

Student Learning Outcomes in a Principles of Sociology Course

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Abstract

This study is a small and preliminary part of a larger exploration into the “scholarship of teaching” using Sociology 101 as a laboratory. Using principles of “action research” and “design experiment,” the data collection and reflection will provide the foundation for a careful analysis of the course oriented toward increasing its effectiveness.

The objective of the course is to teach a holistic sociology which encompasses three types of knowledge: “foundational knowledge,” “professional knowledge” and “socially responsive knowledge.” Service-learning is widely touted as an important pedagogical strategy for teaching sociological imagination, sociological concepts, social values, and social responsibility. This paper describes the course design and the integration of service-learning into Sociology 101. Student learning of the three types of knowledge and the contribution of service-learning to student learning are tested using a pre- and post-course survey.

Data shows that students in the course developed a social conscience and increased in their sense of social responsibility. Students who participated in service-learning developed greater understanding of sociological concepts and learned to approach issues with a sociological imagination. They also demonstrated a greater understanding of social forces affecting behavior, a greater sense of social responsibility, and reduced racism. Students rated the service-learning experience highly and recommended that future students participate in the service-learning option.

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"I learned about other cultures." "It taught us a lot about what we were learning in class, solidified it for us, gave us real lives to go with the theories." "I met some great people and learned a lot about myself and the students (I tutored)." "The journal entries and reflection were a great way to draw conclusions and bring things to a close." "I enjoyed the whole service-learning component. It not only adds a lot to the class, but also (provides) personal fulfillment." "I felt I learned a lot about some of the topics we discussed in class by doing service-learning." "Working with the kids in the city opened my eyes so much to the social issues of urban areas." "Service-learning helped me understand social problems more instead of just reading about them." "Service-learning was a hands on way to learn sociology." - Edited comments from students in a post-course survey.

INTRODUCTION

Dr. Ernest Boyer (1990), in his widely acclaimed book written for the Carnegie Foundation for the Advancement of Teaching, *Scholarship Reconsidered*, laid the foundation for the scholarship of teaching which is both discussed and practiced in this paper. Boyer argues that to be effective, a course must be a carefully designed learning system approached with the same rigor and discipline as a research project. Working under Boyer's scholarship rubric, Dr. Lee Schulman (1998) identified five key components of the scholarship of teaching: vision, design, interactions, outcomes, and analysis. These components are utilized in a new kind of action research called "design experiments," whereby the classroom is the laboratory and the results of the experiment will lead to improved teaching (Schulman 1997). Under this framework, student learning is, in a sense, the dependent variable of a thoughtfully designed experiment in which various elements interact and reinforce each other in an intentional and seamless teaching and learning strategy.

Sociology by its very nature invites holistic teaching and learning approaches that inspire deep understanding. During the past several years I have incorporated service-learning into my sociology classes in the hope that it would help students connect sociology with every aspect of

their lives. I want them to develop cognitive understandings of sociological concepts and a sociological imagination. I also want the study of sociology to help them develop into mature individuals in their community and to develop a sense of vocation in their work, a commitment to the common good, an ethic of service, and a lifestyle that reflects moral integrity and social responsibility. These objectives can best be achieved by incorporating a wide variety of material and experiences in sociology courses and by carefully assessing student learning with the aim of orienting it toward continual improvement in course design

The promise of integrating service-learning and sociological instruction seems obvious, yet is neither widely practiced nor accepted. Service-learning has the potential to contribute to student learning of theoretical concepts and critical analytic thinking with a depth that is not possible through the use of traditional classroom instruction alone. It provides real life examples of sociological concepts and a laboratory in which to develop a sociological imagination. Service-learning invites students to develop positive values and ethics which serve the common good. They develop skills for social change, an ethic of service, and a commitment to civic engagement in a holistic learning experience. While learning, students also address significant social issues by serving people and communities. In spite of the obvious promise, the kind of holistic learning and deep understanding described above does not happen automatically or easily.

The paper and the data presented reflect the experience of integrating service-learning into ten sections of Principles of Sociology (Soc 101) at Messiah College. Two sections were taught by the same professor each semester for five semesters between 1997 and 1999. Considering Schulman's five components of the scholarship of teaching, this paper begins by explaining the *vision* of the course through a brief discussion of introductory sociology courses and the benefits of service-learning. It then describes the *design* and *interactions* of the experiment by detailing both the course and research design. *Outcomes* are discussed as the data is presented and interpreted. The paper concludes with an *analysis* of the experiment, including some suggestions for more effective course design and further research.

SOC 101

Principles of Sociology, the first level sociology course at most colleges, presents a special challenge to the department and the instructor. It is often a general education course which contributes to broad interdisciplinary liberal learning objectives. At the same time, it is typically the introductory course for sociology majors. It draws students with a wide range of abilities, backgrounds and interests. In addition to responding to both the range of students and the

diverse purposes and functions of the course, the instructor must balance the interests of various constituents. Practitioners call for students to learn applied sociology. Academicians want content knowledge. The academy asks all courses to teach critical thinking, writing and communication skills. This particular configuration of factors requires the use of creative and innovative approaches to teaching which effect both the content and the methods (McGee 1994).

Recent studies and discussion about teaching sociology reveal a movement toward a broader understanding of what constitutes sociological knowledge. Steele and Marshall (1996) suggest this broad understanding when they project “a glimpse of introduction to sociology in 2005.” They predict that the work force will demand a more practical sociology which prepares students for jobs. Applied sociology and sociological practice will become increasingly important. There will be an increased use of technology and out-of-classroom settings in the learning process. Assessment will become a powerful force to direct course content toward outcome-based student learning goals.

Ruggiero and Weston (1991) surveyed practitioners and identified three issues as particularly important for a basic introductory course: discovering what sociological practice is really like, applying research and theory for practice, and learning the fundamentals of sociology. In addition they identified particular content areas as having particular importance: organizations and industrial sociology, family, socialization, deviance and criminal justice, and group processes.

One of the goals of sociological education is developing a sociological imagination. The sociological imagination refers to the ability to see behind the facades of social life to see the patterns, hidden causes, structures and processes which form and regulate social life (Berger 1963; Mills 1959; Schwalbe 1998). Since a sociological imagination is partly intuitive, it is caught through experience and observation as much as taught in formal settings. Eckstein, Schoenike and Delany (1995) suggest that sociological education should include structural, systematic and critical elements.

This brief review suggests the need for an approach to teaching introductory sociology that includes a broad range of conceptual and practical knowledge and a variety of approaches which merge into a holistic learning experience. Irwin Altman (1996) suggests three domains of knowledge which should guide the work of the academy. These three types of knowledge provide a good framework for understanding this holistic approach to Soc 101. Foundational knowledge includes the content, theories and methodology of the discipline. Professional knowledge introduces students to the skills and abilities practitioners need to practice the

discipline. Socially responsive knowledge educates students in the problems of society, helps them experience and understand social issues in their community, and gives students skills and experience to act on these social problems. Alexander Astin (1997) affirms the place of Altman's third domain of knowledge by arguing that a liberal education must prepare students for responsible citizenship, develop character, and prepare students to serve society.

SERVICE-LEARNING

Service-learning is defined as both a method and philosophy of experiential learning through which participants expand their knowledge of society, develop abilities for critical thinking, develop commitments, values, and skills needed for effective citizenship, and contribute in meaningful ways to addressing social problems. Service-learning includes: (1) service activities that help meet community needs which the community finds important; and (2) structured educational components that challenge participants to think critically about and learn from their experiences (Eby 1995; Mintz and Liu 1994).

Both the philosophy and approach of service-learning fit well conceptually within the field and teaching of sociology (Astin 1997; Balazadeh 1996; Lena 1995). Studies show that service-learning contributes to several broad learning objectives, many of which sociologists have when teaching introductory courses. Giles and Eyler (1999), in an extensive study involving 2500 students from 45 colleges and universities, found that service-learning contributes to personal and social development; understanding and applying knowledge; increased engagement, curiosity, and reflective practice; critical thinking; transformation of perspectives; and increased sense of civic responsibility. These findings are consistent with other studies.

Markus, Howard, and King (1993) found that students enrolled in a political science course at University of Michigan increased in their sense that they could make an impact on society and in their commitment to social responsibility. Giles and Eyler (1994) found that students at Vanderbilt link participation in service-learning to improvements in grades, motivation, and civic involvement. Kendrick (1996) found similar outcomes in his Introduction to Sociology courses at the State University of New York at Cortland. Hudson (1996) used service-learning in an American policy course and concluded that it increased the quality of students' discussion and learning.

Service-learning seems to be particularly effective in reducing racism (Marullo 1998; Myers-Lipton 1996) and increasing students' sense of civic responsibility (Myers-Lipton 1998; Parker-

Gwin and Mabry 1998; Rioux 1997). Service-learning has increased cognitive complexity, social competency, and ability to work with diverse others among pharmacy students (Osborne, Hammerich, and Hensley 1998). Other studies have shown that participation in service-learning increases student self-confidence, self reliance, sense of self-worth, tolerance, and leadership skills. Additionally, participation in community service contributes to students becoming responsible citizens, developing career competencies, and self-empowerment (Cohen and Kinsey 1994; Cohen and Sovet 1989; Coles 1993; Eycler 1993; Hedin and Conrad 1990; Weaver, Kauffman, and Martin 1989).

Service-learning also contributes to student development of certain skills of the liberally educated person. Duley (1990) demonstrated the impact service-learning can have on students' abilities in analysis, application, synthesis and evaluation. Studies have shown that participation in service-learning leads to effective use of reflective judgment (King and Kitchener 1994). Weaver, Kauffman, and Martin (1989) found that students at Goshen College who participated in an international semester long service-learning experience increased their practice of reflective thought.

While this review of recent studies is by no means exhaustive, it does demonstrate the ability of a service-learning experience to positively affect student learning in all three of Altman's domains of knowledge. The studies cited demonstrate a plethora of evidence that service-learning can contribute to learning of both professional (reflective practice, critical thinking, leadership skills, application) and socially responsive (civic engagement, social responsibility) knowledge. There is evidence that service-learning contributed to learning of foundational knowledge (grades), though the research in this area is not as compelling as for the other two domains of knowledge. A recent publication of the American Sociological Association, *Service-Learning and Undergraduate Sociology: Syllabi and Instructional Materials* (Ender et al. 1997) and a review of that publication published in *Teaching Sociology* (Eby 1997) provide additional documentation to the benefits of service-learning, especially its benefits to teaching sociology.

COURSE DESIGN

The Principles of Sociology (Soc 101) course that I teach at Messiah College is informed by the vision articulated in the reviews of Soc 101 and service-learning above. In designing the course, I have intentionally used a holistic definition of sociological knowledge and service-learning in an attempt to maximize student learning. At its best, Soc 101 at Messiah is an integrated system of lectures, activities and experiences which catch students' imaginations, relate material to their

interests, make applications to the world, confront data from a variety of sources, and make sociology practical. This course appeals to a wide range of learning styles and attempts to integrate foundational knowledge, professional knowledge and socially responsive knowledge in ways students will find relevant.

Course Objectives

The objectives for the course are summarized below. While the syllabus states these objectives differently, the following categories help to focus the discussion for this study.

Students in the course will:

1. Develop a sociological perspective: sociological imagination, understanding of structure.
2. Learn content: concepts, facts, persons, theories, knowledge of sociology.
3. Develop the skills of the liberal arts: critical thinking, analysis, problem solving, communication, life-long learning, decision making, application, leadership.
4. Develop social responsibility and an ethic of service: attitudes and understandings needed to live in society as responsible citizens and to contribute to building a caring and just society.
5. Apply sociology to social issues: social policy, social change, social action.

While Altman's three domains of knowledge were not used in the development of these course objectives, one does not have to stretch to see the overlap. Course objectives one and two clearly correspond to Altman's foundational knowledge. Objectives four and five reflect the concern of Altman (and Astin) that students learn socially responsive knowledge. While course objective three fits the description of professional knowledge, the skills from this objective are not skills which are specific to the discipline of sociology, and their inclusion has more to do with the fact that the course meets a general education requirement. It is not a major objective of this course to introduce students to professional knowledge, due to its introductory nature and the varied student motivations for taking the course. These skills are appropriately taught in the upper level courses of the department. Therefore, student learning of professional knowledge will not be analyzed in this study. This study focuses on student learning of both foundational and socially responsive knowledge in Soc 101.

Class Structure

In many ways this course is similar to a Soc 101 course at any college. It uses a standard text book, *Sociology: A Brief Introduction* by Richard T. Schaefer and Robert P. Lamm (1997) to set the structure for the content. The goals of a sociology curriculum identified by Ted Wagenaar for

the American Sociological Association (1991) inform the choice of topics. A variety of approaches including lectures, videos, and collaborative learning activities are used. In order to facilitate informed discussion, quizzes are given for each chapter prior to class discussion. Class time is devoted to discussion of topics related to the text with relatively little review of text material. Lectures are used to explain content which students find hard to understand. Two term tests and a comprehensive final exam are included. Class attendance is encouraged by asking students to do a self-report of attendance and participation periodically throughout the term.

Students are given the option of writing two four-page policy papers in which they take a position on a policy issue, or performing 21 hours of community service-learning with group discussion and written reflection. A few students are given the option of doing one paper and 12 hours of service. Both the policy papers and service-learning assignments are graded on a pass or fail basis. A pass earns 100 points toward the 500 possible points in the course. Unsatisfactory policy papers may be redone to earn a pass. Students who complete the required hours of community service and who do the written reflection related to service-learning satisfactorily earn full credit. Unsatisfactory reflection papers can be redone for full credit. Partial credit based on the number of service hours completed is awarded for students who do not meet all of the requirements. It is the reflection and learning of the service-learning assignment, not the quality of the service, that is evaluated and graded. For the semesters included in this study, all students who started service-learning completed the requirements.

Service-Learning Option

Service-learning is incorporated into this course for three reasons. First, it has the potential to help students develop deep learning of sociological concepts, perspectives and principles (foundational knowledge). Second, it provides opportunity for students to develop professional and socially responsive knowledge by giving them the opportunity to observe professionals at work and to encounter social problems in real life situations. It also encourages students to develop their sense of social responsibility and civic concern. And third, service-learning responds to a student interest. Over the five semesters, more than 73 percent of students in Soc 101 reported that they were involved in community service during the year preceding enrollment in the course. Because of that interest, service-learning increases their enjoyment of the course and their perception of relevance.

Students who chose the service-learning option were required to do 21 hours of service in a community agency. Most served two to three hours each week throughout the semester, though some students met the requirement by participating in a week-long spring break project. By

serving throughout the semester, students are able to build significant relationships both with the agency and with persons with whom they work.

Students served in a wide variety of positions in local agencies and programs. They served in tutoring programs in both the public schools and church-related programs in inner-city Harrisburg, in youth recreation programs for disadvantaged youth, in an animal shelter, in local retirement communities, in a program for abused women, in programs providing food for homeless people, and with Habitat for Humanity. Students participating on spring break projects served in community programs in Appalachia, with Habitat for Humanity in North Carolina and Philadelphia, and with a camp in New Hampshire.

The quality of the service assignments was enhanced by the fact that most agencies where students served have an ongoing relationship with Messiah College. They are familiar with student volunteers and know how to provide meaningful service activities. These agencies also have long-term relationships with their communities. Students fit well into long-term programs and relationships.

Interdepartmental collaboration. One of the strengths of service-learning in the course as identified by students in their comments on the survey was the wide variety of service opportunities available. This was possible because of collaboration between several departments of the college. The Volunteer Services Director, who reports to campus ministries, worked closely with the instructor to design the service-learning component and the reflective activities. For the first several semesters he introduced and explained the service-learning option to students and assisted them in finding service placements. He responded to proposals, commented on weekly reports, and kept records of student service. He also led the reflection activity at the end of the course. This kind of collaboration was very helpful. It relieved the instructor of a significant work load, it built on the knowledge and relationships the volunteer services director has of the community, and provided a second perspective on issues for the students. For the past two semesters a work-study student performed these functions.

Most students served in outreach teams sponsored by the Messiah College Student Association, which are organized and led by students. Most teams held regular weekly meetings for orientation, team building, planning, and discussion of issues emerging at the projects. The students volunteer each week at local agencies for the entire semester. Some service assignments were arranged directly with social service agencies to meet particular students' interests. Spring break projects were also organized and led by students and were run in conjunction with agencies which have long-term relationships with their communities.

Reflection. For the first four semesters, before beginning the service students completed a proposal paper which asked them to describe the service they would do, describe the agency with which they would work, identify sections of the text which related to the service assignment, and identify several learning goals. Each time students participated in a service activity (weekly in most cases), they completed a reflection form which asked them to describe their activities; identify the significance of the work; identify things they learned about themselves, others, or our society; and write general reflective comments. Students on spring break projects wrote a reflection paper each day.

For the most recent semester, instead of writing reflective papers after each time of service, students wrote two longer papers. The first paper incorporated the topics previously included in the proposal paper. The second paper incorporated the same issues previously used in the weekly papers but at more depth. There was also a group discussion. Every semester, attempts were made to include students' experiences in class discussions, although this did not happen as frequently as had been desired. In addition, one class period near the middle of each semester was devoted to reflection activities for the students in service-learning.

At the end of each semester, service-learning students participated in an evening discussion. Prior to the discussion they completed a six-page form which guided their reflection on the service-learning experience. In particular, students were asked to identify and discuss one "big question" they confronted in the service assignment. A "big question" relates an issue encountered experientially to causal factors, social theory, social policy, theology or faith, ethics, or personal commitment. Students also described the agency and its approach to the social issue it served. They reflected on their personal learning goals established on their proposal early in the course. They described at least one thing they learned about themselves and another that they learned about the issue or problem with which they worked. The final question asked them to relate issues encountered in their experience to chapters and concepts from the text.

Much of the reflection time was centered around a discussion of the "big questions" which the students identified. Students formed small groups to discuss these issues and shared what they learned from their experience. If students could not attend the discussion, or preferred not to, they wrote a seven-page formal paper responding to the questions in the reflection paper. Very few students chose that option. Many students commented positively on the reflection activity and stayed after formal adjournment to further discuss issues with the instructor and with other students.

Policy Paper Option

Students who did not participate in service-learning wrote two four-page policy papers. These papers follow a rigid format asking students to choose, analyze, and defend a position on a policy issue such as multiculturalism, immigration, capital punishment, sexual harassment, abortion, gun control, or government-funded day care. Policy issues are identified for 12 of the 13 chapters of the text. Students chose one issue from the first half of the course and a second issue from the second half. They were asked to consult three sources beyond the text. The outline for the paper required students to provide general background and facts related to a social issue, a statement of a clear position for or against a social policy related to the issue, an argument supporting their position, and the most persuasive arguments against their position. Students who did policy papers contributed material from their papers to class discussions. On several occasions students who took opposite sides of an issue were asked to debate the issue as a catalyst for class discussion.

STUDY DESIGN

As indicated earlier, this study reflects my interest in exploring the scholarship of teaching by applying design experiment principles to Soc 101 in order to reflect on student learning. It is my intent to use the findings of this study to redesign the course to increase student learning. The study resembles an experiment with student learning as the dependent variable and the course design as the independent variable. This form of classroom research borrows ideas from literature on classroom research and assessment (Angelo and Cross 1993).

The syllabus, text, class activities, lectures, and course requirements were nearly the same for all sections. There were minor changes in the reflection activities related to service-learning as described above. Tests and quizzes varied in specific questions from semester to semester but were of the same general format. While the emphasis and approach varied slightly from semester to semester and each class had the expected differences due to unique group dynamics, within each semester both sections and all students were treated the same.

Sample Groups and Student Choice

The data for this study was collected during five semesters beginning in the spring 1997 and ending in the spring of 1999. All participants in the sample were full-time students enrolled at Messiah College. Messiah College is a selective four-year church-related college of the liberal and applied arts and sciences near Harrisburg, PA, with an enrollment of 2700 students. Nearly all students live in college residences on campus and are of traditional undergraduate age. Most students come with strong service motivation. The survey indicates that 79 percent of the

students had been involved in service activities often or frequently during the past year. The mission statement of the college includes the goal to “educate men and women toward maturity of intellect, character and Christian faith in preparation for lives of service, leadership, and reconciliation in church and society.” (Messiah College Catalog, 1996-98).

Table 11 compares students who took Soc 101 during this study to other Messiah students and to students at four-year private Protestant colleges. Most students at Messiah College are religiously, socially, and politically conservative. Students at Messiah are more politically conservative (58%) than students who attend colleges similar to Messiah (31%). They are more likely to oppose abortion, legalization of marijuana, and homosexual concerns than students at similar schools. It is worthy to note the items on which Soc 101 students differed significantly from other Messiah students. Soc 101 students were more likely than Messiah students to feel that it was important to participate in a community action program, help those in difficulty, influence social values, promote racial understanding, and develop a meaningful philosophy of life. In addition, Soc 101 students placed less importance on being well off financially (25%) than Messiah students (38%), though both groups were significantly lower than students at similar schools (62%).

Of the 253 students who completed pre- and post-course surveys, 186 (73.5%) chose service-learning and 67 (26.5%) wrote social policy papers. There were a number of factors which influenced student choices, with some related to logistical considerations and others to interest and prior experience. The most frequently mentioned issues include: level of interest in service; other commitments which conflicted with service-learning such as class schedules, participation in sports teams, work schedules, and involvement in extracurricular activities; prior positive or negative experiences with community service or service-learning; course loads; attitudes toward writing papers; availability of transportation; involvement of friends; and the availability of a service activity that met their interest.

The 155 questions on the pre-course survey relate to a wide range of personal, political, religious and social issues. Student responses to these indicate that there are important differences between students who chose service-learning and those who chose to do policy papers. The questions for which there are significant differences are listed on Table 1.

Data Collection

Participation in the study was voluntary, though bonus points were awarded to those who participated. Only students who completed both surveys are included. Of the 304 students in the classes, 253 (83.2%) completed both of the questionnaires. The survey was introduced and

distributed in class. Students took the survey outside of class. A consent form was used. Confidentiality was maintained. Social security numbers were used to link pre-course and post-course survey results.

Measurement

As the purpose of the study was to begin an exploration into the scholarship of teaching, a wide range of attitudinal and position questions were asked on our survey instrument. A number of these are taken from the Cooperative Institutional Research Program Freshman survey (Astin 1987). This allows comparison of students in this course to other Messiah College students, to students in colleges similar to ours and to the general student population. Most of the survey was focused on measuring the objective of developing socially responsive knowledge.

Socially responsive knowledge. We identified several dimensions of socially responsive knowledge which we hoped students would gain in the course. These include service ethic, understanding of racism and gender discrimination, and integration of social responsibility into faith perspectives.

Service ethic - A set of questions was developed at Michigan (Marcus, Howard and King 1993) and SUNY (Kendrick 1996) to measure social responsibility. These questions asked about students' intentions to serve others, give to charity, work on behalf of social justice, and about their tolerance and appreciation for others. This set of questions, shown on Table 7, was used to measure service ethic.

Understanding race and gender - Any definition of socially responsive knowledge must include race and gender. McConahay (1986) developed what he calls the Modern Racism Scale (MRS). The scale emphasizes ways racism is structured into the social institutions and attitudes of society. An important goal of Soc 101 is to help students look beyond individual discrimination and individual racist attitudes to see the structural dimensions of racism. The ability to see racism of this kind requires sociological understanding and a sociological imagination. Table 8 lists the questions which are part of this scale. In addition, a number of other questions shown on Table 4 were used to measure opinions about race and gender.

Integration of social responsibility into faith perspectives - Developing a strong Christian faith is a core value at Messiah College. Most students choose Messiah because of its strong identity as a Christian College. An important component of socially responsive knowledge in that environment is its relationship to the faith commitments and understandings of students. Most students come with a very personal and individualistic understanding of faith. For example, 83

percent agree or strongly agree that they are very committed Christians. Nearly all, 91 percent, indicate that it is essential for persons to have a personal relationship with Jesus, and 53 percent think it is essential to have regular prayer and Bible study. However, only 2 percent indicate that it is essential to influence social values and 29 percent indicate that it is essential to care for the poor. Socially responsive knowledge must include an understanding of and commitment to Christian social responsibility that is at least as strong as the understanding of and commitment to personal piety.

Student perceptions of learning. Every semester, students who participated in service-learning were asked to evaluate their own perceptions of the impact of that experience on the course. These questions are shown in Table 6. Similar questions, shown in Table 10, were asked of students who wrote policy papers in the last three semesters.

ANALYSIS OF STUDENT LEARNING

The analysis moves in three directions. The first two sections analyze the course as a whole, and whether it was successful in teaching holistic sociology. We begin by making some observations about foundational or conceptual learning. We then examine the contribution the course makes to helping students develop socially responsive knowledge. Finally, we look closely at the particular impact of service-learning by comparing the service-learning group with the policy paper group. The paper concludes with reflections on the process of the study and suggestions for further research and course design.

Foundational Knowledge

Though teaching foundational knowledge (conceptual learning) was a major objective of this course, finding ways to measure student learning of this knowledge is not the particular focus of this study. It is possible to suggest several general impressions. Tests included both multiple choice questions and discussion questions. Questions from the test bank provided with the text book were used. Tests were heavily oriented toward cognitive material, definitions, facts, names of sociologists, and theoretical perspectives. Thus, combined scores for the course can be used as a measure of conceptual learning.

Students performed on par with students in other classes taught by the same instructor over the years in both the objective and discussion sections of the tests. Grade distributions compare favorably with ones from similar classes the instructor taught in the past and with distributions from similar courses at Messiah College. Discussion questions and written work were not

examined systematically, but the general impression is that it was of similar quality to other courses. For several semesters final scores of service-learning students were compared with those of students who wrote policy papers. There were no significant differences.

In order to gain further insight into the contributions of service-learning and writing policy papers, students were asked to give their perceptions. The responses of the students who wrote policy papers are included on Table 10. The responses of students who did service-learning are reported on Table 6.

Students reported that writing the policy papers had an important impact on their learning of conceptual material. Many said that writing the papers made them interested in studying harder (76%). They agreed that they were able to bring what they learned from writing the paper back into the classroom (70%) and that the class helped them understand the issues they addressed in the paper (76%). However, only 29 percent indicated that writing the policy papers made them more interested in attending class. Students agreed that writing the policy papers helped them understand basic concepts and theories of the course (82%), gave them ideas they will use in the future (80%), helped them become more aware of important issues (92%), made them more interested in understanding social issues (65%), and aided in their understanding of issues (76%). Writing the policy papers was meaningful and fulfilling to 68 percent of the students but only 39 percent would recommend that students in future classes write the papers rather than do service-learning.

On all similar questions, service-learning students reported less integration with conceptual course material. Comparisons indicate that only 48 percent reported that service-learning helped them understand basic concepts compared with 82 percent of the policy paper students. In addition, only 11 percent believed that service-learning made them more interested in attending class, only 14 percent felt that it made them more interested in studying harder, and only 46 percent brought lessons from the community back into the classroom. The course was helpful to 66 percent of the students in helping them understand the service-learning experience. This data clearly indicates that the writing of policy papers was perceived by students to be more closely integrated into the conceptual course material than the service-learning experience.

Socially Responsive Knowledge

As noted earlier, one of the objectives of this course is to help students develop socially responsive knowledge. This is knowledge about social problems and commitment to social and civic involvement to find solutions. The data shows that this was a strong component of the

course. We look at three areas for all of the students in the course: developing a service ethic, understanding race and gender, and integrating social responsibility and faith.

Developing a service ethic. Table 3 indicates that students did increase on a number of variables related to developing a service ethic. They increased in their feeling that it is important to influence political structures, participate in community action programs, care for the poor, work toward equality for all US citizens, and volunteer time and give money to help people in need. They also feel that persons who control larger amounts of resources have a special responsibility to assist with social needs. The pre-course ratings seem relatively low. A comparison of the items from the CIRP survey indicates that at the beginning of the course ratings were lower than comparable CIRP ratings for private protestant colleges. However, the post-course ratings are slightly higher than the CIRP ratings.

Understanding race and gender. The course was effective in encouraging students to increase their understanding of race and gender issues consistent with positions taken in the course (Table 4). They increased in understanding that race and gender discrimination are still problems in the U.S. and increased in understanding that specific actions are appropriate to work toward equality.

Integrating social responsibility and faith. There were two questions that relate specifically to changes in students' understandings of the integration of social responsibility and their faith perspectives (Table 5). The course aided in this integration as students significantly strengthened their belief that an important part of their faith commitment includes both meeting the physical needs of people and working to change social policies to make them more just.

Student perceptions. Student perceptions of whether or not the course contributed to their learning of socially responsive knowledge are consistent with the responses to the opinion questions. Table 7 shows the responses of students to a series of questions used to measure civic responsibility. Students report that participation in the course increased or strengthened their intention to serve others (76%), intention to give to charity (59%), orientation toward others (72%), intention to work on behalf of social justice (55%), belief that helping those in need is one's social responsibility (67%), understanding the role of external forces as shapers of the individual (78%), and in tolerance and appreciation of others (81%). In addition 44 percent indicated that the course gave them a sense of purpose or direction in life.

Summary. The data shows that the course was very effective in helping students learn socially responsive knowledge. They increased their commitment to a service ethic. They increased understanding of race and gender and their awareness of the impact these factors have on social

justice. And they increased in their understanding that faith commitments should include a dimension of responsibility to persons who have need in society and that one way respond to that need is through influencing social policy. Both the analysis of pre- and post-course opinion questions and student self evaluations support these conclusions.

Service-Learning

The second major question addressed in this study is the question as to whether or not service-learning, as a component of the course, contributes in a particular way to student learning. Analysis will be focused on data collected from students in which they were asked to evaluate the service-learning experience (Table 6), on comparisons of service-learning students and policy paper students from evaluations of the impact of the course (Table 7), and on the impact of service-learning on understanding of race (Table 8).

Student evaluations of service-learning. The evaluations of service-learning were overwhelmingly positive as reflected in both the quotations from students reported at the beginning of the paper and the responses to survey questions shown in Table 6. Students reported that in their judgement the service which they performed provided a needed service to the community (86%) and was meaningful and fulfilling (94%). Nearly all of the students (91%) who did service-learning highly recommend that future students in the class take service-learning. In addition, at least 61 percent of the students who did policy papers would apparently recommend service-learning too. This strong recommendation came in the face of the fact that popular student opinion held that service-learning involved more work and effort than the policy papers.

It is also clear that the students think their experience in service-learning encouraged them to become involved in service in the future. They reported that they developed a greater sense of responsibility toward their communities (79%), became more aware of community problems (83%), and became more interested in helping solve community problems (80%). They also indicated that because of the service-learning experience they would more likely become involved in service in the future (89%).

There is also a wealth of anecdotal and impressionistic data which supports the contribution of service-learning to the course. Conversations with students and reviews of reflection papers indicate that students used sociological concepts to understand the issues they encountered in their service settings. They were able to see the social and structural causes of issues and to think of social rather than personal responses. They gained empathy with persons in situations different from their own and formed lasting relationships. For some it was the first time to visit

an inner-city neighborhood or a residence for the elderly. Students commented that class discussions helped them understand what they observed in the community and that their observations provided data for class discussions and analysis. In class discussions, they frequently added their observations about their service-learning activities and initiated discussions on issues emerging from their experiences with the instructor. The group reflection discussion at the end of the course was rich and lively.

Students have also indicated that the service-learning experience added relevance to the course, since it gave them an opportunity to express service values in a meaningful way. Many students do service-learning as part of student led volunteer groups which include students who are not in the class. They reported that they talk about classroom material with the other students to help them understand issues encountered in service-learning. Many students continued with the service activities after the course was completed, and several have even taken leadership roles.

It is clear from both the self-reported data and anecdotal evidence that students evaluate the service-learning assignment to be a valuable component of the course, particularly as it relates to developing socially responsive knowledge. However, more work needs to be done to relate the experience to the concepts and theories of the course and to make connections between theory, observation and practice.

Group comparisons. Another way to assess the impact of service-learning on student learning of socially responsive knowledge is to compare the learning of the service-learning group with the policy paper group.

Service ethic - Table 7 compares the responses of service-learning students with those of policy paper students on the scale of civic responsibility discussed earlier. An effects coefficient was used to determine if the responses differed for the two groups. The coefficient (Wolf 1986:23-28; Cohen 1977) was computed by dividing the differences between the mean of the policy paper group and the mean of the service-learning group by the standard deviation of the total sample. Cohen (1977) suggests that an effects coefficient of .2 indicates a small effect, .5 a medium effect and .8 or larger a large effect. A t-test was used to determine if the differences were statistically significant.

For nearly every question a large majority of students reported that the course did increase or strengthen their service ethic. The comparison of the groups indicate that the service-learning group increased more than the policy paper group. On eight of the nine measures, the means of

the service-learning group were higher at a statistically significant level. Table 7 reports the analysis. This provides strong support to the claims that service-learning helps students develop a service ethic.

Race and gender - The second component of socially responsive knowledge which was examined relates to students' understandings of race and gender. Table 4 reports changes for the entire group on a series of general questions related to race and gender. Analysis shows that the entire class changed in the direction anticipated.

Table 8 reports responses to several opinions dealing with race as measured by the Modern Racism Scale. The class as a whole (N=253) experienced significant changes on five of the seven questions. However, there are significant changes in only one of the seven questions for the policy paper students, and significant changes in six of the seven questions for the service-learning students. This data very clearly indicates that service-learning does positively affect student levels of racism. While the issue of race and racism was given much attention in class, students' awareness of the social factors which perpetuate racial discrimination were clearly heightened through the personal contact with persons different from themselves which they received as part of their service-learning assignment.

Summary

This study clearly shows that Soc 101 is effective in helping students develop socially responsive knowledge and that service-learning is a particularly effective strategy for moving students toward that goal. Students who participated in service-learning indicated that participation in service-learning increased their intention to serve others, orientation toward others, and other attitudes and values which support service and social action.

Participation in service-learning also contributed to students' understandings of race and gender. The differences between the pre-course and post-course measures of student understanding of the institutional and structural aspects of racism were significantly different for the service-learning students. Students had greater appreciation for attitudes of black persons in the face of inequality and increased understandings of the need for change.

Many students commented that service-learning was a highlight of the course. It was meaningful to them and they believe they performed a needed service to the community. Their own reports indicate that service-learning helped them develop a greater sense of social responsibility, increased their interest in helping solve community problems and prepared them

to get involved in their communities. Nearly all students (91%) who participated in service-learning would strongly recommend it to future students.

There are many serendipitous effects of service-learning. Students gained professional knowledge as they observed practitioners at work in social service programs and saw how sociology is relevant in helping them understand social problems and serve in effective ways. Arranging the logistics of service-learning increased contact between the instructor and the students and strengthened relationships. Service-learning enriched the lives of students because it was interesting, gave meaning to course content, linked them with primary peer groups, provided off-campus diversion, connected them with interesting people off-campus, and provided variety to their college experience.

This study and the experience in the course clearly support the use of service-learning in Soc 101 for teaching socially responsive knowledge. It is not as clear that participation in service-learning helped students gain deep understanding of foundational knowledge and sociological concepts. In fact, students' perceptions of their learning indicates that the policy paper assignment was more effectively integrated with the conceptual learning of the course.

IMPLICATIONS AND FURTHER STUDY

As stated earlier, this study is a first attempt at practicing the scholarship of teaching. As such, it is useful only to the extent that it develops the kind of knowledge which is useful at all stages of the teaching and learning process: vision, design, interaction, outcomes and analysis (Schulman 1999). Consequently this section will include suggestions for changes generated by the research and experience in the course and suggestions for further research.

The Scholarship of Teaching

Imposing the discipline of a research methodology on this course exposed a number of areas needing attention in the design of the course and in the conduct of further research. In a sense, this section will set an agenda both for a redesign of the course and for further research on strategies for increasing student learning. Further work will be reflected in changes in the design and conduct of the course in subsequent semesters and in further research on student learning outcomes.

Objectives. While the vision for the course is clear in the mind of the instructor, the objectives as stated in the syllabus are broad and unclear. Objectives that are clear, realistic and measurable

are needed to focus course activities and to make the hard choices of what material to cover. They are also needed to help students focus learning and to gain ownership in participation in the course. Measurable objectives are also necessary to assess student learning.

This course, like most introductory courses, attempts to cover a lot of material. Given the limited time, coverage is somewhat superficial. Work needs to be done to find the appropriate balance of attention between the various course components and topics, particularly to determine how much emphasis should be given to each of the kinds of knowledge (foundational, professional, socially responsive), and to determine the tradeoff between breadth and depth.

Service-learning. The study suggested that while students enjoy the service-learning experience and it does contribute to their learning socially responsive knowledge, additional work needs to be done to integrate the service-learning experience into the course if it is to contribute more directly to deep learning of foundational sociological knowledge. There are a number of changes in the design of the service-learning component which would strengthen it.

Foundational knowledge - First of all, the conceptual learning objectives of the service-learning component need to be stated clearly in a way that is transparent to students. The reflective components need to be organized to help students integrate the experience with the conceptual material. Policy paper students are able to see this relationship because the paper is narrow in scope and focused on a specific topic which is also covered in the text. Perhaps helping service-learning students focus on one topic or issue would be helpful.

Reciprocity and connections - The service-learning component of the course generates a different kind of data and insight than the policy paper project. Students doing each would be enriched by intentional interaction with the other. A thoughtful strategy enabling service-learning students to learn from the policy paper group, and vice versa, would be helpful.

Logistics and coordination - One of the strengths of the current program is the availability of a work-study student to do logistical work and to respond to student journals. That person needs to be trained to understand the course objectives and foundational material and to respond to journal and written reports with comments that facilitate conceptual learning. A more intentional strategy for incorporating service-learning experiences into classroom activity should be developed.

Service locations - There are advantages in giving students a wide choice of service options. The diversity of experience can be beneficial. There would also be advantages in limiting the

range of possibilities so that the issues encountered are more narrowly focused on topics central to the course. Thus, there would be a critical mass of students with similar experiences to facilitate understanding.

Community partnerships - It is also important to develop stronger partnerships with the community agencies with which students serve. Agency personnel could become more effective as members of a coordinated teaching team if they are made aware of the learning objectives and have more contact with the instructor and the service coordinator. Practitioners can be effective partners in the learning process if they are integral members of the team.

Assessment of student learning. Student learning is an elusive concept, particularly when it is defined to include deep learning and socially responsive learning. Even if it can be defined, it is hard to assess. More work needs to be done to find valid and reliable measures for learning goals related to the sociological imagination, deep understanding of issues, affective dimensions, and socially responsive knowledge. A survey approach, while having many strengths, is also limited. Further research should include qualitative measures such as evaluation of reflection papers and discussion questions on tests. It would be interesting to develop a longitudinal design that would follow students throughout their college career and even beyond to discover whether or not they follow through on their intentions to volunteer, participate in community action, and do community service.

Strategies and research. As suggested earlier, the practice of the scholarship of teaching and the method of design research invites “experimenting” with various approaches to organizing teaching and learning. The format of the course and the fact that the instructor teaches several sections simultaneously open many opportunities for research. It would also be possible to collaborate with other instructors to gain comparisons with significantly different strategies.

The following strategies have been considered. The course might be strengthened by incorporating discussion groups. These would aid student understanding of course material and lead to deep understanding. If they included both policy paper students and service-learning students, they would facilitate mutual learning and give students the advantage of learning from both experiences. The course would thus also provide opportunity to experiment with various patterns of service-learning. It might be possible to incorporate a “fourth credit option.” Students could be given an additional hour of credit for participating in service-learning, possibly through an independent study or as laboratory credit. This would make possible more demanding service assignments and more extensive reflection activities. There is opportunity to try different reflection strategies and projects. It would also be possible to give special attention

to developing improved instruments for assessment of student learning and to use qualitative approaches.

CONCLUSION

Practicing the scholarship of teaching brings many aspects of the teaching process into sharp focus. The “experiment” of teaching this course over the last five semesters has given me a clear picture of student learning, including an understanding of what the course teaches effectively and what it does not teach at all. The outcomes and analysis of this experiment help refine my vision for the course. With this new vision, I can proceed to a new design for the course. In the case of this experiment with Soc 101, this new design will include focused and measurable course objectives, discussion groups centered around issues or concepts from the course which include both policy paper and service-learning students, and increased communication with community partners to begin the process of bringing them into the experiment. As this new design comes together in a revised course syllabus, I prepare to test the design experiment with the interactions of the next class of students. Thus, the process of vision, design, interactions, outcomes, and analysis continue, and the scholarship of teaching improves course design, polishes classroom teaching, and increases student learning.

References

- Altman, Irwin. 1996. "Higher Education and Psychology in the Millennium." *American Psychologist* 51:371-78.
- Angelo, Thomas A. and K. Patricia Cross. 1993. *Classroom Assessment Techniques: A Handbook for College Teachers*. San Francisco: Jossey Bass.
- Astin, Alexander W. 1987. *The American Freshman: Twenty Year trends*. Cooperative Institutional Research Program. University of California at Los Angeles.
- Astin, Alexander W. 1997. "Liberal Education and Democracy: The Case for Pragmatism." *Liberal Education* Fall 4-15.
- Balazadeh, Nancy. 1996. "Service Learning and the Sociological Imagination: Approach and Assessment." Paper presented at the National Historically Black Colleges Faculty Development Symposium, Memphis, TN, October 10-13.
- Berger, Peter L. 1963. *Invitation to Sociology: A Humanistic Perspective*. New York: Doubleday.
- Boyer, Ernest. 1990. *Scholarship Reconsidered: Priorities for the Professoriate*. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.
- Cohen, Jacob. 1977. *Statistical Power Analysis for the Behavioral Sciences*. New York: Academic Press.
- Cohen, Jeremy and Dennis F. Kinsey. 1994. "Doing Good and Scholarship: A Service-Learning Study." *Journalism Educator* 48:4-14.
- Cohen, Stewart and Carolyn A. Sovet. 1989. "Human Service Education, Experiential Learning and Student Development." *College Student Journal* 23(2): 117-22.
- Coles, Robert. 1993. "Doing and Learning" Pp. 145-73 in *The Call of Service: A Witness to Idealism*. New York, NY: Houghton Mifflin Company.
- Cross, Patricia K. and Mimi Harris Steadman. 1996. *Classroom Research: Implementing the Scholarship of Teaching*. San Francisco: Jossey Bass.

- Duley, John S. 1990. "Continuum of Pedagogical Styles in Experiential Learning." Pp. 193 in *Combining Service and Learning: A Resource Book for Community and Public Service*, Vol. II, edited by Jane C. Kendall. Raleigh, NC: National Society for Internships and Experiential Education.
- Eby, John W. 1995. *Service-Learning: Linking Academics and the Community*. Harrisburg, PA: Pennsylvania Campus Compact.
- Eby, John W. (1997). Review of *Service-Learning and Undergraduate Sociology* in *Teaching Sociology*, 25 (3) July 1997.
- Eckstein, Rick, Rebecca Schoenike, and Kevin Delany. 1995. "The Voice of Sociology: Obstacles to Teaching and Learning the Sociological Imagination." *Teaching Sociology* 4:353-63.
- Ender, Morton G., Brenda Marsteller Kowalewski, David A. Cotter, Lee Martin, and JoAnn DeFiore, eds. 1997. *Service-Learning and Undergraduate Sociology: Syllabi and Instructional Materials*. Washington, DC: American Sociological Association.
- Eyler, Janet. 1993. "Comparing the Impact of Two Internship Experiences on Student Learning." *Journal of Cooperative Education* 1:41-52.
- Eyler, Janet and Dwight E. Giles, Jr. 1999. *Where's the Learning in Service-Learning?* San Francisco: Jossey Bass.
- Giles, Dwight E. and Janet Eyler. 1994. "The Impact of a College Community Service Laboratory on Students' Personal, Social, and Cognitive Outcomes." *Journal of Adolescence* 17:327-39.
- Hedin, Diane P. and Dan Conrad. 1990. "Learning from Service Experience: Experience Is the Best Teacher--or Is It?" Pp. 87-98 in *Combining Service and Learning: A Resource Book for Community and Public Service*, Vol. I, edited by Jane C. Kendall. Raleigh, NC: National Society for Internships and Experiential Education.
- Hudson, William E. 1996. "Combining Community Service and the Study of American Public Policy." *Michigan Journal of Community Service Learning* 3:82-91.

- Kendrick, J. Richard. 1996. "Outcomes of Service-Learning in an Introduction to Sociology Course." *Michigan Journal of Community Service Learning* 3:72-81.
- King, Patricia and Karen Strohm Kitchener. 1994. *Developing Reflective Judgement: Understanding and Promoting Intellectual Growth and Critical Thinking in Adolescents and Adults*. San Francisco, CA: Jossey Bass.
- Lena, Hugh F. 1995. "How Can Sociology Contribute to Integrating Service Learning into Academic Curricula?" *The American Sociologist* 4:107-117.
- Markus, Gregory B., Jeffrey Howard, and David C. King. 1993. "Integrating Community Service and Classroom Instruction Enhances Learning: Results from an Experiment." *Educational Evaluation and Policy Analysis* 15:410-19.
- Marullo, Sam. 1998. "Bringing Home Diversity: A Service-Learning Approach to Teaching Race and Ethnic Relations." *Teaching Sociology* 2:259-275.
- McConahay, John B. 1986. "Modern Racism, Ambivalence, and the Modern Racism Scale." Pp. 91-126 in *Prejudice, Discrimination, and Racism*, edited by John F. Dovidio and Samuel L. Gaertner. New York, NY: Academic Press.
- McGee, Reece. 1994. "Determining Course Content in the Introductory Course." *Teaching Sociology* 4:345-47.
- Messiah College. 1996-98. Messiah College Catalog 1996-1998. Grantham, PA.
- Mills, C. Wright. 1959. *The Sociological Imagination*. Oxford: Oxford University Press.
- Mintz, Suzanne D. and Goodwin Liu. 1993. "Service-Learning: An Overview." in *National and Community Service: A Resource Guide*. Washington, DC: The Corporation for National Service.
- Myers-Lipton, Scott J. 1996. "Effect of a Comprehensive Service-Learning Program on College Students' Level of Modern Racism." *Michigan Journal of Community Service Learning* 3:44-54.

- Myers-Lipton, Scott J. 1998. "Effect of a Comprehensive Service-Learning Program on College Students' Civic Responsibility." *Teaching Sociology* 2:243-258.
- Osborne, Randall E., Sharon Hammerich, and Chanin Hensley. 1998. "Student Effects of Service-Learning: Tracking Change Across a Semester." *Michigan Journal of Community Service Learning* 5:5-13.
- Parker-Gwin, Rachel and J. Beth Mabry. 1998. "Service Learning as Pedagogy and Civic Education: Comparing Outcomes for Three Models." *Teaching Sociology* 2:276-291.
- Rioux, Jeffrey M. 1997. "Service-Learning Versus Non-Service Learning Outcomes in a Principles of Sociology Course." Unpublished Masters Thesis, Geneva College, Beaver Falls, PA.
- Ruggiero, Josephine A. and Louise C. Weston. 1991. "Teaching Introductory Sociology Students About the Practice of Sociology: The Practitioner's Perspective." *Teaching Sociology* 2:211-22.
- Schaefer, Richard T. and Robert Lamm. 1997. *Sociology: A Brief Introduction*, 2nd ed. New York, NY: McGraw-Hill Inc.
- Schulman, Lee S. 1997. "Disciplines of Inquiry in Education: A New Overview." Pp. 3-30 in *Complementary Methods for Research in Education*, second edition, edited by Richard M. Jaeger. Washington, DC: American Educational Research Association.
- Schulman, Lee S. 1998. "Course Anatomy: The Dissection and Analysis of Knowledge Through Teaching." Pp. 5-12 in *The Course Portfolio*, edited by Pat Hutchings. Washington, DC: American Association for Higher Education.
- Schwalbe, Michael. 1998. *The Sociologically Examined Life*. Mountain View, CA: Mayfield.
- Steele, Stephen F. And Sherry Marshall. 1996. "On Raising Hopes of Raising Teaching: A Glimpse of Introduction to Sociology in 2005." *Teaching Sociology* 24:1-7.
- Wagenaar, Theodore C. 1991. Why the Concern with Goals? *Teaching Sociology* 19:92-95.

Weaver, Henry, Norman Kauffman, and Judith Martin. 1989. "Educational Value of International Experience." Pp. 59-81 in *The Role of Service-Learning in International Education: Proceedings of a Wingspread Conference*, edited by Stuart Showalter. Goshen, IN: Goshen College.

Wolf, Frederic M. 1986. *Meta Analysis: Quantitative Analysis for Research Synthesis*. Beverly Hills, CA: Sage.

TABLE 1

Comparison of students in service-learning (S-L) group and those in policy paper (PP) group.

	S-L Means	PP Means	Significance Value
<i>Indicate the degree to which you engaged in the following activities during the past year:¹</i>			
Volunteered for community service	2.23	1.56	.00
<i>Indicate the degree to which you agree or disagree with the following statements:²</i>			
Abortion should be illegal	3.34	3.88	.00
Wealthy people should pay a larger share of taxes than they do now	2.97	2.44	.04
All official federal and state documents should be printed in English only	2.29	2.88	.01
The number of new immigrants into the US should be significantly reduced	2.32	2.88	.01
It is as important for Christians, as part of their commitment to Jesus Christ, to meet the physical needs of people as to believe the right doctrine	3.21	2.69	.00
<i>Indicate how important each of the following is to you personally:³</i>			
Participating in a community action program	2.31	1.80	.01
Caring for the poor	3.06	2.50	.03
Volunteering my time to help people in need	3.00	2.38	.01
Becoming active in a local congregation	3.17	2.63	.03

1 Response options consisted of a three-point scale ranging from (3) frequently to (1) never.

2 Response options consisted of a four-point scale ranging from (1) strongly disagree to (4) strongly agree.

3 Response options consisted of a four-point scale ranging from (1) not important to (4) very important.

TABLE 2
Differences on pre- and post-course responses on selected variables.

Belief or opinion	Pre-Course Mean	Post-Course Mean	Difference of Means	Significance of Change	To
<i>what extent do you agree or disagree with the following statements:</i> ¹					
The federal government should raise taxes to help reduce the federal deficit.	1.86	2.04	.18	.00	
The death penalty should be abolished.	2.20	2.36	.16	.05	
Marijuana should be legalized.	1.67	1.78	.11	.05	
Structural forces beyond the control of the individual are very important in determining why a person is poor.	3.38	3.74	.36	.00	
Most misfortunes that occur to people are frequently the result of circumstances beyond their control.	3.08	3.30	.22	.00	
<i>Please indicate how important each of the following things is to you:</i> ²					
Becoming proficient in one of the performing arts.	1.77	1.92	.15	.04	

1. Response options consisted of a 5-point scale ranging from (1) "strongly disagree" to (5) "strongly agree." A t-test was used to determine the significance of differences of means between the two groups. NS indicates that there is no significant difference. Values (e.g., .00, .01) indicate the significance value.

2. Response options consisted of a four point scale with (4) Essential, (3) Very important, (2) Somewhat important, (1) Not important.

TABLE 3
Differences on pre- and post-course responses on variables related to a service ethic.

Belief or opinion	Pre-Course Mean	Post-Course Mean	Difference of Means	Significance of Change	To
<i>what extent do you agree or disagree with the following statements:¹</i>					
Wealthy people should pay a larger share of taxes than they do.	2.63	2.75	.13	.10	
<i>Please indicate how important each of the following things is to you:²</i>					
Influencing the political structure.	1.88	2.00	.12	.07	
Participating in a community action program.	2.29	2.52	.23	.00	
Caring for the poor.	3.02	3.17	.15	.02	
Working toward equal opportunity for all US citizens.	2.52	2.71	.19	.01	
Being involved in a program to improve my community.	2.56	2.77	.21	.00	
Volunteering my time helping people in need.	2.82	2.98	.16	.02	
Giving 3% or more of my income to help those in need.	2.36	2.56	.20	.01	

1. Response options consisted of a 5-point scale ranging from (1) "strongly disagree" to (5) "strongly agree." A t-test was used to determine the significance of differences of means between the two groups. NS indicates that there is no significant difference. Values (e.g., .00, .01) indicate the significance value.

2. Response options consisted of a four point scale with (4) Essential, (3) Very important, (2) Somewhat important, (1) Not important.

TABLE 4
Differences on pre- and post-course responses on variables related to race and gender.

Belief or opinion	Pre-Course Mean	Post-Course Mean	Difference of Means	Significance of Change	To
<i>what extent do you agree or disagree with the following statements:¹</i>					
All positions in church leadership should be equally available to both men and women.	2.54	2.74	.20	.10	
Gender discrimination is no longer a problem in America.	1.76	1.60	-.16	.01	
Racial discrimination is no longer a problem in America.	1.55	1.40	-.15	.00	
Affirmative action in colleges should be abolished.	2.69	2.58	-.09	.10	
Busing is OK if it helps to achieve racial balance in the schools.	2.32	2.48	.16	.01	
It is easy to understand the anger of Blacks in America.	3.39	3.59	.20	.02	
Over the past few years blacks have gotten more economically than they deserve.	1.93	1.75	-.18	.01	
Blacks have more influence upon school desegregation plans than they ought to have.	2.09	1.92	-.17	.01	
Blacks are getting too demanding in their push for equal rights.	2.35	2.14	-.21	.02	

1. Response options consisted of a 5-point scale ranging from (1) "strongly disagree" to (5) "strongly agree." A t-test was used to determine the significance of differences of means between the two groups. NS indicates that there is no significant difference. Values (e.g., .00, .01) indicate the significance value.

TABLE 5

Differences on pre- and post-course responses on variables related to integration of social responsibility and faith..

Belief or opinion	Pre-Course Mean	Post-Course Mean	Difference of Means	Significance of Change
<i>what extent do you agree or disagree with the following statements:¹</i>				
It is as important for Christians as part of their commitment to Jesus Christ to meet physical needs of people as to believe the right doctrines.	3.09	3.22	.13	.00
An essential part of being Christian is working to change social policies to make them more just.	3.40	3.54	.14	.04

1. Response options consisted of a 5-point scale ranging from (1) “strongly disagree” to (5) “strongly agree.” A t-test was used to determine the significance of differences of means between the two groups. NS indicates that there is no significant difference. Values (e.g., .00, .01) indicate the significance value.

TABLE 6

Student evaluation of the contribution of service-learning to the course and to their learning.

Attitude or belief	Percentage of students who agree with statement ¹	Mean score	Standard Deviation
<i>Indicate the level to which you agree with these statements:</i>			
<u>Evaluation of the service experience</u>			
The service-learning I did in this class provided a needed service to the community.	86%	4.34	0.80
The service-learning activity was meaningful and fulfilling to me.	94%	4.46	0.61
If a student in this class in the future asked my advice about whether or not they should participate in service-learning, I would highly recommend that they do so.	91%	4.57	0.85
<u>Developing a service ethic</u>			
I developed a greater sense of personal responsibility towards my community by doing service-learning.	79%	4.17	0.62
Participating in service-learning contributed to my ability to get involved with community organizations on my own in the future.	80%	4.03	0.75
The service-learning helped me become more aware of community problems.	83%	4.00	0.77
This service-learning activity helped me become more interested in helping to solve community problems.	80%	3.86	0.69
I will be more likely to participate in community service in the future because of the service-learning experience in this class.	89%	4.26	0.66
<u>Conceptual knowledge</u>			
This service-learning helped me to understand the basic concepts and theories of the subject matter of the course.	48%	3.43	0.70
The service-learning I performed in this class made me more interested in attending class.	11%	2.66	0.77
The service-learning I performed in this class made me more interested in studying harder.	14%	2.66	0.91
The course helped me bring the lessons I learned in the community back into the classroom.	46%	3.23	0.81
The course helped me understand the experience I had in the service-learning project.	66%	3.63	0.73

Note: Response options consisted of a five-point scale ranging from (1) strongly disagree to (5) strongly agree.

¹ Percentage of students who agree or strongly agree.

TABLE 7

Mean post-course ratings of students in Service-Learning (S-L) and policy paper (PP) sections of items referring to changes in attitudes and values related to social responsibility.¹

Attitude or value	Percent of Students Who Agree ²	PP Means	S-L Means	Effects Coefficient ³
<i>Indicate the degree to which participation in this course has increased or strengthened your:</i>				
Intention to serve others in need	76%	2.59	3.27	.69*
Intention to give to charity to help those in need	59%	2.39	2.84	.86*
Sense of purpose or direction in life	44%	2.26	2.48	.78**
Orientation towards others and away from yourself	72%	2.60	2.96	.57*
Intention to work on behalf of social justice	55%	2.39	2.64	.29*
Belief that helping those in need is one's social responsibility	72%	2.61	3.02	.44*
Belief that one can make a difference in the world	67%	2.53	2.94	.47*
Understanding the role of external forces as shapers of the individual	78%	2.79	3.13	.43*
Tolerance and appreciation for others	81%	3.03	3.17	.32

* Indicates $p < .05$ on a t-test of differences in means for service-learning and non-service-learning groups.

** Indicates $p < .10$ on a t-test of differences in means for service-learning and non-service-learning groups.

1 Responses are based on a 4 point scale with 1 = Not at all and 4 = A great deal.

2 The percent of students who answered 3 or 4 on a 4 point scale with 1=Not at all and 4= A great deal.

3 A t-test was used to determine whether or not differences were statistically significant. In addition, an effects coefficient (Wolf 1986: 23-28; Cohen 1977) was computed by dividing the differences between the mean of the policy paper group and the mean of the service-learning group by the standard deviation of the total sample. Cohen (1977) suggests that an effects coefficient of .2 indicates a small effect, of .5 a medium effect and .8 or larger a large effect.

We thank Jeffrey Howard, Michigan State University for permission to use the questions in this table.

TABLE 8

Comparison of differences between pre- and post-course responses for Service-Learning (S-L) and policy paper (PP) students' responses on items on the Modern Racism Scale (MRS). Positive difference indicates reduced racism.

Belief or opinion	Pre-Course Mean	Post-Course Mean	Difference of Means	Significance of Change
<i>___To what extent do you agree or disagree with the following statements:</i>				
Over the past few years, the government and news media have shown more respect to Blacks than they deserve.				
S-L students, N=185	1.72	1.61	.11	NS
PP students, N=67	1.70	1.73	-.03	NS
All Students, N= 253	1.71	1.64	.07	NS
It is easy to understand the anger of Blacks in America				
S-L students	3.49	3.63	.14	.15
PP students	3.13	3.50	.37	.05
All students	3.39	3.59	.20	.02
Discrimination against Blacks is no longer a problem in the United States				
S-L students	1.72	1.52	.20	.01
PP students	1.75	1.61	.14	NS
All students	1.73	1.55	.18	.00
Over the past few years, Blacks have gotten more economically than they deserve.				
S-L students	1.91	1.74	.17	.04
PP students	1.99	1.79	.20	NS
All students	1.93	1.75	.18	.01
Blacks have more influence upon school desegregation plans than they ought to have.				
S-L students	2.12	1.91	.21	.02
PP students	2.02	1.94	.08	NS
All students	2.09	1.92	.17	.02
Blacks are getting too demanding in their push for equal rights				
S-L students	2.31	2.08	.23	.02
PP students	2.48	2.30	.18	NS
All students	2.35	2.14	.21	.02
Blacks should not push themselves where they are not wanted				
S-L students	2.02	1.85	.17	.05
PP students	1.94	2.03	-.09	NS
All students	2.00	1.90	.10	NS

___Note: Response options consisted of a 5-point scale ranging from (1) "strongly disagree" to (5) "strongly agree." A

t-test was used to determine the significance of differences of means between the two groups. NS indicates that there is no significant difference. Values indicate the significance value. Note that some questions are negatively worded.

TABLE 9
Changes in political and religious liberalism/conservatism.

Belief or opinion	Pre-Course Mean	Post-Course Mean	Difference of Means	Significance of Change
Yourselves - Religion	6.03	5.92	-.11	NS
Others - Religion	6.12	6.33	.21	NS
Yourselves - Politics	6.37	6.11	-.26	NS
Others - Politics	6.67	6.74	.07	NS

Rate yourself and other Messiah students on whether you are religiously (politically) liberal or conservative by circling a number on the scale below.¹

¹ Response options consisted of a ten-point scale ranging from (1) Liberal to (10) Conservative.

TABLE 10

Student perceptions of the contribution of writing policy papers to the course and to their learning.¹

Attitude or belief	Percentage of students who agree with statement ²	Mean score	Standard Deviation
<i>Indicate the level to which you agree with these statements:³</i>			
Writing the policy paper helped me understand the basic concepts and theories of the subject matter of the course.	82%	3.97	.75
Writing the policy paper gave me ideas I will use in the future.	80%	3.97	.70
Writing the policy paper made me more interested in attending class.	29%	3.09	.78
Writing the policy paper helped me become more aware of important issues.	92%	4.09	.57
Writing the policy paper in this class made me more interested in understanding social issues.	65%	2.80	.69
Writing the policy paper in this class made me more interested in studying harder.	76%	3.64	.77
The course helped me bring what I learned in writing the policy paper back into the classroom.	70%	3.59	.78
The course helped me understand the issues I addressed in the policy paper.	76%	3.91	.71
Writing the policy paper was meaningful and fulfilling to me.	68%	3.68	.77
If a student in this class in the future asked my advice about whether or not they should write the policy paper rather than participate in service-learning, I would highly recommend that they do so.	39%	3.19	1.09

1 N=27

2 Percentage of students who agree or strongly agree.

3 Response options consisted of a five-point scale ranging from (1) strongly disagree to (5) strongly agree.

TABLE 11
Comparison of Soc 101 students, Messiah College students, and students at colleges similar to Messiah.¹

	Soc 101	Messiah College	4 Yr Priv Protestant
<i>Indicate the degree to which you engaged in the following activities during the past year:²</i>			
Attended a religious service	98.8 %	99.9 %	91.6 %
Discussed religion ³	62.1 %	64.4 %	41.9 %
Discussed politics ³	19.4 %	16.0 %	17.8 %
Tutored another student	60.1 %	55.9 %	53.3 %
Drank beer	29.2 %	17.4 %	37.7 %
Performed volunteer work	79.1 %	92.0 %	83.7 %
<i>Indicate the degree to which you agree or disagree with the following statements:⁴</i>			
Abortion should be legal	16.3 %	7.1 %	40.0 %
Sex is okay if two people like each other	2.4 %	3.5 %	27.0 %
Marijuana should be legalized	11.9 %	8.5 %	25.3 %
Laws should prohibit homosexual relations	57.4 %	59.4 %	41.4 %
Racial discrimination is no longer a problem		2.8 %	17.9 % 18.5 %
Individuals can do little to change society	14.7 %	19.8 %	26.6 %
<i>Indicate how important each of the following is to you personally:⁵</i>			
Influence social values	60.0 %	46.9 %	44.5 %
Help others who are in difficulty	87.7 %	74.1 %	68.5 %
Be very well off financially	25.3 %	37.7 %	62.3 %
Develop a meaningful philosophy of life	64.7 %	43.9 %	46.4 %
Participate in a community action program	38.1 %	26.1 %	27.8 %
Helping to promote racial understanding	54.2 %	27.3 %	33.9 %
<i>Indicate your political orientation by selecting the most appropriate description:⁶</i>			
Far left or liberal	19.0 %	8.4 %	21.7 %
Middle of the road	28.6 %	33.7 %	47.0 %
Far right or conservative	52.4 %	57.9 %	31.3 %

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- 1 Sample for Soc 101 group (N=253) was taken from this study. Sample for Messiah College (N=726) and for 4-year private Protestant institutions (N is unknown) was taken from 1998 CIRP data.
 - 2 Response options consisted of a three-point scale ranging from (1) never to (3) frequently. Results represent the percentage responding “frequently” or “occasionally.”
 - 3 Percentage responding “frequently” only.
 - 4 Response options consisted of a four-point scale ranging from (1) strongly disagree to (4) strongly agree. Results represent the percentage responding “agree” or “strongly agree.”
 - 5 Response options consisted of a four-point scale ranging from (1) not important to (4) essential. Results represent the percentage responding “very important” or “essential.”
 - 6 Response options for Soc 101 students consisted of a ten-point scale ranging from (1) liberal to (10) conservative. Response options for CIRP data consisted of a five-point scale ranging from (1) far left to (5) far right. Scores of 1-4 (our survey) or 1-2 (CIRP) qualified as far left or liberal; scores of 5-6 (our survey) or 3 (CIRP) qualified as middle of the road; scores of 7-10 (our survey) or 4-5 (CIRP) qualified as far right or conservative.