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Journal of Adolescence 1994, 17, 327-339

National Information Center for Service Learning 1954 Buford Ave, Room R290 St. Paul, MN 55108-6197

The impact of a college community service laboratory on students' personal, social, and cognitive outcomes

DWIGHT E. GILES JR. AND JANET EYLER

This exploratory study attempts to answer the question: can a required service-learning experience of limited intensity and duration have an impact on the development of college students as participating citizens of their community? Students who provided community service as part of a one credit "community service laboratory" showed a significant increase in their belief that people can make a difference, that they should be involved in community service and particularly in leadership and political influence, and in their commitment to perform volunteer service the following semester. They also became less likely to blame social service clients for their misfortunes and more likely to stress a need for equal opportunity. They indicated that their experience had led them to more positive perceptions of the people they worked with.

INTRODUCTION

With renewed attention on national service, colleges and universities are increasingly providing required or optional programs of community service for their students; many of these programs take the form of orientation experiences for freshmen or similar programs which involve large numbers of students in programs of limited duration and intensity¹. While' commitment to service-learning is growing, there is limited evidence of its impact on participants. This exploratory study attempts to answer the question: can a required service-learning experience of limited intensity and duration have an impact on the development of college students as participating citizens of their community? Using the research

¹We would like to thank Professor Edward Martin for having his class participate in this research, Professor Robert Innes for helping us integrate this project into the Human and Organizational Development Program, Elizabeth Murphy for a heroic job of coding and entering data, and John Barker for consultation on data analysis.

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0140-1971/94/040327+13 \$08.00/0 0 1994 The Association for Professionals in Services for Adolescents

themes developed by the recent Wingspread Conference report, (Giles *et al.*, 1991), the study examined personal values, social learning, and cognitive change as possible outcomes of a semester-long Community Service Laboratory offered as part of a university curriculum.

One of the most frequently expressed goals of service-learning programs is the increase of social responsibility in adolescents. Sustained citizenship participation is thought to rest on the values, attitudes and beliefs about service that make up 'social responsibility'. Given the emphasis on this as a program goal of secondary and post-secondary service-learning programs, understanding of social responsibility is emerging as an area of policy discussion and a critical research topic. (Giles *et al.*, 1991; O'Brien, 1993; Sagawa and Halperin, 1993; Markus *et al.*, 1993). This first phase of an ongoing study examined components of social responsibility before and after student participation in the course. This included looking at students' sense of their own competence to contribute, their beliefs in the importance of participation and service, their perceptions of the individual and social dimensions of human need, and their actual commitment to participation.

COMMUNITY SERVICE AND SOCIAL RESPONSIBILITY

Because this is an emerging area of research, a review of the literature yielded little direct evidence of an impact of service on social responsibility outcomes at the post-secondary level (Eyler and Giles, 1993). While the research literature is thin, there is a presumption in the program literature and in anecdotal evidence that participation in community service programs leads to increased commitment to service, (Kendall *et al.*, 1990; Sagawa and Halperin, 1993). During the preliminary analysis done for this study, we listened to student reports in class sessions at the end of a semester of service-learning. Repeatedly, students said that the experience of community service in this course had led them to commit themselves to return to do more service.

Common to varying conceptions of social responsibility in the servicelearning literature is the central element of an orientation toward others as the basis of citizenship. This orientation contains personal values that go beyond self-fulfilment to values about civic involvement and social obligation, (Conrad and Hedin, 1982; Hamilton and Fenzel, 1988; Astin, 1991; Giles *et al.* 1991). Overall, the literature suggests that personal and social development are the best documented outcomes of secondary school sponsored community service programs, (Conrad and Hedin, 1989; Williams 1991) More evidence is needed to establish these outcomes for college students. One aspect of social responsibility which is particularly relevant to college students is the evidence which shows that volunteer service drops during the college years (Astin, 1991). It would be helpful to know if structured service-learning courses, such as the one studied here, can reduce this drop in community service participation that occurs in late adolescent college populations. While tracking actual, long-term, volunteer behavior is beyond the scope of the initial phase of this study, the fundamental values, attitudes and perceptions that underlie this behavior are not.

While these personal and social developments of service-learning are generally acknowledged, it has largely remained marginal to the college curriculum because of a lack of confidence in its impact on student learning. (Gore and Nelson, 1984). Because the primary commitment of college staff is to cognitive growth, if these programs are to become established, it is important to assess learning as well as attitudinal outcomes. Most studies which have attempted to assess the impact of service on learning have relied on student self report; students generally "like" service assignments and claim to "learn more than I did in the classroom" (Crowner, 1992). There have been, however, few attempts to define and directly measure learning that occurs in service settings. A recent study at the University of Michigan suggests that service connected to specific courses can enhance the learning of the course content, (Markus et al., 1993). What we don't seem to know is what students learn about themselves, social problems, and the role of volunteer participation in a democratic society. Part of the failure to document this impact results from the difficulty in identifying appropriate learning outcomes. Community service provides diverse experiences for students; simple measures of fact acquisition are clearly inappropriate and more complex measures are still being developed.

Recent work by cognitive psychologists, who have emphasized the importance of contextualized knowledge and of learning within multiple applied settings in order to create useful rather than inert knowledge, suggests a fruitful direction for our work in service-learning (Bransford, 1991). A study of college political interns found that these interns had a more nuanced understanding of the legislative process than those who studied it solely in the classroom; the two groups did not differ in simple factual knowledge about the political process (Eyler and Halteman, 1981). Student volunteers within community settings would be expected to have a more complex understanding of social problems and how communities are organized to meet needs and be less judgmental about their clients need for service. Greater understanding should lead to more effective participation and service. This change in how participants thought about social service clients was found in a major study of high school service-

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learning programs and we would expect a similar cognitive change in post secondary participants (Conrad and Hedin, 1982).

PERSONAL, SOCIAL AND COGNITIVE OUTCOMES

There is a strong consensus that social responsibility means sustained involvement in community life; this view is reflected in the National and Community Service Act of 1990, in President Clinton's statements on service and society, and in the literature on the purposes of service, (NSIEE, 1989; Giles *et al.*, 1991; Farland and Henry, 1993; Sagawa and Halperin, 1993). Because social responsibility is ultimately measured by the behaviors of citizenship over a lifetime, studies such as this, and others in the literature, are forced to use short-term, proximate predictors of long-term behavior. The questions we asked in this phase of a longitudinal study are related to the attitudinal, conceptual and short-term behavior components of long term social responsibility.

A sense of personal efficacy has long been an important predictor of citizenship involvement. At a personal level, this includes the faith that one can make a difference, a sense of being rewarded for involvement, and some connection to personal beliefs about change. Without a sense that they can be effective, it is unlikely that adolescents will develop a sense of social responsibility and participate in the community (Jennings and Niemi, 1981).

In addition to the sense that one can make a difference, there is the attitude that one should make a difference. Indicators of this category include a sense of value in helping others and a commitment to do so. This development of an orientation toward others as well as self is what Pascarella *et al.* have called "humanitarian and civic values" (1988).

Social responsibility is also rooted in a cognitive dimension; a complex and less individualistic view of people's problems and needs is consistent with a commitment to community service. This dimension includes a reduction in stereotypes, development of empathetic understanding, and a stronger sense of the social, structural elements of opportunity and achievement. Based on high school studies, we expected students who participated in service-learning to have greater empathy for the people they work with and be less judgmental about their need for service (Conrad and Hedin, 1982).

In addition to these outcomes, we looked for a specific commitment to continue service once the program was over. This commitment would provide evidence for the role of service programs, even those of limited duration and intensity, to help reverse the decline in volunteer service that has been observed during the college years.

IMPACT OF COMMUNITY SERVICE LABORATORIES

DESIGN OF THE STUDY

Population

Study participants were 72 undergraduate students who took this one credit "Community Service Laboratory" as one of the requirements of their interdisciplinary major in Human and Organizational Development during the spring semester of 1993 at Vanderbilt University. The course is described as "Seminars and field experiences designed to help students explore their values about community service and their responsibilities to other people. Students are involved in values clarification activities and volunteer work in the community." It is designed as an early immersion in service that will reinforce previous service commitments, and that informs subsequent classroom work on organizations, interpersonal relations and social issues. During this semester 54% of the students were freshmen, 18% sophomores, 12% juniors, and 16% seniors. Female students were 66% of the class. Racial makeup was 15% African American, 83% Caucasian, and 2% Asian American.

Students spent the first 5 weeks of the semester in small seminar groups talking with representatives of social service agencies. These speakers described their work and the opportunities they had for student volunteers. During the remaining 8 weeks they volunteered 3h per week at their selected site. Academic requirements for the course included written critiques of the guest speaker sessions and final oral and written reports on their experience. The rest of their time was spent in a full academic course load.

Data Collection

We used a questionnaire to gather data during the first class session, again at 5 weeks after students had surveyed the field and selected their sites, and after the completion of the community service at 13 weeks. We have a set of three complete questionnaires for 56 of the students. In this exploratory phase of the study we did not use a control group. Most of the data reported here are the pre-post data.

Measuring Outcomes

Personal values and social responsibility were assessed with scales used in the Michigan study of "Social responsibility outcomes for students in service learning" (Markus *et al.*, 1993). Some of these items were derived from the national college outcomes studies, (Pascarella *et al.*, 1988; Astin, 1992). Student conceptions of the problems faced by various client groups were obtained by asking open-ended questions about these groups. We also asked open-ended questions about learning expectations and later,

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perceptions of outcomes for self and client. Students also wrote assessments of how and why they had changed and which elements of the total service-learning had the most impact. Finally we asked if they planned to return to their service site as a volunteer the next semester; how many hours they intended to volunteer, and if they had any other specific plans to continue to do community service. For data analysis, we did content coding on the open ended items; the scales were scored on a 5-point interval scale.

RESULTS OF THE STUDY

Can a required service-learning experience of limited intensity and duration have an impact on the development of college students as community participants? Does this participation build confidence in personal effectiveness, increase commitment to service and participation, and are students actually more likely to do community service once the structured program is over? In this exploratory study we found reason for optimism about the impact of such-programs. Also, we found some suggestion of why these programs might be effective in increasing citizenship commitment and participation.

DEVELOPING A SENSE OF SOCIAL RESPONSIBILITY

An important predictor of citizenship involvement has always been a sense that this involvement could make a real difference; without a sense of efficacy why participate? The students in the Vanderbilt community service laboratory began their volunteer experience with a strong sense of personal effectiveness, e.g. even before their experience the mean score for "I can make a difference in my community" was 4-13 on a 5 point Likert-type scale. While the increase by the end of the semester to 4-27 was not significant, their response to the companion efficacy item describing the impact that "most people" can have an impact rose significantly.

While confidence that "people can make a difference" is an important prerequisite for action, even more important is the belief that people should try to have an impact on their society. Although participating only a few hours a week for about half a college semester, the students who participated in the community service laboratory were more likely to endorse the importance of involvement in the community after their service than before. More importantly, this commitment went beyond simply becoming involved and contributing time; participants also were significantly Table 1. Comparison of pre-post measures of efficacy and social responsibility.

Measures	Mean		SD		t value Significance	
	Pre-test	Post-test	Pre-test	Post-test		
Community involvement importance	e ^{tt} 3.11	3.32	0.62	0.58	2.70	0.005
Important to volunteer my time	3.38	3.31	0.56	0.60	-0.90	0.200
Become community leader ^{††}	2.43	2.70	0.93	0.81	2.20	0.016
Should give time ^{††}	4.45	4.64	0.57	0.52	2.70	0.005
Help those in need	4.29	4.30	0.56	0.74	0.20	0.435
Work for equal opportunity [†]	3.07	3.25	0.76	0.77	1.94	0.029
Social justice most important	3.57	3.70	0.74	0.78	1.19	0.120
Important/influence social values	2.93	3.11	0.76	0.71	1.53	0.067
Important/influence politics ^{††}	2.16	2.45	0.87	0.81	2.53	0.007
Possible to impact the world ^{††}	3.84	4.09	0.89	0.81	2.33	0.007
I can make a difference	4.13	4.27	0.91	0.67	1.27	
Misfortunes due to circumstances [†]		3.34	0.93	1.01	2.08	0.100
Misfortunes due to laziness* '	2.46	2.34	1.01	1.01	2·08 0·87	0·020 0·200

* = reverse score value; $^{\dagger} = p < 0.05$, $^{\dagger\dagger}p < 0.01$ = means on 5 pt Likert Scales.

more likely to aspire to leadership roles and to endorse the importance of having an impact on the political system subsequent to their participation. The disaffection of American college students with the political process is well documented. There has been a tendency for students to divorce "politics" from "good citizenship" (Creighton and Harwood, 1993). In the pre-test, the item testing the "importance of influencing politics" received the lowest score; with a mean of 2·16, participants actually rejected the relevance of the political process to their lives as citizens. Although the post-test score of 2·45 is still low, it shows a decided and significant shift after a brief exposure to the difficulties faced by the service clients. This increased sense that involvement in the political process is important occurred without any overt instruction about government agencies and policy; it does suggest that service-learning may contribute to citizenship development by helping students find relevance in the political process for addressing important social issues.

CHANGING VIEWS OF SOCIAL SERVICE CLIENTS

Perhaps part of the reason for an increased commitment to volunteer action, leadership and political influence, comes from the changing perceptions that students had of the causes of personal hardship and the

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nature of the people they tried to help. Students were significantly more likely to attribute misfortune to circumstances beyond the control of the service clients, and were also significantly more likely to endorse the need to give priority to equal opportunity after they had served in the field. If the need for service is believed to result from the lack of effort by the service client, then students may feel that society has no responsibility to provide services and structural solutions. These students had a more empathetic response to the misfortunes of others after their experience and felt more responsible for social change.

These beliefs about the reasons for misfortune and the need for equal opportunity were consistent with the responses they made in open ended questions about their expectations of clients and how those expectations had changed over time. One continuing theme was that "they (the people being served) are just like anyone else". The majority of the student participants indicated that their preconceptions had been changed by experience and these subsequent perceptions appeared to be much more positive. These patterns are described in Table 2. For example, one student had expected the disadvantaged children that she worked with in a day care facility to be "very bad children who didn't want to accomplish anything except to be thugs". She found them to be "intelligent and kind and I made some great friends when I got to know them personally and stopped stereotyping". Another student had assumed that disadvantaged children had parents who were negligent and uncaring. She found that "they were lower class families and many broken homes, however many of the parents I saw do care about their children and are interested in their kids engaging in worthwhile and productive activities".

Ethnic stereotypes were also changed. A student who worked at a Jewish facility remarked that "I expected Jewish people to be a bit disagreeable. I agreed to volunteer there because I wanted to learn about their culture. I see them much differently now. Having some first hand experience with Jewish people helped change my stereotypes".

Why did their views of the service clients change? Nearly all of the stu-

 Table 2. College students' perceptions of how their views of service clients changed during course of volunteer service.

Reponse	Frequency	Percentage
Negative to no change	0	0.0
Negative to positive	43	75.4
Positive to no change	12	21.1
Positive to negative	2	3.5
Total	57	100.0

 Table 3. College students' perceptions of why their views of service clients changed

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 during course of volunteer service.

Reponse	Frequency	Percentage
Involvement exposure	43	75.4
Critical incident	1	1.8
Increased knowledge/understanding	5	- 8.8
No change	8	14.0
Total	57	100.0

dents attributed this change to their personal involvement with the people they were assisting. Typical were responses from a student who worked with a homeless project, "I had never been completely immersed in a situation like (the project). There was no way to ignore the problem". And a student who worked with children in a housing project, "I see them very differently now, because I got to know them and care about them as people". Another noted "I got to know people and learned the truth instead of basing my judgments on stereotypes". When perceptions of social problems change as a result of experience, we might also expect action as well as attitudes to change. And this also appears to be the case.

REVERSING THE DECLINE IN VOLUNTEER ACTIVITY

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Attending college removes students from the web of activities and organizations that have tied them to their communities. Perhaps this uprooting contributes to the dramatic decline in volunteer service that has been noted between high school and college (Astin, 1991). This same pattern was noticed in the students who participated in the community service lab. Although these students have chosen an interdisciplinary major which values community participation and 81% were active in such proiects during high school, only 39% of our sample had been involved in such activity during the semester preceding the lab. One consequence of the lab participation appears to be an increased commitment to providing service in the following semester. The students who were counted as "planning to participate after the project" were those who either indicated that they would continue working in the volunteer setting to which they were assigned during the community service lab or identified some other specific project. While some students were vague in their commitments, 71% indicated an interest in returning to the same placement and 78%

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 Table 4. Participation: comparison of volunteer participation in high school, in the college semester before the service program, and intended participation the semester after the program.

	,·	Link out	College semester	Intended participation	
	1	High school	before program	after program	
Volunteer participation Non-participation		51	22	55	
		5	34	1	

gave an estimated figure for the number of hours they would spend either there or in another setting.

While we will need to follow up participants to see if intentions become real participation, this apparent reversal of the decline in intent to participate is encouraging. Much high school participation occurs as part of school, religious or social groups; students rarely seek out service opportunities independently. One particular function of a required "freshman volunteer experience" or other limited program like the community service lab may be to provide an organizational context for reattaching students to service opportunities. Another function may be to help students include "volunteer service" as part of their frame of reference as they think about how they will spend their college years.

WHAT STUDENTS VALUED ABOUT THE COMMUNITY SERVICE LAB

When students were asked to describe what they had learned, what were their personal accomplishments, and what surprised them about the experience, there were some things that stood out. Consistent with the scale findings on social responsibility, 29 of the 57 students indicated that the most important thing they learned was a commitment to social service. Consistent with our findings on changed perceptions of service clients, 15 of the other respondents described a reduction in stereotyping. When asked about their greatest personal accomplishment, 23 felt it to be providing service while another 19 described an increase in their skills at providing service or their knowledge about social issues. While these two items were split between serving and knowing, i.e. a social development or a cognitive outcome, the final item "what surprised you" combined the two. Thirty of the 57 discussed their increased understanding of the people they worked with, while 13 described their increased understanding of volunteer service. While a community service laboratory or other limited opportunity cannot be expected to have a major impact on the values or cognitive development of students, it is clear that even limited experience may help reshape the way students think about obligations and opportunities for service and about people who need social services. The experience may also provide opportunities for forging new ties with the community and help reverse the decline in volunteer activity from high school to college.

DISCUSSION

As we noted above, these results suggest some optimistic conclusions about the intended, positive impact of a limited service-learning intervention. Our confidence in the results is bolstered by the consistency and direction of the results and by the congruence with the high school studies and with the anecdotal evidence in the field.

At the same time, the limits of this study need to be considered. We did not use a control group and thus are not able to rule out other causes such as maturation effects, or other events in the students' lives that might have been responsible for the changes we observed. On the continuum of weakstrong interventions in service-learning, this one would probably be in the first quartile, i.e. stronger than a one-day freshman orientation in community service, but not as powerful as a full semester internship. A further limit is, that except for students' self report of what they thought was responsible for changes in their thinking about issues and clients, we were not able to disentangle the effects of service from the effects of classroom work related to the community service laboratory. In addition, our open ended items on how students viewed their clients were developed for this study and need further refinement and validation. While students were able to describe changes in their perceptions of clients in some detail at the end of their experience, this shift in perspective was not apparent in the pre- and post-test descriptions. This suggests a need for more sensitive measures and more sophisticated content coding.

All of these limitations point to the major methodological issues in doing service-learning research, (Giles *et al.*, 1991; Eyler and Giles, 1993). The major gap in our knowledge is in the cognitive elements of social responsibility and the cognitive impact of service-learning. Future research needs to go further in specifying these elements and in developing better ways to measure them.

In subsequent phases of this study, we will employ control groups and a longitudinal design. Both of these are critical if we are to establish outcomes which can be confidently attributed to such programs and to

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determine if the effects are lasting. The ultimate goals of sustained community participation by program participants makes assessment of the relationship between current and future service and between intentions to serve and actual service crucial. Future studies also need to consider the elements of service and structured reflection separately and in varying combinations to test the assertions central to the service-learning field, namely that service and learning are enhanced when combined.

Finally, we did not assess the effects of service on those being helped; while it is often assumed that students are doing "good" when they do volunteer community service, we have found no evidence in the literature that this is the case. This community impact research will be even more critical as national policy evolves which relies more on community service as a way to meet societal needs, finance higher education, and foster citizen development.

REFERENCES

- Astin, A. W. (1991). Student Involvement in Community Service: Institutional Commitment and the Campus Compact. Paper prepared for the Wingspread Conference on Service Learning Research, Racine, Wisconsin.
- Astin, A. W. (1992). What Matters in College: Four Critical Years Revisited. San Francisco: Jossey Bass.
- Bransford, J. (1992). Who Ya Gonna Call? Thoughts About Teaching Problem Solving. Nashville, TN: Vanderbilt Cognitive Research Group, Vanderbilt University.
- Conrad, D. and Hedin, D. (1982). The impact of experiential education on adolescent development. Child and Youth Services, 4, 57-76.
- Conrad, D. and Hedin, D. (1989). High School Community Service: A Review of Research and Programs. Madison W1: National Center on Effective Secondary Schools.
- Creighton, J. A. and Harwood, R. C. (1993). College Students Talk Politics. Kettering Foundation.
- Crowner, D. (1992, November). The Effects of Service Learning on Student Participants. Paper Presented at The National Society for Experiential Education, Newport RI.
- Denton, J. J. (1982). Early field experience influence on performance in subsequent coursework. Journal of Teacher Education, 33, 19-23.
- Eyler, J. (1993). 'Ene college internship and its impact on student learning. Journal of Cooperative Education, 29, 41-52.
- Eyler, J. and Giles Jr., D. E. (1993). What We Know and What We Need to Know About Education in Field Settings. Paper presented at American Educational Research Association, Atlanta.
- Eyler, J. and Halteman, B. (1981). The impact of a legislative internship on students' political skill and sophistication. *Teaching Political Science*, 9, 27-34.
- Giles, D. E. and Honnet, E. P. and Migliore, S. (Eds). (1991). Research Agenda for Combining Service and Learning in the 1990s. Raleigh, NC: National Society for Experiential Education.
- Gore, J. S. and Nelson, H. (1984). How experiential education relates to college goals and objectives. *Evaluation and Program Planning*, 7, 143–149.

IMPACT OF COMMUNITY SERVICE LABORATORIES

- Hamilton, S. F. and Fenzel, L. M. The impact of volunteer experience on adolescent social development: evidence of program effects. *Journal of Adolescent Research*, '3, 65-80.
- Jennings, M. K. and Niemi, R. G. (1981). Generations and Politics: A Panel Study of Young Adults and Their Parents. Princeton N.J.: Princeton University Press.
- Kendall, J. C. and Associates (Eds). (1990). Combining Service and Learning: Volumes I and II. Raleigh, NC: National Society for Internships and Experiential Education.
- Markus, G. B. Howard, J. and King, D. (1993). Integrating community service and classroom instruction enhances learning: results from an experiment. *Educational Evaluation and Policy Analysis*, **15**, 410–419.
- O'Brien, E. (1993). Outside the Classroom: Students as Employees, Volunteers, and Interns. *Research Briefs*. American Council on Education, 4, 1-12.
- Pascarella, E. T., Ethington, C. A. and Smart, J. C. (1988). The influence of college on humanitarian/civic involvement values. *Journal of Higher Education*, 59, 412-437.
- Sagawa, S. and Halperin, S. (1993). Visions of Service: The Future of the National and Community Service Act. Washington D.C.: National Women's Law Center and American Youth Policy Forum.
- Williams, R. (1991). The impact of field based education on student development: research findings. Journal of Cooperative Education, 27, 29-45.

