CENTER FOR APPLIED RESEARCH
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VOYAGEUR OUTWARD BOUND SCHOOL:

2016 SUMMER SURVEY RESULTS

- REVISED MAY 2017 -

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Introduction

Voyageur Outward Bound School ("VOBS") provides education programming to schools and groups to "help students find a resiliency and grit that can carry them through obstacles they face at home, in school or at work. We create communities built on respect, where each student is encouraged to be his or her best self and dig deep to apply their learning for personal development."[1] The University of Minnesota's Center for Applied Research and Educational Improvement (CAREI) serves as the external evaluator for VOBS programs.

Focus of the Evaluation

The purpose of this evaluation was twofold: (1) to develop an instrument that would help VOBS program staff to assess changes in participants' perceptions of themselves in the areas of *Emotion Management, Responsibility, Empathy, Initiative, Problem Solving, Teamwork, Persistence, and Service*; and (2) to analyze survey data from VOBS courses offered in spring and summer 2016.

Methods

Instrument Development

Historically, VOBS has used the Outward Bound Outcomes Instrument (OBOI) to examine the impact of their courses.[2] The OBOI was designed, in part, to measure the outcomes common to all Outward Bound courses: character, leadership, and service. Recently, however, VOBS participated in the Social and Emotional Learning (SEL) Challenge, which was a partnership between the Susan Crown Exchange, eight out-of-school time programs, the David P. Weikart Center for Youth Program Quality (CYPQ), and other researchers and consultants (Smith, McGovern, Peck, Larson, Hillaker, & Roy, 2016, p. 2).[3] "The partnership was created for two purposes: (1) identify promising practices for building social and emotional learning (SEL) skills with vulnerable adolescents, and (2) develop technical supports for use of these SEL practices at scale in several thousand OST settings" (Smith et al., 2016, p. 2). The SEL Challenge identified six areas for SEL skill growth: *Emotion Management*, *Empathy*, *Teamwork*, *Responsibility*, *Initiative*, and *Problem Solving*.[4]

Because of their work with the SEL Challenge, VOBS asked CAREI to design a new survey instrument that would assess changes in participants' perceptions in the six areas identified by the Challenge. Two additional factors were included that correspond to key elements in VOBS programming: *Persistence* and *Service*. CAREI examined the literature to better understand how these eight areas have been defined and measured. This work resulted in the development of the 37-item, retrospective pre/post *Changes in Social and Emotional Learning (CHiSEL) Survey*.[5] Using a scale of *Never, Almost Never, Sometimes, Almost Always,* and *Always*, survey participants read each of the 37 statements and then think about how they were before and after the trip with respect to the statement (See Appendix A for a copy of the CHiSEL Survey). Eight SEL factors are included in the CHiSEL Survey:

- *Emotion Management*
- *Responsibility*
- *Empathy*
- *Initiative*
- *Problem Solving*
- *Teamwork*
- *Persistence*
- *Service*

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[1] This information is taken directly from the VOBS web site: http://www.vobstwincities.org/.
[2] For more information, see: http://www.outwardboundcalifornia.org/about/impact/.
[3] Smith, C., McGovern, G., Peck, S.C., Larson, R., Hillaker, B., & Roy, L. (2016). *Preparing Youth to Thrive: Methodology and Findings from the Social and Emotional Learning Challenge.* Forum for Youth Investment, Washington, D.C.
[4] For more information, see: http://cypq.org/SELChallenge.
[5] A retrospective pre–post survey allows evaluators to collect information about how a participant felt before the program ("retrospective pre") and after ("post") the program in a single data collection event.

Table 1 shows the items that were used to create each of the eight SEL factors. For example, to determine the average rating by respondents in the pre-condition (i.e., how often they said they acted in a specific way before the course) for the factor *Emotion Management*, the ratings for Items Q1-Q6 are summed and then the mean is calculated. The same procedure is used to determine the mean in the post-condition for the *Emotion Management* factor. The mean difference and the percent change are also computed from pre- to post-condition. The mean difference is calculated by subtracting the mean of all valid pre-condition values from the mean of all valid post-condition values.[6] The percent change is computed by first dividing the mean difference by the pre-condition mean and then multiplying that value by 100.[7] These same analytic procedures are used for all other factors.

Table 1. Eight Social and Emotional Learning Factors in the CHiSEL Survey

Item	SEL Factor
Q1. I am able to wait my turn, even when I am excited about something.	Emotion Management
Q2. I can control my behavior when I am frustrated or mad.	Emotion Management
Q3. I know what to do to calm myself down when I am stressed.	Emotion Management
Q4. I can identify my emotions.	Emotion Management
Q5. I think before I act.	Emotion Management
Q6. I am able to adapt when things change.	Emotion Management
Q7. I know my actions have consequences.	Responsibility
Q8. I come prepared for activities.	Responsibility
Q9. People can depend on me.	Responsibility
Q10. I take responsibility for my actions.	Responsibility
Q11. I am able to think about how another person feels.	Empathy
Q12. I know how my behavior affects others.	Empathy
Q13. I treat others with respect.	Empathy
Q14. I am aware of my own strengths.	Empathy
Q15. I don't do something that I feel is wrong just because others are doing it.	Empathy
Q16. I can set realistic goals for myself.	Initiative
Q17. I seek out guidance from others when I need it.	Initiative
Q18. I willingly share my opinions.	Initiative
Q19. When I see something that needs to be done, I do it without being asked.	Initiative
Q20. I try challenging things.	Initiative
Q21. If I decide to learn something, I can do it.	Initiative
Q22. I am able to overcome barriers to complete a task.	Problem Solving
Q23. I can take steps to solve a problem.	Problem Solving
Q24. I approach problem solving with an open mind.	Problem Solving
Q25. I can work with different types of people.	Teamwork
Q26. I can put my own needs aside to help the group meet its goal.	Teamwork
Q27. I can work with others to accomplish a task.	Teamwork
Q28. I am able to resolve disagreements positively.	Teamwork
Q29. I can identify other peoples' strengths.	Teamwork
Q30. When I am working in a group, I make sure to do my part.	Teamwork
Q31. Even when something is hard, I follow through to finish it.	Persistence (shorter-term)
Q32. I am proud of my schoolwork.	Persistence (shorter-term)
Q33. I have learned things I can do to take care of the environment.	Service
Q34. I think I have a role to play in protecting nature.	Service
Q35. I now see connections between the environment and my life.	Service
Q36. I play a role in making the world a better place to live.	Service
Q37. I have a role in making sure all people are treated fairly.	Service

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[6] Mean difference is calculated as follows: $Post_{MEAN} - Pre_{MEAN}$
[7] The percent change is calculated as follows: $[(Post_{MEAN} - Pre_{MEAN})/ Pre_{MEAN} * 100]$

Survey Administration

Between May and August 2016, VOBS led 44 trips that varied in length from less than one week to greater than one month. Course leaders administered a paper version of the *Changes in Social and Emotional Learning (CHiSEL) Survey* to participants at the completion of each of the 44 Outward Bound program trips. The completed surveys were analyzed by CAREI. This report provides information across all 44 trips.[8]

Demographic information about respondents (grade level, race/ethnicity, and gender) was analyzed and is shown as the number and percent of respondents in each category. For all items on the survey, the percent of respondents selecting each response category (*Never, Almost Never, Sometimes, Almost Always,* and *Always*) was calculated for both the pre- and post-conditions. This information is shown in both figure and table format (in the Results section and Appendix B, respectively). In addition, the survey data were analyzed by each of the eight SEL factors mentioned above (*Emotion Management*, *Responsibility*, *Empathy*, *Initiative*, *Problem Solving*, *Teamwork*, *Persistence*, and *Service*). The information by factor is presented as the mean response across items in a factor for the pre- and post-conditions; the mean difference (calculated by subtracting the mean response across items in a factor for the pre-condition from the mean response across items in a factor for the post-condition); and finally, the percent change (calculated by determining the quotient of the mean difference divided by the pre-condition mean and then multiplying by 100).

Results

The results section is organized into three subsections: (1) information about respondents, (2) reported changes in respondents by item, and (3) reported changes in respondents by each of the eight SEL factors.

Information about Respondents

Course leaders administered the *CHiSEL Survey* to participants at the completion of the 44 spring and summer 2016 Outward Bound program trips. Four hundred sixty-four youth participants (464) completed the survey. Participants were asked to report their grade level, race/ethnicity, and gender. Four hundred thirty-eight of the respondents (94%) provided information about their grade level (see Table 2). Thirteen percent (13%) identified themselves as post-secondary, 75% identified as high school students, and 11% identified as middle school students. The majority of respondents were male (66%; see Table 3). Table 4 shows that about half of the respondents identified themselves as Caucasian (49%). Nineteen percent (19%) of the respondents identified as Hispanic or Latino, 10% identified as African American, 10% identified as Multi-Ethnic -- the remaining 12% identified as Other (6%), Asian American (5%), Native Hawaiian or Pacific Islander (<1%), or American Indian or Alaskan Native (<1%).

Table 2. Self-Reported Grade Level

Grade Band	Count	Percent
Middle School	48	11%
High School	330	75%
Post-Secondary	60	14%
Total	**438**	**100%**

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[8] The results for each of the 44 course trips was also prepared and provided to VOBS in a separate document. Each course report contains information about that trip's respondents (percent of respondents in each category). In addition, the percent of respondents selecting each response category was calculated for the pre and post-conditions and is presented in figure format.

Table 3. Self-Reported Gender

Gender	Count	Percent
Female	146	33%
Male	296	66%
Other	7	1%
Total	**449**	**100%**

Table 4. Self-Reported Race/Ethnicity

Race/Ethnicity	Count	Percent
African American	46	10%
Asian American	22	5%
Caucasian	223	49%
Hispanic or Latino	87	19%
American Indian or Alaskan Native	2	<1%
Native Hawaiian or Pacific Islander	3	<1%
Multi-Ethnic	44	10%
Other	27	6%
Total	**454**	**100%**

Respondent Changes Reported by Item

Changes in the way respondents thought about themselves before the trip to how they felt after the trip are documented by their responses to items on the CHiSEL Survey. In Figures 1-7 below, the "Pre" bar for each item shows how respondents felt about themselves before the course; the "Post" bar shows how they rated themselves after the course.[9] Appendix B shows the percent of respondents selecting each response option (*Never, Almost Never, Sometimes, Almost Always,* or *Always*) for each item in table format. The number of people responding to each item is not reported because there was only minimal variability across all 37 items (i.e., the number of people answering each item ranged from n = 441 to n = 460, as shown in Table C1 in Appendix C).

For each statement in Figure 1, the percentage of *almost always* and *always* responses increased by 24-33% from pre- to post-program. For example, 60% of the respondents selected *almost always* or *always* when thinking about how they were before the trip regarding the statement, "*I am able to wait my turn, even when I am excited about something,*" (item 1), while 89% selected *almost always* or *always* when thinking about that statement in terms of themselves after the trip. Similarly, the percent of respondents who selected *almost always* or *always* increased from 44% to 77% for item 2, "*I can control my behavior when I am frustrated or mad;*" from 47% to 78% for item 3, "*I know what to do to calm myself down when I am stressed;*" from 57% to 81% for item 4, "*I can identify my emotions;*" and from 45% to 76% for item 5, "*I think before I act.*"

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[9] Note that percentages in the figures may not add up to 100% due to rounding error.
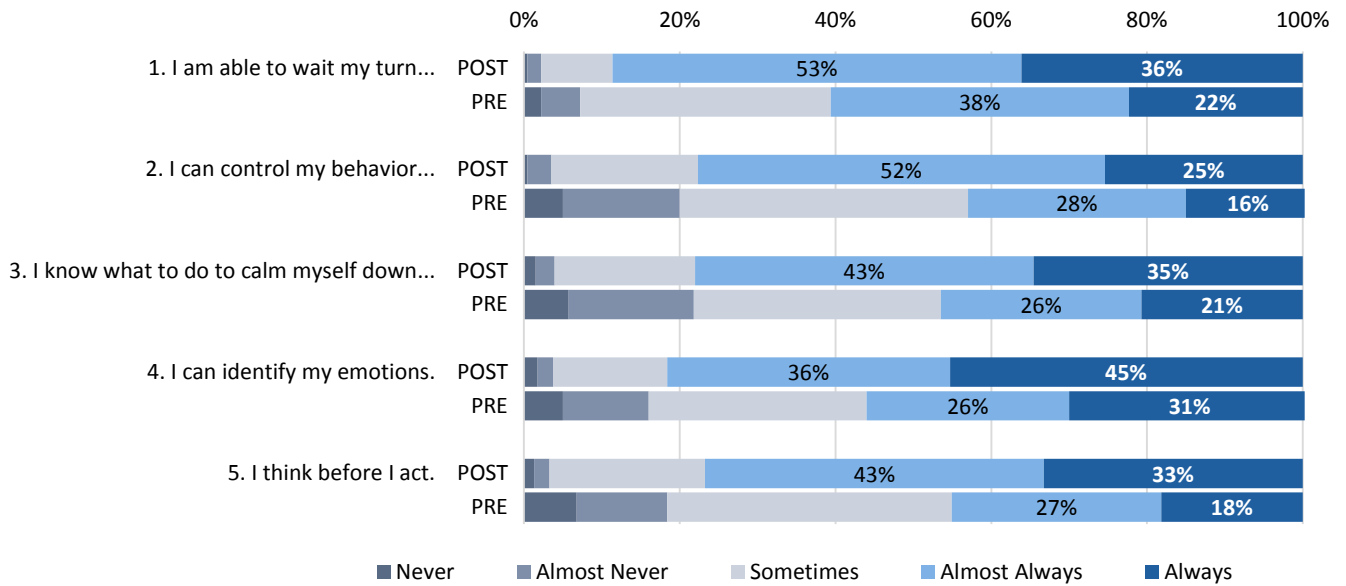
Figure 1. Distribution of Responses for Items 1-5

As with the response patterns for items 1-5, the responses to items 6-10 show an increase in the proportion of respondents selecting *almost always* or *always* when thinking about themselves in relation to each statement after the program (Figure 2). For example, the proportion of respondents who selected *almost always* or *always* increased 34% for item 6, "*I am able to adapt when things change*" (from 50% to 84%). As demonstrated by the increase from pre- to post-condition ratings in the proportion of *almost always* and *always* responses, respondents report an increased ability to know their actions have consequences, come prepared for activities, be dependable, and take responsibility for their actions.
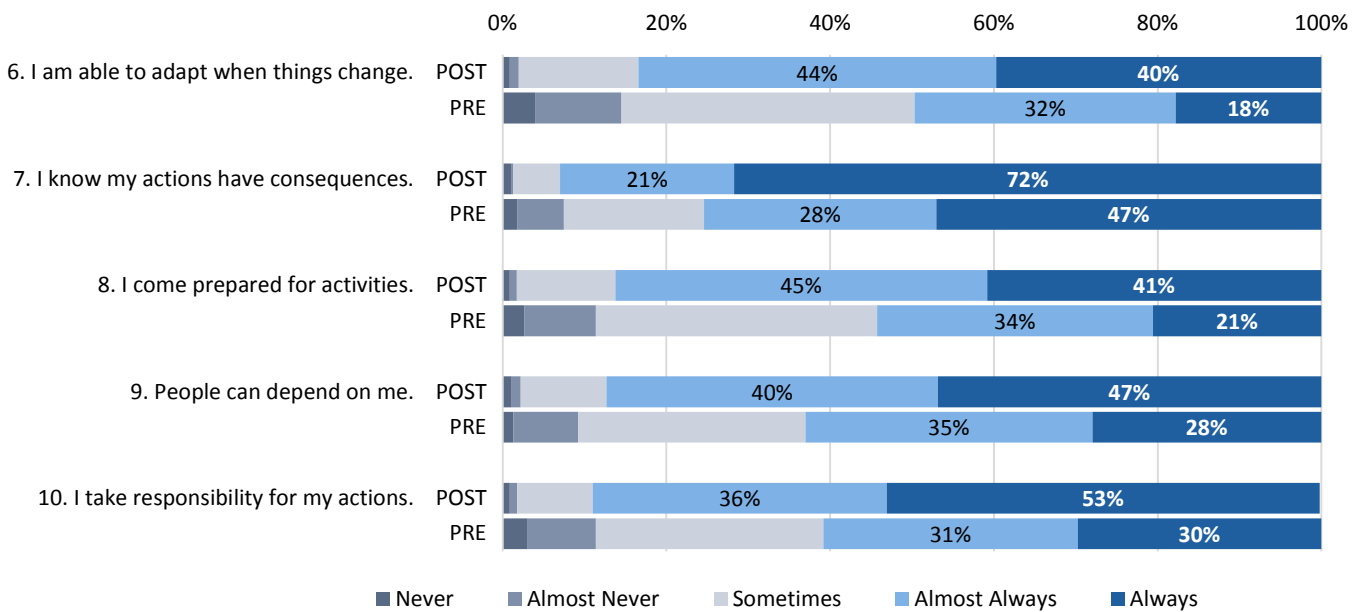

Figure 2. Distribution of Responses for Items 6-10

Items 11-15 provide some insight into respondents' perceptions of their empathy, abilities, and integrity. The response patterns to these items (see Figure 3) continue to demonstrate a positive shift in responses, with an increased proportion of *almost always* and *always* responses from pre- to post-condition. For example, there was a 26% increase in the percentage of respondents selecting *always* post-condition for item 11 ("*I am able to think about how another person feels*") and item 12 ("*I know how my behavior affects others*") and a 23% increase in those selecting *always* post-condition for item 15 ("*I don't do something that I feel is wrong just because others are doing it*"). This demonstrates an increase in respondents' reported abilities to think about how another person feels, know how their behavior affects others, treat others with respect, be aware of their own strengths, and not follow peers' negative actions.
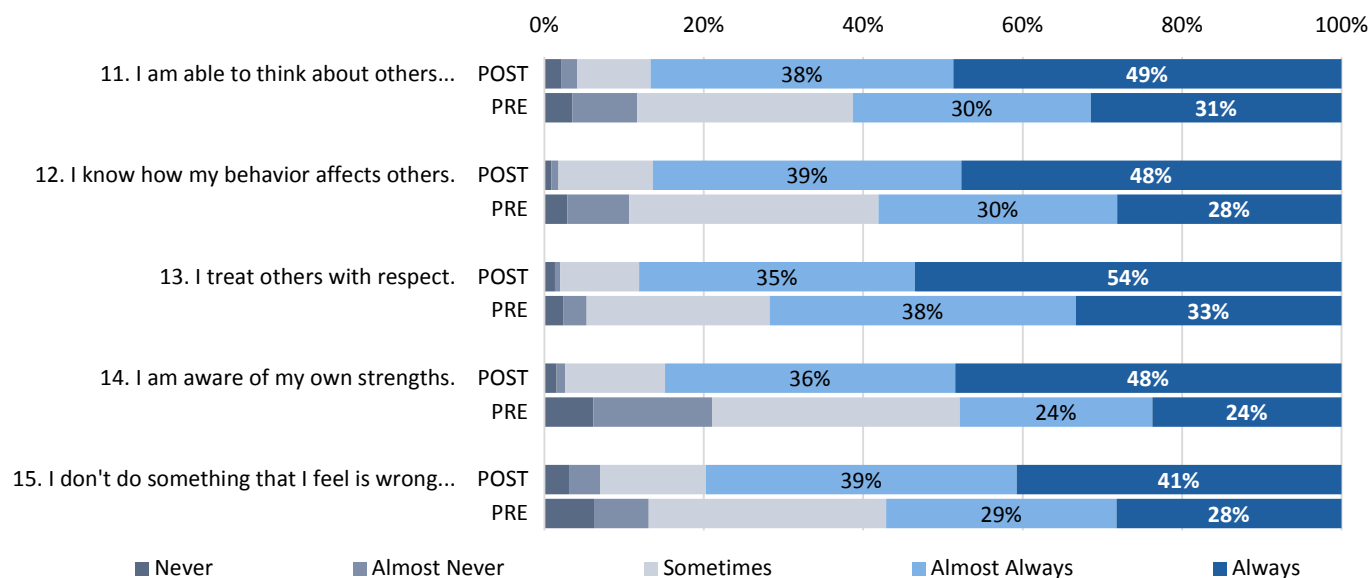

Figure 3. Distribution of Responses for Items 11-15

The response patterns to items 16-20 again show positive shifts in responses from pre- to post-program (see Figure 4). For all items, the percentage of respondents selecting *never* and *almost never* decreased from the pre-program ratings to post-program ratings, while the percentage of respondents selecting *always* increased. Thus, on average, respondents reported increased frequency for setting realistic goals, seeking guidance when needed, sharing opinions willingly, doing things that need to be done without being asked, and trying challenging things.

All items in Figure 5 (items 21-25) again show that, in their "after the trip" ratings, a larger proportion of respondents selected the response option *always* and fewer selected *almost never*. Respondents reported increased frequency in their ability to learn something when they decide to, to overcome barriers to complete a task, to take steps to solve a problem, to keep an open mind, and to work with different kinds of people.

For items 26-30, the proportion of *always* responses increased in the pre- to post-program ratings and the proportion of *almost never* and *sometimes* ratings decreased (see Figure 6). For example, the percent of respondents selecting *always* increased by 34% from the pre- to post-program rating for item 26 ("*I can put my own needs aside to help the group meet its goal*") and by 22% from the pre- to post-program rating for item 27, "*I can work with others to accomplish a task.*" In addition, the percent of respondents selecting *always* increased by 27% from the pre- to post-program rating for item 30, "*When I am working in a group, I make sure to do my part.*"
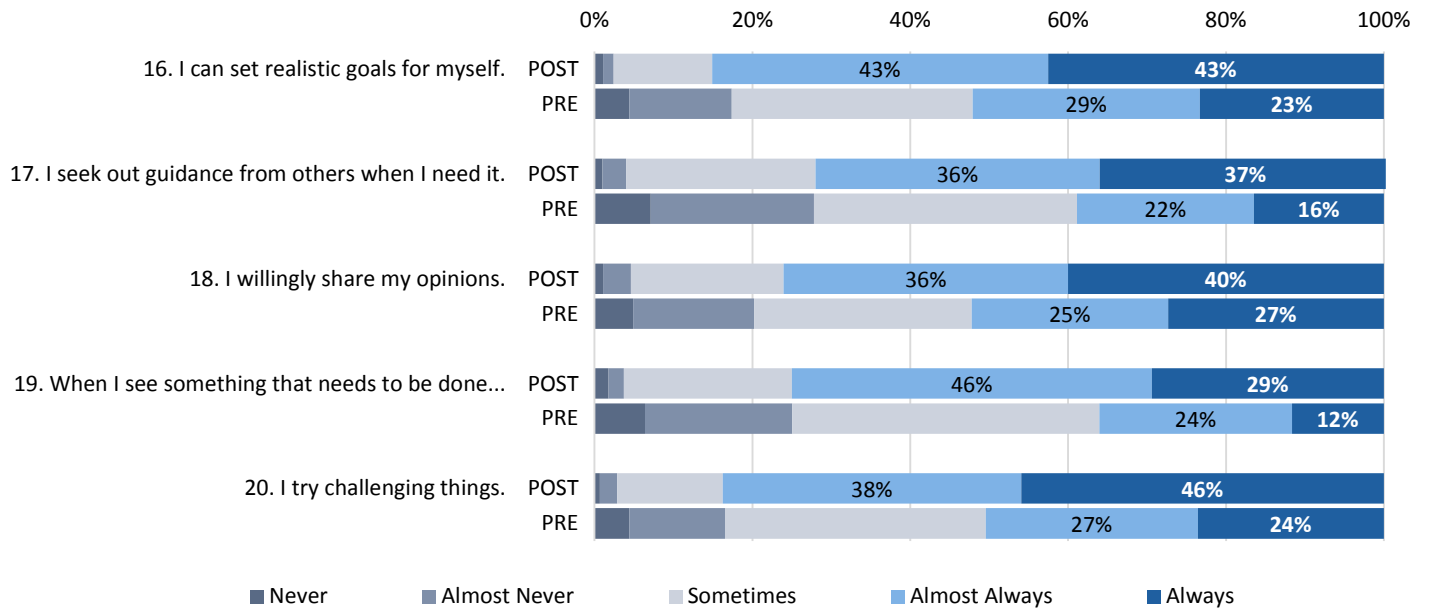
Figure 4. Distribution of Responses for Items 16-20
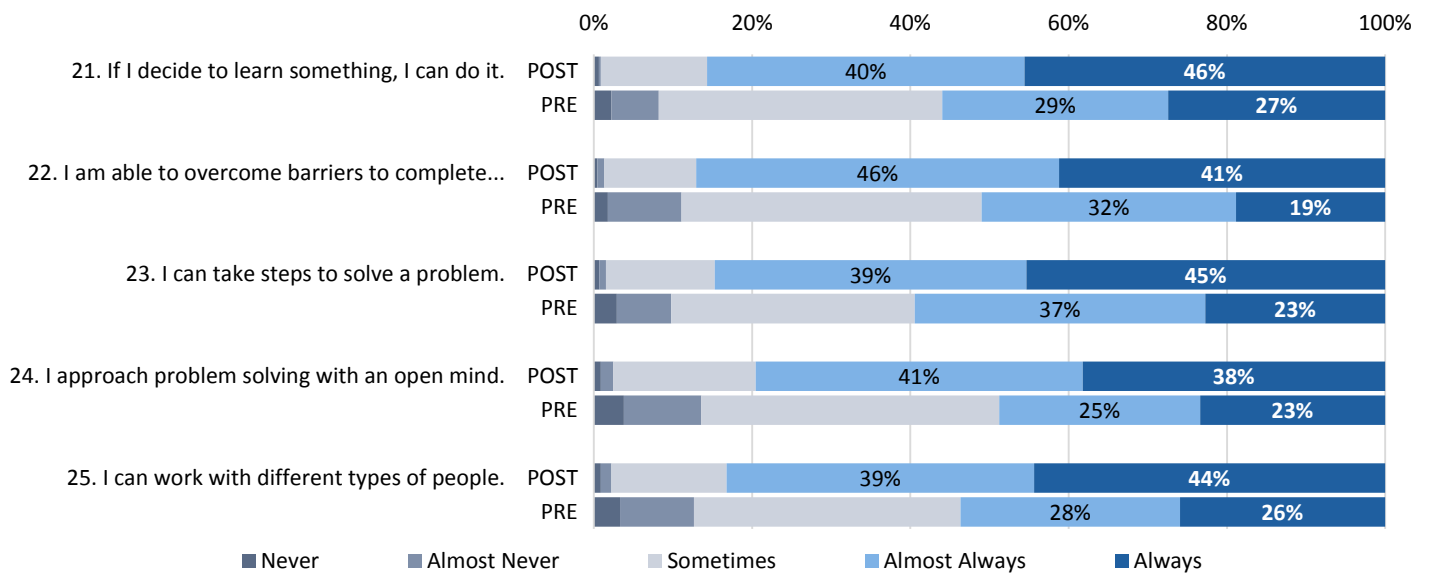
Figure 5. Distribution of Responses for Items 21-25
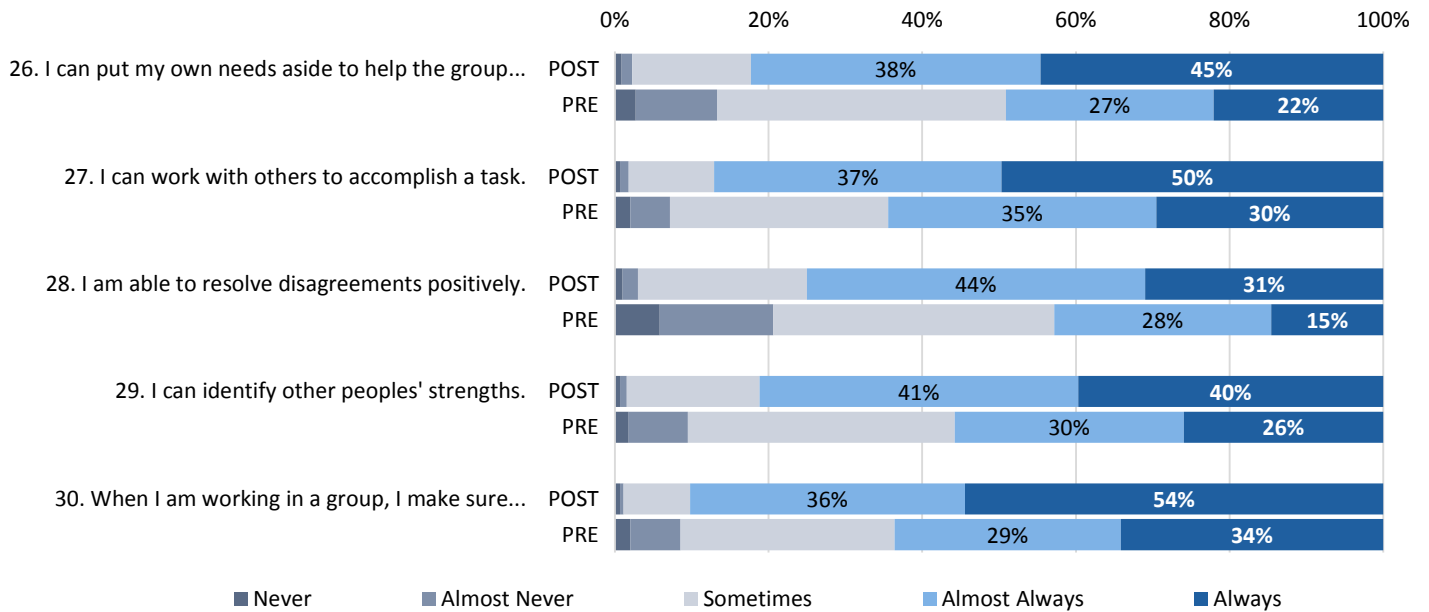
Figure 6. Distribution of Responses for Items 26-30

Consistent with the response patterns for the previous 30 items, the respondents demonstrated a positive shift again from pre- to post-program when responding to the statements in items 31-37 (i.e., as shown in Figure 7, there is an increased proportion of *always* responses and decreased proportions of *never* and *almost never* responses). A particularly large shift was evident for three items:

- item 33, "*I have learned things I can do to take care of the environment,*" increased from 24% of the respondents selecting *always* on the pre-program rating to 53% selecting *always* on the post-program rating (an increase of 29%);
- item 31, "*Even when something is hard, I follow through and finish it,*" increased from 21% of the respondents selecting *always* on the pre-program rating to 48% selecting *always* on the post-program rating (an increase of 27%); and
- item 36, "*I play a role in making the world a better place to live,*" increased from 24% of the respondents selecting *always* on the pre-program rating to 49% selecting *always* on the post-program rating (an increase of 25%).
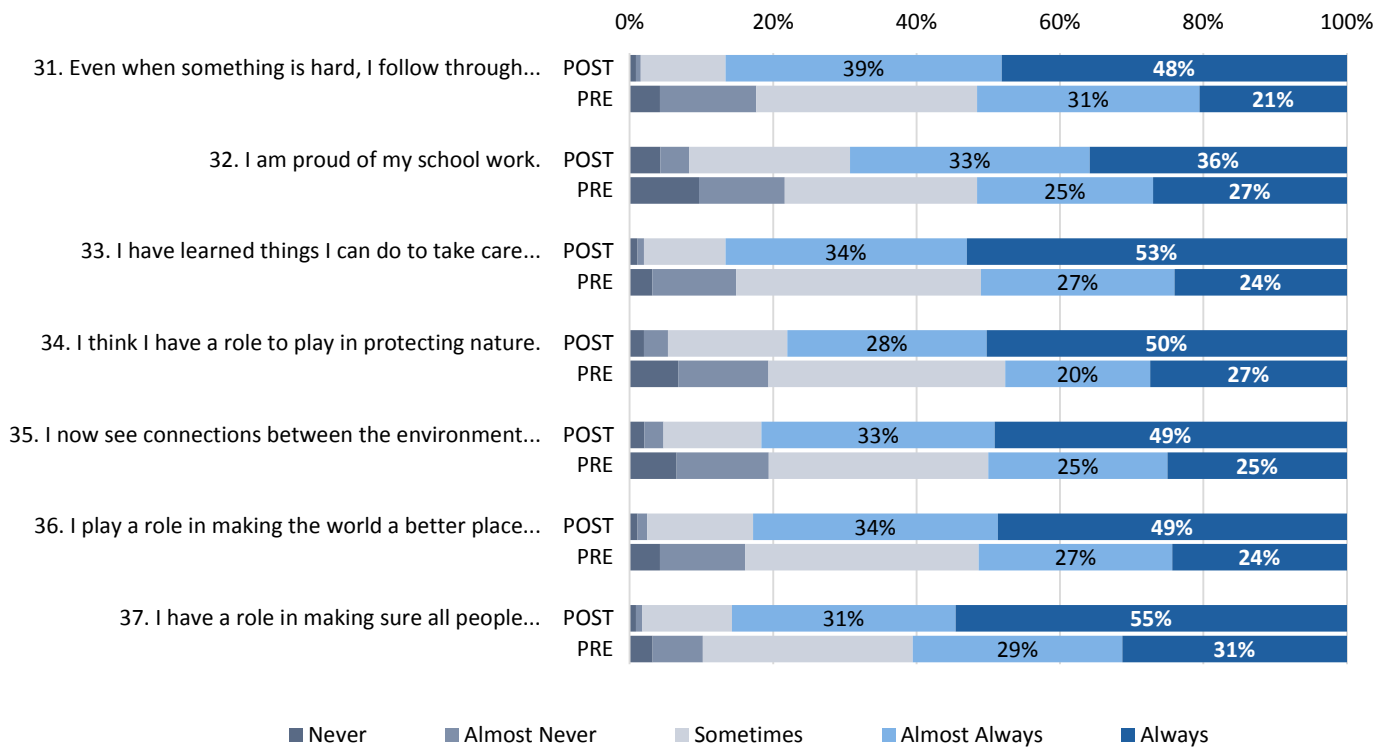
Figure 7. Distribution of Responses for Items 31-37

Respondent Changes Reported by SEL Factor

In Tables 5-12, we present a summary of the data for each SEL Factor. The columns of the tables (from left to right) identify the variable and subcategories; the pre-program mean for all valid participants[10]; the post-program mean for all participants; the mean difference[11]; and the percent change[12]. The rows of the tables present the changes in pre- to post-factor scores based on gender, age, ethnicity, and trip length. Note that for each table, the *n* for subcategories (e.g., gender, grade, ethnicity, and trip length) will not always sum to the overall *n* because some of the records may have missing data for these subcategories. Also, due to the small samples sizes in some of the groups, findings (especially when comparing across groups) must be interpreted with caution.

For example, the overall percent change for *Emotion Management* is 21.8%. This summarizes the average amount of growth as a percent change from pre-program to post-program conditions and, in this case, that growth was 21.8% (see Table 5). Females showed a slightly larger percent increase (23.9%) as compared to males (21.4%) from the pre- to post-condition. High school-aged respondents, the largest subgroup, showed a slightly larger percent change (23.9%) than middle school participants (21.7%) or post-secondary respondents (15.2%). The percent change for white respondents (21.5%) and respondents of color (22.2%) were similar (both around 22%). Percent increases based on trip length ranged from 7.3% to 31.0%.[13]

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[10] A valid participant is one that has both a pre- and post-condition mean for that SEL factor.
[11] The mean difference is calculated as follows: $Post_{MEAN} - Pre_{MEAN}$
[12] The percent change is calculated as follows: $[(Post_{MEAN} - Pre_{MEAN})/ Pre_{MEAN} * 100]$
[13] Note that percent change is computed first for each record (valid participant) and then the average across valid participants is calculated.

Table 5. Pre- and post-program means, mean difference, and percent change for *Emotion Management*

EMOTION MANAGEMENT				
	PRE	POST	Mean Diff	% Change
Overall (*n* = 436)*	3.51	4.13	.62	21.8%
Gender				
Male (*n* = 274)	3.57	4.18	.61	21.4%
Female (*n* = 143)	3.39	4.05	.66	23.9%
Other (*n* = 6)	3.56	4.03	.47	13.9%
Grade				
Middle School (*n* = 41)	3.32	3.87	.55	21.7%
High School (*n* = 313)	3.48	4.15	.67	23.9%
Post-Secondary (*n* = 59)	3.76	4.26	.49	15.2%
Ethnicity				
White (*n* = 208)	3.58	4.22	.64	21.5%
Students of Color (*n* = 228)	3.44	4.05	.60	22.2%
Trip Length				
<1 day (*n* = 11)	2.95	3.64	.68	31.0%
<1 week (*n* = 149)	3.59	4.04	.45	16.0%
1 to 2 weeks (*n* = 22)	3.73	4.00	.27	7.3%
3+ weeks (*n* = 119)	3.52	4.23	.71	23.7%
1+ month (*n* = 17)	3.37	4.18	.80	27.4%

* The *n* for subcategories (e.g., gender, grade, ethnicity, and trip length) will not always sum to the overall *n* because some of the records may have missing data for these subcategories.

For the items related to *Responsibility*, the overall percent increase from the pre- to post-program condition was 19%. Table 6 shows that the percent change for gender ranged from 17.3% (other genders) to 20.9% (females). The percent change for post-secondary respondents was 14.2%, which was lower than for the middle or high school respondents (18.5% and 20.4%, respectively). The percent change for white respondents was 18.5% and 19.4% for students of color. The percent increase for trip length for *Responsibility* ranged from 11.3% to 34.1%.

Table 6. Pre- and post-program means, mean difference, and percent change for *Responsibility*

RESPONSIBILITY				
	PRE	POST	Mean Diff	% Change
Overall (*n* = 439)	3.83	4.39	.56	19.0%
Gender				
Male (*n* = 280)	3.83	4.38	.56	18.3%
Female (*n* = 140)	3.87	4.46	.59	20.9%
Other (*n* = 6)	3.67	4.25	.58	17.3%
Grade				
Middle School (*n* = 44)	3.68	4.15	.47	18.5%
High School (*n* = 315)	3.80	4.41	.60	20.4%
Post-Secondary (*n* = 56)	4.11	4.58	.47	14.2%
Ethnicity				
White (*n* = 209)	3.88	4.47	.59	18.5%
Students of Color (*n* = 230)	3.79	4.33	.54	19.4%
Trip Length				
<1 day (*n* = 11)	3.30	3.75	.45	19.8%
<1 week (*n* = 153)	3.88	4.28	.40	14.6%
1 to 2 weeks (*n* = 22)	4.05	4.45	.41	11.3%
3+ weeks (*n* = 119)	3.92	4.53	.61	19.9%
1+ month (*n* = 17)	3.44	4.47	1.03	34.1%

For items related to the *Empathy* factor, the overall percent change from the pre-program to post-program condition resulted in a 19.4% increase (see Table 7). The percent increase for females was higher (22.0%) than males (19.3%) and respondents of other genders (10.4%). The increase for high school respondents (21.4%) was higher than that for post-secondary (13.7%) or middle school (17.9%) respondents. The percent change for white respondents was 20.3%, and the percent change for respondents of color was 18.6%. The percent increase for trip length ranged from 10.9% to 26.6%.

Table 7. Pre- and post-program means, mean difference, and percent change for *Empathy*

EMPATHY				
	PRE	POST	Mean Diff	% Change
Overall (*n* = 430)	3.71	4.28	.57	19.4%
Gender				
Male (*n* = 273)	3.72	4.29	.56	19.3%
Female (*n* = 138)	3.69	4.32	.63	22.0%
Other (*n* = 6)	3.83	4.23	.40	10.4%
Grade				
Middle School (*n* = 41)	3.60	4.04	.44	17.9%
High School (*n* = 309)	3.68	4.29	.61	21.4%
Post-Secondary (*n* = 58)	3.98	4.47	.49	13.7%
Ethnicity				
White (*n* = 207)	3.78	4.39	.61	20.3%
Students of Color (*n* = 223)	3.65	4.18	.53	18.6%
Trip Length				
<1 day (*n* = 10)	3.18	3.56	.38	13.9%
<1 week (*n* = 146)	3.83	4.20	.37	12.6%
1 to 2 weeks (*n* = 22)	3.90	4.30	.40	10.9%
3$^+$ weeks (*n* = 120)	3.71	4.37	.66	21.8%
1$^+$ month (*n* = 17)	3.54	4.41	.87	26.6%

The percent increase from the pre-program to post-program condition for items related to *Initiative* was 25.9% (see Table 8). Females reported a slightly greater increase (29.8%) than males (24.5%) and respondents of other genders (22.0%). The percent change for high school respondents was 27.6%, as compared to 23.1% for post-secondary and 20.6% for middle school participants. Respondents who went on a month or longer trip reported larger percent increases in their responses to the *Initiative* items (43.1%) than respondents who went on shorter trips (the percent change ranged from 15.9% to 30.5%).

Table 8. Pre- and post-program means, mean difference, and percent change for *Initiative*

INITIATIVE				
	PRE	POST	Mean Diff	% Change
Overall (*n* = 432)	3.45	4.17	.72	25.9%
Gender				
Male (*n* = 273)	3.52	4.22	.70	24.5%
Female (*n* = 140)	3.30	4.09	.79	29.8%
Other (*n* = 6)	3.14	3.83	.69	22.0%
Grade				
Middle School (*n* = 44)	3.55	4.01	.46	20.6%
High School (*n* = 309)	3.40	4.17	.77	27.6%
Post-Secondary (*n* = 57)	3.63	4.34	.70	23.1%

Ethnicity				
White (*n* = 208)	3.52	4.25	.73	25.3%
Students of Color (*n* = 221)	3.38	4.09	.71	26.5%
Trip Length				
<1 day (*n* = 11)	3.20	3.65	.45	15.9%
<1 week (*n* = 144)	3.63	4.08	.45	16.7%
1 to 2 weeks (*n* = 20)	3.67	4.16	.49	16.3%
3⁺ weeks (*n* = 121)	3.41	4.29	.88	30.5%
1⁺ month (*n* = 18)	3.06	4.21	1.16	43.1%

The overall percent increase from the pre-program to post-program condition for items related to *Problem Solving* was 24.1% (see Table 9). The percent change for respondents of other genders was 31.9%, 28.3% for females, and 22.3% for males. The percent increase for white respondents (22.0%) was lower than the percent increase for respondents of color (26.1%). As with the previous factor, the percent increase for respondents who attended a trip lasting one month or longer (31.1%) saw the largest mean change from the pre- to post-program condition. However, due to the small size of this group (*n* = 17), the percentages must be interpreted with caution.

Table 9. Pre- and post-program means, mean difference, and percent change for *Problem Solving*

PROBLEM SOLVING				
	PRE	POST	Mean Diff	% Change
Overall (*n* = 433)	3.60	4.24	.64	24.1%
Gender				
Male (*n* = 279)	3.66	4.26	.60	22.3%
Female (*n* = 138)	3.48	4.22	.74	28.3%
Other (*n* = 6)	3.11	4.11	1.00	31.9%
Grade				
Middle School (*n* = 40)	3.57	4.08	.52	21.8%
High School (*n* = 315)	3.55	4.24	.68	25.9%
Post-Secondary (*n* = 57)	3.82	4.43	.61	19.5%
Ethnicity				
White (*n* = 212)	3.67	4.32	.65	22.0%
Students of Color (*n* = 221)	3.52	4.16	.64	26.1%
Trip Length				
<1 day (*n* = 11)	3.03	3.58	.55	22.6%
<1 week (*n* = 142)	3.81	4.18	.38	14.3%
1 to 2 weeks (*n* = 21)	3.97	4.32	.35	10.0%
3⁺ weeks (*n* = 125)	3.53	4.30	.77	28.3%
1⁺ month (*n* = 17)	3.31	4.18	.86	31.1%

The overall percent increase from the pre-program to post-program condition on items related to *Teamwork* was 20.1% (see Table 10). The percent change for males, females, and other genders ranged from 18.1% to 20.7%. High school respondents' reported a higher percent change (22.6%) than post-secondary (14.4%) and middle school respondents (14.8%). The greatest percent increase in *Teamwork* was for respondents who went on a trip lasting between three and four weeks (24.5%).

Table 10. Pre- and post-program means, mean difference, and percent change for *Teamwork*

TEAMWORK				
	PRE	POST	Mean Diff	% Change
Overall (*n* = 416)	3.67	4.26	.59	20.1%
Gender				
Male (*n* = 265)	3.67	4.28	.61	20.7%
Female (*n* = 135)	3.66	4.26	.60	20.1%
Other (*n* = 5)	3.60	4.20	.60	18.1%
Grade				
Middle School (*n* = 40)	3.62	4.03	.41	14.8%
High School (*n* = 300)	3.60	4.25	.65	22.6%
Post-Secondary (*n* = 57)	3.96	4.46	.49	14.4%
Ethnicity				
White (*n* = 200)	3.72	4.31	.60	19.4%
Students of Color (*n* = 216)	3.63	4.22	.59	20.6%
Trip Length				
<1 day (*n* = 9)	3.11	3.56	.44	14.8%
<1 week (*n* = 139)	3.83	4.16	.33	10.9%
1 to 2 weeks (*n* = 20)	4.00	4.37	.37	10.4%
3$^+$ weeks (*n* = 123)	3.66	4.37	.71	24.5%
1$^+$ month (*n* = 17)	3.63	4.30	.68	21.7%

The overall mean increase for items related to *Persistence* was 28.3% (see Table 11). The percent change for males, females, and other genders ranged from 28.2% to 29.1%. The percent change was 32.1% for post-secondary respondents, which was larger than that for high school (29.1%) or middle school (21.5%) respondents. The largest percent increase for any factor was observed for respondents who went on a month-long trip or longer (73.2% increase from pre-program condition to post-program condition). However, due to the small size of this group (*n* = 18), the percentages must be interpreted with caution.

Table 11. Pre- and post-program means, mean difference, and percent change for *Persistence*

PERSISTENCE				
	PRE	POST	Mean Diff	% Change
Overall (*n* = 431)	3.49	4.13	.65	28.3%
Gender				
Male (*n* = 274)	3.49	4.13	.65	29.1%
Female (*n* = 140)	3.49	4.16	.67	28.2%
Other (*n* = 6)	3.25	3.92	.67	28.3%
Grade				
Middle School (*n* = 42)	3.39	3.81	.42	21.5%
High School (*n* = 313)	3.47	4.15	.67	29.1%
Post-Secondary (*n* = 56)	3.67	4.38	.71	32.1%
Ethnicity				
White (*n* = 204)	3.46	4.14	.68	29.0%
Students of Color (*n* = 227)	3.51	4.13	.61	27.6%
Trip Length				
<1 day (*n* = 11)	2.82	3.45	.64	25.2%
<1 week (*n* = 144)	3.70	4.03	.34	13.5%
1 to 2 weeks (*n* = 21)	3.74	4.26	.52	15.5%
3$^+$ weeks (*n* = 121)	3.58	4.30	.72	30.1%
1$^+$ month (*n* = 18)	2.72	4.03	1.31	73.2%

For items related to *Service*, the overall percent increase from the pre- to post-program condition was 27.4% (see Table 12). The percent change was 36.8% for respondents of other genders, 32.0% for females, and 25.4% for males. The percent change for high school students (30.2%) was larger than for either post-secondary (19.6%) or middle school respondents (20.7%). The percent change for respondents of color (31.4%) was higher than that of white respondents (23.2%). The highest mean increase by trip length was for respondents whose trip lasted more than three weeks (31.2%).

Table 12. Pre- and post-program means, mean difference, and percent change for *Service*

SERVICE				
	PRE	POST	Mean Diff	% Change
Overall (*n* = 420)	3.57	4.30	.74	27.4%
Gender				
Male (*n* = 267)	3.56	4.24	.68	25.4%
Female (*n* = 137)	3.60	4.46	.86	32.0%
Other (*n* = 6)	3.17	4.03	.87	36.8%
Grade				
Middle School (*n* = 42)	3.57	4.09	.52	20.7%
High School (*n* = 304)	3.50	4.30	.80	30.2%
Post-Secondary (*n* = 57)	3.89	4.50	.60	19.6%
Ethnicity				
White (*n* = 203)	3.69	4.34	.66	23.2%
Students of Color (*n* = 217)	3.45	4.26	.81	31.4%
Trip Length				
<1 day (*n* = 10)	3.18	3.84	.66	27.1%
<1 week (*n* = 137)	3.80	4.22	.42	14.8%
1 to 2 weeks (*n* = 21)	3.73	4.27	.53	15.4%
3$^+$ weeks (*n* = 123)	3.52	4.36	.84	31.2%
1$^+$ month (*n* = 18)	3.44	4.31	.87	29.4%

Summary of the Findings

During the spring and summer of 2016, Voyageur Outward Bound School (VOBS) offered a variety of programming. The courses occurred between May and August 2016, and all courses varied in length. The 37-item Changes in Social and Emotional Learning (CHiSEL) Survey was administered to participants enrolled in the 44 program trips. Changes in the way respondents thought about themselves before the trip to how they felt after the trip were documented by their responses to items on the CHiSEL Survey.

Four hundred sixty-four students (464) completed the survey. Information on the grade level, race/ethnicity, and gender of participants was reported on the survey by the participants. Four hundred thirty-eight (438) youth respondents (94%) provided information about their grade level. The majority of the respondents identified as high school youth (75%). Thirteen percent (13%) of the respondents identified themselves as post-secondary and 11% identified as middle school youth. The majority of respondents were male (66%). About half of the respondents identified themselves as Caucasian (49%) and half as respondents of color (51%).

Respondent Changes by Item

Notably, for all 37 items, the percentage of respondents selecting *always* increased from pre- to post-program. Eight items exhibited the largest shifts to the *always* category, with more than half of the respondents indicating that they *always* did these things. These eight items clustered in factors that related to *Responsibility*, *Empathy* and *Teamwork*, and *Service* and connections to the environment.

Responsibility
> I know my actions have consequences. (72% *always*)
> I take responsibility for my actions. (53% *always*)

Empathy* and *Teamwork
> I treat others with respect. (54% *always*)
> When I am working in a group, I make sure to do my part. (54% *always*)
> I can work with others to accomplish a task. (50% *always*)

***Service* and connections to the environment**
> I have a role in making sure all people are treated fairly. (55% *always*)
> I have learned things I can do to take care of the environment. (53% *always*)
> I think I have a role to play in protecting nature. (50% *always*)

In addition, the positive shift from before the trip to after the trip is evident in the percentage of respondents who answered *always* in their post-program ratings of themselves as compared to the percent who answered *always* in their pre-program ratings. The percent of respondents selecting *always* increased, on average, 19% from the pre-program to post-program rating (the range was from 9% to 29%). A particularly large shift was evident on four items:

- an additional 29% of the respondents selected *always* in their post-condition rating of the statement, "*I have learned things I can do to take care of the environment*" (item 33);
- an additional 27% selected *always* in their post-condition rating of the statement, "*Even when something is hard, I follow through*" (item 31);
- an additional 24% selected *always* in their post-condition rating of the statement, "*I am aware of my own strengths*" (item 14); and
- an additional 25% selected *always* in their post-condition rating of the statement, "*I know my actions have consequences*" (item 7).

Respondent Changes by Factor

There was an overall percent increase from pre- to post-program ratings for all eight factors. There were no decreases for any factor or any demographic group. The percent change overall ranged from 19.0% for *Responsibility* to 28.3% for *Persistence*.

For respondents who provided their gender identity, the percent change for respondents who identify as male ranged from 18.3% (*Responsibility*) to 29.1% (*Persistence*); the percent change for females ranged from 20.1% (*Teamwork*) to 32.0% (*Service*); and the percent change for those who identify as other ranged from a low of 10.4% (*Empathy*) to a high of 36.8% (*Service*). Additionally, in six of the eight factors (*Emotion Management, Responsibility, Empathy, Initiative, Problem Solving,* and *Service*) individuals who identified as female or other, saw greater percent increases when compared to males.

In general, high school students often had greater increases than post-secondary or middle school respondents did, although post-secondary respondents had the greatest increase on *Persistence* (32.1%). The percent change for middle school respondents ranged from 14.8% (*Teamwork*) to 21.8% (*Problem Solving*); the percent change for high school respondents ranged from 20.4% (*Responsibility*) to 30.2% (*Service*); and the percent change for post-secondary respondents ranged from 13.7% (*Empathy*) to 32.1% (*Persistence*).

For six of the eight factors (*Emotion Management, Responsibility, Empathy, Initiative, Problem Solving,* and *Service*) students of color experienced greater percent increases than did their white student counterparts. The percent change

for white students ranged from a low of 18.5% (*Responsibility*) to a high of 29.0% (*Persistence*). The percent change for students of color ranged from 18.6% (*Empathy*) to 31.4% (*Service*).

Some of the greatest percent increases occurred for those individuals participating in trips lasting one month or longer. In fact, the highest percent increase for any factor, 73.2%, occurred for the *Persistence* factor with respondents who had participated on a trip that lasted one month or longer. However, due to the small size of this group, the percentages must be interpreted with caution.

In summary, respondents who completed the survey perceived a positive shift in their behaviors in the six SEL challenge factors (*Emotion Management, Responsibility, Empathy, Initiative, Problem Solving, Teamwork*) as well as the two additional factors (*Persistence* and *Service*). This was evident from the increase in the percent of respondents shifting their selections from *never*, *almost never*, or *sometimes* to *almost always* or *always* in their post-condition ratings, as well as by the mean increases (and percent change) from the pre-program to post-program ratings on each of the 8 SEL factors.

Appendix A: CHiSEL Survey Instrument

This is a questionnaire, NOT a test. There are no right answers or wrong answers. Your responses are optional, but your answers will help improve the program. If you choose not to answer, it won't affect your grades or your relationship with your teacher, your school, or VOBS staff members. **_Thank you for your help!_**

YOUR NAME: _____ COURSE NUMBER: _____ DATE: _____

DIRECTIONS. _Read each statement below. First, think about how you were before the course and rate yourself in the BEFORE THE COURSE columns. Then, think about how the course may have changed you and rate yourself in the AFTER THE COURSE (NOW) columns. Choose the best answer for each statement by completely filling in an oval._

NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALWAYS	ALWAYS	**BEFORE THE COURSE** ↙ **AFTER THE COURSE (NOW)** ↘	NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALWAYS	ALWAYS
O	O	O	O	O	1. I am able to wait my turn, even when I am excited about something……….	O	O	O	O	O
O	O	O	O	O	2. I can control my behavior when I am frustrated or mad………………………	O	O	O	O	O
O	O	O	O	O	3. I know what to do to calm myself down when I am stressed…………………….	O	O	O	O	O
O	O	O	O	O	4. I can identify my emotions………………………………………………………………..	O	O	O	O	O
O	O	O	O	O	5. I think before I act…………………………………………………………………………….	O	O	O	O	O
O	O	O	O	O	6. I am able to adapt when things change………………………………………………..	O	O	O	O	O
O	O	O	O	O	7. I know my actions have consequences…………………………………………………	O	O	O	O	O
O	O	O	O	O	8. I come prepared for activities…………………………………………………………..	O	O	O	O	O
O	O	O	O	O	9. People can depend on me………………………………………………………………….	O	O	O	O	O
O	O	O	O	O	10. I take responsibility for my actions………………………………………………….…	O	O	O	O	O
O	O	O	O	O	11. I am able to think about how another person feels………………………………..	O	O	O	O	O
O	O	O	O	O	12. I know how my behavior affects others…………………………………………….……	O	O	O	O	O
O	O	O	O	O	13. I treat others with respect………………………………………………………………….	O	O	O	O	O
O	O	O	O	O	14. I am aware of my own strengths…………………………………………………………..	O	O	O	O	O
O	O	O	O	O	15. I don't do something that I feel is wrong just because others are doing it.…	O	O	O	O	O
O	O	O	O	O	16. I can set realistic goals for myself………………………………………………………..	O	O	O	O	O
O	O	O	O	O	17. I seek out guidance from others when I need it………………………………………	O	O	O	O	O
O	O	O	O	O	18. I willingly share my opinions………………………………………………………………..	O	O	O	O	O
O	O	O	O	O	19. When I see something that needs to be done, I do it without being asked.	O	O	O	O	O

NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALWAYS	ALWAYS	BEFORE THE COURSE ↙ AFTER THE COURSE (NOW) ↘	NEVER	ALMOST NEVER	SOMETIMES	ALMOST ALWAYS	ALWAYS
O	O	O	O	O	20. I try challenging things..	O	O	O	O	O
O	O	O	O	O	21. If I decide to learn something, I can do it...	O	O	O	O	O
O	O	O	O	O	22. I am able to overcome barriers to complete a task..................................	O	O	O	O	O
O	O	O	O	O	23. I can take steps to solve a problem..	O	O	O	O	O
O	O	O	O	O	24. I approach problem solving with an open mind..	O	O	O	O	O
O	O	O	O	O	25. I can work with different types of people...	O	O	O	O	O
O	O	O	O	O	26. I can put my own needs aside to help the group meet its goal......................	O	O	O	O	O
O	O	O	O	O	27. I can work with others to accomplish a task...	O	O	O	O	O
O	O	O	O	O	28. I am able to resolve disagreements positively..	O	O	O	O	O
O	O	O	O	O	29. I can identify other peoples' strengths...	O	O	O	O	O
O	O	O	O	O	30. When I am working in a group, I make sure to do my part............................	O	O	O	O	O
O	O	O	O	O	31. Even when something is hard, I follow through to finish it............................	O	O	O	O	O
O	O	O	O	O	32. I am proud of my school work..	O	O	O	O	O
O	O	O	O	O	33. I have learned things I can do to take care of the environment....................	O	O	O	O	O
O	O	O	O	O	34. I think I have a role to play in protecting nature......................................	O	O	O	O	O
O	O	O	O	O	35. I now see connections between the environment and my life......................	O	O	O	O	O
O	O	O	O	O	36. I play a role in making the world a better place to live................................	O	O	O	O	O
O	O	O	O	O	37. I have a role in making sure all people are treated fairly.............................	O	O	O	O	O

ABOUT YOU: Fill in the oval that *best* applies.

38. I describe myself as:

    O   African American

    O   Asian American

    O   Caucasian

    O   Hispanic or Latino

    O   American Indian or Alaskan Native

    O   Native Hawaiian or Pacific Islander

    O   Multi-Ethnic

    O   Other

39. I describe myself as:

    O   Female

    O   Male

    O   _____

40. What grade are you currently in?

    O   Grade: _____

Appendix B: Survey Results Presented in Table Format[14]

Table B1. Distribution of Responses for Items 1-5

Item	Time	Never	Almost Never	Sometimes	Almost Always	Always
1. I am able to wait my turn, even when I am excited about something.	Pre	2%	5%	32%	38%	22%
	Post	0%	2%	9%	53%	36%
2. I can control my behavior when I am frustrated or mad.	Pre	5%	15%	37%	28%	16%
	Post	0%	3%	19%	52%	25%
3. I know what to do to calm myself down when I am stressed.	Pre	6%	16%	32%	26%	21%
	Post	2%	2%	18%	43%	35%
4. I can identify my emotions.	Pre	5%	11%	28%	26%	31%
	Post	2%	2%	15%	36%	45%
5. I think before I act.	Pre	7%	12%	37%	27%	18%
	Post	1%	2%	20%	43%	33%

Table B2. Distribution of Responses for Items 6-10

Item	Time	Never	Almost Never	Sometimes	Almost Always	Always
6. I am able to adapt when things change.	Pre	4%	11%	36%	32%	18%
	Post	1%	1%	15%	44%	40%
7. I know my actions have consequences.	Pre	2%	6%	17%	28%	47%
	Post	1%	0%	6%	21%	72%
8. I come prepared for activities.	Pre	3%	9%	34%	34%	21%
	Post	1%	1%	12%	45%	41%
9. People can depend on me.	Pre	1%	8%	28%	35%	28%
	Post	1%	1%	11%	40%	47%
10. I take responsibility for my actions.	Pre	3%	8%	28%	31%	30%
	Post	1%	1%	9%	36%	53%

Table B3. Distribution of Responses for Items 11-15

Item	Time	Never	Almost Never	Sometimes	Almost Always	Always
11. I am able to think about how another person feels.	Pre	4%	8%	27%	30%	31%
	Post	2%	2%	9%	38%	49%
12. I know how my behavior affects others.	Pre	3%	8%	31%	30%	28%
	Post	1%	1%	12%	39%	48%
13. I treat others with respect.	Pre	2%	3%	23%	38%	33%
	Post	1%	1%	10%	35%	54%
14. I am aware of my own strengths.	Pre	6%	15%	31%	24%	24%
	Post	2%	1%	13%	36%	48%
15. I don't do something that I feel is wrong just because others are doing it.	Pre	6%	7%	30%	29%	28%
	Post	3%	4%	13%	39%	41%

Table B4. Distribution of Responses for Items 16-20

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[14] Note that percentages in the tables may not add up to 100% due to rounding error.

Item	Time	Never	Almost Never	Sometimes	Almost Always	Always
16. I can set realistic goals for myself.	Pre	4%	13%	31%	29%	23%
	Post	1%	1%	13%	43%	43%
17. I seek out guidance from others when I need it.	Pre	7%	21%	33%	22%	16%
	Post	1%	3%	24%	36%	37%
18. I willingly share my opinions.	Pre	5%	15%	28%	25%	27%
	Post	1%	4%	19%	36%	40%
19. When I see something that needs to be done, I do it without being asked.	Pre	6%	19%	39%	24%	12%
	Post	2%	2%	21%	46%	29%
20. I try challenging things.	Pre	4%	12%	33%	27%	24%
	Post	1%	2%	13%	38%	46%

Table B5. Distribution of Responses for Items 21-25

Item	Time	Never	Almost Never	Sometimes	Almost Always	Always
21. If I decide to learn something, I can do it.	Pre	2%	6%	36%	29%	27%
	Post	1%	0%	13%	40%	46%
22. I am able to overcome barriers to complete a task.	Pre	2%	9%	38%	32%	19%
	Post	0%	1%	12%	46%	41%
23. I can take steps to solve a problem.	Pre	3%	7%	31%	37%	23%
	Post	1%	1%	14%	39%	45%
24. I approach problem solving with an open mind.	Pre	4%	10%	38%	25%	23%
	Post	1%	2%	18%	41%	38%
25. I can work with different types of people.	Pre	3%	9%	34%	28%	26%
	Post	1%	1%	15%	39%	44%

Table B6. Distribution of Responses for Items 26-30

Item	Time	Never	Almost Never	Sometimes	Almost Always	Always
26. I can put my own needs aside to help the group meet its goal.	Pre	3%	11%	38%	27%	22%
	Post	1%	1%	15%	38%	45%
27. I can work with others to accomplish a task.	Pre	2%	5%	28%	35%	30%
	Post	1%	1%	11%	37%	50%
28. I am able to resolve disagreements positively.	Pre	6%	15%	37%	28%	15%
	Post	1%	2%	22%	44%	31%
29. I can identify other peoples' strengths.	Pre	2%	8%	35%	30%	26%
	Post	1%	1%	17%	41%	40%
30. When I am working in a group, I make sure to do my part.	Pre	2%	7%	28%	29%	34%
	Post	1%	0%	9%	36%	54%

Table B7. Distribution of Responses for Items 31-37

Item	Time	Never	Almost Never	Sometimes	Almost Always	Always
31. Even when something is hard, I follow through to finish it.	Pre	4%	13%	31%	31%	21%
	Post	1%	1%	12%	39%	48%
32. I am proud of my schoolwork.	Pre	10%	12%	27%	25%	27%
	Post	4%	4%	22%	33%	36%
33. I have learned things I can do to take care of the environment.	Pre	3%	12%	34%	27%	24%
	Post	1%	1%	11%	34%	53%
34. I think I have a role to play in protecting nature.	Pre	7%	13%	33%	20%	27%
	Post	2%	3%	17%	28%	50%
35. I now see connections between the environment and my life.	Pre	7%	13%	31%	25%	25%
	Post	2%	3%	14%	33%	49%
36. I play a role in making the world a better place to live.	Pre	4%	12%	33%	27%	24%
	Post	1%	1%	15%	34%	49%
37. I have a role in making sure all people are treated fairly.	Pre	3%	7%	29%	29%	31%
	Post	1%	1%	12%	31%	55%

Appendix C: Number of Respondents per Survey Item

Table C1. Number of Respondents Answering Each Item

Item	Time	n	Item	Time	n
1. I am able to wait my turn, even when I am excited about something.	Pre	457	20. I try challenging things.	Pre	454
	Post	457		Post	455
2. I can control my behavior when I am frustrated or mad.	Pre	455	21. If I decide to learn something, I can do it.	Pre	452
	Post	457		Post	454
3. I know what to do to calm myself down when I am stressed.	Pre	454	22. I am able to overcome barriers to complete a task.	Pre	451
	Post	460		Post	449
4. I can identify my emotions.	Pre	456	23. I can take steps to solve a problem.	Pre	449
	Post	457		Post	452
5. I think before I act.	Pre	457	24. I approach problem solving with an open mind.	Pre	449
	Post	460		Post	450
6. I am able to adapt when things change.	Pre	455	25. I can work with different types of people.	Pre	451
	Post	458		Post	453
7. I know my actions have consequences.	Pre	455	26. I can put my own needs aside to help the group meet its goal.	Pre	444
	Post	456		Post	446
8. I come prepared for activities.	Pre	457	27. I can work with others to accomplish a task.	Pre	447
	Post	458		Post	449
9. People can depend on me.	Pre	454	28. I am able to resolve disagreements positively.	Pre	446
	Post	457		Post	448
10. I take responsibility for my actions.	Pre	457	29. I can identify other peoples' strengths.	Pre	443
	Post	454		Post	451
11. I am able to think about how another person feels.	Pre	455	30. When I am working in a group, I make sure to do my part.	Pre	445
	Post	458		Post	450
12. I know how my behavior affects others.	Pre	451	31. Even when something is hard, I follow through to finish it.	Pre	448
	Post	458		Post	449
13. I treat others with respect.	Pre	453	32. I am proud of my schoolwork.	Pre	444
	Post	454		Post	446
14. I am aware of my own strengths.	Pre	455	33. I have learned things I can do to take care of the environment.	Pre	445
	Post	456		Post	449
15. I don't do something that I feel is wrong just because others are doing it.	Pre	450	34. I think I have a role to play in protecting nature.	Pre	445
	Post	454		Post	450
16. I can set realistic goals for myself.	Pre	455	35. I now see connections between the environment and my life.	Pre	444
	Post	456		Post	446
17. I seek out guidance from others when I need it.	Pre	450	36. I play a role in making the world a better place to live.	Pre	448
	Post	454		Post	448
18. I willingly share my opinions.	Pre	450	37. I have a role in making sure all people are treated fairly.	Pre	441
	Post	455		Post	449
19. When I see something that needs to be done, I do it without being asked.	Pre	455			
	Post	456			

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