

A Study to Determine the Impact of Service-Learning on Students' Attitudes on Civic Engagement

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Abstract

Project HEART, an AmeriCorps tutoring initiative, is a university/school/community partnership that provides a learning environment where host teachers, tutors, and students engage in service-learning activities to solve community needs. This study examined the impact of service-learning on participants' attitudes on civic engagement.

Introduction

Project HEART, an AmeriCorps tutoring initiative, is a university/school/community partnership composed of 7 counties in eastern North Carolina. During the past eight years, East Carolina University (ECU) administrators and faculty, school personnel, and community leaders have collaborated to address the educational needs of eastern North Carolina: poor classroom performance, retention rates, and dropout rates. Since its beginning in 2000-01 the program has added new curriculum components to provide services

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to students, grades 3-12. In 2007-08, Project HEART staff members and school partners worked together to implement the AVID program, a curriculum designed to help underachieving middle and high school students reach their potential. The AVID (Advancement Via Individual Determination) program in North Carolina has short-term goals to increase student achievement and reduce dropout rates, and has long-term goals to increase the number of students who enroll in honors and Advanced Placement (AP) classes and pursue post secondary education. The curriculum also has a service-learning strand that links classroom instruction to real life applications. One of these applications is an increased appreciation in civic engagement.

Purpose/Rationale/ Literature Review

Project HEART members serve as tutors to underachieving middle grades and high school students enrolled in the AVID program. Students participating in AVID work with Project HEART tutors to successfully complete a rigorous curriculum and pursue post-secondary education. Each tutor provides 20 hours per week of classroom tutoring services to 20-25 AVID students. Project HEART tutors provide one-on-one and small group tutoring sessions on biology, chemistry, algebra, geometry, English, or World History. In addition, tutors help students with vocabulary development, writing skills, higher-order thinking skills, Cornell note taking, and organizational skills. On Fridays, members facilitate the work of students as they learn how to lead group discussions, participate in learning teams, problem solve, communicate effectively, and develop service-learning projects.

The service-learning component allows ECU tutors, public school students, and host teachers to use an instructional methodology to build a shared sense of commitment and responsibility, provide opportunities for tutors and students to learn about their communities and available resources, and work with community leaders to build healthy, caring communities. In addition, service-learning with its emphasis on the experiential and reflective activities, allows tutors, host teachers, and students to work together to link classroom instruction to real community needs, making learning more lasting and meaningful.

The benefits of service-learning for students are powerful. As students participate in solving real problems in their communities, they begin to really understand the relevance in their school lessons to real life. They experience a sense of belonging as they work in teams on a meaningful activity to make a

difference in the community (Weiler, Lagoy, Crane, & Rovner, 1998); they gain in self-esteem as they participate in the act of being helpful to others (Shaffer, 1993); and they develop communication and social skills as they work with adults in service situations (Weiler et al., 1998). Students become more self confident and more positive about their ability to make a difference (Berkas, 1997; Cairn & Cairn, 1999; Melchoir, 1999; O'Bannon, 1999). An increase in appreciation for civic engagement is expected.

Study Design and Methodology

The purpose of the study is to examine the impact of service-learning on participants' attitudes on civic engagement. Our research hypotheses included:

1. Students who participated in the service-learning activities will have more favorable attitudes towards civic engagement.
2. Tutors who participated in the service-learning activities will have more favorable attitudes towards civic engagement.

Tutors

Forty-five out of 50 tutors participated in the pre-survey and 36 out of 50 tutors participated in the post-test. Nine tutors opted out of the post test for varying reasons. Eighty-two percent of the entire tutor population were female (41) and 18% (9) were male. Ages ranged from 17 through 43 years of age with a mean of 22.44, a median of 21 and a mode of 22. There was a wide variation in age with a standard deviation of 5.269. The age distribution was skewed toward the lower end of the distribution indicating that many tutors were of a younger age. The majority of tutors were single (92%, 46), 4% (2) were married, 2% (1) widowed and 2% (1) who preferred not to answer this question. Ten percent of the tutors were freshmen (5), 24% were sophomores (12), 24% (12) were juniors and 42% were seniors (21).

Seventy-two percent (36) of the tutors who participated were from ECU. Other institutions represented in order of participation were: Lenoir Community College 10% (5), Barton College 8% (4), Campbell University 6% (3), Johnston Community College 4% (2). Eighty-six percent (43) of the tutors were from four year colleges and 14% (7) were from two year colleges.

Thirty-two percent (16) of the tutors listed Elementary Education as their major. Sixty-four percent (32) of the tutors indicated that they were receiving

some type of financial aid while 36% (18) indicated that they were not receiving financial aid.

A pre and post test was used to test Project HEART tutors' perceptions of civic engagement. The pre-test was administered to the tutors and their students in September of 2007 and the post-test was administered in May of 2008. SPSS 15.0 for Windows statistical software was used to analyze the data.

Students

One hundred and fifty four students completed the pre-survey and only 69 students who took the original survey completed the post-survey. An additional 112 students completed the post survey that could not be identified or who were taking the survey for the first time. We attribute these numbers to the fact that students transfer to other classrooms or districts and are therefore hard to track, and the absence of instructions to completely fill out the identifying information on the questionnaire.

A pre and post test was also used to test Project HEART students' perceptions of civic engagement. The pretest was administered to the students in September 2007 and the post test was administered in May of 2008. SPSS 15.0 for Windows was used for this test as well.

Of the students who completed the pre-test and specified their age, 56.8% (88) were female and 39.4% (61) were males. Six students chose not to respond to the age question. Respondents varied between 11-19 years of age with a mean of 14.58. The modal category was 16 years of age. Sixth through twelfth graders participated in the survey.

Instrument

The Project Heart Civic Engagement Survey contained demographic questions (student name, member name, age, date of administration, school, grade and gender). Tutors were asked if they were registered or plan to register to vote when they turned 18. The survey consisted of twenty-seven (27) questions which tested their civic engagement attitudes. Frequencies, contingency tables, independent samples *t*-tests and paired *t*-tests were proposed to test the relationships in this study. Also proposed was the construction of scales to test (1) Civic Engagement Commitment to Service, (2) Empathy, (3) Awareness, (4) Diversity, and (5) Decision Making/Leadership using unique

questions from the survey instrument for each scale that did not overlap. Unfortunately, the reliability of these scales did not produce confirmative results when tested for reliability using Chronbach's Alpha. These scales, as interval level variables, could have then been used in appropriate paired *t*-tests and independent two-tailed *t*-tests to test significant differences for tutors and for students

At the outset the principal investigators would have liked to use correlations to test the relationships between the scaled variables for tutors and for students and would also have liked to use paired and independent *t*-tests to test differences between students pre and post, tutors pre and post and differences between tutors and students at both times taking into account the tutor group was quite small in comparison with the student group. However, pre-survey and post-survey results were accumulated with low numbers so this precluded further analysis save for looking at various moment of the mean statistics, frequencies, contingency tables and proportions.

Since we could not confirm the reliability of our scales, nor did we achieve a substantial "n" between pre and post survey, only the frequencies and percentages are reported as accurate representations of reality in the study. We suggest better tracking of students, which is certainly a problem, in upcoming studies of this type and investigation. We also suggest implementation of a pilot survey to give feedback on questions that will produce more reliable scaling. Further training of the tutors who will administer the questionnaires to their students on the importance of follow-up procedures may increase the post-test response rate.

Findings

Tutors

Tutors responded positively (indicated by strongly agree or agree) between the pre and post test results on almost all the questions with the exception of three questions. The biggest difference (14.5%) that the tutors showed was on the question "Social problems are more difficult to solve than I used to think" followed by a difference of 14.2% on the question "I feel that social problems affect the quality of life in my community." This increase might be accounted for as a result of spending approximately eight months tutoring at risk students and engaging them in service-learning projects. During this period,

tutors developed relationships with the students and learned about their home lives, coming to understand the complexity of solving social problems.

The other two questions that showed a difference between the pre and post test were “I think social problems can be solved by the community” (13.9%) and “It is important for community service to change public policy.” Again, the tutors were engaged with the students and their service-learning projects and may have realized either through personal experience or observation, the importance of community involvement in helping to solve social problems.

Table 1

Notable Positive Differences in Responses by Tutors Pre Test versus Post Test

| | Pre Test (%) | Post Test (%) |
|---|--------------|---------------|
| Social problems are more difficult to solve than I used to think. | 52.2 | 66.7 |
| I feel that social problems directly affect the quality of my life in my community. | 69.6 | 83.8 |
| I think social problems can be solved by the community. | 73.9 | 87.8 |
| It is important for community service to change public policy. | 50.0 | 62.1 |

There were three questions that reflected negative differences. A negative difference in two of the questions however, actually doesn't indicate a negative response. For example, the tutors' response for the question “Each individual controls whether he or she is poor or wealthy” decreased (-8.8%). Possibly this decrease can be attributed to the tutors' realization that there are circumstances beyond an individual's control. The other question that showed a decrease (-5.2%) was “We should help people in need rather than create programs to address social problems.” This question correlates with the question about community service changing public policy. The tutors may have realized after

participating in Project HEART for eight months, the need to make changes to public policy.

Lastly, the only question that truly was a negative response was the one that states it is important for them to be a community leader. It is important to note that this decrease was only 2.6%.

Table 2

Notable Negative Differences in Responses by Tutors Pre Test versus Post Test

| | Pre Test (%) | Post Test (%) |
|---|--------------|---------------|
| Each individual controls whether he or she is poor or wealthy. | 30.4 | 21.6 |
| We should help people in need rather than create programs to address social problems. | 45.7 | 40.5 |
| It is important for me to become a community leader. | 78.2 | 75.6 |

Students

The students showed a positive change in 17 of the 27 questions but most of the differences were relatively small (approximately 4.3%). Only the question, “Community service will help me develop leadership skills,” had a 10.9% increase.

There were however, 10 questions that resulted in a negative change between pre and post test. Although not surprising, students responded negatively (-18.3%) to the question “Students in high school should be required to provide a certain number of hours of community service in order to graduate.” This negative change might have occurred as a result of engaging in a service-learning project and the students realizing the demands of community service.

The students, like the tutors, responded almost identically (-8.8 and -8.3, respectively), to the question that an individual controls whether he or she is

wealthy. Again, although this is a negative change, it is viewed as a positive response. Possibly the students, like the tutors, realized after engaging in a service-learning project that there are certain circumstances beyond one's control.

Tutors-Students

We also calculated the differences between the tutors and students on the pre and post test results. Two questions where there were notable differences in the pre and post test results for both the tutors and students were "I feel social problems are not my concern," (48.9% and 53.8%, respectively) and "I can have an impact on solving problems in my community (41.1% and 37%, respectively)." What this indicates is that there is a substantial difference in responses between the tutors and the students. The students did not strongly disagree or disagree as substantially the tutors did to these questions. A possible explanation for these differences might be that the students are not as aware of social problems as the tutors due to differences in age and maturity level.

The other question where there was a difference in the pre and post test results for the two groups was "I have too many responsibilities to volunteer my time in helping others." Students did not strongly disagree or disagree as substantially as the tutors.

Table 3

Notable Pre Test vs. Post Test Results / Tutors vs. Students

| | Pre Test (%) | | Post Test (%) | |
|---|--------------|----------|---------------|----------|
| | Tutors | Students | Tutors | Students |
| I feel social problems are not my concern. | 89.1 | 40.2 | 97.3 | 43.5 |
| I feel that I can have an impact on solving the problems of my community. | 95.7 | 97.2 | 54.6 | 60.2 |
| I have too many responsibilities to volunteer my time in helping others. | 80.4 | 48.3 | 89.1 | 44.9 |

Summary and Conclusions

The purpose of this research study was to examine the impact of service-learning on participants' attitudes on civic engagement. Specifically, we wanted to determine if students and tutors participating in service-learning activities had more favorable attitudes towards civic engagement. Overall, both students and tutors who participated in service-learning activities did have more favorable attitudes towards civic engagement. Tutors, rather than students, had the greatest degree of change between the pre and post test (see Table 4 for this and other differences). This could be attributed to the differences in age and maturity level between the tutors and the students. Another explanation could be the length of time the students were engaged in the service-learning activities. Possibly the students needed more time to engage in these activities to undergo a greater degree of change in attitude toward civic engagement.

Although not reflected from the survey results, the principal investigators were able to gather informal data about the impact of service-learning on the students. After completing the post test survey during an in-service workshop on service-learning, the tutors discussed their experiences of working with students. The tutors admitted that they were surprised at the level of poverty of their students and their inability to "fix" the social problems caused by such poverty. They were, however pleased with the willingness of their students to engage in service-learning activities in an attempt to remedy societal problems. One tutor commented that his students recognized that it was important to improve the quality of life in their community. They understood that it had to be a "team effort."

Another tutor commented that her students liked service-learning projects because they could work on real issues that impacted their community. According to the tutor, "For perhaps the first time in their academic career, my students can see the relevancy of what we are teaching to their personal lives." It is important to note that this study reflected changes in the participants' attitudes toward civic engagement only during the program's duration. It is likely that other changes may occur among the participants as they encounter other life experiences.

Implications of the Study

From a methodological perspective, survey design is of great importance so that respondents can be tracked through the survey. The dropout rate in this survey prevented the principal investigators from using inferential techniques to

analyze the data because the post test respondent base was so small. Thus, the results were presented in a descriptive manner.

Table 4

Summative Pre Test vs. Post Test Results / Tutors vs. Students

| (%) | Pre Test (%) | | Post Test | |
|---|--------------|----------|-----------|----------|
| | Tutors | Students | Tutors | Students |
| I feel social problems are not my concern.* | 89.1 | 40.2 | 97.3 | 43.5 |
| I feel that social problems directly affect the quality of my life in my community. | 69.6 | 61.2 | 83.8 | 66.7 |
| Social problems are more difficult to solve than I used to think. | 52.2 | 61.4 | 66.7 | 60.9 |
| It is important for community service to change public policy. | 50.0 | 46.3 | 62.1 | 47.8 |
| I think social problems can be solved by the community. | 73.9 | 50.0 | 87.8 | 55.9 |
| Each individual controls whether he or she is poor or wealthy. | 30.4 | 46.0 | 21.6 | 37.7 |
| I feel that I can have an impact on solving the problems of my community. | 95.7 | 97.2 | 54.6 | 60.2 |
| It is important for me to become a community leader. | 78.2 | 47.4 | 75.6 | 50.7 |
| We should help people in need rather | 45.7 | 40.5 | 52.7 | 53.6 |

than create problems to address social problems.

| | | | | |
|--|------|------|------|------|
| I have too many responsibilities to volunteer my time in helping others.* | 80.4 | 89.1 | 48.3 | 44.9 |
|--|------|------|------|------|

Note. *All questions in the survey instrument were Likert scales ranging from strongly disagree to strongly agree. For these two questions “Disagree” and “Strongly Disagree” were tallied to compute the percentages. For all other questions “Agree” and “Strongly Agree” were tallied to compute the percentages.

There are several implications for Project HEART administrators and tutors. First, it is important to train the tutors and teachers who administer the questionnaire. This training would include very specific protocol for administering the instrument. Second, it may be necessary to revise the questionnaire to ensure its compatibility with the service-learning training and projects. Third, if a revision of the questionnaire is required, a pilot study should be conducted to test the reliability of the new instrument. All proposed changes in the research design should be disseminated to tutors and teachers and feedback on the changes should be solicited from the participants. This team approach should improve the quality of the entire research process.

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