

Co-curricular Assessment Report

Academic Year 2021 – 2022

Dakota College at Bottineau



Introduction

Six co-curricular groups were selected for our inaugural reporting cycle for co-curricular assessment. The group were selected because we felt they really encompassed the campus mission and theme. These groups are Leaderjacks, Men's Hockey, Phi Theta Kappa, the photography club, the Student Nursing organization, and Student Senate.

Leaderjacks gives students the opportunity to meet with and interact with other students from various majors about marketing and business issues. Students also have the opportunity to enhance their leadership skills and network with business professionals. Student enroll and received one credit per semester enrolled.

Men's Hockey provides the student-athlete with an experience to grow as a person academically and athletically. Student athletes will demonstrate specific skills in relationship with Men's hockey, utilize athletic department support services for academic success, and demonstrate participation in community service.

Phi Theta Kappa serves to recognize and encourage the academic achievement of two-year college students and provide opportunities for individual growth and development through honors, leadership and service programming. Students are invited to join upon completion of 12 credits and must maintain a 3.0 grade point average.

The Photography Club mission is to adequately prepare students to enter the workforce in the field of professional photography by providing a unique, hands-on learning experience in which the students earn money by working and learning in our photography studio and on location as they would if running their own photography business. Students will demonstrate proficiency in photography business practices including portfolios, websites, marketing, branding, pricing, photo packages, printing processes, labs, product packaging, photo exhibits, and customer relations.

The student nursing organization contributes to the student nurse's educational experience, by mentoring students preparing for licensure as a practical nurse or a registered nurse, promoting nursing and the nursing program on campus and in the community, and conveying the standards, ethics, and skills students need to become responsible and accountable leaders and members of the professional.

Student Senate represents the student population of the College. It is comprised of a president, who is elected by the student body each spring, and a vice president and secretary treasurer who are elected in the fall. The organization acts as a liaison between the students and the College administration and faculty and the State Board of Higher Education. The Senate promotes student participation in college activities and helps coordinate these activities.

Methods

For various reasons, co-curricular assessment is a new venture at DCB. A select group was recruited to join the Assessment Academy team as part of the HLC's initiative to help campuses with large assessment projects on their campuses. The team surveyed the leaders of the six co-curriculars and also worked with a focus group of students to determine what they felt the underlying goals and objectives were for the co-curricular activities. The main themes that surfaced were leadership, community, teamwork, diversity, and career or activity-based objectives.

This led the co-curricular group to develop a self-assessment checklist survey. The survey would ask students to assess if they felt they gained skills in particular areas of each of the aforementioned areas

(teamwork, community, leadership, etc.) because of their participation in the club/organization. A set of basic assessment statements were developed and then the assessment committee also worked with the six co-curricular leaders to determine if additional questions needed to be added for their activities. The standard questions can be seen in Appendix 1.

The number of students surveyed in each group is listed in table 1.1 below. Data was deidentified once it was received by the assessment committee. Each leader also filled out a survey gauging how they felt the student showed aptitude for the statements on the checklist survey. For some larger groups, the leader picked a representative sample of students based on years involved in the club or organization. These totals are also listed in table 1.1. The averages were compared and tests for statistical significance were done to determine if the students and leader/leaders had the same perception of their aptitudes.

Table 1.1. Sample size by group.

Group	Number of Students Sampled	Number of surveys by leaders
Leaderjacks	10	13
Men's Hockey	27	10
PTK	9	9
Photography	3	3
SNO	13	12
Student Senate	12	12

The remainder of the report will focus on the outcomes for each specific co-curricular. Lastly, a look at the combined data will be included to determine if there are common areas of strength or concern for the overall groups.

Results

PTK

Second year and third year students in PTK were given a checklist survey to fill out. A total of nine students were surveyed. The survey can be viewed in Appendix 1. The questions were broken down by the main objectives of leadership, teamwork, community, diversity, and activity-centered questions. The table of average responses for each category is presented in table 2.1. Student scored themselves 4.13 in leadership, 4.59 in teamwork, 4.64 in community, 4.56 in diversity, and 4.44 in the activity-based questions.

Table 2.1. Average student responses by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	4.13	4.59	4.64	4.56	4.44
Standard Deviation	1.06	0.64	0.83	0.69	0.72

The average response by specific question are in table 2.2. All of the students rated themselves a 5 on the 1 to 5 scale for question 13 on diversity which was "I acknowledge and respect culture/values different

from my own”. They also rated themselves a 5 for question 10 on community, which was “I have developed friendships outside of my major/activity. This make sense because student are inducted into PTK in later semesters and do not join initially, so they are likely well-established into the college at this point. They scored themselves lowest on question 5 in leadership, which was, “I’m confident to speak out in a group setting”.

Table 2.2. Average Student response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.00	1.12
Q2	Leadership	4.22	0.97
Q3	Leadership	4.22	1.09
Q4	Leadership	4.33	1.00
Q5	Leadership	3.89	1.27
Q6	Teamwork	4.56	0.73
Q7	Teamwork	4.78	0.44
Q8	Teamwork	4.44	0.73
Q9	Community	4.78	0.67
Q10	Community	5.00	0.00
Q11	Community	4.22	1.20
Q12	Community	4.56	0.88
Q13	Diversity	5.00	0.00
Q14	Diversity	4.33	0.87
Q15	Diversity	4.56	0.53
Q16	Diversity	4.33	0.87
Q17	Activity-Based	4.44	0.73
Q18	Activity-Based	4.33	0.71
Q19	Activity-Based	4.67	0.50
Q20	Activity-Based	4.33	1.00
Q21	Activity-Based	4.44	0.73

In order to validate the data, the co-curricular leader(s) was asked to fill-out the same survey for each student participant. The leader’s ratings or the students are shown in table 2.3. The co-curricular leader scored the students 3.78 in leadership, 4.67 in teamwork, 4.67 in community, 4.36 in diversity, and 4.42 in the activity-based questions. A comparison of the student and leader responses is shown in Chart 2.1. The leadership average has the biggest difference of the five categories.

Table 2.3. Average Leader response by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	3.78	4.67	4.67	4.36	4.42
Standard Deviation	0.88	0.68	0.59	0.72	0.87

The average response by specific question from the co-curricular leader is in table 2.4. The leader rated the students highest for question 9 on community, which was “I been encouraged to get involved in community events”. The leader scored the students lowest on question 4 in leadership, which was, “I’m able to help resolve conflicts”.

Chart 2.1. Student-Leader average comparison.

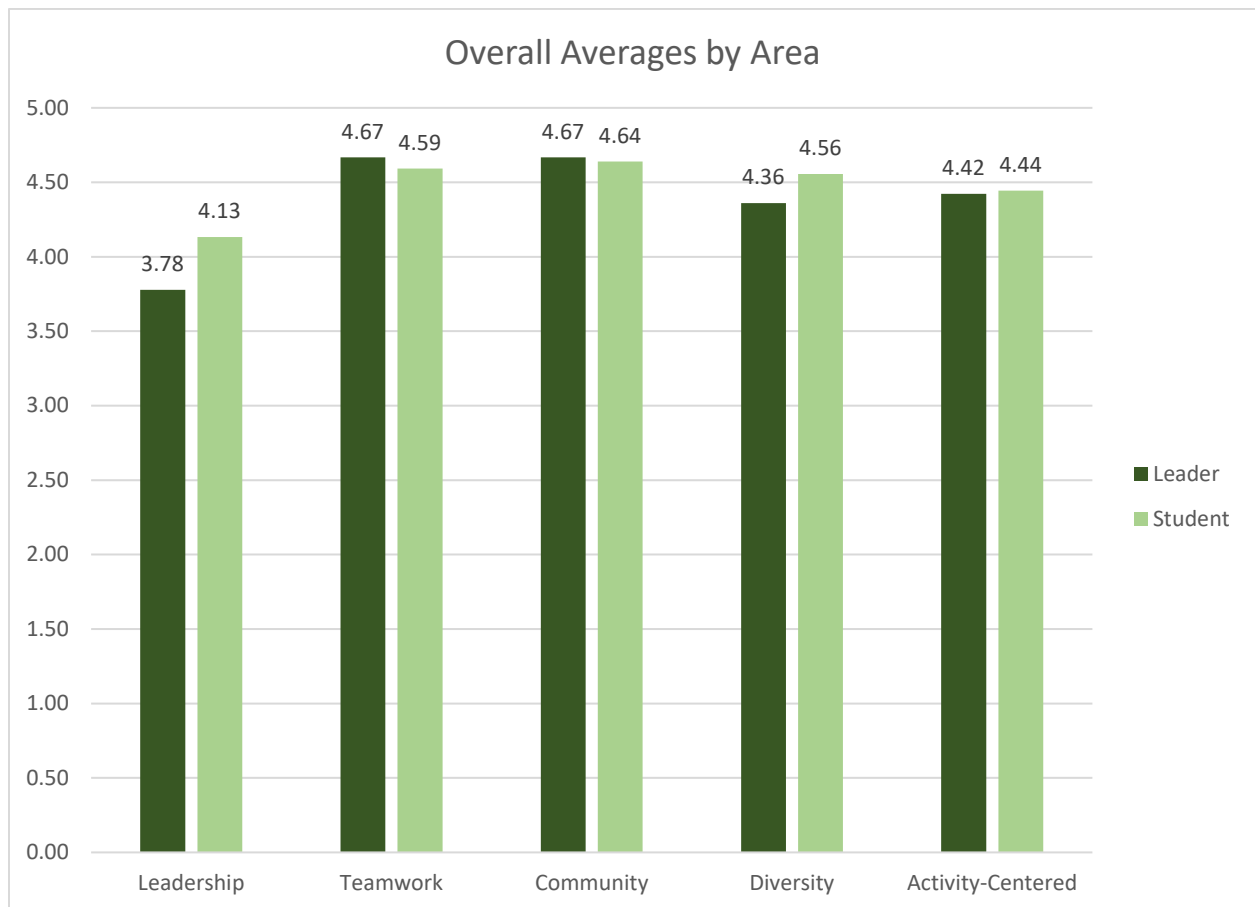


Table 2.4. Average Leader response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	3.67	0.87
Q2	Leadership	4.11	0.60
Q3	Leadership	4.44	0.53
Q4	Leadership	3.22	0.67
Q5	Leadership	3.44	1.13
Q6	Teamwork	4.56	0.73
Q7	Teamwork	4.78	0.67
Q8	Teamwork	4.67	0.71
Q9	Community	5.00	0.00
Q10	Community	4.78	0.44
Q11	Community	4.22	0.67
Q12	Community	4.67	0.71
Q13	Diversity	4.67	0.50
Q14	Diversity	4.22	0.83
Q15	Diversity	4.33	0.71
Q16	Diversity	4.22	0.83
Q17	Activity-Based	4.67	0.50
Q18	Activity-Based	4.44	0.73
Q19	Activity-Based	4.56	1.01
Q20	Activity-Based	4.11	1.17
Q21	Activity-Based	4.33	0.87

To determine if the survey results from the two groups were significantly different, a t-test comparing the means was conducted. The hypothesis being the average from each category the for the student responses is equal to the average from each category for the co-curricular leader responses. The results of the t-test are shown in table 2.5. The hypothesis was unable to be rejected for each category. The average responses by students are equal to the average responses by the co-curricular leaders.

Table 2.5.

Categories

	Leadership	Teamwork	Community	Diversity	Activity Based
Average Difference	0.36	0.07	0.03	-0.19	-0.02
Degrees of freedom	16	16	16	16	16
t-test statistic	-0.78	0.24	0.08	-0.58	-0.06
t* ^a	2.12	2.12	2.12	2.12	2.12
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Because of the variability of some of the question, especially leadership, a similar t-test of the means was conducted by each individual question. The results can be found in Appendix 2. There was only one question where the hypothesis was rejected. This was for question 4 under leadership on conflict resolution.

Student Nursing Organization - SNO

All students that attended the final yearly meeting of SNO were given a checklist survey to fill out. A total of nine students were surveyed. The survey can be viewed in Appendix 1. The questions were broken down by their main objectives of leadership, teamwork, community, diversity, and activity-centered questions. The table of average responses for each category is presented in table 3.1. Student scored themselves 4.25 in leadership, 4.74 in teamwork, 4.46 in community, 4.48 in diversity, and 4.73 in the activity-based questions.

Table 3.1. Average student responses by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	4.25	4.74	4.46	4.48	4.73
Standard Deviation	0.81	0.55	0.64	0.83	0.53

The average response by specific question are in table 3.2. All of the students rated themselves a 5 on the 1 to 5 scale for question 17 which was "I'm able to utilize critical thinking and problem-solving skills". They scored themselves lowest on question 5 in leadership, which was, "I'm confident to speak out in a group setting".

Table 3.2. Average Student response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.31	0.75
Q2	Leadership	4.00	0.91
Q3	Leadership	4.62	0.51
Q4	Leadership	4.38	0.77
Q5	Leadership	3.92	0.95
Q6	Teamwork	4.77	0.44
Q7	Teamwork	4.85	0.38
Q8	Teamwork	4.62	0.77
Q9	Community	4.62	0.51
Q10	Community	4.54	0.52
Q11	Community	4.15	0.90
Q12	Community	4.54	0.52
Q13	Diversity	4.62	0.87
Q14	Diversity	4.46	0.97
Q15	Diversity	4.69	0.63
Q16	Diversity	4.15	0.80
Q17	Activity-Based	4.46	0.66

In order to validate the data, the co-curricular leader(s) was asked to fill-out the same survey for each student participant. The leader’s ratings or the students are shown in table 2.3. The co-curricular leader scored the students 4.63 in leadership, 5.00 in teamwork, 4.17 in community, 4.67 in diversity, and 4.75 in the activity-based questions. A comparison of the student and leader responses is shown in Chart 3.1. The leadership average has the biggest difference of the five categories.

Table 3.3. Average Leader response by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	4.63	5.00	4.17	4.67	4.75
Standard Deviation	0.61	0.00	0.95	0.56	0.62

The average response by specific question from the co-curricular leader is in table 2.4. The leader rated the students highest for all questions on teamwork (questions 6, 7, and 8). The leader scored all students a 5 on the 1 to 5 scale. The leader scored the students lowest on question 1 in community, which was, “I have utilized resources in the community”.

Table 3.4. Average Leader response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.42	0.67
Q2	Leadership	4.33	0.89
Q3	Leadership	4.83	0.39
Q4	Leadership	4.83	0.39
Q5	Leadership	4.75	0.45
Q6	Teamwork	5.00	0.00
Q7	Teamwork	5.00	0.00
Q8	Teamwork	5.00	0.00
Q9	Community	4.33	0.78
Q10	Community	4.42	0.67
Q11	Community	3.42	1.24
Q12	Community	4.50	0.67
Q13	Diversity	4.92	0.29
Q14	Diversity	4.67	0.49
Q15	Diversity	4.83	0.39
Q16	Diversity	4.25	0.75
Q17	Activity-Based	4.75	0.62

To determine if the survey results from the two groups were significantly different, a t-test comparing the means was conducted. The hypothesis being the average from each category the for the student responses is equal to the average from each category for the co-curricular leader responses. The results of the t-test are shown in table 3.5. The hypothesis was unable to be rejected for each category. The average responses by students are equal to the average responses by the co-curricular leaders.

Because of the variability in some of the questions, a similar t-test of the means was conducted by each individual question. The results can be found in Appendix 2. There was only one question where the hypothesis was rejected and that was for question 5 under leadership on speaking out in a group setting.

Chart 3.1. Student-Leader average comparison.

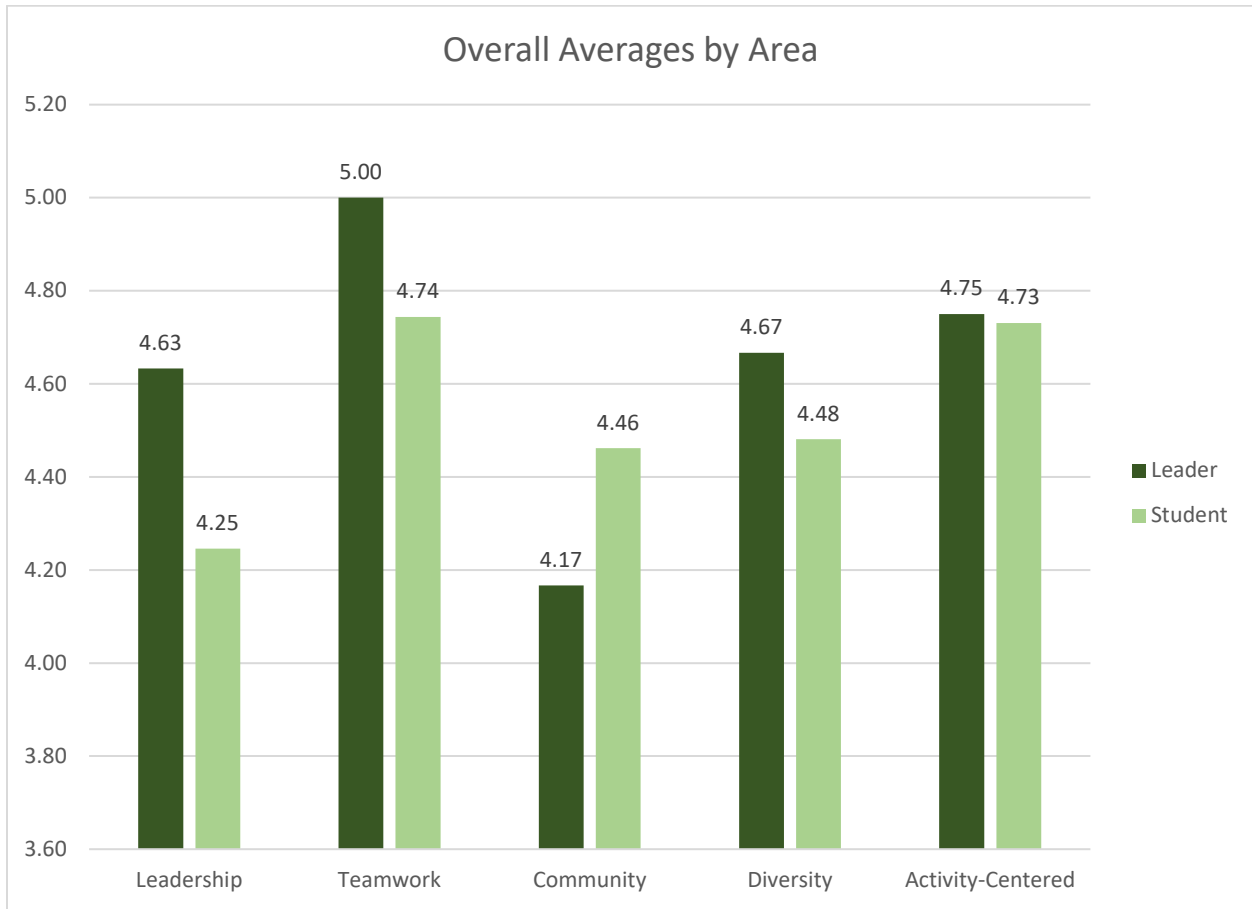


Table 3.5. Categories

	Leadership	Teamwork	Community	Diversity	Activity-Based
Average Difference	0.39	0.26	-0.29	0.19	0.02
degrees of freedom	23	23	23	23	23
t-test statistic	1.36	1.69	-0.90	0.66	13.00
t* ^a	2.07	2.07	2.07	2.07	0.082686825
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Questions 18 and 19 on the SNO survey were added by the leader for informational purposes and meant to inform the leader and were not necessarily for comparison or validation. Question 18 pertained to the number of meeting and if the amount the group met was appropriate. All students responded with a 5. Question 19 was open-ended and asked for comments on any changes or improvements they would like to see. Every student left question blank.

Leaderjacks

All students that attended the final yearly meeting of leaderjacks were given a checklist survey to fill out. A total of ten students were surveyed. The survey can be viewed in Appendix 1. The questions were broken down by their main objectives of leadership, teamwork, community, diversity, and activity-centered questions. The table of average responses for each category is presented in table 4.1. Student scored themselves 4.46 in leadership, 4.77 in teamwork, 4.33 in community, 4.50 in diversity, and 4.80 in the activity-based questions.

Table 4.1. Average student responses by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	4.46	4.77	4.33	4.50	4.80
Standard Deviation	0.76	0.50	1.10	1.11	0.41

The average response by specific question are in table 4.2. All of the students rated themselves highest (4.90) on question 6 for teamwork which was “I’m able to cooperate with others”. They also scored themselves a 4.90 on question 18, which was “I understand the importance of volunteering in my community.” The students scored themselves lowest on question 5 in leadership, which was, “I’m confident to speak out in a group setting” and on statement 10 on community, which was “I have developed friendships outside of my major/activity”.

Table 4.2. Average Student response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.60	0.52
Q2	Leadership	4.50	0.71
Q3	Leadership	4.60	0.70
Q4	Leadership	4.50	0.71
Q5	Leadership	4.10	1.10
Q6	Teamwork	4.90	0.32
Q7	Teamwork	4.80	0.63
Q8	Teamwork	4.60	0.52
Q9	Community	4.70	0.48
Q10	Community	4.10	1.20
Q11	Community	4.20	1.23
Q12	Community	4.30	1.34
Q13	Diversity	4.60	1.26

Q14	Diversity	4.70	0.67
Q15	Diversity	4.30	1.25
Q16	Diversity	4.40	1.26
Q17	Activity- Based	4.70	0.48
Q18	Activity- Based	4.90	0.32

In order to validate the data, the co-curricular leader(s) was asked to fill-out the same survey for each student participant. The leader's ratings or the students are shown in table 4.3. The co-curricular leader scored the students 4.43 in leadership, 4.92 in teamwork, 4.88 in community, 4.19 in diversity, and 5.00 in the activity-based questions. A comparison of the student and leader responses is shown in Chart 4.1. The community average has the biggest difference of the five categories.

Table 4.3. Average Leader response by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity- Based
Average	4.43	4.92	4.88	4.19	5.00
Standard Deviation	0.83	0.35	0.43	0.49	0.00

The average response by specific question from the co-curricular leader is in table 4.4. The leaders rated the students highest for all activity-questions (questions 17 and 18). The leaders also scored student a 5 in community for questions 9 and 11 and for teamwork on question 7. The leaders scored all students a 5 on the 1 to 5 scale. The leaders scored the students lowest on question 16 in diversity, which was, "I feel comfortable initiating conversations about diversity, equity, and belonging".

Table 4.4. Average Leader response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.38	0.77
Q2	Leadership	4.62	0.65
Q3	Leadership	4.69	0.85
Q4	Leadership	4.23	0.83
Q5	Leadership	4.23	1.01
Q6	Teamwork	4.92	0.28
Q7	Teamwork	5.00	0.00
Q8	Teamwork	4.85	0.55
Q9	Community	5.00	0.00
Q10	Community	4.77	0.60

Q11	Community	5.00	0.00
Q12	Community	4.77	0.60
Q13	Diversity	4.92	0.28
Q14	Diversity	4.00	0.00
Q15	Diversity	4.00	0.00
Q16	Diversity	3.85	0.38
Q17	Activity- Based	5.00	0.00
Q18	Activity- Based	5.00	0.00

To determine if the survey results from the two groups were significantly different, a t-test comparing the means was conducted. The hypothesis being the average from each category for the student responses is equal to the average from each category for the co-curricular leader responses. The results of the t-test are shown in table 4.5. The hypothesis was unable to be rejected for each category. The average responses by students are equal to the average responses by the co-curricular leaders.

Because of the variability in some of the questions, a similar t-test of the means was conducted by each individual question. The results can be found in Appendix 2. There was only one question where the hypothesis was rejected and that was for question 14 under diversity which was, “I have had the opportunity to engage and respectfully communicate thoughts and ideas regarding sensitive topics.”

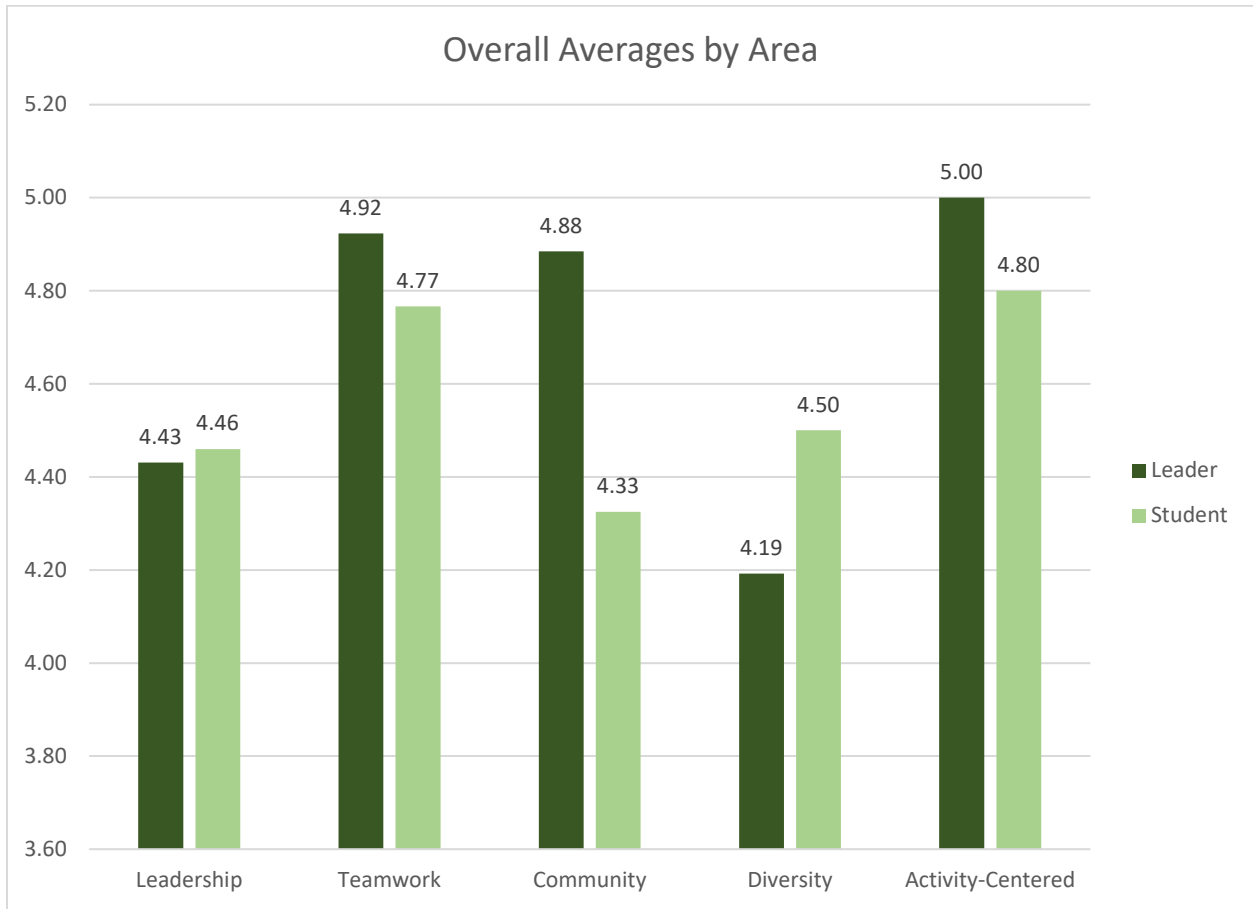
Table 4.5. Difference in the means by category.

	Leadership	Teamwork	Community	Diversity	Activity- Based
Average Difference	-0.03	0.16	0.56	-0.31	0.20
degrees of freedom	21	21	21	21	21
t-test statistic	-0.09	0.84	1.53	-0.82	1.54
t* ^a	2.08	2.08	2.08	2.08	2.08
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Chart 4.1. Student-Leader average comparison for Leaderjacks.



Photography Club

All students in the photography club were given a checklist survey to fill out. A total of three students were surveyed. The survey can be viewed in Appendix 1. The questions were broken down by their main objectives of leadership, teamwork, community, diversity, and activity-based questions. The table of average responses for each category is presented in table 5.1. Student scored themselves 4.67 in leadership, 5.00 in teamwork, 4.50 in community, 4.92 in diversity, and 4.83 in the activity-based questions.

The average response by specific question are in table 5.2. All of the students rated themselves a 5 on the 1 to 5 scale for a number of questions. All of the students responded a 5 on all teamwork questions and all but one diversity question. This is positive as these students will likely be working with diverse groups of people in their future careers. They scored themselves lowest on question 1 in leadership, which was, “I’m confident in my ability to take initiative on a project” and question 11 on community, which was “I have utilized resources in the community”.

Table 5.1. Average student responses by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	4.67	5.00	4.50	4.92	4.83
Standard Deviation	0.49	0.00	0.67	0.29	0.41

Table 5.2. Average Student response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.33	0.58
Q2	Leadership	4.67	0.58
Q3	Leadership	5.00	0.00
Q4	Leadership	4.67	0.58
Q5	Leadership	4.67	0.58
Q6	Teamwork	5.00	0.00
Q7	Teamwork	5.00	0.00
Q8	Teamwork	5.00	0.00
Q9	Community	5.00	0.00
Q10	Community	4.67	0.58
Q11	Community	4.33	0.58
Q12	Community	4.00	1.00
Q13	Diversity	5.00	0.00
Q14	Diversity	5.00	0.00
Q15	Diversity	5.00	0.00
Q16	Diversity	4.67	0.58
Q17	Activity-Based	5.00	0.00
Q18	Activity-Based	4.67	0.58

In order to validate the data, the co-curricular leader was asked to fill-out the same survey for each student participant. The leader's ratings or the students are shown in table 5.3. The co-curricular leader scored the students 4.80 in leadership, 5.00 in teamwork, 5.00 in community, 5.00 in diversity, and 5.00 in the activity-based questions. A comparison of the student and leader responses is shown in Chart 5.1. The community average has the biggest difference of the five categories.

Table 5.3. Average Leader response by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	4.80	5.00	5.00	5.00	5.00
Standard Deviation	0.41	0.00	0.00	0.00	0.00

The average response by specific question from the co-curricular leader is in table 5.4. The leader rated the students 5 on the 0 to 5 scale for all questions on teamwork, community, diversity, and the activity-based category. The leader scored the students lowest on question 2 in leadership, which was, “I am confident in my ability to motivate others”.

Table 5.4. Average Leader response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.67	0.58
Q2	Leadership	4.33	0.58
Q3	Leadership	5.00	0.00
Q4	Leadership	5.00	0.00
Q5	Leadership	5.00	0.00
Q6	Teamwork	5.00	0.00
Q7	Teamwork	5.00	0.00
Q8	Teamwork	5.00	0.00
Q9	Community	5.00	0.00
Q10	Community	5.00	0.00
Q11	Community	5.00	0.00
Q12	Community	5.00	0.00
Q13	Diversity	5.00	0.00
Q14	Diversity	5.00	0.00
Q15	Diversity	5.00	0.00
Q16	Diversity	5.00	0.00
Q17	Activity-Based	5.00	0.00
Q18	Activity-Based	5.00	0.00

To determine if the survey results from the two groups were significantly different, a t-test comparing the means was conducted. The hypothesis being the average from each category the for the student responses is equal to the average from each category for the co-curricular leader responses. The results of the t-test

are shown in table 5.5. The hypothesis was unable to be rejected for each category. The average responses by students are equal to the average responses by the co-curricular leaders.

Chart 5.1. Student-Leader average comparison.

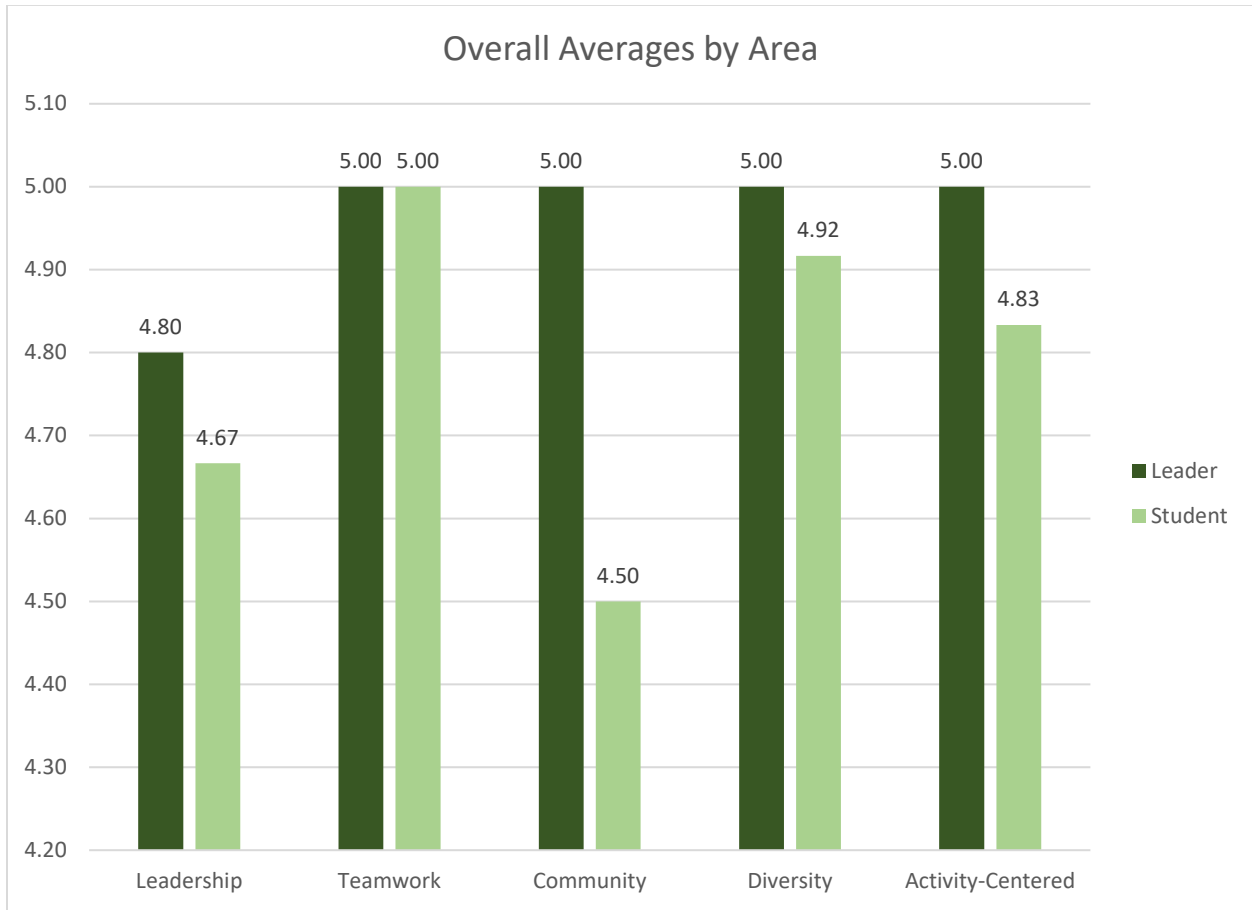


Table 5.5. Difference in means by category.

	Leadership	Teamwork	Community	Diversity	Activity-Based
Average Difference	0.13	0.00	0.50	0.08	0.17
degrees of freedom	4	4	4	4	4
t-test statistic	0.36	-	1.28	0.50	0.71
t* ^a	2.78	2.78	2.78	2.78	2.78
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Because of the variability in some of the categories, a similar t-test of the means was conducted by each individual question. The results can be found in Appendix 2. None of the hypotheses were rejected for any of the individual questions.

Student Senate

All students that attended the final yearly meeting of Student Senate were given a checklist survey to fill out. A total of nine students were surveyed. The survey can be viewed in Appendix 1. The questions were broken down by their main objectives of leadership, teamwork, community, diversity, and activity-centered questions. The table of average responses for each category is presented in table 6.1. Students scored themselves 4.33 in leadership, 4.72 in teamwork, 4.40 in community, 4.69 in diversity, and 4.67 in the activity-based questions.

Table 6.1. Average student responses by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	4.33	4.72	4.40	4.69	4.67
Standard Deviation	0.90	0.51	1.05	0.66	0.65

The average response by specific question are in table 6.2. All of the students rated themselves highest (4.92) on question 13 for diversity which was “I acknowledge and respect cultures/values different from my own”. The students scored themselves lowest on question 2 in leadership, which was, “I’m confident in my ability to motivate others” and on statement 11 on community, which was “I have utilized resources in the community.”

Table 6.2. Average Student response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.33	0.78
Q2	Leadership	4.17	0.72
Q3	Leadership	4.67	0.65
Q4	Leadership	4.50	0.80
Q5	Leadership	4.00	1.35
Q6	Teamwork	4.83	0.39
Q7	Teamwork	4.75	0.45
Q8	Teamwork	4.58	0.67
Q9	Community	4.50	0.90
Q10	Community	4.58	0.67
Q11	Community	4.17	1.47
Q12	Community	4.33	1.07
Q13	Diversity	4.92	0.29

Q14	Diversity	4.83	0.39
Q15	Diversity	4.67	0.65
Q16	Diversity	4.33	0.98
Q17	Activity-Based	4.67	0.65

In order to validate the data, the co-curricular leader was asked to fill-out the same survey for each student participant. The leader’s ratings of the students are shown in table 6.3. The co-curricular leader scored the students 4.80 in leadership, 5.00 in teamwork, 4.23 in community, 5.00 in diversity, and 4.92 in the activity-based questions. A comparison of the student and leader responses is shown in Chart 6.1. The leadership average has the biggest difference of the five categories by almost a half of a point on the zero to five scale.

Table 6.3. Average Leader response by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	4.80	5.00	4.23	5.00	4.92
Standard Deviation	0.40	0.00	0.86	0.00	0.29

The average response by specific question from the co-curricular leader is in table 6.4. The leader rated the all of the students a 5 on the zero to five scale for all questions in the teamwork and diversity categories, as well as questions 2 and 3 in leadership. The leader scored the students lowest on question 11 in community, which was, “I have utilized resources in the community.”

Table 6.4. Average Leader response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.58	0.51
Q2	Leadership	5.00	0.00
Q3	Leadership	5.00	0.00
Q4	Leadership	4.67	0.49
Q5	Leadership	4.75	0.45
Q6	Teamwork	5.00	0.00
Q7	Teamwork	5.00	0.00
Q8	Teamwork	5.00	0.00
Q9	Community	4.58	0.67
Q10	Community	4.83	0.39
Q11	Community	3.00	0.00
Q12	Community	4.50	0.52
Q13	Diversity	5.00	0.00

Q14	Diversity	5.00	0.00
Q15	Diversity	5.00	0.00
Q16	Diversity	5.00	0.00
Q17	Activity- Based	4.92	0.29

To determine if the survey results from the two groups were significantly different, a t-test comparing the means was conducted. The hypothesis being the average from each category for the student responses is equal to the average from each category for the co-curricular leader responses. The results of the t-test are shown in table 6.5. The hypothesis was unable to be rejected for each category. The average responses by students are equal to the average responses by the co-curricular leader.

Because of the great variability in some of the questions, a similar t-test of the means was conducted by each individual question. The results can be found in Appendix 2. There several questions where the hypothesis was rejected. Four average responses to the questions were significantly different. These were in the areas of leadership, teamwork, community, and diversity.

Chart 6.1. Student-Leader average comparison for Student Senate.

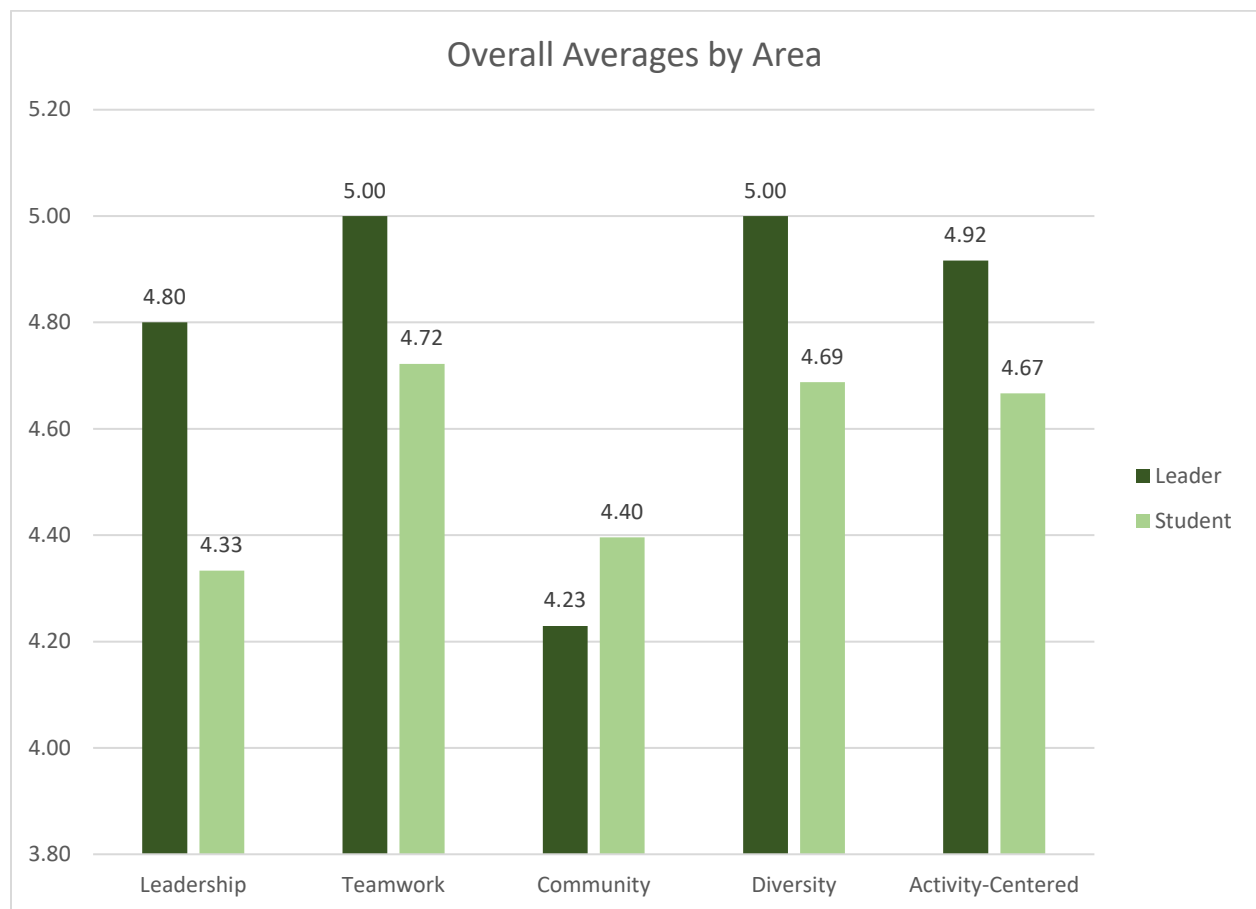


Table 6.5.

Categories

	Leadership	Teamwork	Community	Diversity	Activity-Based
Average Difference	0.47	0.28	-0.17	0.31	0.25
degrees of freedom	23	23	23	23	23
t-test statistic	1.65	1.87	-0.43	1.65	1.22
t* ^a	2.07	2.07	2.07	2.07	2.07
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Men's Hockey

All students participating in men's hockey were given a checklist survey to fill out. A total of twenty-seven students were surveyed. The survey can be viewed in Appendix 1. The questions were broken down by their main objectives of leadership, teamwork, community, diversity, and activity-centered questions. The table of average responses for each category is presented in table 7.1. Student scored themselves 4.42 in leadership, 4.79 in teamwork, 4.25 in community, 4.21 in diversity, and 4.56 in the activity-based questions.

Table 7.1. Average student responses by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	4.42	4.79	4.25	4.21	4.56
Standard Deviation	0.67	0.44	0.80	0.82	0.77

The average response by specific question are in table 7.2. All of the students rated themselves highest (4.90) on question 7 for teamwork which was "I can work together with my teammates towards a common goal". They also scored themselves a 4.78 and 4.74 on the other two questions on teamwork, which were "I am able to all others to lead" and "I'm able to cooperate with my teammates". The students scored themselves lowest on question 16 in diversity, which was, "I feel comfortable initiating conversations about diversity, equity, and belonging".

Table 7.2. Average Student response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.56	0.58
Q2	Leadership	4.48	0.51
Q3	Leadership	4.48	0.64
Q4	Leadership	4.37	0.74
Q5	Leadership	4.22	0.85
Q6	Teamwork	4.74	0.45
Q7	Teamwork	4.85	0.36
Q8	Teamwork	4.78	0.51
Q9	Community	4.26	0.94
Q10	Community	4.41	0.80
Q11	Community	4.07	0.78
Q12	Community	4.27	0.67
Q13	Diversity	4.44	0.80
Q14	Diversity	4.31	0.74
Q15	Diversity	4.33	0.68
Q16	Diversity	3.74	0.90
Q17	Activity-Based	4.52	0.70
Q18	Activity-Based	4.59	0.84

In order to validate the data, the co-curricular leader(s) was asked to fill-out the same survey for each student participant. The leader's ratings or the students are shown in table 7.3. The co-curricular leader scored the students 3.70 in leadership, 4.53 in teamwork, 4.28 in community, 3.65 in diversity, and 4.20 in the activity-based questions. A comparison of the student and leader responses is shown in Chart 7.1. The leadership and diversity averages has the biggest difference of the five categories.

Table 7.3. Average Leader response by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	3.70	4.53	4.28	3.65	4.20
Standard Deviation	0.65	0.57	0.60	0.58	0.52

The average response by specific question from the co-curricular leader is in table 7.4. The leader rated the students highest for all the questions on teamwork. Which is consistent with the areas student rated themselves highest. The leader scored the students lowest on question 16 in diversity, which was again consistent with how the students responded.

Table 7.4. Average Leader response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	3.90	0.57
Q2	Leadership	3.80	0.63
Q3	Leadership	4.00	0.67
Q4	Leadership	3.40	0.52
Q5	Leadership	3.40	0.70
Q6	Teamwork	4.50	0.53
Q7	Teamwork	4.50	0.53
Q8	Teamwork	4.60	0.70
Q9	Community	4.40	0.52
Q10	Community	4.40	0.52
Q11	Community	4.30	0.67
Q12	Community	4.00	0.67
Q13	Diversity	3.90	0.57
Q14	Diversity	3.50	0.53
Q15	Diversity	3.90	0.57
Q16	Diversity	3.30	0.48
Q17	Activity-Based	3.90	0.32
Q18	Activity-Based	4.50	0.53

To determine if the survey results from the two groups were significantly different, a t-test comparing the means was conducted. The hypothesis being the average from each category the for the student responses is equal to the average from each category for the co-curricular leader responses. The results of the t-test are shown in table 7.5. The hypothesis was unable to be rejected for each category. The average responses by students are equal to the average responses by the co-curricular leaders. The means were statistically different in the leadership and diversity categories. This is not surprising given the vast differences in the comparison of the means in chart 7.1.

Chart 7.1. Student-Leader average comparison for men’s hockey.

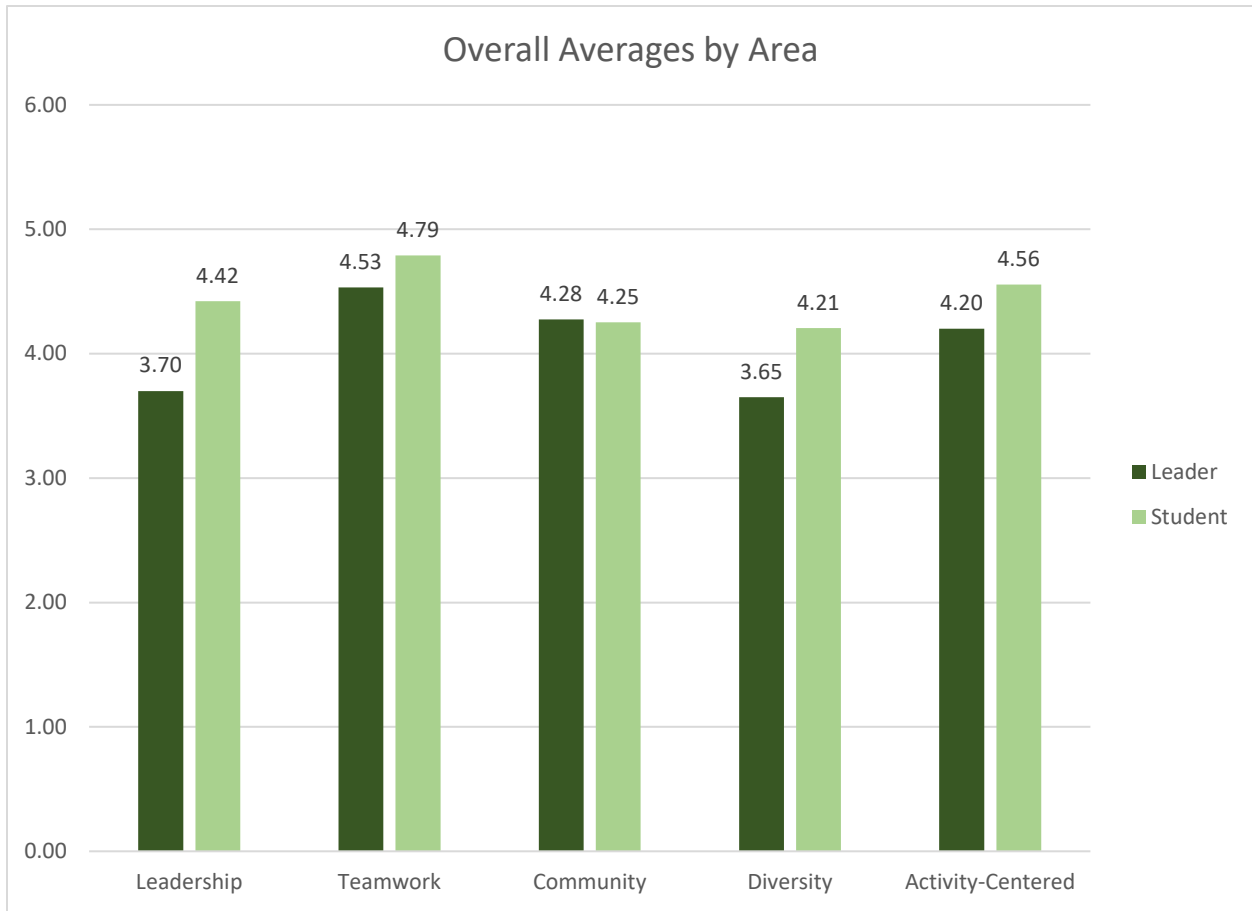


Table 7.5. Categories

	Leadership	Teamwork	Community	Diversity	Activity-Based
Average Difference	-0.72	-0.26	0.02	-0.56	-0.36
degrees of freedom	35	35	35	35	35
t-test statistic	-2.98	-1.29	0.09	-2.30	-1.60
t* ^a	2.03	2.03	2.03	2.03	2.03
Outcome ^b	Reject the null	Fail to reject the null	Fail to reject the null	Reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Because of the variability in some of the questions, a similar t-test of the means was conducted by each individual question. The results can be found in Appendix 2. There were several questions where the hypothesis was rejected. As expected those questions mostly fell under the leadership and diversity categories. All but one of the leadership questions was significantly different and two of the four diversity questions were significantly different. The diversity questions are likely not too surprising, as diversity may not be as big of a focus in the program. The leadership question, however are a bit puzzling. Also, the activity-based question 17 on utilizing critical thinking skills was significantly different between the two groups.

Overall Results

All responses were combined to do an overall analysis of the student surveys. A total of 74 students were surveyed in total. The table of average responses for each category is presented in table 8.1. Students scored themselves 4.36 in leadership, 4.75 in teamwork, 4.38 in community, 4.44 in diversity, and 4.57 in the activity-based questions.

Table 8.1. Average student responses by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity-Based
Average	4.36	4.75	4.38	4.44	4.57
Standard Deviation	0.80	0.50	0.87	0.83	0.64

The average response by specific question are in table 8.2. All of the students rated themselves highest (4.82) on question 7 for teamwork which was “I can work together with others towards a common goal”. The students scored themselves lowest on question 5 in leadership, which was, “I’m confident to speak out in a group setting” and close behind was statement 16 on diversity, which was “I feel comfortable initiating conversations about diversity, equity, and belonging.”

Table 8.2. Average Student response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.41	0.72
Q2	Leadership	4.32	0.72
Q3	Leadership	4.54	0.69
Q4	Leadership	4.42	0.76
Q5	Leadership	4.09	1.02
Q6	Teamwork	4.77	0.45
Q7	Teamwork	4.82	0.42
Q8	Teamwork	4.66	0.60
Q9	Community	4.51	0.78
Q10	Community	4.50	0.76

Q11	Community	4.15	1.02
Q12	Community	4.36	0.86
Q13	Diversity	4.66	0.78
Q14	Diversity	4.51	0.75
Q15	Diversity	4.50	0.74
Q16	Diversity	4.11	0.96
Q17	Activity- Based	4.57	0.64

In order to validate the data, the co-curricular leader was asked to fill-out the same survey for each student participant. The leader’s ratings or the students are shown in table 8.3. The co-curricular leaders scored the students 4.34 in leadership, 4.85 in teamwork, 4.47 in community, 4.43 in diversity, and 4.69 in the activity-based questions. A comparison of the student and leader responses is shown in Chart 8.1. The leadership average has the biggest difference of the five categories by almost a half of a point on the zero to five scale.

Table 8.3. Average Leader response by major category

	Category				
	Leadership	Teamwork	Community	Diversity	Activity- Based
Average	4.34	4.85	4.47	4.43	4.69
Standard Deviation	0.80	0.43	0.76	0.68	0.53

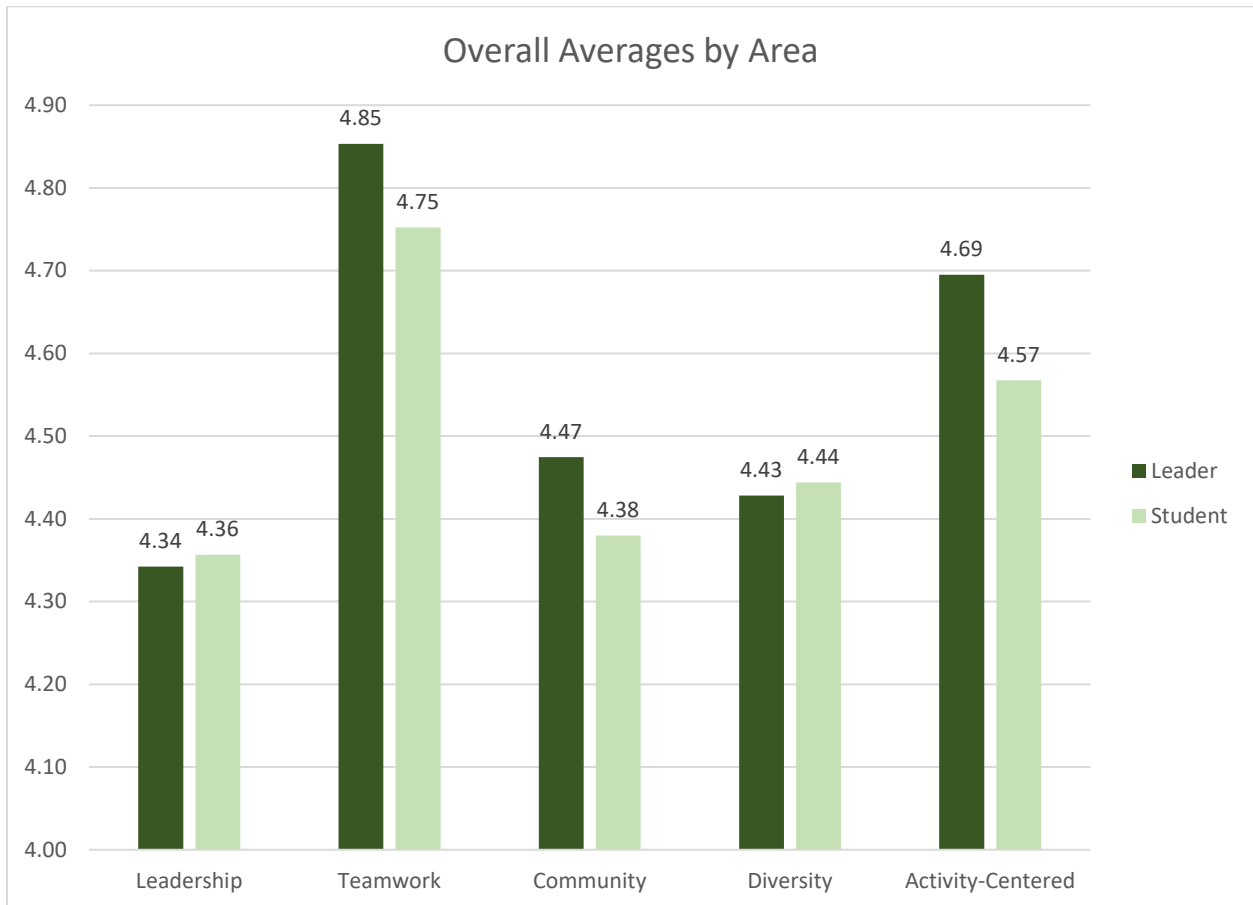
The average response by specific question from the co-curricular leaders is in table 8.4. The leaders rated the students highest on the teamwork questions. All three questions were averaged at a 4.83 or higher. The leaders scored the students lowest on question 11 in community, which was, “I have utilized resources in the community.” This could be because the question is a bit tough for leaders to answer, they may not observe the students out in the community in other setting aside from their co-curricular activities.

Table 8.4. Average Leader response by Question

Question	Category	Average	Standard Deviation
Q1	Leadership	4.25	0.73
Q2	Leadership	4.41	0.72
Q3	Leadership	4.64	0.64
Q4	Leadership	4.19	0.86
Q5	Leadership	4.22	0.95

Q6	Teamwork	4.83	0.42
Q7	Teamwork	4.88	0.38
Q8	Teamwork	4.85	0.48
Q9	Community	4.68	0.57
Q10	Community	4.66	0.54
Q11	Community	4.03	1.00
Q12	Community	4.53	0.65
Q13	Diversity	4.73	0.52
Q14	Diversity	4.34	0.69
Q15	Diversity	4.46	0.60
Q16	Diversity	4.19	0.78
Q17	Activity-Based	4.69	0.53

Chart 8.1. Student-Leader average comparison overall.



To determine if the survey results from the two groups were significantly different, a t-test comparing the means was conducted. The hypothesis being the average from each category the for the student

responses is equal to the average from each category for the co-curricular leader responses. The results of the t-test are shown in table 6.5. The hypothesis was unable to be rejected for each category. The average responses by students are equal to the average responses by the co-curricular leader.

There was not a great deal of variability overall, but to be complete, a similar t-test of the means was conducted by each individual question. The results can be found in Appendix 2. No individual questions were found to be significantly different when comparing the means.

Table 8.5. Categories

	Leadership	Teamwork	Community	Diversity	Activity-Based
Average Difference	-0.01	0.10	0.09	-0.02	0.13
degrees of freedom	131	131	131	131	131
t-test statistic	-0.10	1.25	0.67	-0.12	1.25
t* ^a	1.96	1.96	1.96	1.96	1.96
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Conclusion

Six student co-curricular groups were assessed using a survey checklist to self-assess their skills in leadership, teamwork, community, diversity and the activity-based applications for their co-curricular. Further, the leaders of the co-curriculars were asked to rate the students on the same checklist scale to validate the student self-assessment.

Overall the responses from the students and leader were not statistically different from each other at either the specific question level or at the aggregate category level. This suggest an accurate tool for this group. On average, students strongly agreed or slightly agreed that they were acquiring skills in the five categories for leadership, teamwork, diversity, community, and activity-centered, which were the main objectives of the co-curriculars.

Going forward, it was noted that some co-curriculars do not focus on each of the five areas in a big way. It was suggested that each co-curricular leader be allowed to select the questions they felt were most applicable to their group. In the next year, the same groups will be piloted, but with their selected questionnaires. Other program review metrics will also be explored. This way a process can be refined before moving forward.

APPENDIX 1

Co-curricular Assessment – Standard Questionnaire

Rate the degree to which you agree or disagree with the statement presented.

Category	Not at all 0	Strongly Disagree 1	Slightly disagree 2	Neutral 3	Slightly Agree 4	Strongly Agree 5
Because of my involvement in this program:						
<i>Leadership</i>						
I'm confident in my ability to take initiative on a project.						
I'm confident in my ability to motivate others.						
I'm able to be open minded to others' opinions.						
I'm able to help resolve conflicts.						
I'm confident to speak out in a group setting.						
<i>Teamwork</i>						
I'm able to cooperate with others.						
I can work together with others towards a common goal.						
I am able to allow others to lead.						
<i>Community</i>						
I have been encouraged to get involved in community events.						
I have developed friendships with people outside of my major/activity.						
I have utilized resources in the community (off-campus).						
I am confident in my ability to integrate into a new community.						
<i>Diversity</i>						
I acknowledge and respect cultures/values different from my own.						
I have had the opportunity to engage and respectfully communicate thoughts and ideas regarding sensitive topics.						
I have developed a mindset that is culturally responsive.						

I feel comfortable initiating conversations about diversity, equity, and belonging.						
<i>Activity Centered</i>						
I'm able to utilize critical thinking and problem solving skills.						

Co-curricular Assessment - Student Nursing Organization

Rate the degree to which you agree or disagree with the statement presented.

	Not at all	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree
Because of my involvement in SNO:						
1. I'm confident in my ability to take initiative on a project.	0	1	2	3	4	5
2. I'm confident in my ability to motivate others.	0	1	2	3	4	5
3. I'm able to be open minded to others' opinions.	0	1	2	3	4	5
4. I'm able to help resolve conflicts.	0	1	2	3	4	5
5. I'm confident to speak out in a group setting.	0	1	2	3	4	5
6. I'm able to cooperate with others.	0	1	2	3	4	5
7. I can work together with others towards a common goal.	0	1	2	3	4	5
8. I am able to allow others to lead.	0	1	2	3	4	5
9. I have been encouraged to get involved in community events.	0	1	2	3	4	5
10. I feel I had a positive impact on the community.	0	1	2	3	4	5
11. I have utilized resources in the community (off-campus).	0	1	2	3	4	5
12. I am confident in my ability to have a positive impact on my community.	0	1	2	3	4	5
13. I acknowledge and respect cultures/values different from my own.	0	1	2	3	4	5
14. I have had the opportunity to engage and respectfully communicate thoughts and ideas regarding sensitive topics.	0	1	2	3	4	5
15. I've developed a mindset that is culturally responsive.	0	1	2	3	4	5

16. I feel comfortable initiating conversations about diversity, equity, and belonging.	0	1	2	3	4	5
17. I'm able to utilize critical thinking and problem solving skills.	0	1	2	3	4	5
18. The number of meetings was appropriate	0	1	2	3	4	5
19. Please share any changes or improvements you would like to see:						

Co-curricular Assessment - Leaderjacks

Rate the degree to which you agree or disagree with the statement presented.

	Not at all	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree
Because of my involvement in Leaderjacks:						
1. I'm confident in my ability to take initiative on a project.	0	1	2	3	4	5
2. I'm confident in my ability to motivate others.	0	1	2	3	4	5
3. I'm able to be open minded to others' opinions.	0	1	2	3	4	5
4. I'm able to help resolve conflicts.	0	1	2	3	4	5
5. I'm confident to speak out in a group setting.	0	1	2	3	4	5
6. I'm able to cooperate with others.	0	1	2	3	4	5
7. I can work together with others towards a common goal.	0	1	2	3	4	5
8. I am able to allow others to lead.	0	1	2	3	4	5
9. I have been encouraged to get involved in community events.	0	1	2	3	4	5
10. I have developed friendships with people outside of my major/activity.	0	1	2	3	4	5
11. I have utilized resources in the community (off-campus).	0	1	2	3	4	5
12. I am confident in my ability to integrate into a new community.	0	1	2	3	4	5
13. I acknowledge and respect cultures/values different from my own.	0	1	2	3	4	5

14. I have had the opportunity to engage and respectfully communicate thoughts and ideas regarding sensitive topics.	0	1	2	3	4	5
15. I've developed a mindset that is culturally responsive.	0	1	2	3	4	5
16. I feel comfortable initiating conversations about diversity, equity, and belonging.	0	1	2	3	4	5
17. I'm able to utilize critical thinking and problem solving skills.	0	1	2	3	4	5
18. I understand the importance of volunteering in my community.	0	1	2	3	4	5

Co-curricular Assessment - Photography Club

Rate the degree to which you agree or disagree with the statement presented.

Because of my involvement in Photography Club:	Not at all	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree
1. I'm confident in my ability to take initiative on a project.	0	1	2	3	4	5
2. I'm confident in my ability to motivate others.	0	1	2	3	4	5
3. I'm able to be open minded to others' opinions.	0	1	2	3	4	5
4. I'm able to help resolve conflicts.	0	1	2	3	4	5
5. I'm confident to speak out in a group setting.	0	1	2	3	4	5
6. I'm able to cooperate with others.	0	1	2	3	4	5
7. I can work together with others towards a common goal.	0	1	2	3	4	5
8. I am able to allow others to lead.	0	1	2	3	4	5
9. I have been encouraged to get involved in community events.	0	1	2	3	4	5
10. I have developed friendships with people outside of my major/activity.	0	1	2	3	4	5
11. I have utilized resources in the community (off-campus).	0	1	2	3	4	5
12. I am confident in my ability to integrate into a new community.	0	1	2	3	4	5
13. I acknowledge and respect cultures/values different from my own.	0	1	2	3	4	5

14. I have had the opportunity to engage and respectfully communicate thoughts and ideas regarding sensitive topics.	0	1	2	3	4	5
15. I've developed a mindset that is culturally responsive.	0	1	2	3	4	5
16. I feel comfortable initiating conversations about diversity, equity, and belonging.	0	1	2	3	4	5
17. I'm able to utilize critical thinking and problem solving skills.	0	1	2	3	4	5
18. I have confidence in my ability to seek out clients and successfully take care of the photographic needs.	0	1	2	3	4	5

Co-curricular Assessment - Student Senate

Rate the degree to which you agree or disagree with the statement presented.

Because of my involvement in Student Senate:	Not at all	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree
1. I'm confident in my ability to take initiative on a project.	0	1	2	3	4	5
2. I'm confident in my ability to motivate others.	0	1	2	3	4	5
3. I'm able to be open minded to others' opinions.	0	1	2	3	4	5
4. I'm able to help resolve conflicts.	0	1	2	3	4	5
5. I'm confident to speak out in a group setting.	0	1	2	3	4	5
6. I'm able to cooperate with others.	0	1	2	3	4	5
7. I can work together with others towards a common goal.	0	1	2	3	4	5
8. I am able to allow others to lead.	0	1	2	3	4	5
9. I have been encouraged to get involved in community events.	0	1	2	3	4	5
10. I have developed friendships with people outside of my major/activity.	0	1	2	3	4	5
11. I have utilized resources in the community (off-campus).	0	1	2	3	4	5
12. I am confident in my ability to have a positive impact on my community.	0	1	2	3	4	5
13. I acknowledge and respect cultures/values different from my own.	0	1	2	3	4	5

14. I have had the opportunity to engage and respectfully communicate thoughts and ideas regarding sensitive topics.	0	1	2	3	4	5
15. I've developed a mindset that is culturally responsive.	0	1	2	3	4	5
16. I feel comfortable initiating conversations about diversity, equity, and belonging.	0	1	2	3	4	5
17. I'm able to utilize critical thinking and problem solving skills.	0	1	2	3	4	5

Co-curricular Assessment - Men's Hockey

Rate the degree to which you agree or disagree with the statement presented.

Because of my involvement in Men's Hockey:	Not at all	Strongly disagree	Slightly disagree	Neutral	Slightly agree	Strongly agree
1. I'm confident in my ability to take initiative on a project.	0	1	2	3	4	5
2. I'm confident in my ability to motivate my teammates.	0	1	2	3	4	5
3. I'm able to be open minded to others' opinions.	0	1	2	3	4	5
4. I'm able to help resolve conflicts.	0	1	2	3	4	5
5. I'm confident to speak out in a group setting.	0	1	2	3	4	5
6. I'm able to cooperate with my teammates.	0	1	2	3	4	5
7. I can work together with teammates towards a common goal.	0	1	2	3	4	5
8. I am able to allow my teammates to lead.	0	1	2	3	4	5
9. I have been encouraged to get involved in community events.	0	1	2	3	4	5
10. I have developed friendships with people outside of my major/activity.	0	1	2	3	4	5
11. I have utilized resources in the community (off-campus).	0	1	2	3	4	5
12. I am confident in my ability to integrate into a new community.	0	1	2	3	4	5
13. I acknowledge and respect cultures/values different from my own.	0	1	2	3	4	5

14. I have had the opportunity to engage and respectfully communicate thoughts and ideas regarding sensitive topics.	0	1	2	3	4	5
15. I have developed a mindset that is culturally responsive.	0	1	2	3	4	5
16. I feel comfortable initiating conversations about diversity, equity, and belonging.	0	1	2	3	4	5
17. I'm able to utilize critical thinking and problem solving skills.	0	1	2	3	4	5
18. I feel my skills as a hockey player have improved.	0	1	2	3	4	5

APPENDIX 2

T-test results by question for PTK.

Table A2.1	Leadership				
	Q1	Q2	Q3	Q4	Q5
Average Difference	-0.33	-0.11	0.22	-1.11	-0.44
degrees of freedom	16	16	16	16	16
t-test statistic	-0.71	-0.29	0.55	-2.77	-0.78
t* ^a	2.12	2.12	2.12	2.12	2.12
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A2.2	Teamwork		
	Q6	Q7	Q8
Average Difference	0.00	0.00	0.22
degrees of freedom	16	16	16
t-test statistic	0.00	0.00	0.66
t* ^a	2.12	2.12	2.12
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A2.3	Community			
	Q9	Q10	Q11	Q12
Average Difference	0.22	-0.22	0.00	0.11
degrees of freedom	16	16	16	16
t-test statistic	1.00	-1.51	0.00	0.29
t* ^a	2.12	2.12	2.12	2.12
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Diversity			
	Q13	Q14	Q15	Q16
Average Difference	-0.33	-0.11	-0.22	-0.11
degrees of freedom	16	16	16	16
t-test statistic	-2.00	-0.28	-0.76	-0.28
t* ^a	2.12	2.12	2.12	2.12
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Activity-Based				
	Q17	Q18	Q19	Q20	Q21
Average Difference	0.22	0.11	-0.11	-0.22	-0.11
degrees of freedom	16	16	16	16	16
t-test statistic	0.76	0.33	-0.29	-0.43	-0.29
t* ^a	2.12	2.12	2.12	2.12	2.12
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

T-test results by question for SNO.

Table A3.1	Leadership				
	Q1	Q2	Q3	Q4	Q5
Average Difference	0.08	0.25	0.25	0.50	0.92
degrees of freedom	23	23	23	23	23
t-test statistic	0.29	0.70	1.38	2.05	3.15
t* ^a	2.07	2.07	2.07	2.07	2.07
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null	Reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A3.2	Teamwork		
	Q6	Q7	Q8
Average Difference	0.25	0.17	0.42
degrees of freedom	23	23	23
t-test statistic	1.99	1.54	1.89
t* ^a	2.07	2.07	2.07
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A3.3	Community			
	Q9	Q10	Q11	Q12
Average Difference	-0.25	-0.08	-0.67	0.00
degrees of freedom	23	23	23	23
t-test statistic	-0.94	-0.35	-1.53	0.00
t* ^a	2.07	2.07	2.07	2.07
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A3.4	Diversity			
	Q13	Q14	Q15	Q16
Average Difference	0.33	0.25	0.17	0.08
degrees of freedom	23	23	23	23
t-test statistic	1.27	0.80	0.78	0.26
t* ^a	2.07	2.07	2.07	2.07
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A3.5	Activity-Based
	Q17
Average Difference	0.25
degrees of freedom	23
t-test statistic	0.96
t* ^a	2.07
Outcome ^b	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

T-test results by question for Leaderjacks.

Table A4.1	Leadership				
	Q1	Q2	Q3	Q4	Q5
Average Difference	-0.22	0.12	0.09	-0.27	0.13
degrees of freedom	21	21	21	21	21
t-test statistic	-0.80	0.40	0.28	-0.84	0.29
t* ^a	2.08	2.08	2.08	2.08	2.08
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A4.2	Teamwork		
	Q6	Q7	Q8
Average Difference	0.02	0.20	0.25
degrees of freedom	21	21	21
t-test statistic	0.18	1.00	1.10
t* ^a	2.08	2.08	2.08
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A4.3	Community			
	Q9	Q10	Q11	Q12
Average Difference	0.30	0.67	0.80	0.47
degrees of freedom	21	21	21	21
t-test statistic	1.96	1.62	2.06	1.03
t* ^a	2.08	2.08	2.08	2.08
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A4.4	Diversity			
	Q13	Q14	Q15	Q16
Average Difference	0.32	-0.70	-0.30	-0.55
degrees of freedom	21	21	21	21
t-test statistic	0.79	-3.28	-0.76	-1.34
t* ^a	2.08	2.08	2.08	2.08
Outcome ^b	Fail to reject the null	Reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A4.5	Activity-Based	
	Q17	Q18
Average Difference	0.30	0.10
degrees of freedom	21	21
t-test statistic	1.96	1.00
t* ^a	2.08	2.08
Outcome ^b	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

T-test results by question for photography club.

	Q1	Q2	Q3	Q4	Q5
Average Difference	0.33	-0.33	0.00	0.33	0.33
degrees of freedom	4	4	4	4	4
t-test statistic	0.71	-0.71	-	1.00	1.00
t* ^a	2.78	2.78	2.78	2.78	2.78
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null	Reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Q6	Q7	Q8
Average Difference	0.00	0.00	0.00
degrees of freedom	4	4	4
t-test statistic	-	-	-
t* ^a	2.78	2.78	2.78
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Q9	Q10	Q11	Q12
Average Difference	0.00	0.33	0.67	1.00
degrees of freedom	4	4	4	4
t-test statistic	-	1.00	2.00	1.73
t* ^a	2.78	2.78	2.78	2.78
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A5.4	Diversity			
	Q13	Q14	Q15	Q16
Average Difference	0.00	0.00	0.00	0.33
degrees of freedom	4	4	4	4
t-test statistic	-	-	-	1.00
t* ^a	2.78	2.78	2.78	2.78
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A5.5	Activity-Based	
	Q17	Q18
Average Difference	0.00	0.33
degrees of freedom	4	4
t-test statistic	-	1.00
t* ^a	2.78	2.78
Outcome ^b	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

T-test results by question for Student Senate.

	Q1	Q2	Q3	Q4	Q5
Average Difference	0.25	0.83	0.33	0.17	0.75
degrees of freedom	22	22	22	22	22
t-test statistic	0.93	4.02	1.77	0.62	1.83
t* ^a	2.07	2.07	2.07	2.07	2.07
Outcome ^b	Fail to reject the null	Reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Q6	Q7	Q8
Average Difference	0.17	0.25	0.42
degrees of freedom	22	22	22
t-test statistic	1.48	1.91	2.16
t* ^a	2.07	2.07	2.07
Outcome ^b	Fail to reject the null	Fail to reject the null	Reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Q9	Q10	Q11	Q12
Average Difference	0.08	0.25	-1.17	0.17
degrees of freedom	23	23	23	23
t-test statistic	0.26	1.12	-2.76	0.48
t* ^a	2.07	2.07	2.07	2.07
Outcome ^b	Fail to reject the null	Fail to reject the null	Reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Diversity			
	Q13	Q14	Q15	Q16
Average Difference	0.08	0.17	0.33	0.67
degrees of freedom	23	23	23	23
t-test statistic	1.00	1.48	1.77	2.35
t* ^a	2.07	2.07	2.07	2.07
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Activity-Based
	Q17
Average Difference	0.25
degrees of freedom	23
t-test statistic	1.22
t* ^a	2.07
Outcome ^b	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

T-test results by question for Men's Hockey.

	Leadership				
	Q1	Q2	Q3	Q4	Q5
Average Difference	-0.66	-0.68	-0.48	-0.97	-0.82
degrees of freedom	35	35	35	35	35
t-test statistic	-3.11	-3.06	-1.97	-4.47	-2.99

t* ^a	2.04	2.04	2.04	2.04	2.04
Outcome ^b	Reject the null	Reject the null	Fail to reject the null	Reject the null	Reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Q6	Q7	Q8
Average Difference	-0.24	-0.35	-0.18
degrees of freedom	35	35	35
t-test statistic	-1.28	-1.95	-0.74
t* ^a	2.04	2.04	2.04
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Q9	Q10	Q11	Q12
Average Difference	0.14	-0.01	0.23	-0.27
degrees of freedom	35	35	35	35
t-test statistic	0.58	-0.03	0.87	-1.09
t* ^a	2.04	2.04	2.04	2.04
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Q13	Q14	Q15	Q16
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Average Difference	-0.54	-0.81	-0.43	-0.44
degrees of freedom	35	35	35	35
t-test statistic	-2.30	-3.69	-1.95	-1.91
t* ^a	2.04	2.04	2.04	2.04
Outcome ^b	Reject the null	Reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A7.5	Activity-Based	
	Q17	Q18
Average Difference	-0.62	-0.09
degrees of freedom	35	35
t-test statistic	-3.69	-0.40
t* ^a	2.04	2.04
Outcome ^b	Reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

T-test results by question for the overall results.

Table A8.1	Leadership				
	Q1	Q2	Q3	Q4	Q5
Average Difference	-0.15	0.08	0.10	-0.23	0.13
degrees of freedom	131	131	131	131	131
t-test statistic	-1.19	0.65	0.90	-1.63	0.73
t* ^a	1.96	1.96	1.96	1.96	1.96
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null	Reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Q6	Q7	Q8
Average Difference	0.06	0.06	0.19
degrees of freedom	131	131	131
t-test statistic	0.79	0.83	1.96
t* ^a	1.96	1.96	1.96
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Q9	Q10	Q11	Q12
Average Difference	0.16	0.16	-0.11	0.17
degrees of freedom	131	131	131	131
t-test statistic	1.40	1.42	-0.65	1.29
t* ^a	1.96	1.96	1.96	1.96
Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

	Q13	Q14	Q15	Q16
Average Difference	0.07	-0.17	-0.04	0.08
degrees of freedom	131	131	131	131
t-test statistic	0.59	-1.35	-0.36	0.52
t* ^a	1.96	1.96	1.96	1.96

Outcome ^b	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null
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a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.

Table A8.5	Activity- Based Q17
Average Difference	0.13
degrees of freedom	131
t-test statistic	1.25
t* ^a	1.96
Outcome ^b	Fail to reject the null

a - t* was evaluated using a 95% confidence level.

b - the null hypothesis is that the means between the student ratings and the co-curricular leader rating were equal.