Academic Year 2018-2019 Report

Impact of Service Learning on University, Secondary, and Elementary Students

May 2019

About the Report

The Service Learning Academy at the University of Nebraska at Omaha assesses students' perceptions of service learning courses and how such courses impact the community and students' personal growth through evaluations of pre- and post-surveys. The Center for Applied Psychological Services (CAPS) was contracted to analyze the survey results. This report features data collected from Fall 2018 and Spring 2019.

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About CAPS

CAPS provides high quality, research-based, legally defensible, and scientifically sound consulting services to local, public, and private organizations needing help in a variety of areas related to Industrial/Organizational Psychology, Social Psychology, School Psychology, and Developmental Psychology. For more information, visit cas.unomaha.edu/caps.

Citations

To cite this report, please use this format:

Ahmed, S., Trent, S. B., Allen, J. A., Reiter-Palmon, R., & Kramer, W. (2019, May). *Academic Year 2018-2019 Report: Impact of Service Learning on University, Secondary, and Elementary Students*. Omaha, NE.

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Executive Summary

In collaboration with the Service Learning Academy, the Center for Applied Psychological Services conducted an evaluation on student perceptions of service learning courses in the 2018-2019 academic year. Recommendations are drawn from data analyses contained in the appendices as well as CAPS experiences with data collection for SLA throughout the academic year.

What We Did

CAPS distributed and collected existing pre- and post- surveys measuring student growth and perceptions in UNO higher education students, Omaha Public Schools (OPS) secondary students, and OPS elementary students participating in service learning courses. After data collection, the primary focus of analyses was on changes from before and after the service learning course. Key measures from the surveys include:

- Knowledge of the community
- Engagement in the community
- Engagement in school

What We Found

Results are parsed out in 2 areas: perceptions before and after the service learning project. Conclusions and recommendations drawn here are based, in part, from the data reports contained in the appendices. Some notable findings include:

- University students reported significant increases in their knowledge of their community and engagement in the community
- University students and secondary students generally put more effort into attending class during their service learning project
- University students and secondary students indicated that service learning courses are more engaging, meaningful, and beneficial than traditional classes.
- Elementary students reported learning new skills while working on their service learning projects

What We Did

Purpose

The Service Learning Academy (SLA) at the University of Nebraska at Omaha (UNO) uses pre- and post-surveys to measure student growth in UNO higher education students, Omaha Public Schools (OPS) secondary students, and OPS elementary students participating in service learning courses. The Center for Applied Psychological Services (CAPS) was contracted to assist in survey distribution and to analyze survey results for the 2018-2019 academic year.

CAPS and SLA distributed and collected higher education, secondary education, and elementary education student pre- and post-surveys. The higher education surveys were collected electronically and P-12 surveys were collected in paper format. It is important to note that P-12 surveys were offered electronically as well, however there were no responses collected via this format. This was the first year that surveys required active rather than passive consent forms, meaning that responses provided by students in OPS schools could only be used if the consent forms were returned to SLA. As such, there was a dramatic decrease in the number of survey responses that could be retained and further analyzed, due to difficulties encouraging the return of active consent forms. Because of this, SLA will be reevaluating how to collect data from the secondary and elementary students in the future.

The primary focus of the analyses was on changes from before and after the service learning course. In the survey, SLA used a unique identifier code (i.e., initials, date of birth, and eye color) to match respondents from pre- to post-evaluation. The surveys measured:

Survey	Measures
Pre-Survey	Demographics
Pre- and Post-Surveys	Knowledge of the community Engagement in the community Beliefs about the community
Post-Survey	Skills developed during the service learning project Comparisons of the service learning course to traditional course Open-ended comments and advice to other students

Elementary students were asked very abbreviated versions of the measures above. Separate analyses on each of the three samples were conducted and are presented towards the end of this report. Rather than separating students out by semester, these analyses contain matched students from the higher education, secondary education, and elementary education samples during the entire 2018-2019 academic year.

We elected to exclude survey respondents who did not provide both pre- and post-course responses. We excluded these responses for several reasons. First, it is difficult to draw any meaningful conclusions about the effects of the program without respondents' pre- and post-evaluations. Second, it is possible that the respondents who completed only the pre-survey did not participate in the service learning project or course (e.g., withdrew) and may not accurately represent our sample of interest, thereby biasing the results. We also excluded any responses from elementary and secondary students that did not have matching consent forms.
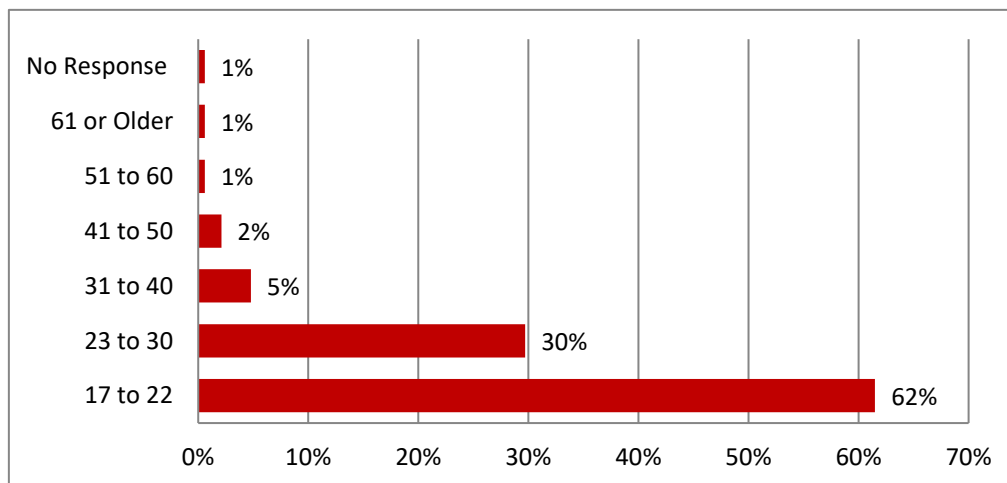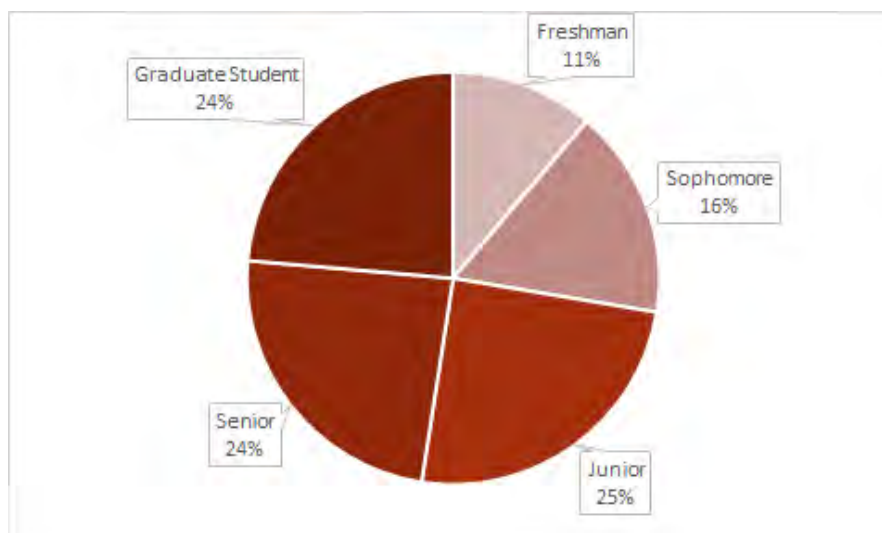
Sample

Higher Education

The final higher education student sample consisted of 330 matched students enrolled in an array of courses across various majors including special education, teacher education, business, journalism/communications, social work, Latino/Latin American studies, Spanish, or computer science . Demographic items on the pre-survey indicated that the sample had considerably more women (72.4%) than men (26.9%); two individuals declined to indicate their gender (0.6%). Over one-third of students (37.9%) reported that they had taken a service learning course previously. Furthermore, 22.4% of students indicated that they were the first in their family to attend college. The largest age group ranged from 17 to 22 years old (61.5%), followed by students 23 to 30 years old (29.7%). The average age for higher education students was 23.

Figure 1: Age of Higher Education Students in Service Learning Courses

Juniors and seniors represented nearly half of the total sample (48.7%), graduate students represented 23.6% of the total sample, and freshmen and sophomores represented 27.6% of the total sample.
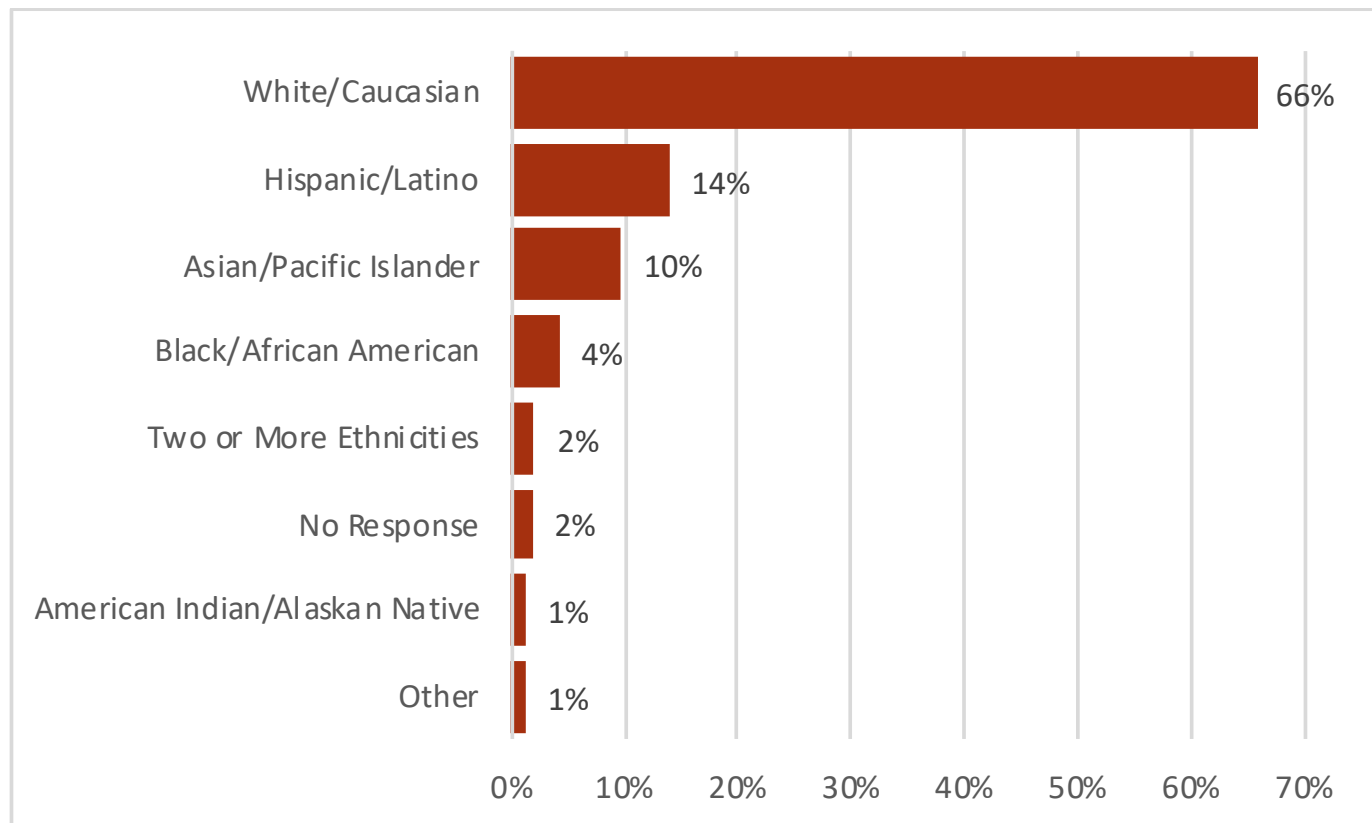
Figure 2: Education Level of Students in Service Learning Courses

Students were asked to indicate their race or ethnicity. Most students identified as White or Caucasian (65.8%); students of color represented 32.3% of the sample.

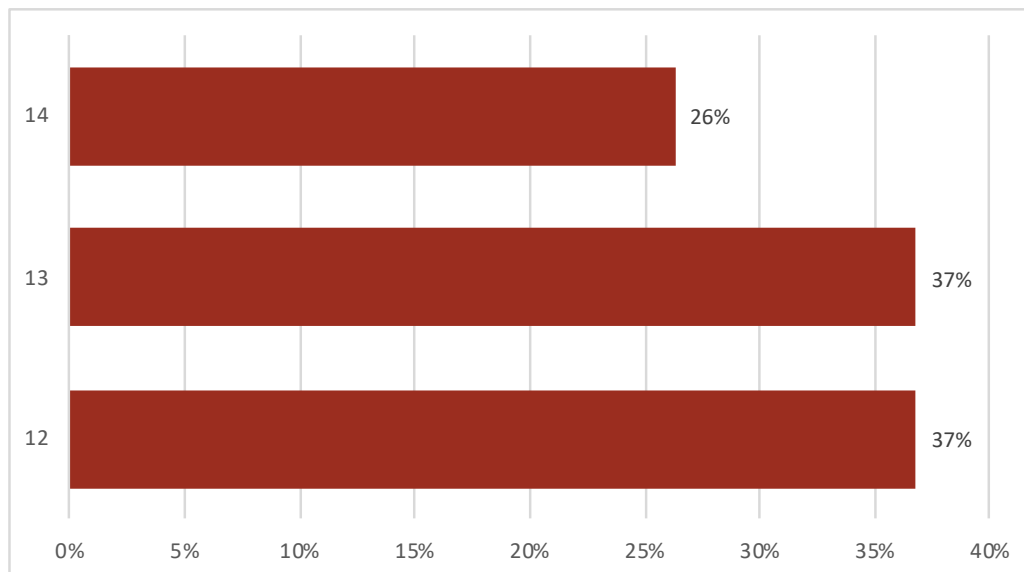*Figure 3: Race or Ethnicity of Students in Service Learning Courses*

Race/Ethnicity	Percentage
White/Caucasian	66%
Hispanic/Latino	14%
Asian/Pacific Islander	10%
Black/African American	4%
Two or More Ethnicities	2%
No Response	2%
American Indian/Alaskan Native	1%
Other	1%

Students of color represented nearly one third of the UNO sample.

Secondary Education

The final secondary sample consisted of 19 matched students from Nathan Hale Magnet Middle School and King Science and Technology Magnet Center. The sample had a larger number of men (63.2%) than women (31.6%). One participant declined to answer. Students were asked if they had participated in service learning before; 42.1% indicated that they had previously taken a service learning class. The sample's age ranged from 12 years old to 14 years old.

Figure 1: Age of Secondary Students in Service Learning Courses

All of the students that were successfully matched in the pre- and post-surveys indicated that they were in middle school.
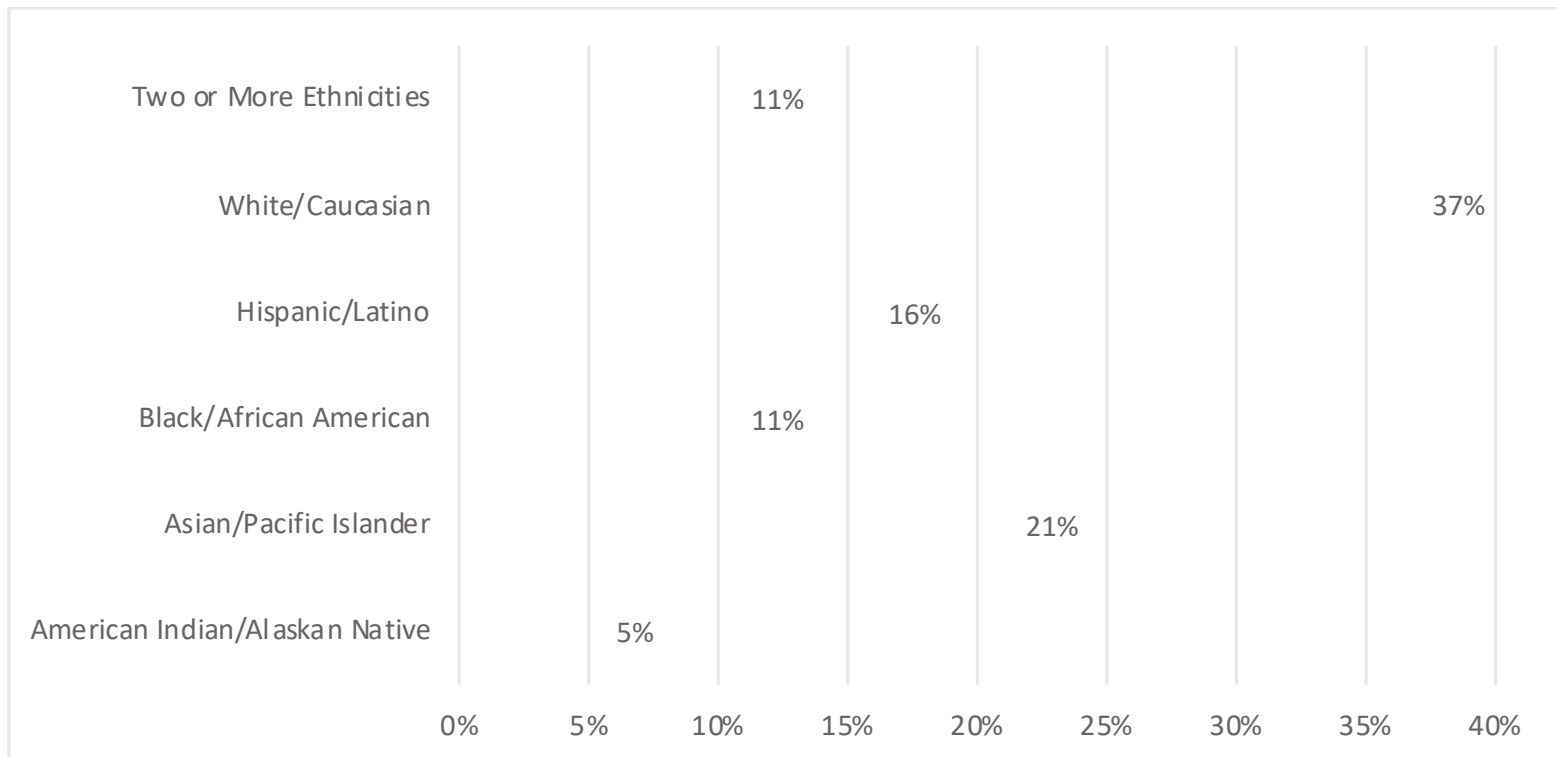
Figure 2: Education Level of Students in Service Learning Courses
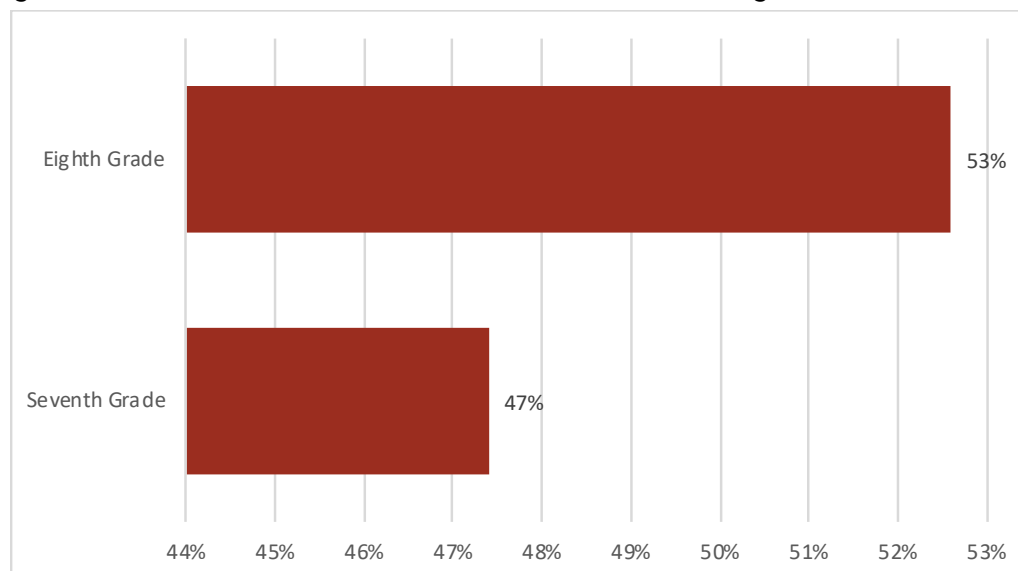
Students were asked to indicate their race or ethnicity. The sample was fairly diverse; over half (63.2%) of students were students of color, and 36.8% of the sample identified as White or Caucasian.

*Figure 3: Race or Ethnicity of Students in Service Learning Courses*

The secondary education sample was diverse. Nearly two-thirds of the students indicated that they were students of color.

Elementary Education

The final elementary sample consisted of 6 matched students from Western Hills Elementary School. This sample consisted of more girls (66.7%) than boys (33.3%). Students in this sample were between 10 and 11 years old. The majority of students indicated they had either not participated in service learning before or were unsure if they had taken a service learning class previously (87.5%). The elementary sample was fairly diverse, with half of the students reporting being students of color.

*Figure 1: Race or Ethnicity of Students in Service Learning Courses*
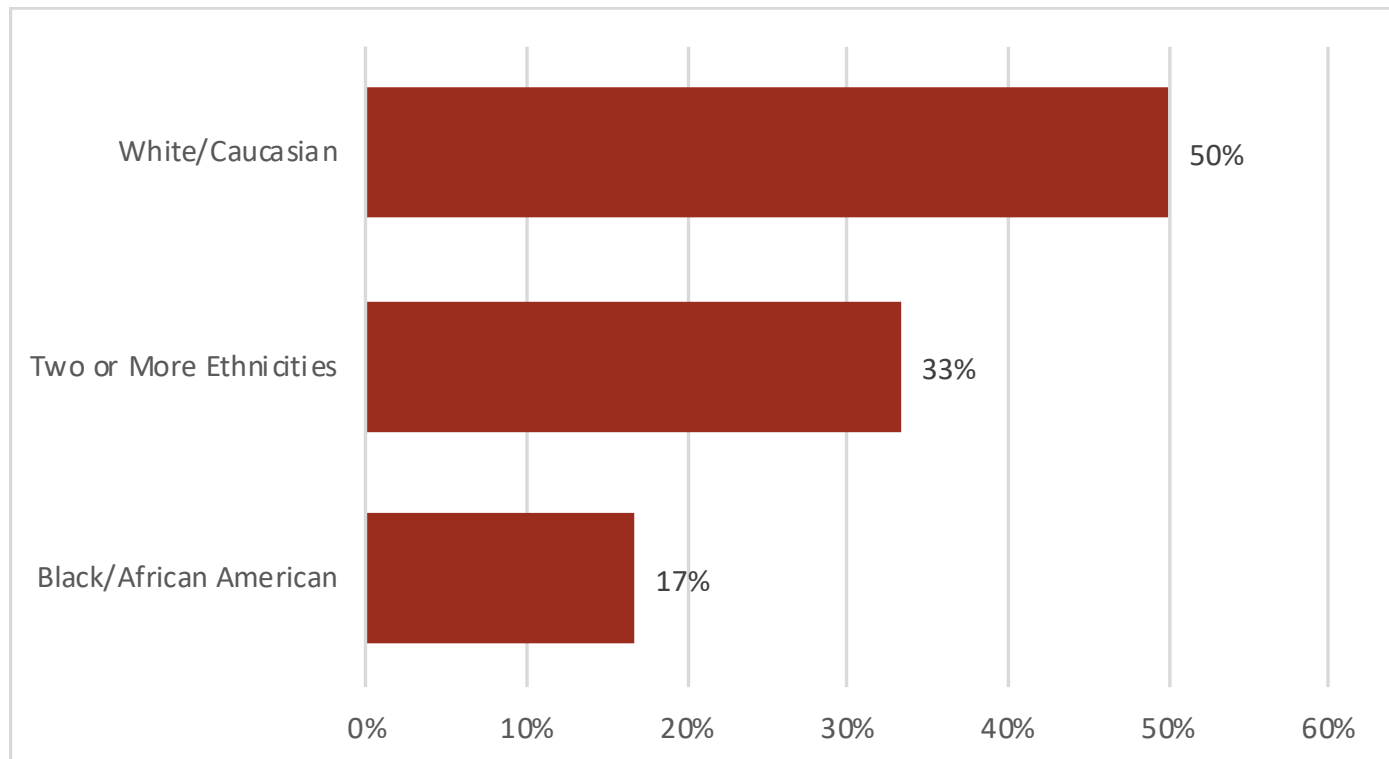
The elementary sample was also diverse. Half of the students indicated that they were students of color.

What We Found

Perceptions Prior to the Service Learning Project

Prior to the service learning project, students were asked about their perceptions and attitudes related to their community. The following graph shows the aggregate pre-survey scores for elementary, secondary, and university students when asked questions about their level of community engagement and knowledge of the community. Students in the higher education sample reported the greatest community engagement and knowledge of the community prior to their participation in service learning courses. Secondary students reported lower community engagement than university students or elementary students, but greater knowledge of the community than elementary students. Elementary students reported the lowest level of knowledge of the community, but greater community engagement than their secondary or university student counterparts.
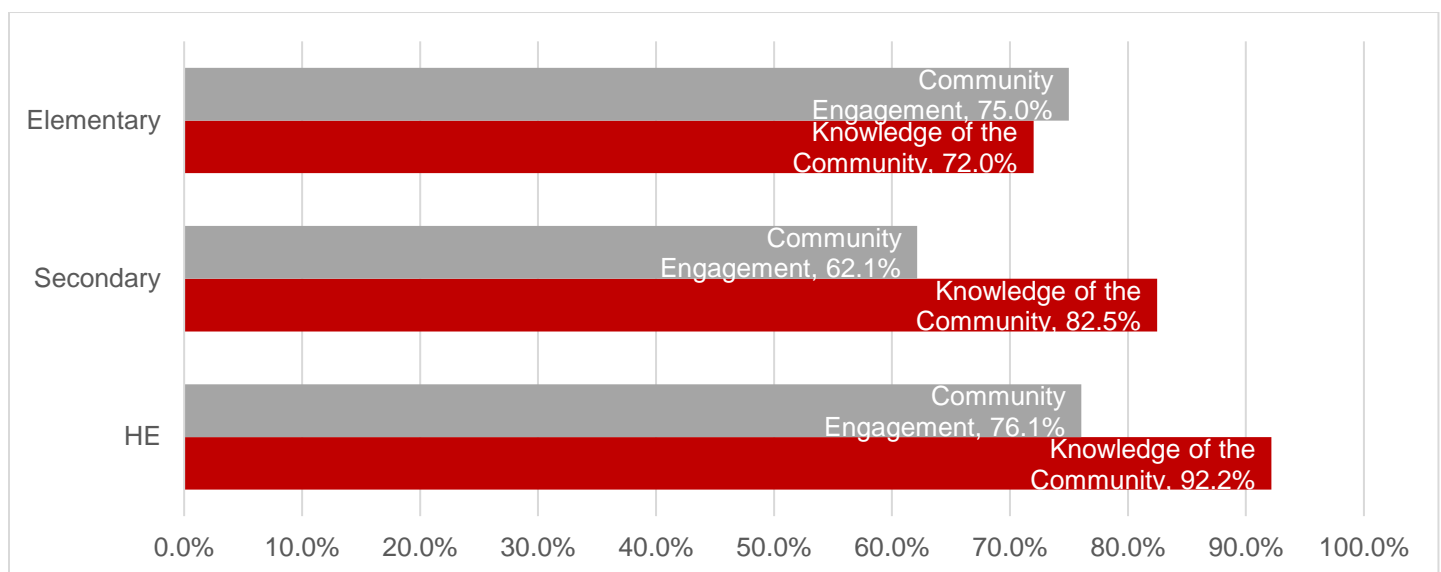
The items that make up the two constructs are broken down further below in order to show the percentage of students that agreed with each item. It is important to note that, due to a small sample size for the elementary students, we did not include a break down for elementary students here as the percentages would be misleading.

Higher Education Perceptions Prior to Service Learning

The following 11 items measured UNO students' knowledge of their community and community engagement before the service learning project. Overall, students reported strong beliefs and feelings of responsibility towards the community. However, students also indicated that they were somewhat less engaged in the community. The figure below details the breakdown in percentage of students that responded to each item. The "Top 3 Box" column indicates percent agreement with each item, or in other words the percent of students that responded *somewhat agree, agree,* or *strongly agree.*

Figure 4: UNO Student Knowledge of Community and Community Engagement Prior to Service Learning

Community Engagement	Top 3 Box % Strongly Agree % Agree % Somewhat Agree % Neither Agree nor Disagree % Somewhat Disagree % Disagree % Strongly Disagree %								N	Mean

How much do you agree with the following statements?

									N	Mean
I feel responsible for my community.	1.8%	0.3%	0.6%	11.5%	25.5%	37.6%	22.7%	85.8%	330	5.64
I believe I should make a difference in my community.	1.5%	0.0%	0.0%	2.7%	11.5%	44.2%	39.7%	95.4%	330	6.15
I believe that I have a responsibility to help those in my community.	1.5%	0.0%	0.6%	4.5%	13.3%	43%	36.7%	93%	330	6.05
I am committed to serve in my community.	1.5%	0.3%	0.6%	8.5%	25.5%	33.9%	29.4	88.8%	330	5.76
I believe that all citizens have a responsibility to their community.	1.2%	0.6%	0.3%	3.3%	13%	46.1%	35.2%	94.3%	330	6.06
I believe it is important to be informed of community issues.	1.2%	0.0%	0.3%	2.4%	10%	41.5%	44.2%	95.7%	330	6.22
I am involved in structured volunteer position(s) in the community.	4.5%	13%	7.6%	18.2%	21.2%	22.1%	13%	56.3%	330	4.57
When working with others, I make positive changes in the community.	0.0%	0.6%	0.3%	7%	18.8%	52.4%	20.6%	91.8%	330	5.84
I help members of the community.	0.6%	1.8%	0.6%	7.9%	19.7%	50.6%	18.5%	88.8%	330	5.71
I stay informed of events in my community.	0.9%	2.7%	5.8%	14.2%	28.5%	36.7%	10.9%	76.1%	330	5.21
I participate in discussions that raise issues of social responsibility.	1.2%	4.5%	6.4%	20.3%	25.5%	29.4%	12.4%	67.3%	330	5.03

Secondary Education Perceptions Prior to Service Learning

The following 11 items measured secondary students' knowledge of their community and community engagement before the service learning project. Overall, students indicated that they had knowledge about the community, however they also that they had moderate engagement in the community.

Figure 4: Knowledge of Community and Community Engagement Prior to Service Learning

Community Engagement	Top 3 Box % Strongly Agree % Agree % Somewhat Agree % Neither Agree nor Disagree % Somewhat Disagree % Disagree % Strongly Disagree %							N	Mean
How much do you agree with the following statements?									
I feel responsible for my community.	0.0%	0.0%	5.3%	10.5%	36.8%	31.6%	15.8%	84.2%	19	5.42
I believe I should make a difference in my community.	5.3%	5.3%	5.3%	10.5%	21.1%	31.6%	21.1%	73.8%	19	5.16
I believe that I have a responsibility to help those in my community.	0.0%	0.0%	0.0%	21.1%	26.2%	31.6%	21.1%	78.9%	19	5.53
I am committed to serve in my community.	0.0%	0.0%	10.5%	10.5%	15.8%	36.8%	26.3%	78.9%	19	5.58
I believe that all citizens have a responsibility to their community.	0.0%	0.0%	5.3%	5.3%	5.3%	42.1%	42.1%	89.5%	19	6.11
I believe it is important to be informed of community issues.	0.0%	5.3%	0.0%	5.3%	5.3%	42.1%	42.1%	89.5%	19	6.05
I am involved in structured volunteer position(s) in the community.	10.5%	10.5%	10.5%	26.3%	10.5%	15.8%	15.8%	42.1%	19	4.26
When working with others, I make positive changes in the community.	0.0%	10.5%	0.0%	15.8%	31.6%	26.3%	15.8%	73.7%	19	5.11
I help members of the community.	5.3%	5.3%	5.3%	15.8%	21.1%	36.8%	10.5%	68.4%	19	4.95
I stay informed of events in my community.	5.3%	0.0%	0.0%	21.1%	47.4%	21.1%	5.3%	73.8	19	4.89
I participate in discussions that raise issues of social responsibility.	15.8%	10.5%	0.0%	21.1%	15.8%	31.6%	5.3%	52.7%	19	4.26

Perceptions After the Service Learning Project

The following section compares students' pre- and post-service learning course responses and measures of students' overall engagement service learning and students' civic literacy. Impressions of the service learning course were generally more positive than negative on both the pre- and post-surveys. We saw increases in knowledge of and engagement in the community for UNO students. In particular, UNO students reported higher levels of agreement for the statements "I feel responsible for my community" and "I am involved in structured volunteer position(s) in the community." However, we did not detect any change (i.e., engagement in community, knowledge of community) from secondary students or elementary students pre- to post-evaluation.

Higher Education Perceptions

Students indicated that they were very engaged in the communities, and very knowledgeable about their communities on both the pre- and post- surveys. Analysis of students pre- and post- survey responses revealed that students were more knowledgeable of their community and demonstrated slightly more community engagement after completing the service learning. Asterisks denote significant changes. See Appendix A, Table 1 for paired samples *t*-tests.

Figure 5: Item-Level Pre- and Post-Course Comparison in Higher Education Students
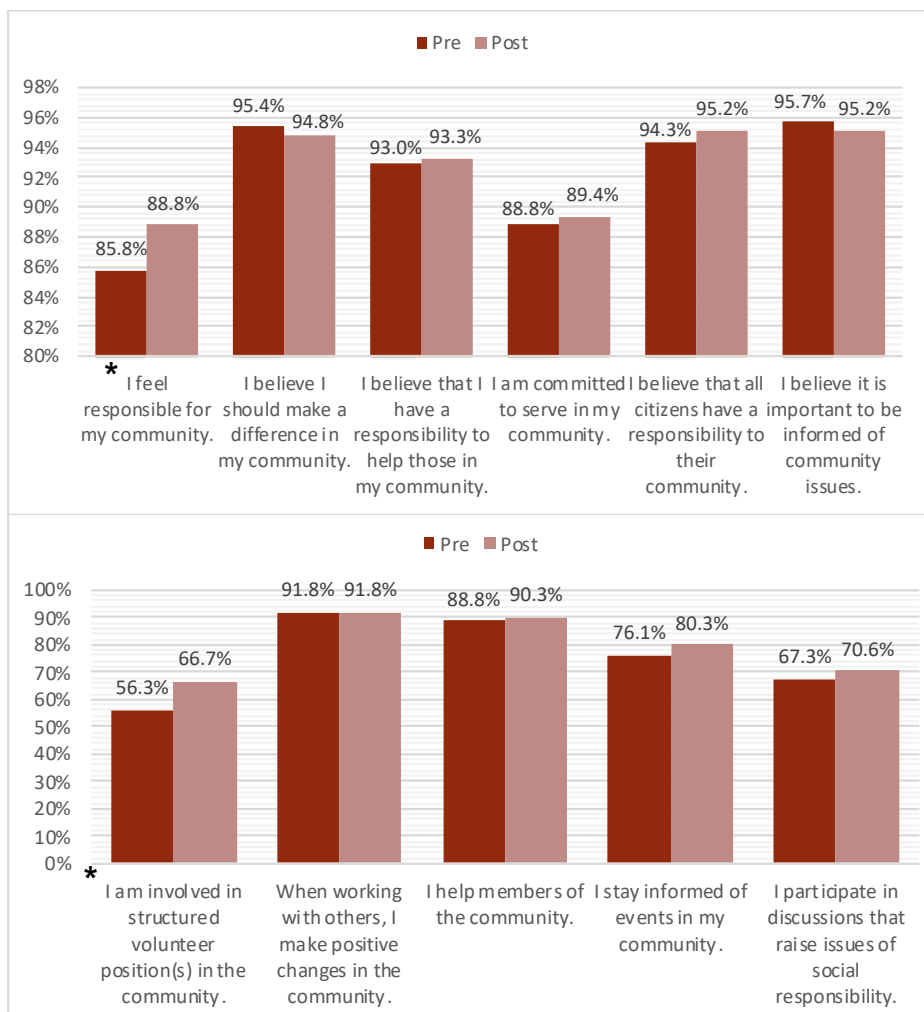
Students displayed more knowledge of their community and more engagement in their community after completing the service learning course compared to before.

In addition to conducting item-level analyses, we compared higher education student knowledge of the community and community engagement at the aggregate level by exposure to service learning. Students who indicated they had taken a service learning course in the past reported significantly greater community engagement attitudes from pre to post survey responses. Students new to service learning did not report significant changes in community engagement attitudes or knowledge of the community from the pre- to post-survey. When examined as one group, all students indicated significantly greater levels of community engagement after completing their service learning classes. Results of t-tests are provided in Appendix A, Table 2.

Secondary Education

There were no significant changes in students' knowledge of the community or engagement in the community or school. Overall, the lack of any statistically significant effects is most likely due to the extremely small sample size, making it difficult to detect changes in attitudes after the service learning project. See Appendix B, Table 1 for paired *t*-tests.

Figure 5: Item-Level Pre- and Post-Survey Comparison
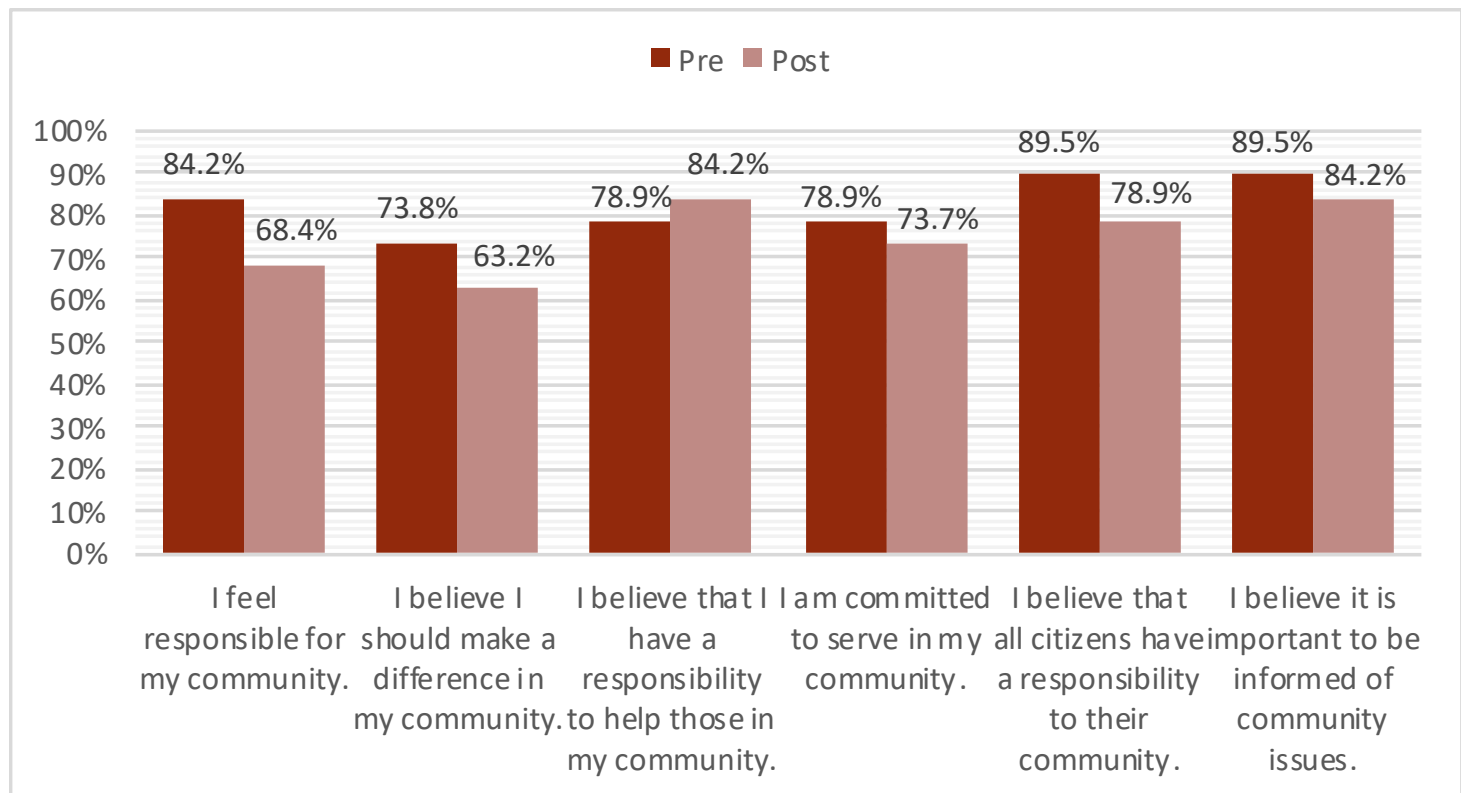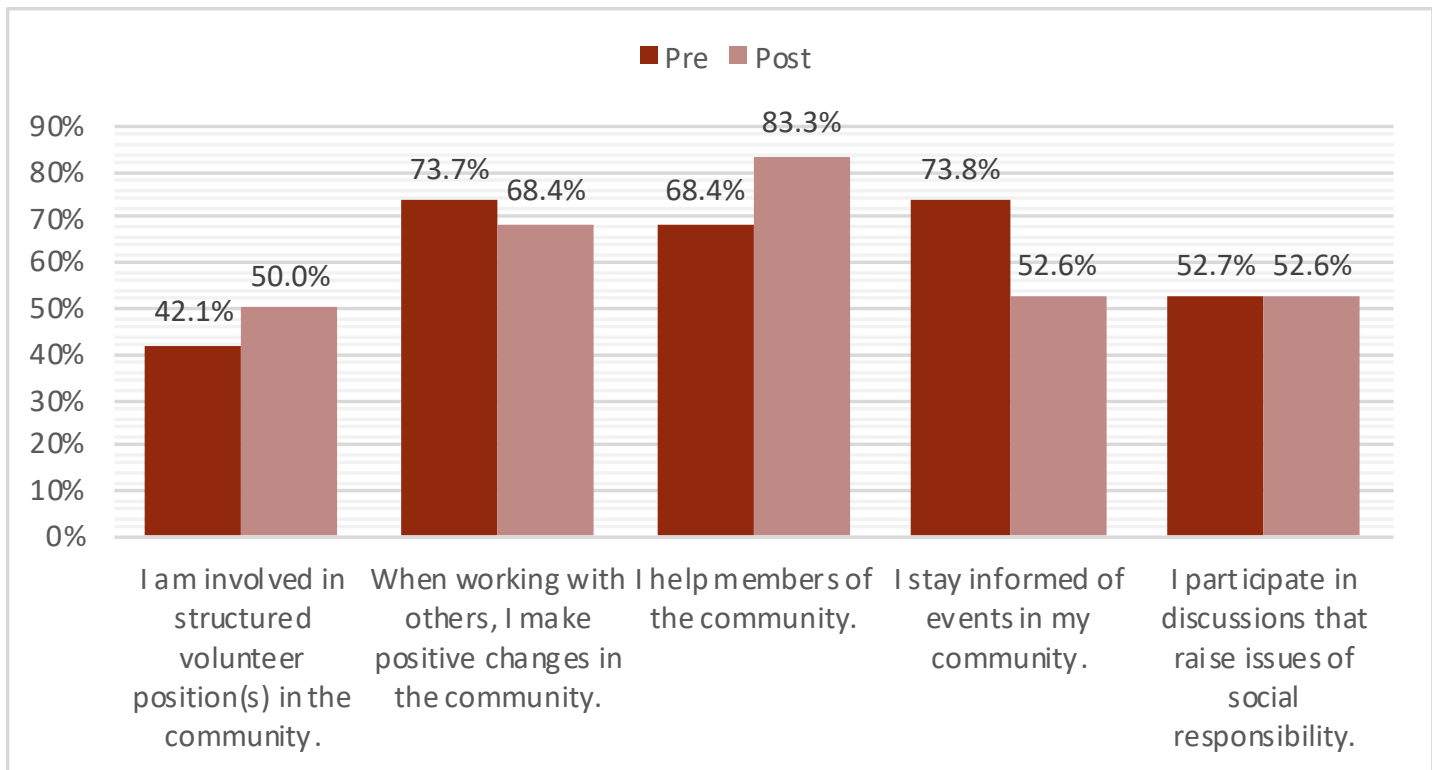
Elementary Education

The elementary students indicated their perceptions of the service learning project both before and after the project. Analysis of the pre- and post-scores yielded no significant changes. Overall, the lack of any statistically significant effects is most likely due to the extremely small sample size, making it difficult to detect changes in attitudes after the service learning project.

Figure 2 shows the percentage of students who responded "agree" or "strongly agree" on the pre- and post-service learning project learning project assessments. See Appendix C, Table 1 for paired *t*-tests.

Figure 2: Comparison of Elementary Student Perceptions Before and After Service Learning Project

Pre **Post**

Question	Pre	Post
I feel responsible for my community.	83%	50%
I believe I should make a difference in my community.	83%	83%
I want to serve in my community.	50%	67%
I help members of my community.	67%	67%
When working with others, I make positive changes in the community.	83%	83%
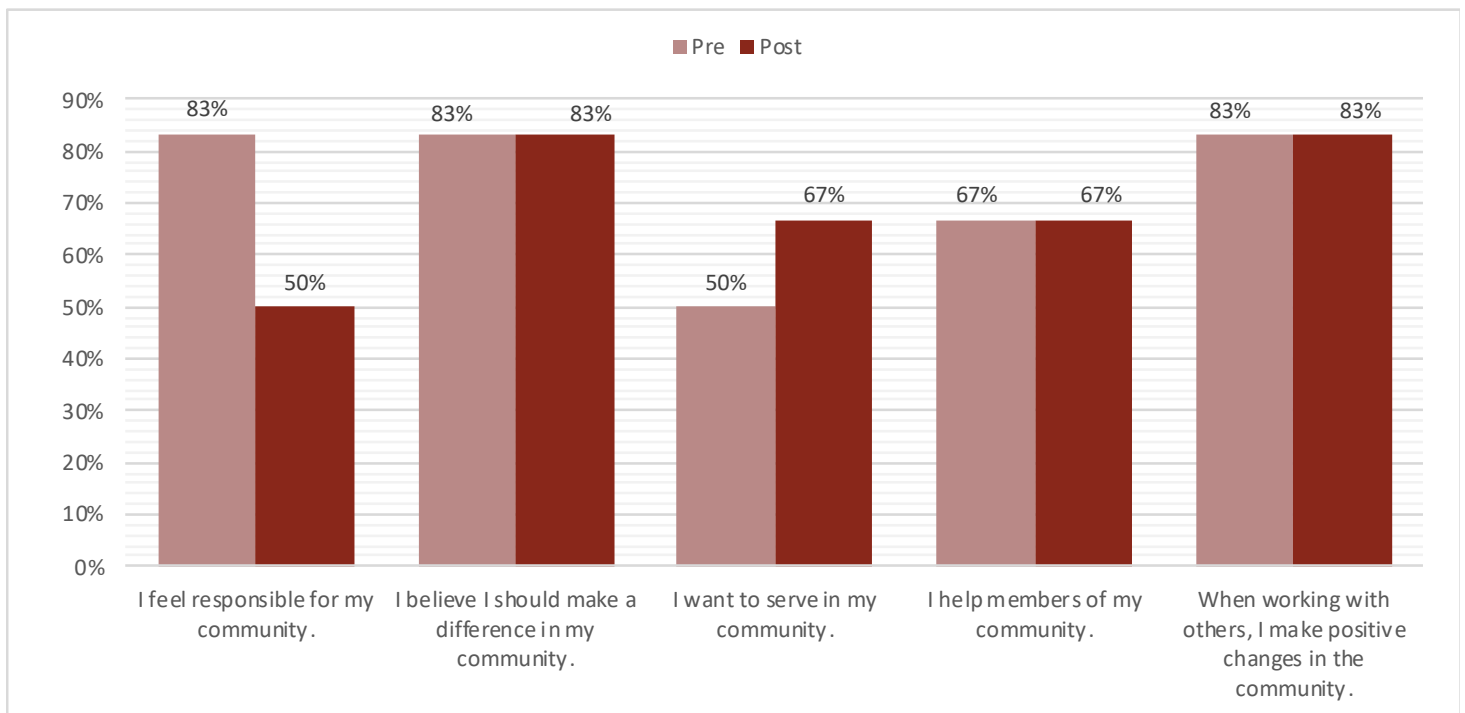
Beyond Community Engagement: Class Attendance, Skill Development, and Course Comparison

University and secondary students were asked about course attendance during their service learning projects; 93% of university students and 89% of secondary students indicated that they put in a special effort to attend class while they were working on their service learning project. Furthermore, the majority of university students and secondary students indicated that service learning courses are more engaging, meaningful, and beneficial than traditional classes. Additionally, an overwhelming amount of elementary students (93%) reported learning new skills while working on their service learning projects.

Higher Education

Higher education students indicated how participating in service learning developed their civic literacy, learning and innovation, and life skills. Across all categories, students generally thought that participating in the service learning program helped with their personal development regarding five different skills: public speaking, team work, problem solving abilities, critical thinking, and leadership abilities.

Figure 7: 21st Century Skills Developed During Service Learning Courses
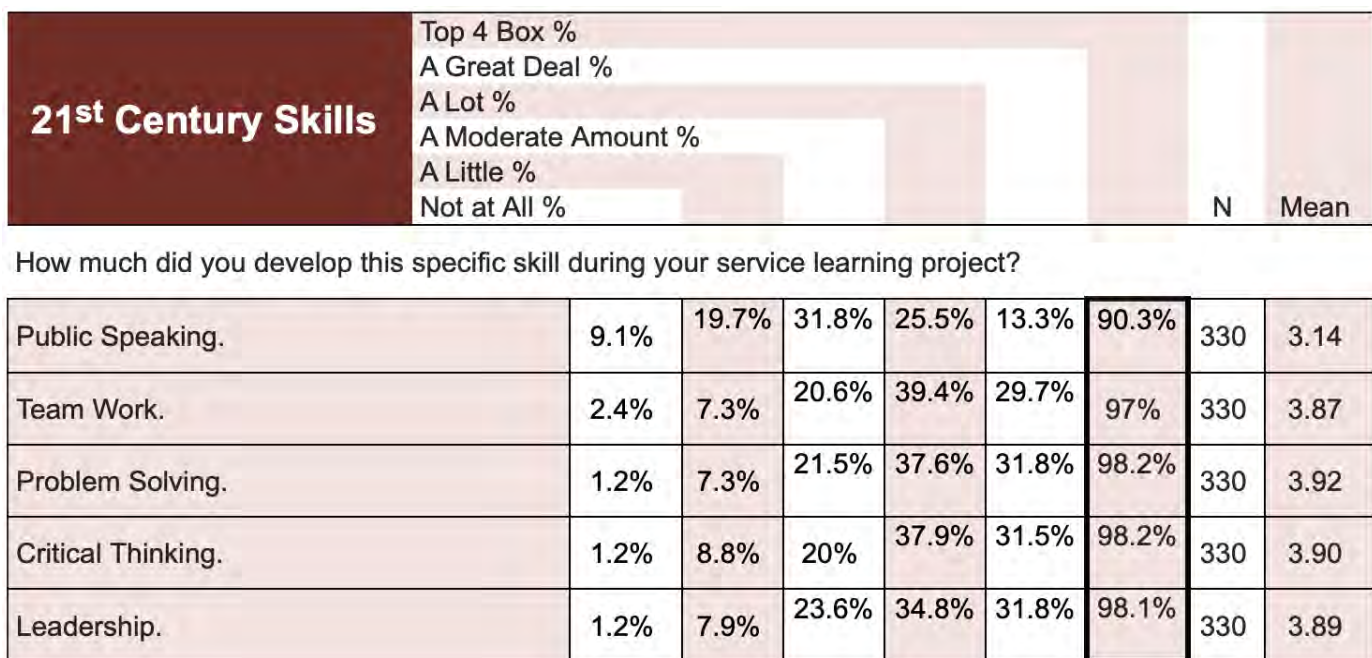
21st Century Skills	Not at All %	A Little %	A Moderate Amount %	A Lot %	A Great Deal %	Top 4 Box %	N	Mean
How much did you develop this specific skill during your service learning project?								
Public Speaking.	9.1%	19.7%	31.8%	25.5%	13.3%	90.3%	330	3.14
Team Work.	2.4%	7.3%	20.6%	39.4%	29.7%	97%	330	3.87
Problem Solving.	1.2%	7.3%	21.5%	37.6%	31.8%	98.2%	330	3.92
Critical Thinking.	1.2%	8.8%	20%	37.9%	31.5%	98.2%	330	3.90
Leadership.	1.2%	7.9%	23.6%	34.8%	31.8%	98.1%	330	3.89

Higher education students were asked to compare their service learning courses to lecture-only courses. Most students found their service learning courses to be more engaging, meaningful, and beneficial than lecture-only courses. About one third of students found service learning courses more challenging than traditional classroom courses.

Figure 8: Endorsement of the Service Learning Courses Being More Engaging, Meaningful, Beneficial and Challenging Compared to a Lecture-Only Course

How engaging was this course compared to traditional courses?

| 2% | 18% | 80% |

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
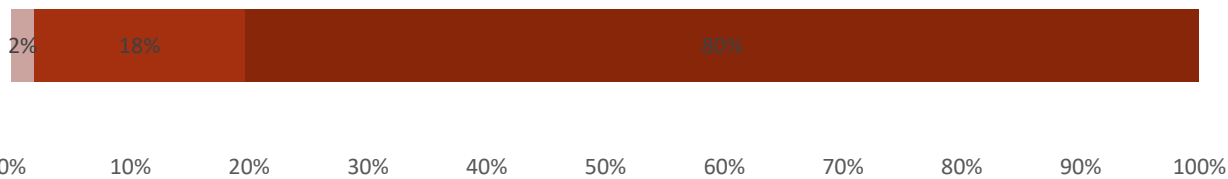
How meaningful was this course compared to traditional courses?

| 2% | 19% | 79% |

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

■ Meaningless ■ Neutral ■ Very Meaningful

How beneficial was this course compared to traditional courses?

| 3% | 20% | 77% |

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

■ Not Beneficial ■ Neutral ■ Very Beneficial
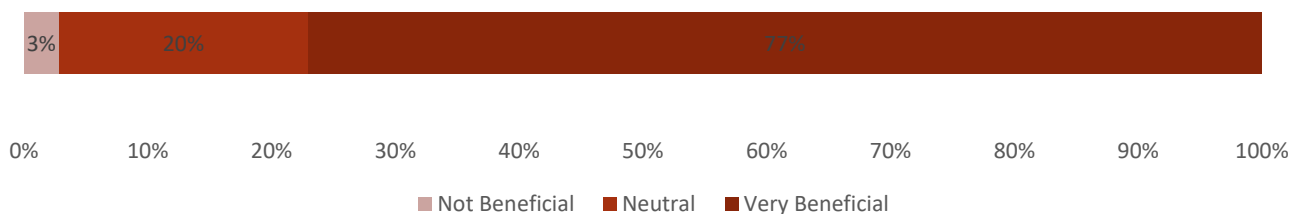
How challenging was this course compared to traditional courses?

| 10% | 57% | 34% |

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

■ Not Challenging ■ Neutral ■ Very Challenging
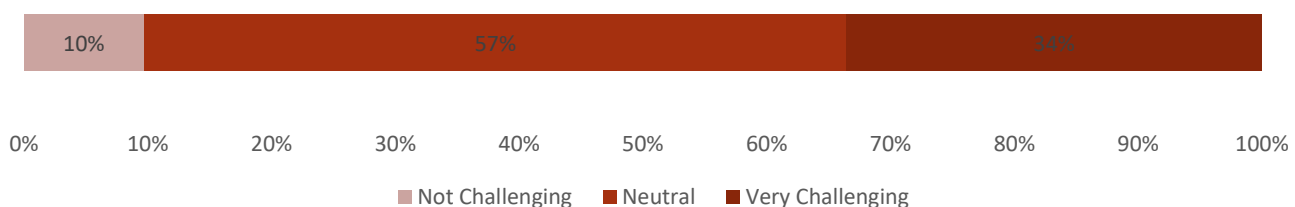
Secondary Education

Half of the secondary education students reported that they visited UNO during their service learning project. The majority of these students (85.7%) indicated that visiting the campus helped them to envision

themselves as future college students. Furthermore, students generally reported making a special effort to attend class during the service learning project.

Figure 6: Alternative Findings Related to Engagement in School
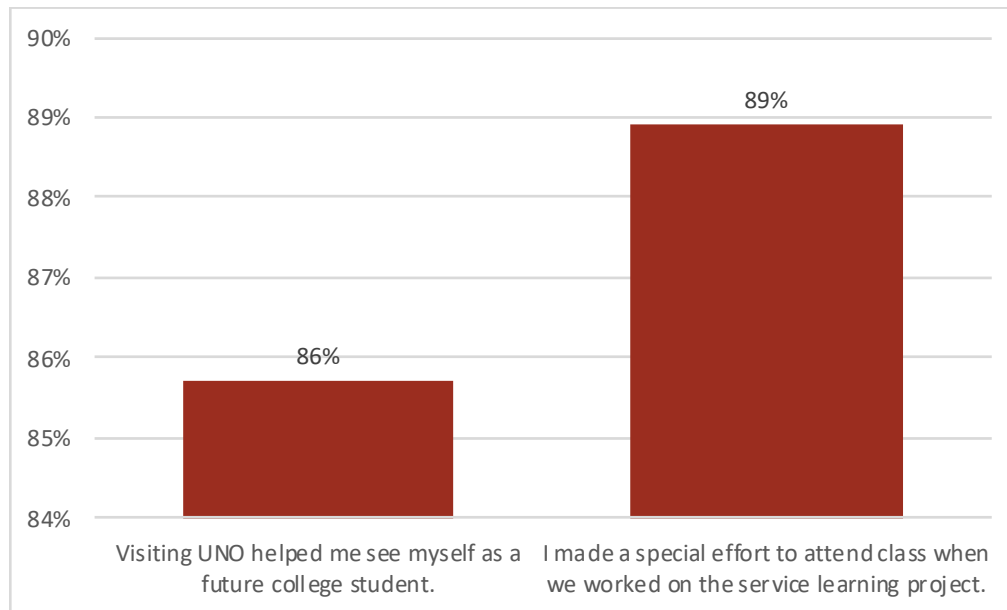
The secondary education students indicated how participating in service learning developed their civic literacy, learning/innovation, and life skills. Across all categories, students generally thought that participating in the service learning program gave them the opportunity to develop a variety of skills.

Figure 7: 21st Century Skills Developed During Service Learning Course
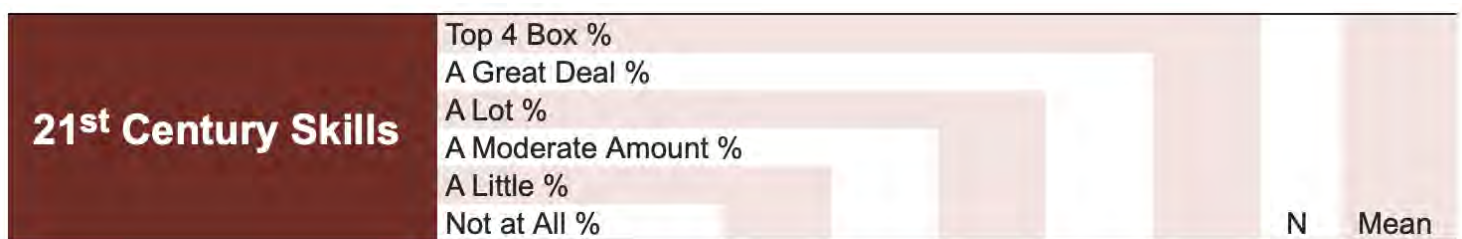
| 21st Century Skills	Top 4 Box % A Great Deal % A Lot % A Moderate Amount % A Little % Not at All %						N	Mean
How much did you develop this specific skill during your service learning project?								
Public Speaking.	5%	26%	32%	26%	11%	95%	19	3.11
Team Work.	0%	5%	26%	48%	21%	100%	19	3.84
Problem Solving.	0%	5%	32%	42%	21%	100%	19	3.79
Critical Thinking.	0%	5%	37%	32%	26%	100%	19	3.79
Leadership.	5%	11%	37%	16%	31%	95%	19	3.58

for Applied Psychological Services

Secondary education students were asked to compare their service learning courses to lecture-only courses. A majority of students thought that service learning courses were more engaging, as well as more meaningful, than traditional classroom courses. A little more than half of the students found service learning courses more beneficial than traditional classroom courses. Less than one-third of students found service learning courses more challenging than other courses.
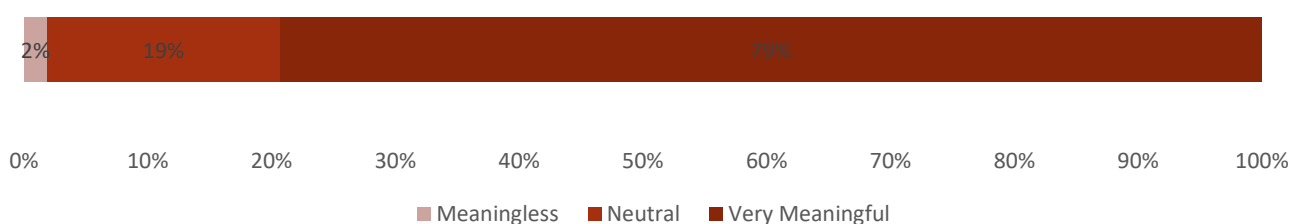
Figure 8: Endorsement of Service Learning Course Being More Engaging, Meaningful, Beneficial, and Challenging Compared to a Lecture-Only Course

Elementary Education

The elementary students were asked whether they learned something new during the service learning project. A majority of the students reported that they did learn a new skill (66.7%), such as how to "use your manners," and "different ways to place your utensils."

Figure 3. New Skills Developed During Service Learning Course
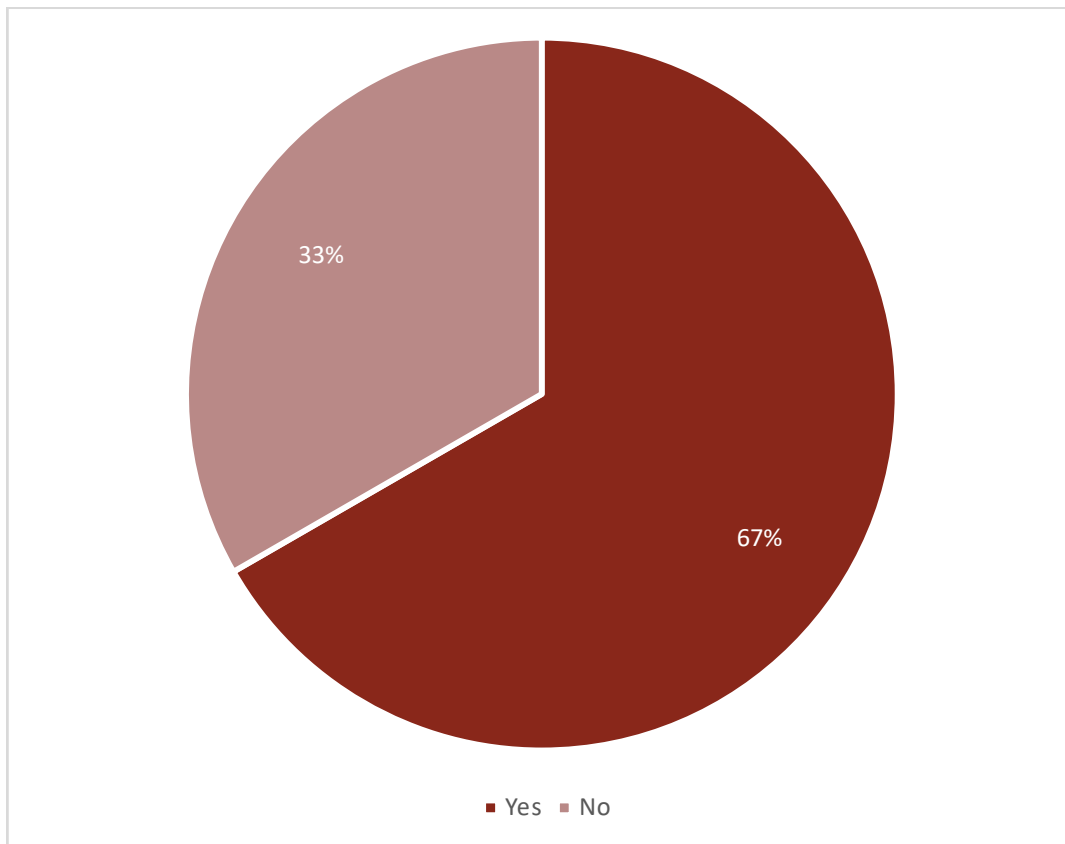
Two thirds of the elementary students reported learning a new skill during the service learning project.

What We Recommend

Issue 1: Response rates were lower this year as compared to previous years.

Discussion: Many factors affect response rates. For instance, there were changes in the main point of contact and survey format. Additionally, there may have been changes in the number of experienced service learning instructors and the number of courses offered. Furthermore, we saw an overwhelming lack of participation from faculty and instructors. The survey is completely voluntary; thus, the response rate is dictated by the encouragement of the faculty or instructor. Although SLA can rely on certain faculty and instructors to consistently accrue student data (e.g., a single faculty providing 30-70 students per semester), the office should aim to encourage more participation across all existing faculty and instructors.

Recommendation 1a: Sharing the importance of the pre- and post-survey data collection should start during the Service Learning Seminar. Training facilitators could walk through some major findings (e.g., significant changes from pre- to post-evaluation) as well as student open-ended comments and advice pulled from the surveys. SLA should explain how the responses are used and how the data continues to further the growth and development for the department and service learning at large.

Recommendation 1b: Highlight the importance of these surveys to faculty throughout the service learning project. If new faculty and instructors are given a handbook or training materials, SLA could compile best practices for obtaining high response rates. In addition to the survey launch email, additional sample emails to students or methods of encouragement can be published at various points during the faculty or instructor's learning so they may be well equipped to encourage participation.

Recommendation 1c: Train graduate assistants (GAs) to encourage and remind collaborating faculty and instructors to share the survey link with students. If implemented, SLA should also train GAs on the importance of pre- and post-survey data collection so they too can follow best practices to encourage greater response rates or answer any logistical questions about the evaluation process.

Recommendation 1d: Send a reminder email from the SLA director to collaborating faculty to share the survey with their students. The survey launch email and follow-up reminder emails may not be enough; as time is winding down, someone with organizational power (e.g., director) should send a quick reminder to emphasize the importance of these surveys.

Recommendation 1e: One way to achieve a higher response rate would be to use the Qualtrics Email Distribution Management function to distribute, remind, and thank survey respondents. SLA would need to work with UNO's Office of Institutional Effectiveness to gain student contact information. In addition, this change would need to be cleared with IRB and OPS. If SLA is more directly involved with data collection, SLA will be more likely to get more data across all service learning courses.

Issue 2: Faculty and instructors did not follow instructions.

Discussion: Some faculty did not administer surveys to their service learning courses. This was a problem for both UNO faculty and P-12 faculty. Others had some difficulty following survey instructions. This was primarily a concern for P-12 responses; many physical copies of P-12 surveys were unusable because instructors did not send back the active consent forms. OPS changed the consent forms for the surveys from passive to active for this school year, which may have caused confusion amongst faculty because prior to this year they did not have to include the consent forms with the surveys. Although this

change was articulated several times throughout both semesters, the majority of P-12 faculty failed to follow the directions and sent the survey responses in without the consent forms.

Recommendation 2a: SLA could informally collect data from faculty to better understand what is causing such low response rates. For example, faculty may be able to identify problems with survey distribution, or potentially explain that there is a lack of information regarding the research SLA is doing that may be influencing the response rate (perhaps the faculty involved do not want to participate in research, or the students in the courses are not being provided enough information to encourage participation, etc.)

Recommendation 2b: SLA could send information to P-12 faculty explaining in further detail what an active consent form is, and why it is important to include the consent forms with the survey responses from P-12 students.

Recommendation 2c: One way to resolve the problem surrounding active consent forms is for SLA to work with the OPS research division to change the consent forms back to passive consent forms. By explaining how active consent forms caused a tremendous drop in usable data, SLA and OPS may be able to come to a conclusion that is beneficial for both parties involved without jeopardizing the goal of gaining consent from minors.

Issue 3: Pre- and post-survey designs have limitations.

Discussion: If SLA is interested in submitting to journal outlets and conferences, we suggest being cautious with the data. It is common in the education field to administer a survey before and after a treatment (e.g., course, project). However, as is the case with many different types of designs, pre/post designs have some disadvantages. The biggest issue is that the differences from pre- to post-evaluation may not necessarily be caused by participating in a service learning course. Thus, other factors may explain any pre/post differences. For example, we do not know whether change occurred due to the service learning project or other factors (e.g., overall campus initiative to encourage civic engagement, selection of subjects). Given the methodology, SLA can only claim that things may or may not have changed from time 1 to time 2; the methodology does not allow SLA to claim that the change occurred due to the service learning project.

Recommendation 3a: One way to explore whether change was due to the service learning course is to compare the pre- and post-evaluations of students enrolled in traditional lecture-only courses. For example, compare student perceptions in the traditional lecture-only biology course to the service learning biology course – both at time 1 and time 2. If there was no change from pre- to post-evaluation in the traditional course, but there was change in the service learning course, a stronger argument could be made that service learning contributed to pre/post differences.

Recommendation 3b: Depending on the research question, another methodology may enhance conclusions drawn from the pre/post design. SLA could also use case studies in the form of observations, interviews, or focus groups. SLA might consider collaborating with graduate assistants and teachers that see the projects developing to gain observational and product data (e.g., use of skills, quality of final project). Structured in-person or virtual interviews and focus groups could be conducted to answer questions that go beyond a traditional survey (e.g., what strategies did you use to implement service learning in your classroom; what differences in student learning outcomes did you see between your service learning classroom and traditional classroom?).

Appendix A: Higher Education Statistical Tests

Table 1. Paired t-tests testing differences from pre- to post-survey at the item-level in higher education sample.

Item	Pre		Post		Diff.	*t*	*p-value*	*n*
	Mean	**SD**	**Mean**	**SD**				
I feel responsible for my community.	5.64	1.14	5.79	1.13	0.15	2.31	.021	329
I believe I should make a difference in my community.	6.15	0.99	6.16	1.03	0.01	0.15	.879	329
I believe that I have a responsibility to help those in my community.	6.05	1.06	6.08	1.03	0.03	0.49	.625	328
I am committed to serve in my community.	5.76	1.15	5.88	1.11	0.12	1.73	.084	329
I believe that all citizens have a responsibility to their community.	6.06	1.02	6.12	0.99	0.06	0.95	.345	329
I believe it is important to be informed of community issues.	6.22	0.96	6.24	0.96	0.02	0.26	.794	329
I am involved in structured volunteer position(s) in the community.	4.57	1.72	4.93	1.63	0.36	3.99	.000	329
When working with others, I make positive changes in the community.	5.85	0.88	5.87	0.99	0.03	0.53	.596	329
I help members of the community.	5.71	1.06	5.78	1.04	0.07	1.19	.237	329
I stay informed of events in my community.	5.21	1.24	5.28	1.23	0.07	1.05	.294	329
I participate in discussions that raise issues of social responsibility.	5.03	1.37	5.12	1.38	0.09	1.18	.241	329

Note. Highlighted items denote a significant difference in attitudes from the pre to post survey.

Table 2*: Paired t-tests testing differences from pre- to post-survey at the aggregate level in higher education sample.*

Dimension	Pre		Post		Diff.	t	p-value	n
	Mean	SD	Mean	SD				
New to Service Learning: Knowledge of the Community	6.01	0.69	6.12	0.71	0.10	1.96	.052	117
New to Service Learning: Community Engagement	5.23	0.92	5.26	0.93	0.03	0.31	.760	118
Previously taken a Service Learning Class: Knowledge of the Community	6.14	0.71	6.03	1.09	-0.11	-0.82	.413	67
Previously taken a Service Learning Class: Community Engagement	5.46	0.97	5.44	1.11	-0.01	-0.12	.903	67
All Students: Knowledge of the Community	5.98	0.93	6.05	0.93	0.07	1.23	.220	327
All Students: Community Engagement	5.27	0.98	5.39	1.01	0.12	2.40	.017	328

Note: Highlighted items denote a significant difference in attitudes from the pre to post survey.

Appendix B: Secondary Education Statistical Tests

Table 1. Paired t-tests testing differences from pre- to post-survey at the item-level in Secondary sample.

Item	Pre		Post		Diff.	*t*	*p-value*	*n*
	Mean	SD	Mean	SD				
I feel responsible for my community.	5.42	1.07	5.26	1.05	-0.16	-0.62	.546	19
I believe I should make a difference in my community.	5.16	1.71	5.26	1.10	0.11	0.35	.734	19
I believe that I have a responsibility to help those in my community.	5.53	1.07	5.47	0.90	-0.05	-0.16	.875	19
I am committed to serve in my community.	5.58	1.30	5.21	1.23	-0.37	-1.28	.217	19
I believe that all citizens have a responsibility to their community.	6.11	1.10	5.74	1.10	-0.37	-1.44	.167	19
I believe it is important to be informed of community issues.	6.05	1.27	5.68	1.20	-0.37	-1.20	.247	19
I am involved in structured volunteer position(s) in the community.	4.17	1.95	4.44	1.62	0.28	1.10	.288	18
When working with others, I make positive changes in the community.	5.11	1.45	5.21	1.03	0.11	0.32	.755	19
I help members of the community.	4.89	1.64	5.39	1.20	0.50	1.37	.187	18
I stay informed of events in my community.	4.89	1.24	4.68	1.73	-0.21	-0.49	.630	19
I participate in discussions that raise issues of social responsibility.	4.26	1.97	4.63	1.30	0.37	0.91	.376	19

Note. Highlighted items denote a significant difference in attitudes from the pre- to post-survey.

Appendix C: Elementary Education Statistical Tables

Table 1. Paired t-tests testing differences from pre- to post-survey at the item-level in Elementary sample.

Item	Pre		Post		Diff.	*t*	*p-value*	*n*
	Mean	**SD**	**Mean**	**SD**				
I feel responsible for my community.	5.83	0.98	5.00	2.00	-0.83	-1.54	.185	6
I believe I should make a difference in my community.	6.17	2.04	6.00	1.10	-0.17	-0.35	.741	6
I want to serve my community.	4.50	2.59	4.83	2.64	0.33	0.54	.611	6
When working with others, I make a positive change in my community.	6.00	2.00	6.00	1.10	0.00	0.00	1.00	6
I help members of my community.	5.50	2.07	5.50	2.07	0.00	0.00	1.00	6

Note. Highlighted items denote a significant difference in attitudes from the pre- to post-survey.