

# **Measuring the Impact of Service Learning at MCC: Designing and Implementing an Assessment Approach**

Susan Bender, Monroe Community College

## **Introduction**

Service-learning is generally defined as the integration of community service into the academic content of coursework. In 2003, Monroe Community College (MCC) established an Office of Service Learning and hired a service-learning coordinator to both enhance the Institution's focus on civic engagement in higher education and to further its own commitment to student learning. While MCC has an historical commitment to community engagement and service, a coordinated, campus-wide approach to the integration of service-learning represents a new initiative. The Office of Service Learning exists to educate faculty about service-learning, to foster partnerships between MCC and the broader community, to assist faculty as they revise curricular offerings to include service, and finally, to more fully and broadly integrate service-learning across the College's curriculum.

The Center for Governmental Research (CGR) has partnered with MCC to aid in the design and implementation of an assessment plan that will measure the outcomes and impacts of service-learning on MCC's campus and on students who take service-learning classes.

## **Summary**

- Students who take service-learning classes respond differently to pre and post test measures of factors including the following: an increased awareness of community needs; an increased awareness of community resources; and an investment in community involvement. In addition,
- Service-learning students are more likely than control group students to indicate that they will continue doing volunteer work independent of a service-learning course: 30% of service-learning students report interest in volunteer work compared with 15% of control group students.
- Service-learning students report both that more of them work for pay in addition to going to school (only 9% of the study students do not work at all, compared with 24% of the control group), and that more of them work nearly full-time than do control group students: 35% of service-learning students work 31 or more hours each week, compared with 28% of control group students.
- After completing a service-learning course, students gain a better awareness of the world outside the College and an appreciation of the College's attitudes toward its community.
- More of those students who were exposed to service-learning reported a better understanding of the needs and problems of their community than did their non-service learning counterparts.

At the root of service is valuing others, and impacting the values of young people is, quite simply, not something that typically happens in one semester. The legacy of good instruction, combined with laudable values, is one that, at its best, will continue to tug at the conscience and inclination of a student long after he or she has left the classroom. That

MCC students would, after the minimal exposure of 20 to 40 hours of varying forms of community service, demonstrate a changing awareness of their own relationship to their school, their community and their world, suggests that their learning has both depth of meaning and breadth of experience.

To answer additional research questions, including changing levels of commitment to academic achievement, CGR recommends that MCC undertake a longer-term evaluation of changing levels of student performance (as measured by retention and GPA) over time.

## **Methodology**

After meeting with the Service Learning Coordinator to better understand and clarify service-learning goals, objectives and activities, CGR and MCC jointly determined outcomes and impacts that our evaluation tool would measure. Among these are the following:

- Increased awareness of community needs;
- Increased awareness of community resources;
- Investment in community involvement;
- Increased commitment to hands-on learning;
- Enhanced understanding of career goals;
- Positive impact on citizenship;
- Greater investment in academics.

In the fall of 2004, MCC offered 16 service-learning sections of 10 different courses in disciplines ranging from Sociology to Statistics (Co-op Education/Criminal Justice; Criminal Justice Education; Personal Money Management; Introduction to the Teaching Profession; Foundations of Education; College Composition; Statistics I; Introductory Sociology; Social Problems; Urban Sociology) Students in each of these 16 service-learning sections were given both pre and post tests to determine the nature and extent of the impact of service-learning on those enrolled in the classes. In addition, because these 10 courses are also offered on a “non-service-learning” basis, the pre and post tests were also given to students in these standard classes. Such students formed our control group.

After obtaining all pre and post test data from MCC, CGR analyzed data to understand the nature and extent, if any, of the impact of service-learning on students. We did so by matching responses of individual students (whose confidentiality was protected) on pre and post tests and generating mean scores for both the service-learning and control groups. After obtaining mean scores for both groups, data was further analyzed using t-tests to determine the level of statistical significance between the two groups’ responses to questions.

We report survey results, discuss their implications, and offer recommendations for future study.

## **Survey Results**

We present survey analyses in an order of general to specific. We begin with basic demographic data for a better understanding of who the service-learning students are and how they compare to their control group counterparts.

**Table One: Demographics**

Table One depicts the demographic profiles of the students in the control and study groups. Overall, the study and control groups are generally comparable with relatively few differences between them.

<b>Demographics</b>		
	<b>Study Group</b>	<b>Control Group</b>
49. Which course of study are you planning to follow?		
Business	8%	5%
Communication	2%	7%
Liberal Arts	40%	30%
Human Services	17%	16%
Science	5%	5%
Arts	0%	1%
Criminal Justice/Social Work	28%	37%
Computing / Information Sciences	1%	
50. What is your major or program (actual or anticipated)?		
Legal	1%	1%
Medical/Mental Health	10%	12%
Criminal Justice	25%	30%
Education	33%	21%
Human Services	8%	10%
Other	23%	19%
Don't Know	0%	1%
51. In which year are you?		
First	49%	57%
Second	37%	30%
Third	11%	8%
Fourth	3%	4%
Fifth	0%	1%
52. Are you Male or Female		
Male	37%	36%
Female	63%	64%
58. Do you plan to remain in the Rochester-area following graduation?		
Yes	48%	41%
No	18%	17%
Unsure	33%	42%
64. What career do you plan to pursue when you graduate?		
Legal	4%	8%
Medical/Mental Health	11%	13%
Criminal Justice	22%	21%
Education	38%	25%
Human Services	10%	13%
Other	10%	9%
Don't Know	5%	11%

- Both the study and control groups have approximately equal representations of males and females (about two-thirds females in each).
- Students in the study and control groups express comparable degrees of certainty (or uncertainty) about whether or not they plan to remain in the Rochester area after graduation.
- The service-learning students are less likely than their control group counterparts to respond that they “don’t know” about their chosen career, although for both groups the numbers are small (11% of the control group compared with 5% of the study group). Study students are more likely to report that they plan to pursue a career in education, and both groups report comparable levels of interest in careers in medical or mental health professions or in criminal justice.

**Table Two: Learning Style and Goals**

Table Two depicts student responses to questions concerning issues around learning styles and their own goals for the course in which they are enrolled. We note the following highlights from this descriptive component of the survey:

- Service-learning students report valuing a course for the “relevance of its content to real life” at a much higher rate than do control group students (11% in the service-learning study group compared to 1% in the control group).
- Service-learning students report valuing a course because of their interest in the subject at higher rates than do their control group counterparts (24% in the study group compared to 9% in the control group).
- Both service-learning and control group students are most likely to report taking a class because it is required.
- As is the case with the general population, the greatest numbers of students in both the study and control groups report themselves as visual learners. Interestingly, there seems to be no significant difference between the rates at which service-learning students report themselves as experiential learners compared with those in the control group (33% of study group students see themselves as experiential learners compared with 28% of control group students who identify themselves as such.)

<b>Learning Style and Goals</b>	<b>Study Group</b>	<b>Control Group</b>
59. Please indicate the primary reason that you are taking this course (check ✓ one):		
Required Course	62%	70%
Interest in Topic	29%	25%
Service Component	2%	1%
Instructor	2%	1%
Other	5%	3%
60. Are the objectives of this course clearly defined?		
Yes	91%	94%
No	9%	7%
61. How many courses have you had in college where you participated in community service to meet some of the course requirements? (Include any current service-learning course.)		
0	36%	75%
1	44%	16%
2	10%	5%
3	3%	1%
4	4%	3%
5	1%	
6	1%	
7	1%	
8	1%	
62. Classroom Factors		
Instructor's Understanding	10%	24%
Instructor's Delivery of Material	20%	35%
Instructor's Personality	21%	29%
My Interest in Subject	24%	9%
Course Difficulty	4%	1%
Interesting Reading Material	2%	1%
Relevancy of Course Content to Real Life	11%	1%
Size of the Class	3%	1%
Class Discussions	4%	
Particular Students in Class	1%	
Inclusion of Hands-on	0%	
63. I consider myself predominantly a (learner)		
Visual	40%	43%
Auditory	6%	4%
Verbal	5%	4%
Tactile	5%	11%
Kinesthetic	6%	6%
Experiential	33%	28%
Other	5%	4%

Students in the study group, despite being currently enrolled in a service-learning class, seem to have misunderstood Question 61 since 36% indicated that even including the current class, they had never taken a service-learning course.

**Table Three: Service and Work Obligations**

Table Three, below, illustrates students’ responses to questions about their Service and Work Obligations and describes issues relative to their lives out of school.

Service and Work Obligations	Study Group	Control Group
54. Are you currently a member of a service or volunteer club/organization?		
Yes	26%	17%
No	74%	83%
55. How many hours a week do you currently work for pay?		
0	9%	24%
1-10	4%	6%
11-20	28%	19%
21-30	24%	23%
31+	35%	28%
56.a. Have you done any volunteering/community service in the past 12 months?		
Yes	42%	50%
No	58%	50%
b. If yes, approximately how many hours/week		
0	1%	1%
1-10	68%	65%
11-20	19%	18%
21-30	4%	8%
21+	9%	8%
57. Are you <i>currently</i> involved in community service activities?		
Yes	18%	18%
No-Don't Intend	32%	34%
No-but would	50%	49%

- Service-learning students report belonging to a service or volunteer organization club at a slightly higher rate than do control group students (26% for study students compared with 17% for the control group.)
- Service-learning students report both that more of them work for pay in addition to going to school (only 9% of the study students do not work at all, compared with 24% of the control group) and that more of them work nearly full-time than do control group students: 35% of service-learning students work 31 or more hours each week compared with 28% of control group students.
- Half of all control group students report having volunteered in the last 12 months; 42% of all service-learning students say they have done so.
- Students in the control and study groups report identical current levels of volunteer activity—18% of students in both groups are currently volunteering.
- Students in both groups also report nearly identical rates of “intending to volunteer”—about half of both groups plan to volunteer in the future.

**Table Four: Student Attitudes Toward Community**

Table Four indicates student responses to questions regarding their attitudes toward their community, their educational institution and the role between the two. We report the data for both service-learning students and for their non-service learning, control group counterparts, and we report responses on both the pre and post tests.

Proportion who agree or strongly agree with:		Study Group %	Control Group %
1. I have a good understanding of the needs and problems facing the Rochester-area community.	Pre-test	56	50
	Post-test	75	53
2. I feel comfortable around people from different racial and ethnic groups.	Pre-test	88	85
	Post-test	93	93
3. I am motivated by courses that contain hands- on applications of theories to real life situations.	Pre-test	82	81
	Post-test	84	83
4. I would choose a course that contains hands-on application of theories to real life situations over one that did not.	Pre-test	74	69
	Post-test	74	75
5. I feel that I can have a positive impact on the community in which I live.	Pre-test	73	71
	Post-test	74	66
6. Working on group projects is more rewarding than working on individual projects.	Pre-test	52	37
	Post-test	53	38
7. I have a realistic understanding of the daily responsibilities involved in the job/career in which I am interested.	Pre-test	78	82
	Post-test	89	82
8. I learn course content best when connections to real life situations are made.	Pre-test	85	86
	Post-test	89	89
9. Youth are valued as resources for solving community problems.	Pre-test	53	45
	Post-test	64	40
10. The knowledge and skills of community members are valued by this institution.	Pre-test	58	58
	Post-test	68	54
11. The opportunity to engage in hands-on learning through my courses would most likely help me in selecting a career path.	Pre-test	82	81
	Post-test	78	77
12. I would like more opportunities to "learn by doing" in the community.	Pre-test	72	63
	Post-test	72	67
13. Working with others helps/would help me learn more about myself.	Pre-test	68	61
	Post-test	75	71
14. Community service will help me develop leadership skills.	Pre-test	71	66
	Post-test	77	64
15. I know about opportunities/know how to become involved in community service while I'm at MCC.	Pre-test	39	32
	Post-test	53	38
16. I feel that social problems are not my concern.	Pre-test	9	15
	Post-test	10	7
17. Having an impact on community problems is within the reach of most individuals.	Pre-test	61	54
	Post-test	64	57
18. I feel that I can play an important part in improving the well-being of my community.	Pre-test	68	57
	Post-test	70	56
19. It is important to me personally to have a career that involves helping people.	Pre-test	84	86
	Post-test	87	84
20. Skills and experiences that I gain from community service will be valuable in my career.	Pre-test	82	76
	Post-test	86	72
21. While working on a group project, I can easily accept others' criticism of my work.	Pre-test	70	70
	Post-test	77	69
22. I feel uncomfortable working with people who are different from me in such things as race, wealth, and life experiences.	Pre-test	15	16
	Post-test	17	18

*Differences between the two groups on pre and post testing are revealed most dramatically in Questions 1 and 15. As Question 1 demonstrates, students in service learning classes began their semester with approximately a comparable level of “understanding of the needs and problems facing the Rochester-area community”: 56% of service-learning students agreed or strongly agreed that their understanding in this regard was good, compared with 50% of the control group. At the end of the semester, service-learning students agreed or strongly agreed with this statement at a higher rate, about 75%, compared with no significant change for the control group’s reporting of their understanding of such needs— 53%. In this instance, more of those students who were exposed to service-learning reported a better understanding of the needs and problems of their community than did their non-service learning counterparts.*

Question 15 indicates that on pre-test measures, service-learning students agreed or strongly agreed that they were both aware of and knew how to participate in community service projects at MCC at a slightly higher rate than control group students (39% compared with 32%). Post-test reporting, however, shows a large increase in the percentage of service-learning students who agree or strongly agree with the statement and only a modest increase for the control group (53% compared with 38%). *Service learning students are more likely than non-service-learning students to increase their awareness of community service opportunities.*

While questions about being connected to the community reveal the largest differences between service-learning and control group students, other questions also suggest noteworthy distinctions between the two groups. For example, in Question 7, service-learning students initially report understanding “daily responsibilities involved in the job/career in which [they] are interested” at slightly lower rates, 78% compared to 82%, than do their control group peers on pre tests. But after a semester of service-learning, student reporting on post-tests indicates that service-learning students agree or strongly agree that they understand such factors at higher rates than do their control group peers, with agreement rates of 89% and 82% respectively.

Similarly, pre and post test responses for service-learning students on Question 9 not only show an increase in students who agree or strongly agree that “youth are valued as resources for solving community problems” (from 53% to 64%) but also a decrease in the percentage of control group students who agree or strongly agree with the same statement (from 45% to 40%). These numbers suggest both that *the service-learning experience benefits students who participate in it and, further, that those students who do not have the opportunity to experience service-learning may feel less important as a community resource by comparison.*

While service-learning students agreed or strongly agreed to questions on the nature of their community’s attitudes toward youth as a resource at rates higher than the control group on pre tests (Question 9), service-learning students were no different from their control group peers on their pre-test rates of agreement to statements about their institution’s valuing “the knowledge and skills of community members” (Question 10). Both agreed or strongly agreed at a rate of 58%. Yet on post-test measures, control group students agreed or strongly agreed at slightly lower rates than they had previously (54%), while service-learning students agreed at a noticeably higher rate (68%). *This change suggests that after*

*completing a service-learning course, students gain a better awareness of the world outside the College and an appreciation of the College's attitudes toward its community.*

**Table Five: Valuing Service**

Proportion who found very or extremely important:		Study Group	Control Group
		%	%
23. Becoming involved in a program to improve the community and/or help others.	Pre-test	70	63
	Post-test	69	55
24. Choosing a career that provides an opportunity to be helpful to others or useful in society.	Pre-test	85	82
	Post-test	84	82
25. The opportunity to combine classroom learning with assignments that take me into the community.	Pre-test	70	61
	Post-test	70	53

Data in Table Five indicates that pre and post test measures on responses to questions regarding the value of service differ slightly for study and control groups. Neither group responded differently on pre and post testing to Question 24, which asks about the value of choosing a career that helps others or is valuable to society. But on Questions 23 and 25, while the study group's responses remained relatively unchanged, the responses for the control group differed. Specifically, as time passed, control group students were less likely to find import or value in either the opportunity to link classroom learning to work in the community or to see merit in becoming involved in programs that help others. Service learning students continued to value service to others at comparable proportions over time.

**Table Six: Students Rate their Skills.**

Table Six illustrates service-learning and control group responses to pre and post test questions rating their own skills and activities relative to others. Generally, there were not substantial differences between the way study and control students viewed themselves and

their abilities relative to those of others.

<b>Proportion who rate their own skills/activities better or much better than others</b>			
		<b>Study Group %</b>	<b>Control Group %</b>
26. Respecting the views of others	Pre-test	75	70
	Post-test	78	72
27. Participating in community affairs	Pre-test	32	22
	Post-test	32	25
28. Critical thinking skills	Pre-test	52	46
	Post-test	63	53
29. Communicating my ideas to others	Pre-test	50	51
	Post-test	66	60
30. Engaging in discussion with others	Pre-test	54	48
	Post-test	65	62
31. Ability to compromise	Pre-test	62	64
	Post-test	64	65
32. Listening skills	Pre-test	70	68
	Post-test	76	67
33. Moral or ethical judgment	Pre-test	73	64
	Post-test	73	72
34. Identification of social issues and concerns	Pre-test	55	37
	Post-test	57	54
35. Thinking about the future	Pre-test	72	73
	Post-test	78	74
36. Ability to take action	Pre-test	67	55
	Post-test	61	61
37. Tolerant of people who are different from me	Pre-test	76	74
	Post-test	76	78
38. Effective in accomplishing goals	Pre-test	70	59
	Post-test	70	57
39. Ability to see consequences of actions	Pre-test	73	63
	Post-test	73	67
40. Empathetic to all points of view	Pre-test	65	53
	Post-test	64	57
41. Ability to work with others	Pre-test	75	68
	Post-test	69	69
42. Thinking about others before myself	Pre-test	62	57
	Post-test	70	57
43. Ability to speak in public	Pre-test	40	29
	Post-test	45	31
44. Feeling responsible for others	Pre-test	47	41
	Post-test	50	44
45. Knowing where to find information	Pre-test	48	42
	Post-test	52	45
46. Knowing whom to contact in order to get things done	Pre-test	46	44
	Post-test	56	47
47. Ability to lead a group	Pre-test	53	52
	Post-test	63	56

- Question 41 suggests that after exposure to service-learning opportunities, students may gain a better awareness of the complexities inherent in meaningful teamwork. Study students rated their skills lower in this regard on the post test than they did on the pretest. By comparison, the control group showed no real difference in pre and post test reporting.
- In a related vein, Question 42 indicates that along with an awareness of challenges in group work, study students also reported having gained a greater appreciation for the values and needs of others relative to their own. A higher percentage (70%) reported feeling that they were better or much better than others on the post test at thinking of others before themselves.
- Questions 46 and 47 suggest that service-learning students reported feeling better about their abilities both to locate resources and to lead groups than they had on pre test measures.

**Table Seven: Attitudes Toward School and Community.**

This next group of Tables, Numbers Seven through Nine, describe changes in mean or average scores over time and depict changes in student responses in a slightly different way from related Tables Four through Six. Tables Four through Six describe the responses of students who answered at the upper end of possible responses, either by “agreeing or strongly agreeing” or by rating their skills “better or much better”. Tables Seven through Nine report change in total mean scores for all respondents, including those answering at the lower range of possible responses. We report both for several reasons. First, upper-end responses are important inasmuch as they describe the greatest possible response or impact. They describe changes of substance. With any intervention, we would anticipate seeing changes in this area. Second, mean or average score changes are important because they describe the changing picture over time throughout the full range of responses and, further, allow for researchers to understand which changes, while not necessarily substantial, are statistically significant.

A number of questions on both pre and post testing indicate differences between the way the service-learning and control groups think of themselves after time spent taking a service-learning course.

Change in average score from pre to post			
	Study Group	Control Group	Significance Level
1. I have a good understanding of the needs and problems facing the Rochester-area community.	0.3229	0.1263	
2. I feel comfortable around people from different racial and ethnic groups.	0.1031	0.0851	
3. I am motivated by courses that contain hands-on applications of theories to real life situations.	-0.0725	0.0426	
4. I would choose a course that contains hands-on application of theories to real life situations over one that did not.	-0.0259	0.0860	
5. I feel that I can have a positive impact on the community in which I live.	0.0000	0.0106	
6. Working on group projects is more rewarding than working on individual projects.	-0.0781	0.0106	
7. I have a realistic understanding of the daily responsibilities involved in the job/career in which I am interested.	0.2784	0.0000	**
8. I learn course content best when connections to real life situations are made.	0.0259	0.1505	
9. Youth are valued as resources for solving community problems.	0.1649	-0.0968	**
10. The knowledge and skills of community members are valued by this institution.	0.0825	-0.0957	
11. The opportunity to engage in hands-on learning through my courses would most likely help me in selecting a career path.	-0.0876	-0.0638	
12. I would like more opportunities to "learn by doing" in the community.	-0.0052	-0.0213	
13. Working with others helps/would help me learn more about myself.	0.0773	-0.0106	
14. Community service will help me develop leadership skills.	0.1036	-0.1290	**
15. I know about opportunities/know how to become involved in community service while I'm at MCC.	0.2500	0.3723	
16. I feel that social problems are not my concern.	-0.0733	-0.1702	
17. Having an impact on community problems is within the reach of most individuals.	0.1204	0.1170	
18. I feel that I can play an important part in improving the well-being of my community.	0.0000	0.0851	
19. It is important to me personally to have a career that involves helping people.	0.0518	0.0000	
20. Skills and experiences that I gain from community service will be valuable in my career.	0.0579	-0.0435	
21. While working on a group project, I can easily accept others' criticism of my work.	0.1443	0.0000	
22. I feel uncomfortable working with people who are different from me in such things as race, wealth, and life experiences.	0.0419	0.1915	
<i>*Difference in means is statistically significant at the 90% level of confidence.</i>			
<i>**Difference in means is statistically significant at the 95% level of confidence.</i>			

Analyses of pre and post tests for students who took service-learning classes reveal statistically significant differences in attitudes toward learning on several different questions.

- Question Seven reveals a statistically significant difference between study and control groups' understanding of responsibilities involved in the job or career they are pursuing, at a confidence level of 95%. Students were more likely to report a gain in such understanding after taking a service-learning course.
- Question Nine indicates a statistically significant difference in the change over time between control and study groups in feelings about how the community values youth as a resource, again, at a confidence level of 95%.
- Finally, again at the 95% confidence level, differences exist between study and control groups' changes in feelings about the value of community service as it can help to develop leadership skills.

**Table Eight: Valuing Service Change Over Time**

Table Eight indicates student responses on both pre and post test measures, on questions regarding learning, community service, and the integration of the two. T test analyses reveal that for none of these questions were the differences statistically significant.

<b>Learning and Community Service Issues</b>			
<b>Change in average score from pre to post</b>			
	<b>Study Group</b>	<b>Control Group</b>	<b>Significance Level</b>
23. Becoming involved in a program to improve the community and/or help others.	-0.0725	-0.0106	
24. Choosing a career that provides an opportunity to be helpful to others or useful in society.	-0.0259	0.0532	
25. The opportunity to combine classroom learning with assignments that take me into the community.	-0.0938	0.0430	
<i>*Difference in means is statistically significant at the 90% level of confidence.</i>			
<i>**Difference in means is statistically significant at the 95% level of confidence.</i>			

**Table Nine: Students Rate their Skills**

When students in service learning and non-service learning classes evaluate their skills on pre and post test measures, we see statistically significant differences on several questions.

Skills Self-Assessment			
Change from average score from pre to post			
	Study Group	Control Group	Significance Level
26. Respecting the views of others	0.0524	0.0638	
27. Participating in community affairs	0.0262	0.1848	
28. Critical thinking skills	0.1204	0.0851	
29. Communicating my ideas to others	0.3280	0.1935	
30. Engaging in discussion with others	0.1684	0.3478	
31. Ability to compromise	0.0209	0.0769	
32. Listening skills	0.2670	0.0870	
33. Moral or ethical judgment	-0.0423	0.0879	
34. Identification of social issues and concerns	0.0737	0.1957	
35. Thinking about the future	0.1466	0.1099	
36. Ability to take action	0.0000	0.1413	
37. Tolerant of people who are different from me	0.0212	0.0879	
38. Effective in accomplishing goals	0.0798	-0.0440	
39. Ability to see consequences of actions	0.0265	0.1196	
40. Empathetic to all points of view	0.0263	0.3034	**
41. Ability to work with others	-0.0126	0.0652	*
42. Thinking about others before myself	0.0798	-0.0109	
43. Ability to speak in public	0.1968	0.1413	
44. Feeling responsible for others	-0.0423	0.1758	*
45. Knowing where to find information	0.1596	0.0000	
46. Knowing whom to contact in order to get things done	0.1604	0.0769	
47. Ability to lead a group	0.2021	0.1957	
<i>*Difference in means is statistically significant at the 90% level of confidence.</i>			
<i>**Difference in means is statistically significant at the 95% level of confidence.</i>			

- Service-learning study students report changes in their levels of empathy for all points of view at a lower rate than do their control group counterparts, at a statistically significant rate with a 95% level of confidence. In other words, the mean scores for both groups are not only different enough to be descriptive, but also to suggest changes in those mean scores over time (the duration of the service-learning or non-service learning class) that are significant.
- Service learning students report changes in feelings both about their ability to work with others and in their feelings of responsibility for others at rates that differ from their control group counterparts with a statistically significant rate of confidence of 90%. That is to say, the difference in the mean scores for these two groups over the course of the duration of the classes in question is significant.
- Question 41 may suggest that part of the value of the service-learning experience for students lies in helping them to gain real world understanding of the challenges inherent in working with others. Study students were less likely to rate their skills in this area high after the experience of community service.

**Table Ten: Course Evaluation**

Finally, we report students' evaluation of their courses.

<b>Course Evaluation</b>		
	<b>Study Group</b>	<b>Control Group</b>
51. Do you feel the objectives of the course were clearly defined?		
Yes	58%	49%
No	9%	5%
52. Do you feel the objectives of the course were met?		
Yes	59%	49%
No	7%	4%
53. Did your participation in the service component of this course enhance your understanding of the course material		
Yes	53%	20%
No	11%	19%
54. Approximately how many hours of course-related service activities did you perform during the semester?		
<10	24%	24%
10-19	18%	18%
20-39	43%	24%
40-99	8%	24%
100+	8%	12%
55. Did the service-learning component of this course meet your expectations?		
Yes	51%	16%
No	10%	13%
57. In comparison to other courses you have taken at MCC, on a scale of 1 to 5, how would you rate this class in terms of:		
a. Level of interest:		
Less Interesting	9%	7%
A little Interesting	9%	11%
About The Same	22%	25%
Interesting	27%	27%
More Interesting	34%	30%
b. Level of learning:		
Less Learned	6%	5%
A little Less Learned	10%	8%
Learned About the Same	29%	29%
Learned a Little More	30%	31%
Learned More	25%	27%
58. Do you plan to take additional service-learning courses in the future?		
N	8%	5%
U	31%	25%
Y	26%	13%
59. Would you like to continue doing volunteer work (outside of a service learning course)?		
N	8%	6%
U	27%	22%
Y	30%	15%

- Service-learning students report feeling both that course objectives were better defined and that those course objectives were better met than did control group students.
- Service-learning students are more likely than control group students to indicate that they would like to continue doing volunteer work independent of a service-learning course than are control group students: 30% of service-learning students report interest in continuing volunteer work, compared with 15% of control group students.

- More than half, 53% of students who take service-learning courses, agree or strongly agree that the service component helped their understanding of the course material.
- About one-fourth, 26%, of service-learning students agree or strongly agree that they would take additional service-learning classes in the future, compared with 13% of the control group students.
- According to Question 54, a higher percentage of control group students performed more than 40 hours of service during the semester compared to study students: 36% of the control group reported serving 40 or more hours, compared with 16% of the study group. Reasons for this are unclear.

## **Conclusion**

Differences exist between pre and post test measures of service-learning students and their control group counterparts. The challenge for a researcher becomes determining whether the differences may be appropriately attributed to the service-learning class itself or to the myriad other factors that impact young adults at this stage in their lives. The question is one of causality. Are the service-learning classes primarily responsible for the difference in responses that we observed on the surveys?

At the root of service is valuing others, and impacting the values of young people is, quite simply, not something that typically happens in one semester. The legacy of good instruction, combined with noble values, is one that, at its best, will continue to tug at the conscience and inclination of a student long after he or she has left the classroom.

That MCC students would, after the minimal exposure of 20 to 40 hours of varying forms of community service, demonstrate a changing awareness of their own relationship to their school, their community and their world, suggests that their learning has both depth of meaning and breadth of experience. It gives them a foundation on which to build a life and career of substance.

## **Recommendations**

- Continue to build on existing database;
- Incorporate student GPAs and retention data into database, and update each semester;
- For research purposes, maintain parallel sections of service-learning and non-service-learning sections of the same class;
- Track students in both classes according to existing survey and GPAs;
- Consider standardizing service component across disciplines to reduce variations in implementation of service-learning;
- Should funds allow, establish means of tracking students once they finish at MCC;
- Administer follow-up surveys to service-learning alumni to allow for longitudinal reflection on the service-learning experience.

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