Texas A&M University System

2019 Student Learning Outcome Report

for Texas A&M University-Central Texas

COMMUNICATION

COMMUNICATION LEARNING OUTCOME: Upon completion of their degree program, students will be able to express ideas clearly and coherently orally, in writing, and electronically to a diverse range of audiences and interact with others in large and small group settings.

ASSESSMENTS

- AAC&U VALUE Rubric
- Educational Testing Services Proficiency Profile (ETS-PP)
- National Survey on Student Engagement (NSSE)
- End-of-Course Surveys (EOCS)

RESULTS:

Sufficient

- VALUE Written Communication - **Proficient**
- ETS-PP Writing - **Emerging**
- NSSE Writing and Speaking Clearly - **Exemplary**
- EOCS - Communication - **Sufficient**

Results Descriptions:

- **Exemplary** – All criteria met and results exceed expectations with little room for improvement
- **Proficient** – Most criteria met and results indicate mastery of objective with some room for improvement
- **Sufficient** – Acceptable number of criteria met and results meet expectations with room for improvement
- **Emerging** – Some criteria met and results indicate a need for improvement
- **Insufficient** – Few criteria met, results indicate a need for significant improvement or no/insufficient results reported to measure the performance of the objective

ANALYSIS:

The university employs a wide array of instruments to assess this critical outcome with results ranging from Exemplary to Emerging. Overall, these assessments indicate students perceive they proficiently attain the communication skills intended for their academic programs upon completing their degree at the university.

ACTION:

The University continues to find ways to grow students' communication skills. The university began in 2009 with written communication assessment. It later shifted the focus on improving students' written communication skills by required two writing intensive courses in each program and requiring students to transfer two writing intensive courses at the from their lower level work. In 2014, the university introduced a writing center for students to receive highly qualified writing tutoring outside of class. In 2018, the university implemented a writing in the disciplines-focused Quality Enhancement Plan based on 2013 ETS Proficiency Profile results, along with other data. The project continues next year with a focus on identifying where writing occurs at the university with the intent of scaling up the identified practices across campus.

COMMENTS:

The process of teaching students how to communicate at the baccalaureate level continues to mature at the university with faculty shifting from strictly a mechanics focus in some cases to an intentional focus on the message or content of the message. Along with the maturing of the focus, the assessment of writing in classes has improved with a drive to provide students more iterative and timely feedback ensuring the student time to benefit from instruction during the course. Our Quality Enhancement Plan introduced a new measure to assess written communication at the university. The measure calls for sets of work from students to compare early and late work of the student and measure the student's improvement while enrolled.

ASSESSMENT: VALUE RUBRIC WRITTEN COMMUNICATION

Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student success.

RESULTS:

Proficient. Student papers rated by university faculty resulted in an average overall score of 2.5 on a scale from 0 to 4 with average subscores ranging from 2.4 to 2.8 in 2019. This is an improvement from those rated in 2016 who exhibited an average score of 2.3.

The University considers the following breakpoints when applying the VALUE rubrics:

- Exemplary when the average rating is 4.0
- Proficient when the average rating is above 3.0
- Sufficient when the average rating is above 2.0
- Emerging when the average rating is above 1.0
- Insufficient when the average rating is 1 and below

ANALYSIS:

Of the 30 student artifacts rated using the VALUE Writing rubric in 2019, the overall average rating was 2.5 with the following ratings for each aspect:

Average Score	Rater 1	Rater 2	Overall
Content Development	2.4	2.6	2.5
Context / Purpose	2.5	2.5	2.5
Control of Syntax / Mechanics	2.4	2.4	2.4
Genre / Disciplinary Conventions	2.4	2.4	2.4
Sources and Evidence	2.5	2.8	2.6
Overall (Scale 0 to 4)	2.4	2.5	2.5

The artifacts rated below expected in all aspects with the most opportunity for improvement exhibited in the control of syntax and mechanics, and genre aspects.

The artifacts were rated by seven faculty members on May 6, 2019, in a single rating session where each faculty member rated an artifact followed by a second faculty member. The same two faculty members did not rate the same artifacts. The ratings resulted in a lower than desired interrater reliability, but sufficient to apply the results with a Cohen's kappa of 0.218. We would like to see this above 0.5

Note: a single rater rated 2 out of the 30 documents due to an administrative error.

ACTION:

The university elected a Quality Enhancement Plan designed to create a community of writers. Next year, the university faculty will focus on identifying where writing occurs at the university and work to scale up those instances.

COMMENTS:

None.

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: ETS PP – WRITING

The ETS Proficiency Profile consists of 27 multiple-choice questions that most accurately measure a student's ability to "recognize the most grammatically correct revision of a clause, sentence or group of sentences" and "recognize and reword figurative language." This measure allows A&M–Central Texas to assess control of grammar, syntax, and mechanics in communicating ideas with clarity and concision.

RESULTS:

Emerging - In 2019, students scored at higher levels than in previous years, but below proficiency. While the results fall below the criteria for emerging, they are closer to emerging than insufficient; an improvement over prior years.

The University uses the following scale to determine student accomplishment of the outcome:

- Exemplary when 100% are proficient at level 1, 80% at level 2, and 50% at level 3
- Proficient when 80% are proficient at level 1, 50% at level 2, and 30% at level 3
- Sufficient when 60% are proficient at level 1, 30% at level 2, and 10% at level 3
- Emerging when 40% are proficient at level 1, 10% at level 2, and 0% at level 3
- Insufficient when 20% are proficient at level 1, 0% at level 2, and 0% at level 3

ANALYSIS:

In 2019, 33% of students (N=15) were proficient at Level 1, 7% at Level 2, and 0% at Level 3. This compares to 2013, when 55% of students were proficient at Level 1, 13% at Level 2, and 5% at Level 3 and 2017 when 47% of students were proficient at Level 1, 5% at Level 2, and 0% at Level 3.

The university is making progress on this measure, but student continue to perform below expected levels. The Quality Enhancement Plan aims to improve student writing within the disciplines and promises improvement.

ACTION:

The university elected a Quality Enhancement Plan designed to create a community of writers. Next year, the university faculty will focus on identifying where writing occurs at the university and work to scale up those instances. Additionally, encourage more students to complete the proficiency profile by asking faculty to follow up with students during their final semester with the university.

COMMENTS:

The university revised the expectations of student performance on this measure with the introduction of the Quality Enhancement Plan. However, under the previously used criteria the university would have persisted at emerging

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: NSSE WRITING CLEARLY AND EFFECTIVELY

The National Survey for Student Engagement NSSE annually collects information at hundreds of four-year colleges and universities about first-year and senior students' participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college. The questions address empirically confirmed "good practices" in undergraduate education. That is, they reflect behaviors by students and institutions that are associated with desired outcomes of college. NSSE doesn't assess student learning directly, but survey results point to areas where colleges and universities are performing well and aspects of the undergraduate experience that could be improved.

The NSSE assesses the level to which senior-level students "engage in educational learning practices associated with higher levels of learning and development." The item on the NSSE, which examines students' perceptions as to what degree their experiences at this institution contributed to their knowledge, skills, and personal development in writing clearly and effectively measures students' perceptions of the overall writing instruction they received while at A&M-Central Texas.

RESULTS:

Exemplary. The mean for the university's students responding to questions about writing was eight points higher than the Carnegie Classification (83% to 74%) in 2019. In 2017, the university students scored on 9 percentage points higher than the Carnegie Classification. While in 2015, the university scored 3-percentage points above the peer group.

The University uses the Carnegie Classification as a benchmark of NSSE performance and considers performance to be:

- Exemplary when 1 point or more above
- Proficient when equal to or above
- Sufficient when no more than 1 point below
- Emerging when no more than 2 points below
- Insufficient when more than 2 points below

ANALYSIS:

In 2015, Students responded "Quite a Bit" or "Very Much" at a rate of 3 percentage points higher than our Carnegie peer class (77% to 74%).

In 2017, Students responded "Quite a Bit" or "Very Much" at a rate of 9 percentage points higher than our Carnegie peer class (83% to 74%).

In 2019, Students responded "Quite a Bit" or "Very Much" at a rate of 8 percentage points higher than our Carnegie peer class (83% to 75%).

Students experienced improvement on this measure between 2015 and 2019 and faculty are doing a good job boosting student confidence in writing. However, when compared to the ETS proficiency profile results for the same year we see that the heightened confidence may be false. Efforts in play are likely to resolve the imbalance.

ACTION:

None

COMMENTS:

None

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: EOCS WRITTEN COMMUNICATION

Students complete a series of questions on the end-of-course survey to indicate their perceived gains on specific learning outcomes including writing communication.

RESULTS:

Sufficient. Students perceived substantial or exceptional learning in their abilities to communicate in a written form at a rate of 79 percent in 2019. This compares to a rate of 77 percent in 2018.

The University measures the percent of students indicating substantial or exceptional gains in learning on the EOCS and considers performance to be:

- Exemplary when 90 percent or more
- Proficient when 80 percent or more
- Sufficient when 70 percent or more
- Emerging when 60 percent or more
- Insufficient when below 60 percent

ANALYSIS:

In 2019, 1329 out of 1680 university students (or 79.1 percent) perceived substantial or exceptional progress in their ability to communicate in a written form. This compares to 2040 out of 2641 students (or 77.7 percent) in 2018.

Students' perception of substantial or exceptional gains in communicating in writing increased from 77.7 percent in 2018 to 79.1 percent in 2019.

ACTION:

None

COMMENTS:

None

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

CRITICAL THINKING AND PROBLEM SOLVING

Upon completion of their degree program, students will be able to demonstrate critical thinking, including the ability to explain issues; find, analyze, and select appropriate evidence; and construct a cogent argument that articulates conclusions and their consequences. Students will be able to utilize, qualitative and quantitative reasoning as a base for problem solving.

ASSESSMENTS

- AAC&U Value Rubric
- ETS Proficiency Profile (ETS-PP)
- National Survey of Student Engagement (NSSE)
- End-of-Course Survey (EOCS)

RESULTS:

Proficient

- AAC&U Value Rubric, Critical Thinking Skills - **Proficient**
- AAC&U Value Rubric, Problem Solving Skills - Sufficient
- ETS-PP Critical Thinking - **Insufficient**
- NSSE Thinking critically and analytically - **Proficient**
- NSSE Analyzing numerical and statistical information - **Proficient**
- NSSE Evaluating what others have concluded from numerical information - Sufficient
- NSSE Solving complex real-world problems - Sufficient
- EOCS Critical Thinking - **Proficient**
- EOCS Application - **Proficient**

Results Descriptions:

- Exemplary – All criteria met and results exceed expectations with little room for improvement
- **Proficient** – Most criteria met and results indicate mastery of objective with some room for improvement
- Sufficient – Acceptable number of criteria met and results meet expectations with room for improvement
- Emerging – Some criteria met and results indicate a need for improvement
- **Insufficient** – Few criteria met, results indicate a need for significant improvement or no/insufficient results reported to measure the performance of the objective

ANALYSIS:

Students proficiently achieve this outcome upon completion of our baccalaureate degrees as demonstrated by the four assessment instruments, both direct and indirect, employed to evaluate program effectiveness.

The university prioritize improvements in written communication over other general education areas; however, this area was second in line for consideration and likely to be a candidate for our next Quality Enhancement Plan in 2028. The strategy was to establish a community of writers,

which in turn will increase critical thinking and problem solving skills indirectly through additional opportunities to evaluate ideas and data in writing. The additional practice of these general education competencies should cause the scores on these assessments to further increase.

ACTION:

Meet with the University Assessment Committee and the Undergraduate Council to identify ways to improve students' success in achieving this outcome.

COMMENTS:

None.

ASSESSMENT: VALUE RUBRIC, CRITICAL THINKING SKILLS

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student success.

RESULTS:

Proficient. Student papers rated by university faculty resulted in an average overall score of 2.4 on a scale from 0 to 4 with average subscores ranging from 2.2 to 2.8 in 2019. This is an improvement from those rated in 2016 who exhibited an average score of 2.2.

The University considers the following breakpoints when applying the VALUE rubrics:

- Exemplary when the average rating is 4.0
- Proficient when the average rating is above 3.0
- Sufficient when the average rating is above 2.0
- Emerging when the average rating is above 1.0
- Insufficient when the average rating is 1 and below

ANALYSIS:

Of the 30 student artifacts rated using the VALUE Critical Thinking rubric in 2019, the overall average rating was 2.4 with the following ratings for each aspect:

Average Score	Rater 1	Rater 2	Overall
Conclusion	2.4	2.0	2.2
Context	2.3	2.2	2.3
Evidence	2.4	2.2	2.3
Explanation	3.0	2.6	2.8
Position	2.5	2.5	2.5
Overall (Scale 0 to 4)	2.5	2.3	2.4

The artifacts rated below expected in all aspects with the most opportunity for improvement exhibited in the conclusion aspect.

The artifacts were rated by seven faculty members on May 6, 2019, in a single rating session where each faculty member rated an artifact followed by a second faculty member. The same two faculty members did not rate the same artifacts. The ratings resulted in a lower than desired interrater reliability, but sufficient to apply the results with a Cohen's kappa of 0.006. We would like to see this above 0.5

Note: a single rater rated 1 out of the 30 documents due to an administrative error.

ACTION:

Since achieving an independent regional accreditation in 2013, the university faculty have dedicated time to improving the program curriculum to better tailor the programs to the specific needs of our unique transfer student body. The university has arranged with local community colleges to share the results of our general education assessments with their general education faculty with the intent of providing more data to those faculty to improve their courses.

COMMENTS:

None.

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: VALUE RUBRIC, PROBLEM SOLVING SKILLS

Problem solving is the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal.

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student success.

RESULTS:

Sufficient. Student papers rated by university faculty resulted in an average overall score of 2.2 on a scale from 0 to 4 with average subscores ranging from 1.8 to 2.6 in 2019.

The University considers the following breakpoints when applying the VALUE rubrics:

- Exemplary when the average rating is 4.0
- Proficient when the average rating is above 3.0
- Sufficient when the average rating is above 2.0
- Emerging when the average rating is above 1.0
- Insufficient when the average rating is 1 and below

ANALYSIS:

Of the 30 student artifacts rated using the VALUE Reading rubric in 2019, the overall average rating was 2.2 with the following ratings for each aspect:

Average Score	Rater 1	Rater 2	Overall
Define Problem	2.1	2.3	2.2
Evaluate Outcomes	1.9	2.1	2.0
Evaluate Solutions	1.7	2.0	1.8
Hypothesis	2.4	2.7	2.5
Identify Strategies	2.7	2.6	2.6
Implement Solution	2.1	2.0	2.1
Overall (Scale 0 to 4)	2.2	2.3	2.2

The artifacts rated below expected in all aspects with the most opportunity for improvement exhibited in the evaluate solutions aspect.

The artifacts were rated by seven faculty members on May 6, 2019, in a single rating session where each faculty member rated an artifact followed by a second faculty member. The same two faculty members did not rate the same artifacts. The ratings resulted in a lower than desired interrater reliability, but sufficient to apply the results with a Cohen's kappa of 0.073. We would like to see this above 0.5

Note: a single rater rated 4 out of the 30 documents due to an administrative error.

ACTION:

Since achieving an independent regional accreditation in 2013, the university faculty have dedicated time to improving the program curriculum to better tailor the programs to the specific needs of our unique transfer student body. The university has arranged with local community colleges to share the results of our general education assessments with their general education faculty with the intent of providing more data to those faculty to improve their courses.

COMMENTS:

None.

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: ETS-PP CRITICAL THINKING

The ETS Proficiency Profile consists of 27 multiple-choice questions that most accurately measure a student's academic skills relating to critical thinking.

RESULTS:

Insufficient - In 2019, students scored, on average, 107.6. This compares to 109.8 in 2013

The University considers the following breakpoints when applying the ETS PP assessment:

- Exemplary when the average scaled score is between 176-180
- Proficient when the average scaled score is between 171-175
- Sufficient when the average scaled score is between 161-170
- Emerging when the average scaled score is between 156-160
- Insufficient when the average scaled score is between 150-155

ANALYSIS:

Students assessed in 2019 using the ETS Proficiency Profile direct assessment measure demonstrated insufficient critical thinking skills. Students (n=19) scored a mean of 107.6 on the critical thinking component compared to the national average of 110.

Students assessed in 2013 using the ETS Proficiency Profile direct assessment measure demonstrated insufficient critical thinking skills. Students (n=148) scored a mean of 109.8 on the critical thinking component compared to the national average of 110.

While the university's average is lower than the national average, the 107.6 is within one standard deviation (2.5) of the national average leading to believe scores on this portion of the test are typically low.

ACTION:

None.

COMMENTS:

None.

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: NSSE THINKING CRITICALLY AND ANALYTICALLY

The National Survey for Student Engagement NSSE annually collects information at hundreds of four-year colleges and universities about first-year and senior students' participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college. The questions address empirically confirmed "good practices" in undergraduate education. That is, they reflect behaviors by students and institutions that are associated with desired outcomes of college. NSSE doesn't assess student learning directly, but survey results point to areas where colleges and universities are performing well and aspects of the undergraduate experience that could be improved.

The university assesses critical thinking using question 17.c. How much has your experience at this institution contributed to your knowledge, skills, and personal development in thinking critically and analytically?

RESULTS:

Proficient. The mean score of students responding to the thinking critically question was on par with the Carnegie Classification (3.3) in 2019. Students responded identically (3.3) in 2017 and 2015.

The University uses the Carnegie Classification as a benchmark of NSSE performance and considers performance to be:

- Exemplary when 1 point or more above
- Proficient when equal to or above
- Sufficient when no more than 1 point below
- Emerging when no more than 2 points below
- Insufficient when more than 2 points below

ANALYSIS:

Of the 121 seniors responding to this item in 2019, 83% (*n=72*) of the respondents indicated that their experience at the institution contributed to their critical thinking skills at a rate of very much, 46% (*n=59*) and quite a bit, 37% (*n=43*). The university mean response was 3.3, on par with our identified comparison groups (Carnegie Classification at 3.3).

Of the 183 seniors responding to this item in 2017, 83% (*n=154*) of the respondents indicated that their experience at the institution contributed to their critical thinking skills at a rate of very much, 44% (*n=82*) and quite a bit, 39% (*n=72*). The university mean response was 3.3, on par with our identified comparison groups (Carnegie Classification at 3.3).

Of the 173 seniors responding to this item in 2015, 82% (*n=143*) of the respondents indicated that their experience at the institution contributed to their critical thinking skills at a rate of very much, 44% (*n=76*) and quite a bit, 38% (*n=65*). The university mean response was 3.2, on par with our identified comparison groups (Carnegie Classification at 3.3).

On average, students perceived increases in critical thinking skills related their work at the university and on par with those at other institutions in our peer group. Being on par with peers is

consistent with the proficiency profile but the low scores indicate their perception may be an indicator of false confidence.

ACTION:

Investigate the value of engaging in a Quality Enhancement Plan related to critical thinking and potentially coupled with information literacy or mathematics.

COMMENTS:

None

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: NSSE ANALYZING NUMERICAL AND STATISTICAL INFORMATION

The National Survey for Student Engagement NSSE annually collects information at hundreds of four-year colleges and universities about first-year and senior students' participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college. The questions address empirically confirmed "good practices" in undergraduate education. That is, they reflect behaviors by students and institutions that are associated with desired outcomes of college. NSSE doesn't assess student learning directly, but survey results point to areas where colleges and universities are performing well and aspects of the undergraduate experience that could be improved.

The university assesses problem solving using question 17.d. How much has your experience at this institution contributed to your knowledge, skills, and personal development in analyzing numerical and statistical information?

RESULTS:

Proficient. The mean score of students responding to the analyzing numerical and statistical information question was on par with the Carnegie Classification (2.8) in 2019. Students responded identically (2.8) in 2017 and 2015.

The University uses the Carnegie Classification as a benchmark of NSSE performance and considers performance to be:

- Exemplary when 1 point or more above
- Proficient when equal to or above
- Sufficient when no more than 1 point below
- Emerging when no more than 2 points below
- Insufficient when more than 2 points below

ANALYSIS:

Of the 122 seniors responding to this item in 2019, 58% (*n=72*) of the respondents indicated that their experience at the institution contributed to their ability to analyze numerical and statistical information at a rate of very much, 32% (*n=42*) and quite a bit, 26% (*n=26*). The university mean response was 2.8, on par with our identified comparison groups (Carnegie Classification at 2.8).

Of the 185 seniors responding to this item in 2017, 58% (*n=109*) of the respondents indicated that their experience at the institution contributed to their ability to analyze numerical and statistical information at a rate of very much, 44% (*n=82*) and quite a bit, 39% (*n=72*). The university mean response was 2.7, on par with our identified comparison groups (Carnegie Classification at 2.8).

Of the 169 seniors responding to this item in 2015, 62% (*n=143*) of the respondents indicated that their experience at the institution contributed to their ability to analyze numerical and statistical information at a rate of very much, 28% (*n=46*) and quite a bit, 34% (*n=57*). The university mean response was 2.8, on par with our identified comparison groups (Carnegie Classification at 2.8).

On average, students perceived increases in their ability to analyze numerical and statistical information related their work at the university and on par with those at other institutions in our peer group. Being on par with peers is consistent with the proficiency profile but the low scores indicate their perception may be an indicator of false confidence.

ACTION:

Investigate the value of engaging in a Quality Enhancement Plan related to critical thinking and potentially coupled with information literacy or mathematics.

COMMENTS:

None

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: NSSE EVALUATING WHAT OTHERS HAVE CONCLUDED FROM NUMERICAL INFORMATION

The National Survey for Student Engagement NSSE annually collects information at hundreds of four-year colleges and universities about first-year and senior students' participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college. The questions address empirically confirmed "good practices" in undergraduate education. That is, they reflect behaviors by students and institutions that are associated with desired outcomes of college. NSSE doesn't assess student learning directly, but survey results point to areas where colleges and universities are performing well and aspects of the undergraduate experience that could be improved.

The university assesses problem solving using question 6.c. During the current school year, about how often have you evaluated what others have concluded from numerical information?

RESULTS:

Sufficient. The mean score of students responding to the question on evaluating what others have concluded from numerical information was on below the Carnegie Classification (2.3 to 2.4) in 2019 by 0.1 points. Students responded in a similar way in in 2017 (2.2 to 2.4) and 2015 (2.1 to 2.4). However, the margin is reduced from 0.3 in 2015 to 0.1 in 2019.

The University uses the Carnegie Classification as a benchmark of NSSE performance and considers performance to be:

- Exemplary when 1 point or more above
- Proficient when equal to or above
- Sufficient when no more than 1 point below
- Emerging when no more than 2 points below
- Insufficient when more than 2 points below

ANALYSIS:

Of the 129 seniors responding to this item in 2019, 36% (*n=47*) of the respondents indicated that during the school year the frequency which they reevaluated others assessments of numerical data was at a rate of very often, 12% (*n=17*) and often, 24% (*n=30*). The university mean response was 2.3, slightly below our identified comparison groups (Carnegie Classification at 2.4).

Of the 200 seniors responding to this item in 2017, 35% (*n=71*) of the respondents indicated that during the school year the frequency which they reevaluated others assessments of numerical data was at a rate of very often, 7% (*n=15*) and often, 28% (*n=56*). The university mean response was 2.2, slightly below our identified comparison groups (Carnegie Classification at 2.4).

Of the 191 seniors responding to this item in 2015, 29% (*n=55*) of the respondents indicated that during the school year the frequency which they reevaluated others assessments of numerical data was at a rate of very often, 9% (*n=16*) and often, 20% (*n=39*). The university mean response was 2.1, slightly below our identified comparison groups (Carnegie Classification at 2.4).

On average, students perceived increases in their frequency of reevaluating others assessments of numerical data and on par with those at other institutions in our peer group. The results are an improvement from other assessments and an indication that general education preparation has improved.

ACTION:

None.

COMMENTS:

None

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: NSSE SOLVING COMPLEX REAL-WORLD PROBLEMS

The National Survey for Student Engagement NSSE annually collects information at hundreds of four-year colleges and universities about first-year and senior students' participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college. The questions address empirically confirmed "good practices" in undergraduate education. That is, they reflect behaviors by students and institutions that are associated with desired outcomes of college. NSSE doesn't assess student learning directly, but survey results point to areas where colleges and universities are performing well and aspects of the undergraduate experience that could be improved.

The university assesses problem solving using question 6.b. During the current school year, about how often have you used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)?

RESULTS:

Sufficient. The mean score of students responding to the question on using numerical information to examine a real-world problem was on below the Carnegie Classification (2.3 to 2.4) in 2019 by 0.1 points. Students responded in a similar way in in 2017 (2.3 to 2.4) and 2015 (2.2 to 2.4) resulting in no progress in closing the margin between our students and those of our peers.

The University uses the Carnegie Classification as a benchmark of NSSE performance and considers performance to be:

- Exemplary when 1 point or more above
- Proficient when equal to or above
- Sufficient when no more than 1 point below
- Emerging when no more than 2 points below
- Insufficient when more than 2 points below

ANALYSIS:

Of the 129 seniors responding to this item in 2019, 41% (*n=54*) of the respondents indicated that during the school year the frequency which they use numerical information to examine a real-world problem was at a rate of very often, 11% (*n=16*) and often, 30% (*n=38*). The university mean response was 2.3, slightly below our identified comparison groups (Carnegie Classification at 2.4).

Of the 202 seniors responding to this item in 2017, 38% (*n=78*) of the respondents indicated that during the school year the frequency which they use numerical information to examine a real-world problem was at a rate of very often, 10% (*n=21*) and often, 28% (*n=57*). The university mean response was 2.3, slightly below our identified comparison groups (Carnegie Classification at 2.4).

Of the 193 seniors responding to this item in 2015, 35% (*n=69*) of the respondents indicated that during the school year the frequency which they use numerical information to examine a real-world problem was at a rate of very often, 9% (*n=18*) and often, 26% (*n=51*). The university mean response was 2.2, slightly below our identified comparison groups (Carnegie Classification at 2.4).

On average, students perceived increases in their frequency of the frequency which they use numerical information to examine a real-world problem. These rates, on average, are slightly lower than other institutions in our peer group. The results are an improvement from other assessments and an indication that general education preparation has improved.

ACTION:

None

COMMENTS:

None

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: EOCS CRITICAL THINKING

Students complete a series of questions on the end-of-course survey to indicate their perceived gains on specific learning outcomes including critical thinking.

RESULTS:

Proficient. Students perceived substantial or exceptional learning in their abilities to think critically at a rate of 83 percent in 2019. This compares to a rate of 82 percent in 2018.

The University measures the percent of students indicating substantial or exceptional gains in learning on the EOCS and considers performance to be:

- Exemplary when 90 percent or more
- Proficient when 80 percent or more
- Sufficient when 70 percent or more
- Emerging when 60 percent or more
- Insufficient when below 60 percent

ANALYSIS:

In 2019, 1422 out of 1710 university students (or 83.1 percent) perceived substantial or exceptional progress in their ability to think critically. This compares to 2202 out of 2688 students (or 81.9 percent) in 2018.

Students' perception of substantial or exceptional gains in critical thinking increased from 81.9 percent in 2018 to 83.1 percent in 2019. The increase is within the margin of error for this data indicating no real improvement in student perception.

ACTION:

None

COMMENTS:

None

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019

ASSESSMENT: EOCS APPLICATION

Students complete a series of questions on the end-of-course survey to indicate their perceived gains on specific learning outcomes including the application of what they have learned to real-world problems.

RESULTS:

Proficient. Students perceived substantial or exceptional learning in their abilities to apply their learning to real-world situations at a rate of 84 percent in 2019. This compares to a rate of 82 percent in 2018.

The University measures the percent of students indicating substantial or exceptional gains in learning on the EOCS and considers performance to be:

- Exemplary when 90 percent or more
- Proficient when 80 percent or more
- Sufficient when 70 percent or more
- Emerging when 60 percent or more
- Insufficient when below 60 percent

ANALYSIS:

In 2019, 1439 out of 1724 university students (or 83.5 percent) perceived substantial or exceptional progress in their ability to apply their learning to real-world situations. This compares to 2209 out of 2689 students (or 82.1 percent) in 2018.

Students' perception of substantial or exceptional gains in communicating in writing increased from 82.1 percent in 2018 to 83.5 percent in 2019. The increase is within the margin of error for this data indicating no real improvement in student perception.

ACTION:

None

COMMENTS:

None

Prepared by: Paul Turcotte, Director of Institutional Research and Assessment on December 19, 2019