

Lasting Effects? A Longitudinal Study of the Impact of Service-Learning

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Research on the potential impacts of community-based and service-learning has increased over the last decade, but many studies are limited in duration and scope. Most students speak positively about service-learning during and upon completion of their involvement: they claim to have grown personally and be motivated for future service and civic engagement. And such benefits are substantiated by short-term research. Blyth, Saito, and Berkas (1997) summarize pre-post studies documenting the following immediate outcomes of service-learning: increased intellectual growth, enhanced problem solving abilities, increased self-confidence, gains in self-esteem and feelings of social efficacy, greater social responsibility, more principled moral reasoning, and reduced feelings of isolation and alienation. Do such socially desirable results last or fade? Is there evidence that students' lives are different years later? The longevity of the University of Notre Dame's Summer Service Project (SSP), begun in the 1970's, provides an opportunity for follow-up analysis to address such questions.

This report summarizes the findings of a longitudinal study that examined a random sample of undergraduates that participated in the 1987 Summer Service Project and a matched control group approximately ten years after graduation. Findings are discussed in relation to developmental theory and higher education.

Experience and Higher Education: Theory in Practice

Service-learning and other forms of engaged learning reflect Dewey's insight (1938) that learning is a process of constantly making meaning of the world and one's experiences within social contexts. According to Dewey, a dynamic tension exists between the impulse to act on one's ideas and the need to postpone that very action in order to make observations and form judgments that may enhance one's actions. Personal development occurs as initial desires and instincts are transformed into informed, purposeful action through learning experiences. Service-learning provides opportunities for such development consistent with Piaget's emphasis on active, constructive exploration as a means to growth. Engaged learning has the potential to prompt moral reflection in

social context as individuals construct their own understandings of self and world (see Brandenberger, 1998).

Building on the work of early developmentalists, current theorists emphasize a holistic approach. Consistent with the focus of this study, Kolb (1984) stresses the interaction among the academic, personal, interpersonal and related developmental domains. And Serow (1997) emphasizes a holistic approach to service-learning assessment that includes examination of value development, attitudes toward community, and relationships.

After a review of such literature, we outlined four variables of focus for longitudinal follow-up: 1) *Commitment* to a life of service: a demonstrated commitment to serving those who are disadvantaged); 2) *Relationship* to society: a sense of one's role in the world and connection to others, including family, friends, community, and beyond; 3) *Spirituality*: a sense of connection to God, however conceived, or a spiritual force that is integrated into one's personal life; and 4) *Growth*: an orientation to actively learn and participate in activities that enhance personal development. A *Commitment* to a life of service represents the most direct measure of potential SSP impact.

Table 1
Four Potential Outcomes of Service-Learning:
Definitions and Rating Scales

| Variable | Definition |
|--|---|
| Commitment to a Life of Service | Commitment to serving the disadvantaged, as evidenced by service actions integrated into an individual's life |
| Rating Scale: | 10 Totally committed to serving others, with visible actions 1 No commitment to helping others |
| Relationship to Society | Having a sense of one's role in the world and connection with family, friends, community, nation and world. Awareness of how one may give to others as well as receive support. |
| Rating Scale: | 10 Has a niche, feels part of the whole 1 Totally removed from others, misunderstood |
| Spirituality | A sense of connection to a spiritual force or higher being that is integrated into daily life and affects positive change and actions. |
| Rating Scale: | 10 Important in all aspects of life 5 Some meaning, but not that influential 1 No meaning for individual's life |
| Growth | Orientation toward active learning and participation in activities that enhance personal development. |
| Rating Scale: | 10 Open to new experiences and actively learning 5 Some desire, but no action toward that goal 1 no desire to grow and no steps toward growth |

Service actions should continue to be integrated into an individual's life after their service-learning experience. The remaining variables represent other hypothesized (and more holistic) impacts of service-learning. Various theories emphasize the potential of service engagements to enhance

understandings of social dynamics and relationships, even to reduce feelings of isolation or alienation. The third construct reflects the program's attempt to integrate spirituality with active service. Colby and Damon (1992) found a deep sense of spirituality to be evident in almost all of their sample of adult "moral exemplars". Our focus on personal growth represents the emphasis within experiential learning theory on the continuous nature of the learning process. If the service-learning experience is successful, growth through interaction, reflection, and meaning-making should continue (see Kolb, 1984). For further definition of the variables used in this study, see Table 1.

Summer Service-Learning at Notre Dame

The 1987 Summer Service Project at Notre Dame placed 72 undergraduates in service-learning sites across the nation, from Florida to California. The program design met a majority of the criteria for effective service-learning (see Eyler and Giles, 1997). Students participated in orientation sessions and completed relevant read-

ings before, during and after their engagement. Assigned readings included, for example, sections from Fagan's (1979) *Empowerment: Skills for Parish Social Action*, and McNeil, Morrison, and Nouwen's (1983) work: *Compassion: A Reflection on the Christian Life*.

Students worked for eight weeks in a variety of placements, chosen when possible according to their interests. Service sites included medical clinics, homeless shelters, youth centers and the like that offered opportunities for tangible, challenging involvement. Most participants lived in a city or town new to them, separate from parents and friends, perhaps heightening the salience of the service-learning experience. Students were supervised by agency contact persons and mentored by Notre Dame alumni and alumnae from the local areas. Students kept journals detailing their experiences and had numerous opportunities for reflection. Upon return for the fall semester, students participated in four seminar sessions and completed a paper examining relevant issues and potential implications for their lives and academic work. Students earned one credit in Theology (some participated in an optional additional Theology course for three credits).

Sample Interview Questions

How would you describe your life since leaving Notre Dame?

In what ways have you grown since leaving the University? In what ways have you not grown? How did this growth come about?

What would you say are your current personal goals? Do you have any specific societal or moral goals?

When making an important decision, what process do you use? Do friends and/or colleagues help? In what fashion?

What role, if any, does spirituality play in your life? How does spirituality affect your everyday life?

Methodology

The identified service-learning group for the study was selected randomly from those Notre Dame graduates who completed the 1987 Summer Service Project. Many of those identified had also participated in other service or service-learning activities, including opportunities facilitated through the Center for Social Concerns.

The control group was developed from cohorts selected from a list of potential subjects matched to one specific treatment subject on the variables of GPA, year of graduation, and college of study. Many of the individuals in the control group performed some service activities as undergraduates, but did not participate in the SSP or any other service-related project of similar intensity or duration. Each group consisted of 19 subjects, for a total of 38 participants.

The researchers created an 18-question interview (see sample questions) to elicit a holistic picture of subjects' life trajectories, attitudes, beliefs, service actions and involvement. Interviews were conducted by telephone and lasted from 20 to 45 minutes. The format was designed to allow the researcher to obtain necessary information for ratings without biasing the subjects' narratives. The interviewer was blind to condition (whether the interviewee was previously a Summer Service participant) and did not mention the research focus on service-learning. Upon completion, the taped interviews were transcribed, and references to obvious service-learning experiences while at Notre Dame were stripped so that raters would remain blind to subjects' group membership.

Three graduate students in psychology served as raters of the transcripts. Practice ratings and discussions to standardize criteria were conducted prior to review of the research interviews. Likert-type scales (ranging from 1 to 10) were refined for each variable: see Table 1. Each rater reviewed every transcript and rated individuals on the dimensions outlined.

On all four variables, high correlations among raters were found. Cronbach's alpha, a measure consistency across raters, yielded correlations of .88 for *Commitment* to service, .81 for *Relationship* to society, .87 for *Spirituality*, and .71 for *Growth*. Further information about the interviews, ratings, and methods is available from the authors.

Table 2
Means and Standard Deviations for the Service-Learning and Control Groups on the Dependent Variables

| Measure | Group | | | |
|--------------|------------------|------|---------|------|
| | Service-Learning | | Control | |
| | M | SD | M | SD |
| Commitment | 5.93 | 2.27 | 4.14 | 1.98 |
| Relationship | 5.82 | 1.75 | 4.68 | 1.74 |
| Spirituality | 5.77 | 1.96 | 4.82 | 2.09 |
| Growth | 5.79 | 1.66 | 4.74 | 1.30 |

Note: Commitment = Commitment to a life of service
Relationship = Relationship to society
 $n = 19$ for each group

Results

Eleven years later, previous service-learning (SSP) participants scored higher than those in the comparison group on all four dependent measures, with three of the differences significant at the .05 alpha level. Results were analyzed using four one-way ANOVA's with service-learning as the independent variable and the averages of raters' scores as dependent variables.

Table 2 presents relevant means and standard deviations (higher scores reflect more positive outcomes on each dimension). The only difference that was not statistically significant was the *Spirituality* dimension ($F = 2.070, p = .159$). Thus, participation in a summer service project at Notre Dame during the summer of 1987 seems related to participants' subsequent levels of commitment to service, relatedness to others, and personal growth orientation as rated by judges.

Data also were analyzed using paired sample

t-tests, consistent with the matched pairs design of the study. The pattern of results was parallel to the previous analysis of the four variables. Controlling for GPA, college of study, and year of graduation did not extensively reduce extraneous variance, suggesting that such variables did not weigh significantly in the findings.

Gender

Gender is a variable of interest in such research. The service-learning group consisted of 14 women and 5 men, compared to 6 women and 13 men in the control group. These ratios are consistent with demographics at Notre Dame in 1987 (where 49 of the 72 SSP participants were female, but a majority of the student body was male). Could the discrepancy between gender totals in our sample explain the differences we found over time on the four measures? To explore gender-related questions, we conducted various analyses. Table 3 presents the means for each gender within each group for all dependent variables.

For *Commitment* to service and *Relationship* to society, service group members scored higher than controls for each gender considered separately (e.g., men in the service-learning group vs. men in the control group, etc.). For *Growth*, men in the service group scored higher than men in the control group, while means for the women were nearly identical for both groups. For *Spirituality*, a large difference in means was apparent for men, whereas the means for women trended in the opposite direction from what may be expected. But recall that treatment effect for *Spirituality* was not statistically significant. Thus, the data indicate that for each variable except *Spirituality*, service-learning is associated with positive

long-term effects for both men and women. Consult the authors for further analyses of gender-related results, including an examination of interaction effects.

Discussion

This study contributes to the literature on service-learning by employing a longitudinal design and a holistic perspective. Salient goals of

Table 3
Means and Standard Deviations for the Service-Learning and Control Groups for Each Gender Considered Separately

| Measure | Males | | | | |
|--------------|------------------|------|---------|------|------|
| | Service-Learning | | Control | | |
| | M | SD | M | SD | |
| Commitment | 5.67 | 2.37 | 3.59 | 1.72 | |
| Relationship | 5.53 | 2.29 | 4.46 | 1.62 | |
| Spirituality | 6.47 | 2.29 | 4.05 | 1.34 | |
| Growth | 6.33 | 1.72 | 4.31 | 1.10 | |
| Measure | Females | | | | |
| | Service-Learning | | Control | | |
| | M | SD | M | SD | |
| | Commitment | 6.02 | 2.32 | 5.33 | 2.13 |
| | Relationship | 5.93 | 1.61 | 5.17 | 2.03 |
| Spirituality | 5.52 | 1.86 | 6.50 | 2.55 | |
| Growth | 5.60 | 1.66 | 5.67 | 1.28 | |

Note: Commitment = Commitment to a life of service.
Relationship = Relationship to society.

service-learning include learning through action, personal development, and civic responsibility (Waterman, 1997). This research examined such constructs through interviews conducted approximately ten years after graduation using raters unaware of participants' earlier service-learning participation.

That service-learning participants showed significantly higher scores on three of the four dimensions examined is noteworthy, and consistent with anecdotal evidence and the claims of service-learning educators. But causal inferences should not be made since the study lacked random assignment to groups. Perhaps those who are attracted to service-learning are different prior to their involvement (see Research Reports 3 and 4), and such differences continue to manifest years later. Yet the presence of a matched control group allowed us to eliminate some alternative explanations; for example, the differences between groups did not seem to be due to differences in academic achievement levels or course of study.

Since fostering a commitment to civic participation is a goal for many service-learning practitioners, results here regarding the variable of *Commitment* to service are important. Findings on this dimension showed consistently significant differences for both genders separately and overall: the average service-learning group member falls at the 82nd percentile of the control group distribution on *Commitment* to a life service. This outcome is also noteworthy since commitment was measured here according to participants' reported life actions and involvements, not simply their beliefs or intentions.

Regarding *Relationship* to society, service-learning participants scored higher than 75% of controls, reporting a greater sense of connectedness and enhanced involvement in healthy relationships. Perhaps such contributes to their motivation to serve, or stems from it. With respect to the *Growth* variable, service-learning participants scored higher than 79% of the control group, demonstrating a stronger orientation toward active learning and opportunities for development.

Summer Service Learning through the University of Notre Dame

Since 1980, over 3100 students have participated in summer service learning initiatives through the University. Currently, over 230 students participate annually in both domestic and international programs facilitated by the Center for Social Concerns. Students serve in over 100 cities across the nation and in ten countries. Through integrated and often intense learning opportunities, students earn three or four credits in one of various disciplines. For further information and analyses, see the Center's web page and Research Reports 1, 3, and 5 in this series.

The Notre Dame Summer Service Internships are designed to advance the following objectives:

1. To allow Notre Dame students to serve the needs of disadvantaged populations in cities where there are Notre Dame alumni clubs.
2. To provide an opportunity for discussions of social concerns and Catholic social tradition among students, alumni/ae and community partners.
3. To contribute to the continuing value education of students and the broader Notre Dame community.
4. To employ a service-learning pedagogy which integrates student experiences with a rigorous set of academic readings, reflections and writing.

(a sense of self-actualization in the context of the needs of others was scored highly on this measure).

The research conducted did not yield significant differences with respect to the variable of *Spirituality*, though means for service-learning participants were higher than for controls. Perhaps differences on this dimension would be difficult to discern within the Notre Dame community, where spiritual and religious practices are common and well-supported. Note that in research summarized by Eyler and Giles (1999), spiritual growth was a robust and somewhat unexpected outcome of service-learning in primarily secular contexts.

In our analyses of gender differences, women showed higher scores on each dimension, but men appeared to gain more from summer service-learning. Such a finding may support efforts to attract males to service-learning initiatives where they are often underrepresented. Future research in this vein would do well to examine gender differences by utilizing pre-test data and potentially matching controls by gender.

Our research findings are consistent with similar longitudinal studies, specifically that of McAdam (1988) who surveyed participants in the 1964 Freedom Summer campaign that enrolled colleges students in civil rights initiatives. Twenty years later, prior participants showed significantly higher levels of political and social involvements than cohorts who had been accepted for Freedom Summer but were unable to participate. Similarly, Daloz et al. (1996) examined the lives of over 100 individuals nominated for their sustained dedication to the common

good in order to discern what prompts long-term commitment. Among a variety of factors, the researchers suggested “that the most salient pattern we found in our study” involved what they labeled *constructive engagement* (p. 14). The researchers noted that “at some point in their formative years”, often during higher education, almost everyone in their sample had a sustained experience of diversity, of coming to know others that were significantly different from themselves “by means of which they could empathetically recognize a shared humanity” (p. 14). We may speculate, and examine through further research, that such constructive engagement is a salient

developmental mechanism that Summer Service Projects facilitate for lasting effect.

Summary

In summary, service-learning appears to be associated with positive long-term impacts, even when participants are compared to individuals with extensive exposure to positive educational and personal growth opportunities. Service-learning during the undergraduate years appears to be linked, though perhaps not causally, to future service involvement, enhanced relationships, an openness to continued growth, and, to a certain extent, spirituality. Perhaps service-learning fosters a channeling effect, facilitating ongoing awareness that personal growth and a commitment to others are reciprocally beneficial. Future research employing longitudinal designs and controlling for pretest differences is needed to examine such developmental processes in the context of higher education and beyond.

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