumptions were found, it was determined that analysis of covariance (ANCOVA) could be used. To determine if there were significant differences between students who participated in a service program (of any type) and students who were not engaged in service during a one-year period, students' pretest domain scores and posttest domain scores were submitted to six ANCOVA's (one for each domain). To control for initial differences between the groups studied (e.g., service/no service), gender, ethnicity, and school site were used as conditions with grade level and students' pretest domain scores as covariates. Findings were considered significant at the .05 level of significance.

Similar quantitative analysis procedures were performed to address the second question of the study: Are there significant differences in educational outcomes among students in different types of service programs? This question sought to determine whether certain types of service programs tend to foster outcomes in particular educational domains. In this analysis, the three service groups were considered separately according to the service program type they represented. The no service group remained intact and was used as a comparison group (fourth group). Using the same pre and posttest data, and employing the same conditions and covariates as in the first analysis, an ANCOVA was conducted for each of the six educational domains. For the significant differences found at the .05 level, the Tukey Test was performed to determine between which groups (program type) the significant differences lay. The findings from these ANCOVA's were then compared with the findings from the qualitative data analyses.

Qualitative Data Analysis

The qualitative data analysis utilized an inductive approach whereby emergent patterns and themes were coded and then labeled. To conduct the analyses, all of the qualitative data from the various sources were recorded into meta-matrix cells. Along with helping to sort out the outcomes of each service program type in each of the six educational domains, the meta-matrix cells allowed for the quantification of the qualitative data (in terms of frequency and strength of incidence) and the identification of recurring themes among the data.

As the data were analyzed, quotes, observations, and other relevant information were sorted in a "cell" corresponding to the type of service program and educational domain to which the data referred. Only data that were considered *significant* were placed in appropriate cells for analysis. To be considered significant, each datum had to make a clear and overt statement, comment, or observation (positive, negative, or neutral) about students' development in one or more of the six educational domains *and* the statement, comment, or observation had to be clearly attributable to the programs that were being studied. The frequency and strength of the data from one cell (based on a program type and educational domain) were compared with the frequency and strength of the data from the other cells within that program type and educational domain. Through this comparative analysis, central themes were identified.

FINDINGS OF THE STUDY

Although the quasi-experimental nonequivalent-control-group design of the study could not establish firm causal relationships between service pro-

grams and their impacts on students, the design was successful in capturing recurring patterns of outcomes among the various types of service programs. The findings are presented here in accordance with the two questions central to the study.

Outcome Differences between the Service and No Service Groups

The findings from the quantitative and qualitative analyses revealed significant differences between the service group (combined community service, service-learning, and service-based internship students) and the no service group (students who did not perform service). The differences between the two groups were observed among most of the instruments and data sources used in the study.

Findings from Quantitative Analysis

The results of the ANCOVA's found that for each of the six outcome domains, the mean of the posttest domain score, adjusted for the covariates, was significantly larger for the service group than for the no service group at the .05 level of significance (see Table 3).

Table 3. ANCOVA Results for Student Survey Outcomes

Variable	Group	n*	Adj. Mean**	F	DF	Prob.	η^2
Acad.	Service	139	3.04	13.69	(1, 246)	.0003****	.053
	No Service	117	2.86				
Career	Service	136	3.21	10.96	(1, 237)	.0011****	.044
	No Service	112	3.06				
Ethical	Service	143	3.05	8.66	(1, 248)	.0036****	.034
	No Service	116	2.90				
Social	Service	138	2.93	10.44	(1, 240)	.0014****	.042
	No Service	112	2.81				
Personal	Service	113	2.91	6.67	(1, 197)	.0105***	.033
	No Service	95	2.82				
Civic	Service	142	3.02	5.58	(1, 246)	.0190***	.022
	No Service	115	2.91				

Notes: * The sample size of each group varies in each domain because of missing values (e.g., some students did not respond to certain survey items).

** Adj. Mean = mean of posttest domain scores, adjusted for the covariates.

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

When compared to students in the no service group, the students who engaged in service over the course of the year showed significantly higher gains in developing more positive attitudes toward school, themselves, others, the future, and their community, as measured by the student pre/post survey. These results were significant at the .05 level of significance for each of the six educational domains measured by the survey.

While it is not known what *caused* these differences, there is some indication that the engagement of these students in some form of service provided them with positive academic, career, ethical, social, personal, and civic outcomes that were not manifested among students in the no-service group. While the overall effect sizes are small, the quantitative findings are consistent with the results from the qualitative data analyses.

A second set of ANCOVA's was conducted for the six domains to determine if the interaction of gender, school site, and/or group influenced the posttest domain scores. Two-way and three-way interaction analyses were conducted for each domain, using gender, school site, and group as independent variables. Grade level and ethnicity, along with students' pretest domain scores, were used as covariates. The results of the interaction analyses revealed that the three-way interaction effect of group, school site, and gender was significant at the .05 level of significance for the academic ($F(1, 242) = 4.37, p = .038, \eta^2 = .02$) and ethical ($F(1, 244) = 4.27, p = .040, \eta^2 = .02$) domains only.

For the academic domain, the Tukey Test found that the adjusted mean of the posttest domain score of the male students of School Site B's no service group (Adj. M = 2.63) was significantly smaller than the adjusted means of all the service groups (both male and female) at both school sites (Adj. Ms = 3.00–3.15), at the .05 level of significance. For the ethical domain, the Tukey Test found that the adjusted mean of the posttest domain score of the male students at School Site B's no service group (Adj. M = 2.68) was significantly smaller than adjusted mean of the female students of school site A's service group (Adj. M = 3.13).

The results of these ANCOVA and Tukey Tests suggest that the significant findings in the academic and ethical domains from the first set of ANCOVA's might have been partially due to the effects of the three-way interaction of gender, school site, and group. These findings suggest that the interaction effects of gender, school site, and school, especially in regards to their effects on students' academic and ethical domains, should be explored further in future research studies.

Findings from Qualitative Analysis

As with the quantitative findings, the qualitative results revealed significant differences in outcomes between the service and no service groups.

While the ANCOVA's found these differences to be slight, the qualitative analyses detected some more robust differences between the two groups.

Consistently, among all the instruments and data sources, the findings from qualitative data analysis suggest that the service group contained more elaborate and profound discussions about student development across the six educational domains than did data from the no service group. Data from the service group tended to include overt links to how the service programs helped students work more effectively with others, develop their personal leadership skills, define their career goals, gain a better appreciation for their academic work, stand up for what is right, and develop a spirit for involving themselves in the community. In contrast, the no service group data included more casual references to the influences of the classes on students' academic development.

Content analyses of the meta-matrix cells revealed a general difference in tone between the data of the two groups studied. While the service students' experiences were typically described by students, teachers, and community agency members in a passionate and positive tone, data from the no service group tended to have a less enthusiastic and a more detached tone. The depth and profundity of the service group's data were a sharp contrast from the weaker, more superficial data of the no service group. Comments made by students during the student interviews, for example, revealed especially marked differences between the two groups. Overall, students in the service group tended to believe their service programs helped them in many ways, while the no service students were less inclined to say positive things about how their classroom activities affected them.

Generally, the response data from students in the service group were more positive, more personal, and more philosophical than were those from the no service group. One noted difference came in the *focus* of students' comments and attitudes. The majority (approximately 75 percent) of the service group's responses focused on issues outside of school. For example, many students in the service group discussed how they could "improve the world," "make the world a better place," "make life better for my family," and "make a difference in the lives of others." In contrast, the responses of the students in the no service group tended to focus on college, academic grades, and other school-related issues: "This class will determine if I get a 4.0 or not"; "This class will prepare me for college"; and "I like this class ... I learn a lot ... It has taught me good study skills." This difference in focus between the two groups suggests that service experiences potentially provide opportunities for students to expand their awareness of issues beyond school.

Outcome Differences Among Service Program Types

As with the first research questions, the researcher relied on a quantitative statistical approach and an inductive qualitative approach to determine whether there are differences in the outcomes between the four groups studied (community service, service-learning, service-based internship, no service).

Findings from the Quantitative Analysis

As with the ANCOVA's conducted for the study's first research question, the ANCOVA's for the study's second question used gender, ethnicity, and school site as conditions to control for initial differences among the groups; grade level and students' pretest domain scores were the covariates. The ANCOVA's were based on the same survey data that were employed in the quantitative analyses of the study's first question. Only now, the data from the three service groups were disaggregated and analyzed separately. The results of the analysis are detailed in Table 4.

Table 4. ANCOVA Results for Student Survey Four Program Types by Educational Domain

Variable	Group*	n**	Adj. Mean***	F	DF	Prob.	η^2
Acad.	CS	53	3.05				
	SL	48	3.06				
	IN	38	3.01				
	NS	117	2.86	4.64	(3, 244)	.004****	.05
Career	CS	48	3.22****				
	SL	48	3.22****				
	IN	40	3.20				
	NS	112	3.07	3.67	(3, 235)	.013****	.04
Ethical	CS	53	3.08				
	SL	49	3.02				
	IN	41	3.04				
	NS	116	2.90	3.05	(3, 246)	.029****	.04
Social	CS	53	2.95				
	SL	47	2.93				
	IN	38	2.90				
	NS	112	2.81	3.66	(3, 238)	.013****	.04

Table 4. ANCOVA Results for Student Survey Four Program Types by Educational Domain (Cont.)

Variable	Group*	n**	Adj. Mean***	F	DF	Prob.	η^2
Personal	CS	28	2.91				
	SL	46	2.91				
	IN	39	2.90				
	NS	95	2.82	2.21	(3, 195)	.088	.03
Civic	CS	48	2.98				
	SL	52	3.00				
	IN	42	3.08				
	NS	115	2.90	2.46	(3, 244)	.064	.03

Notes: * CS = community service, SL = service-learning, IN = service-based internship, NS = no service

** The sample size of each group varies in each domain because of missing values (e.g., some students did not respond to certain survey items).

*** Adj. Mean = mean of posttest domain score, adjusted for the covariates.

**** The community service and service-learning adjusted means appear to be the same in the career (and personal) domains due to the rounding off of means to two decimal points. However, the only significant difference from Tukey in the career domain was between the community service and no service groups.

***** $p < .05$

The ANCOVA's revealed differences between program types at the .05 level of significance in four of the six domains: academic, career, ethical, and social. However, the effect sizes were small. The Tukey Test was performed for each of these four domains, revealing differences (significant if $p < .05$) between the community service and no service groups as well as between the service-learning and no service groups.

The finding that the service-learning group's academic domain adjusted mean was significantly higher than the no service group's adjusted mean is especially interesting to note, given the fact that enhancing students' academic development is usually an intended purpose of service-learning programs.

However, the fact that the community service group's adjusted mean was significantly higher than the no service group's adjusted mean in the academic domain is surprising since, by the definition used in this study, the community service programs were not connected to any particular academic curriculum (while the no service group was connected to academic curricula).

Findings from the Qualitative Analysis

In contrast to the significant findings of the quantitative analysis, the qualitative analysis found no identifiable domain patterns (outcomes relating to a particular domain) for any program type. All four groups studied—community service, service-learning, service-based internship, no service—had a substantial number of incidents of positive educational outcomes in all six of the educational domains. Based on data contained in student journals (eight journal entries) and student work collected from 25 randomly selected students from each of the four groups ($n = 100$), Table 5 displays the frequencies of the positive and negative outcome statements for each program type and educational domain.

The frequencies for this table were derived by identifying statements in the samples of student work that addressed a student outcome in one or more of the domains. First, each statement was identified as either a negative, neutral, or positive statement. Then, the "strength" of the statement was labeled as *strong* or *very strong*. The shaded areas in Table 5 represent the domains where one would expect to see the greatest, positive outcomes, based on the intended goals of the program types described earlier.

Table 5. Frequency of Positive and Negative Outcome Statements from Student Data: By Program Type and Domain (Based on a randomly selected subsample of 100 Students)

	Community Service $n = 25$		Service-Learning $n = 25$		Service Internships $n = 25$		No Service $n = 25$	
	+	-	+	-	+	-	+	-
Academic	61	46	82	22	68	12	91	78
Career	81	31	61	24	91	37	19	29
Ethical	54	14	34	16	52	23	54	12
Social	72	32	62	37	88	42	78	46
Personal	101	59	83	33	90	43	58	68
Civic	82	19	65	17	56	9	14	15
TOTAL	451	201	387	149	445	166	314	248

The findings from this analysis dispel the notion that certain types of service programs promote particular outcomes. For example, while community service programs are intended to emphasize students' development of civic responsibility and ethical development, the analysis revealed that outcomes in the other domains, especially in the personal domain, were more positive and more frequent. Similarly, for service-based internship

programs, the expected primary outcomes (career and academic development) were not overwhelmingly the primary outcomes witnessed among the students in that group.

Although percentage-wise, the overall positive responses were stronger and occurred more often for the service groups than for the no service group, there is no evidence that one type of service program dominates a particular educational domain or that one domain is predominant within a particular type of program. These findings suggest that the outcomes of service programs are defined more by the nature of the participating student than by the intended educational goals of the service program. These findings support Conrad's (1980) and Hamilton and Fenzel's (1988) study findings.

EMERGING THEMES ACROSS SERVICE PROGRAM TYPES

In comparing data within and across the meta-matrix cells, it appears that service programs, regardless of type, all contain some characteristics that enhance students' development across the six educational domains. In investigating what these characteristics might be, a set of common themes across the service program types emerged. A better understanding of these themes can help us more effectively determine how service programs affect students' educational development. In most cases, these themes are manifestations of experiential education theories at play.

The Individualized Nature of Service Programs

As the results of the analysis reveal, there are no definitive outcomes for particular *types* of service programs. Even when the researcher focused the analysis on the outcomes of student within a classroom, no consistent patterns among the student participants emerged. In other words, not all students who participated in the same classroom program were affected in the same way. In one history class, for example, 23 students all worked on a service-learning project that involved an analysis of violent crime in their neighborhood. In analyzing the educational outcomes of this program for the students in the class, it was difficult to find specific, common outcomes among the students. In interviews, journals, and samples of student work, some students in this class ($n = 11$) discussed how they gained a better appreciation of history (*academic development*) as the crime rate in their neighborhood had risen steadily for the last 20 years.

However, other students ($n = 7$) in the class focused their discussions and writings on how the service-learning class allowed them to explore

potential careers in the criminal justice system (*career development*). The other students ($n = 5$) focused on how the class helped them have a better appreciation for *civic responsibility*. Similar variations in outcomes were noted in the analyses of the other classrooms participating in this study. Thus, there is some evidence to suggest that the outcomes of service vary from student to student, even when students work on the same project.

Empowering Students through Meaningful Service Experiences

The students who were most profoundly influenced by their service experience were engaged in meaningful service activities in which they had some responsibility, some interest, and/or were challenged to some degree. The strongest, most positive statements about service experiences tended to come from students who felt that they were being "treated like an adult" or were being "treated with respect" by members of the community. When the service activity provided students with opportunities to take on adult-like roles, students appeared to feel more empowered by writing about gaining their self-respect and being able to make a difference in the world.

The data reveal that when the students were challenged to take on adult roles, they tended to be more eager to meet that challenge and prove to their teachers, their service partners, their peers, and most importantly themselves, that they could get the job done and do it well. While the empowerment students gain from service appears to influence students' personal development the most, there is some indication that it also may lead to students taking more interest in school and their community (academic and civic development), as well as a means to take on leadership roles among peer groups (social development).

The most negative comments from students about their service experiences were from students who were disappointed with their community placements. When students indicated that they performed service that they described as "useless," "meaningless," "boring," or "pointless," the level of empowerment for these students was very low. In most of these cases, students either followed orders given by adult supervisors or were left to fend for themselves in an unstructured, non-nurturing atmosphere. It is interesting that the degree of satisfaction and overall influence on the students were lowest when the service activities provided students with few opportunities to take on leadership roles. It is likely that when students are engaged in service activities where they "have some control" and are "really making a difference," the overall educational outcomes of the service projects will be greater and more positive in all domains.

Believing in the Cause

Another theme, related to the empowerment theme, which emerged from among the data, revolved around students' belief in the cause that their service activity attempted to address. Since the purpose of service programs is to benefit someone (the service provider, the service recipient, or both), a reason for engaging in the service activity must be present.

Several aspects of the data suggest that the "cause" surrounding the service activity is often the determining factor as to whether the students will engage themselves fully in the activity. Data from teachers during their focus group interviews ($n = 13$) revealed that service projects seem to fail most often when the service activities are not intriguing or interesting to the students.

Observations of students engaged in their projects revealed similar findings. In many instances, students held passionate discussions with their fellow students about the particular *cause* they were addressing at their service activity. This was especially true among those students who were serving in agencies that addressed social causes (e.g., homelessness, drug abuse, violence, recycling, health awareness, etc.). Students who served in more industry-related organizations (e.g., media centers, hospitals, schools) tended to be less inclined to argue for or actively promote their causes. Nevertheless, the students who had the more positive service experiences were more likely to express some affinity to the issues addressed in their placements.

The Fostering of Partnerships and Collaborations

A final theme that emerged from the data was the way the service programs fostered collaborations and partnerships not only between students and their community agency supervisors, but also among students and between students and teachers. In almost all of any of the service programs, especially the service-learning classes, students from various cultural, racial, and ethnic backgrounds formed collegial working groups in which students pulled together to work on a common issue. The study findings suggest that the diverse groupings did not create tension among the students in the groups, even when such tensions were reported by several teachers to have existed prior to the start of the service activities. As one teacher stated:

Students who I never thought would work together are now buddying up on a service project. When I asked them about this, they said they both care

enough about the issue at hand to put their differences aside.... I found this to be an extremely mature move on their part, much to my own surprise.

The development of various types of collegial bonds, working relationships, and friendships formed as a result of the engagement in a service experience, were evident among several data sources. Students, teachers, and community agency representatives alike provided numerous indications that the service experiences helped students feel like they belonged to a group and provided students opportunities to establish new friendships and personal relationships.

IMPLICATIONS OF THE STUDY FINDINGS

Beyond simply highlighting the potential outcomes of service programs, the findings of this study have several implications for better understanding *how* service programs affect students. In addition, the findings provide insights for developing more effective means of researching the outcomes of service programs on students' educational development.

Unintended Outcomes of Service Programs

One implication of the study findings is that service program outcomes go beyond their intended educational goals. While it can be assumed that most school-sponsored service programs operate with particular educational goals in mind, the ultimate outcomes of the programs seem to be more dependent upon the unique interactions between the student, the service activity, the community, and a host of other influences than upon any predicted or predetermined goal.

If researchers base their outcome measures only on expected or predetermined outcomes, then it is likely that much information about the actual outcomes and impacts of service programs will be lost. Designs of future studies of service program outcomes should be able to cast a net that is wide enough to ensure that the unintended outcomes of programs are captured. The utilization of only a limited set of measures is likely to capture a small snapshot of a broad and lush landscape.

Clarifying Program Definitions

Although this study sought to clarify how different types of service programs affect students, the study found few discernible differences in out-

comes between program types. One reason for this might be that the terms used to define service program types are not used consistently in the field. Terms such as volunteerism, community service, service-learning, internships, field education, field studies, community-based education, and community service-learning are sometimes used interchangeably (Furco, 1996; Stanton, 1987). In reviewing the literature on service program studies, the definitions for the terms used to label the programs under investigation were not consistent across the studies. One researcher's definition of internship is another researcher's definition of service-learning.

Even among the students and teachers who participated in this study, the same program had many labels. During one classroom observation conducted by the researcher, one student commented "I'm doing my service-learning internship tomorrow," to which his classmate replied, "I'm all done with my community service." While the researcher of this study had divided the 24 service classrooms and programs into the three groups according to predetermined definitions of service program types, the distinctions among these types were not always obvious to the students and, in some cases, to the teachers. Perhaps the inconsistencies in the way service programs are labeled may have some influence on how students approach the program and perhaps may also influence the ways in which student outcomes are fostered.

Researchers studying service programs should clearly define what type of service program(s) they are studying. A better understanding of the similarities and differences among the various types of service programs must be explored further so that a common, more universally accepted set of understandings about the various service programs types and their educational outcomes for students can be developed.

Employing Comprehensive Research Methodologies

The findings of the study also have implications for methodologies to be used in future service research. The use of quantitative and qualitative approaches in conducting this research appeared to be a valuable aspect of the study. While the quantitative data were able to show statistically significant results, the qualitative analyses were able to capture the subtleties and idiosyncrasies of individual students and programs. While service program researchers are under increasing pressure to produce quantitative data on service program impacts, quantitative data analyses should be complemented with qualitative approaches. If this study had included only a quantitative analysis, the findings of the study would have been significant, but many of the emerging themes likely would not have been identified.

In addition to employing quantitative and qualitative analyses, service program researchers also need to employ more comprehensive and methodologically sophisticated research designs. The findings of this study confirm existing beliefs that service programs are complex enterprises that are defined by the nature of service activities, the individuals who serve in them, the school environment within which the programs operates, and the community in which the service activities take place (Kendall & Associates, 1990). Therefore, service program research must move beyond using a pre/post survey and/or a journal reflection essay as the primary means for assessing student outcomes.

Service research designs must be comprehensive enough to take into account many of the program variations that exist, such as the length of the service activity, the degree to which students reflect on their service experiences, the varying intensities of the service projects (reading to a child who is dying of cancer versus painting a mural as part of a graffiti abatement program), the nature of the students' working groups (individual service activities versus small or large group service projects), the degree of choice students have in selecting their project, and a host of other variables. Even within a small service program, there are numerous variables for which there must be some account.

Stronger evidence of the impacts of service programs on students might be garnered with more sophisticated research designs. Hierarchical linear modeling and some of the other more sophisticated approaches can be useful in measuring a variety of service program impacts by incorporating various units of analysis (students, classrooms, program types, schools) across a variety of sites. However, the service field still has a long way to go before the utilization of such designs become standard. The field still needs to solidify its definition of the various types of service programs and develop a formal theory for how service programs impact students' educational development.

CONCLUSION

Despite the idiosyncratic nature of the 24 service classrooms studied, and the individual nature of service programs in general, the emerging themes identified in the study reveal some interesting characteristics about how service programs affect students. The study found evidence across all three types of service programs included in the study (community service, service-learning, and service-based internship) that service can help students: feel empowered as they take on leadership and adult-like roles; engage in service activities that allow them to further explore interests and talents; engage in collaborative work that is centered around a cause of mutual

interest; form new collaborations, friendships, and relationships; and feel a sense of ownership and pride for their service activity. These themes did not emerge from among the ten "no service" classrooms studied.

The fact that these common elements were found suggests that perhaps these themes (and possibly others that were not captured in this study) are potential core service program elements that have a bearing on students' development in the six outcome domains. The presence of these themes also supports the notion that service programs are universal and potentially transcend artificially imposed classifications such as grade level, academic discipline, and program labels. Perhaps these core elements take on different shapes based on the individual characteristics of those who serve, the nature of the service activity, and a variety of other factors. Or perhaps there is an essential interplay of these elements (and possibly others) that create a particular environment that ultimately cause students to be affected in different ways. These are the issues that need to be explored further in future research studies.

It appears that the research on service programs should move away from trying to find *direct* links between students' participation in service programs and outcomes in the six domains to investigating the role of these core elements in influencing student outcomes in the six domains. A better understanding of these intermediate conditions cannot only provide valuable information about student development in each of the six domains (Billig, 2000), but it can also help researchers better predict how certain students will be impacted by particular types of service programs. This could be the key to developing an impact theory for school-sponsored student service programs.

Specifically, the theory should help explain how the interplay of the core conditions common to all service programs have a bearing on students' educational outcomes in the six domains. This theory might be based on stages of service development that delineate a cycle of change that students undergo as they engage in service. This theory could be patterned after a theory like Kolb's learning theory which established a four-stage cycle whereby learners move from concrete experiences, to reflective observation, to abstract conceptualization, to active experimentation (Kolb, 1984). For example, a possible theory for service programs might explain how the service experience first provides students an opportunity to explore their interests (personal development) and helps them form relationships with their peers as they develop their projects (social development). This then leads to a greater sense of belonging and group affinity (social development). As the students engage in their service projects, they begin to develop a sense of contributing something to society (civic and ethical development) while learning some new knowledge and skills (academic and career development). Hence, this leads to a feeling of empow-

erment and greater self-esteem, which in turn increases students' motivation to learn. Finally, with the improved self-esteem and motivation, students' academic work improves, further boosting their self-esteem.

While this cycle is purely hypothetical and speculative, it exemplifies the kind of transformational theory that needs to be developed in order for the service field to move closer to a better understanding of how various types of service programs might impact students. While the establishment of such a theory is still far off in the future, it will be needed as more K-12 schools incorporate service programs at their sites.

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Part II

THEORETICAL APPROACHES TO UNDERSTANDING SERVICE-LEARNING
