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ACADEMIC EFFECTS OF SERVICE-LEARNING

Abstract

Service-learning is growing in popularity. Zlotkowski (1996) pointed out that if service-learning is to become a lasting component in American education, it must have a clear link to "the academy" (in addition to the development of moral and civic values and the benefit to the community). We therefore examined students' perception of their learning of specific aspects of course content. We measured perceived learning in two sections of Cognitive Psychology in which half of the students did service-learning. We asked each student to rate his or her knowledge of Attention, Memory, Language, Cognitive Development, Metacognition, Individual Differences in cognitive processes, and Thinking. Service-Learning students felt they knew significantly more about Cognitive Development than did non-Service-Learning students. In a subsequent Cognitive Psychology course, there was a trend for Service-Learners to perform better than non-Service-Learning students on tests. Students in a different course, a seminar on homelessness, felt that the major part of their learning had come from service-learning.

Study 1

By including service-learning as a component for a class in Cognitive Psychology, randomly assigning half of the students in each of two sections to do it, we had an opportunity to test the hypothesis that service-learning enhances academic learning.

Method

Participants

Twenty-one students were randomly chosen to do service-learning. An additional seven students who were not picked initially, however, asked to participate, which brought the total to 28 students doing service-learning. Twenty-two students did not participate in service learning.

Measures

A questionnaire was constructed with the goal of assessing perceived amount of academic learning while eliminating or minimizing demand characteristics. We did this by presenting questions about academic learning on the front page of our questionnaire and by NOT asking students to indicate whether they had or had not done service-learning. (Students provided a number from which we could later decode who was in each group.) Specifically, we asked each student to rate (on a six-point scale) his or her knowledge of Attention, Memory, Language, Cognitive Development, Metacognition, Individual Differences in cognitive processes, and Thinking. Subsequent pages included general questions about the course, self-esteem, and interest in psychology as a field and toward the end, some questions for service-learners only on the degree to which the experience had influenced their career goals, etc. It was given to each student at the end of the course.

Procedure

    We announced that we would have a lottery to see which students would do

service-learning as part of the Cognitive Psychology course. Although we had been

concerned that students would be resistant to this idea, they accepted it readily.   A few

students dropped the course, one remaining student was adamant that she did not

have the time to do the service-learning, and the rest who were randomly chosen as

well as the seven who had asked to participate did service-learning for two hours each

week (ideally; some missed some weeks).

    Sites were chosen on the basis of their relevance to the class material. Student

preferences were solicited and then students were assigned to sites, which included:

Giant Steps (a program for autistic and learning-disabled children), Best Buddies

(which pairs students with mentally-handicapped people), and Head Start, which

places students as helpers in classrooms in inner-city Bridgeport, CT.

    The questionnaire was handed out on the last day of class, as part of the feedback

solicited about the course. Students were to use the same number code they had

been using all semester. Students were assured that their responses would not be

examined individually but that they would be pooled for analysis after all grades had

been computed.

Results

    Comparisons between those students doing service-learning (S-L) and those not

doing it (N) yielded significant differences on one academic measure, their ratings of

their knowedge about Cognitive Development ($F(1,48)=4.45$, $p<.05$; Table 1), as well

as on the reported effect of the service-learning experience on their Career Goals (t

[48] $= 3.08$, $p<.005$; Table 2). Final grades in the course did not differ (t[48] $= .13$, p

$>.05$).

Study 2

Since impressions of learning are subjective, in a subsequent semester of Cognitive Psychology we compared test grades of S-L and N on three tests combined. In this second semester, only those students randomly chosen were allowed to do service-learning in the course. There were 42 S-L and 57 N students. There was a trend for theS-L group to perform better than the N group students on tests. The S-L test mean was 93.26 (sd = 8.10) and for N, X= 90.17 (sd = 9.51); t (97) = 1.70, p=.09.

Study 3

In another course, a seminar entitled PJ125 Homelessness: Causes and consequences (Fall '97) in which students spent three hours per week in service-learning, we asked students to indicate on a questionnaire distributed at the end of the course which components of the seminar experience had contributed most to their learning. Usable data were obtained from only six students (some numbers did not add to 100%; one student gave verbal instead of numerical replies; several students were absent). Nevertheless, the data clearly showed that students perceived that service-learning had contributed significantly more to their learning than the other course components (t (35) = 9.06, p < .0001); see Table 2.

DISCUSSION

To be sure, enhanced learning of course material is important, but our experience with service-learning has caused us to broaden our idea of learning and of what is important for students to learn. When students in the Cognitive Psychology course wrote on the theme of learning from "the other," they did not mean learning about course material as much as about life, people, and values.

Students clearly think the experience is valuable.   In our Seminar on Homelessness we asked students what percentage of what they had learned about homelessness was from service-learning. Responses indicated that more than a third of their learning, twice as much as from any other course component, had been from service-learning. Even in more traditionally academic courses such as Cognitive Psychology and Sensation & Perception, students felt they learned a great deal from service-learning. For example, a Cognitive Psychology student wrote,

> "I remember the day in class when I volunteered to pick the names for the service learning component. I was just trying to be helpful but to be honest, I wasn't really awake yet and did not even know what I was doing. Anyway, I ended up choosing my own name and was not happy about it. At that time I was overwhelmed because I'm a senior, my classes had a tough work load, I was applying for a Fulbright grant and on top of all of this my family life was a mess. I am a firm believer in fate, that everything happens for a reason. I am so grateful that I was picked to do the service learning component because it turned out to be one of the greatest experiences of my life. P.S., 11/24/97.

This is strong affirmation. We subscribe to the ideal that students will serve, reflect on that experience, educate others, and ultimately advocate for the people they have served. Attitudinal change and real-world knowledge acquired from service-learning seem at least as important as enhanced academic learning.

Table 1

Ratings of Knowledge of Course Material

Topic	S-L M	S-L SD	NS-L M	NS-L SD
Attention	4.96	.74	4.96	.49
Memory	4.89	.83	5.05	.65
Language	4.64	.87	4.46	.74
Cognitive Dev.	5.04	.69	4.59	.80
Metacognition	4.36	.83	4.59	1.01
Individual Diffs.	4.86	.65	4.59	1.01
Thinking	4.68	.72	4.46	.74

Table 2: Perceived Contributions of Course Components: PJ125, Fall '97

	Mean %	sd
Reading the textbooks and readings	15.83	8.61
Writing weekly reflection papers	8.33	6.83
Class periods	13.33	6.05
Field experiences (service-learning)	34.17	12.81
Keeping a journal about '"	5.83	5.84
Working on your Final Project	11.67	7.53
Guest speakers	10.83	3.76