

ESSS Assessment of Learning Goal 1; 12-13 Annual Report

Goal #1: A student that graduates from CSB/SJU with a minor degree in Exercise Science and Sport Studies will demonstrate the ability to effectively engage in scholarly inquiry and analysis in the area of Exercise Science and Sports Studies.

Item assessed:

1. Student work from ESSS 306, 308, 310, and 396 [Method #1]
2. Exit Survey results [Method #2]
3. Undergraduate research abstracts accepted for presentation at the American College of Sports Medicine - Northland Chapter Spring 2013 Tutorial [Method #4]

Summary of assessment results:

Method #1: Student Achievement Data

Course assignments designed to assess Inquiry and Analysis skills were collected from the department's four Category B courses in 2012-13 (see Appendix G). From the 18 assignments collected, eight assignments were randomly selected (two assignments from each Category B course) to be assessed using the department created rubric (see Appendix J).

The three ESSS department faculty independently assessed each of the eight student assignments and assigned a score of 1 (Unacceptable), 2 (Acceptable), or 3 (Exceptional) to the four Inquiry and Analysis content areas. Then the three faculty members shared with each other their scores along with the rationale for their scores. Following a discussion, a consensus was reached for each student's score in each of the four content areas. Mean content area scores are reported below.

Mean Inquiry and Analysis Content Area Scores [Method #1]:

- 1) Topic Selection/Research Question: mean score of 2.5 out of 3 (± 0.53)
- 2) Existing Knowledge, Research and/or Views: mean score of 2.5 out of 3 (± 0.53)
- 3) Research Design: mean score of 2.13 out of 3 (± 0.64)
- 4) Analysis and Discussion: mean score of 2.5 out of 3 (± 0.46)

Method #2: Students' Perception of Learning

In 2012-13, all 14 graduating ESSS senior students completed the department's exit survey. Included in the survey were questions pertaining to the perceived opportunity to engage in undergraduate research and the students' perceived experience with undergraduate research in the ESSS department.

Opportunity to engage in undergraduate research in the ESSS department: All 14 students responded to the question. The average score was 3.72 out of 4 (± 0.47) indicating that students recognize the opportunity to engage in undergraduate research in the department. However, only seven out of the 14 students indicated that they actually engaged in undergraduate research in the department.

Curriculum as preparation for undergraduate research: Of the seven students that engaged in undergraduate research, all seven agreed or strongly agreed that the curriculum prepared them for their undergraduate research. The average score was 3.57 out of 4 (± 0.53).

Importance of undergraduate research in the students overall academic development: Of the seven students that engaged in undergraduate research, all seven agreed or strongly agreed that their undergraduate research experience significantly contributed to their overall academic development. The average score was 3.43 out of 4 (± 0.53).

Skill development: Of the seven students that engaged in undergraduate research, all seven agreed or strongly agreed that their undergraduate research experience helped develop important professional skills. The average score was 3.57 out of 4 (± 0.53).

Supervision and support: Of the seven students that engaged in undergraduate research, all seven agreed or strongly agreed that the supervision and support they received in conducting the research was helpful and adequate. The average score was 3.57 out of 4 (± 0.53).

Method #3: Graduates' Perception of Learning

ESSS department graduates were not surveyed in 2012-13. Therefore, there are no results to report relative to Method #3. Additionally, since the ESSS department will be undergoing program review in 2019-20, it was decided to delay surveying graduates until 2018-19.

Method #4: Independent Third Party Evaluation

In the spring of 2013, a select group of ESSS students ($n = 25$) submitted eight research abstracts to the Northland Chapter of the American College of Sports Medicine with a request to present their research at Spring Tutorial. All eight proposals were accepted. As part of the application process, each research abstract was evaluated by two or three faculty members at other colleges/universities in the upper Midwest and included both a numerical score (0-5 scale) and open-ended comments pertaining to five content areas: Introduction, Methods, Results, Conclusion, and Writing Mechanics. The numerical scores were averaged to produce an overall composite score for each abstract.

Introduction: Average score of 3.82 out of 5 (± 0.739). Comments were generally positive. However, overall, students needed to provide a stronger background statement with appropriate references introducing the importance and relevance of the research.

Methods: Average score of 3.87 out of 5 (± 0.757). Comments indicated more information was needed to appropriately define the methods. However, one reviewer commented that too much information was provided in the Methods section an abstract. Generally, a consistent disciplinary method is needed in presenting information in the Methods section.

Results: Average score of 3.78 out of 5 (± 1.043). Comments ranged from technical feedback (example: "Present results with Mean \pm SD") to evaluative (example: "I clearly understood the results"). Generally, more attention to detail is needed in presenting information in the Results section.

Conclusion: Average score of 3.74 out of 5 (± 0.824). Comments ranged from strongly positive (example: "Overall very clearly and well written. Thank you.") to more critical (example: "At times this abstract is

hard to read. Gets lost in the details.”). Generally, though, the reviewers found the abstracts to be well written.

Analysis and future actions:

When provided ample space to describe introductory information, methods, results, and conclusions, ESSS students demonstrated acceptable to exceptional “Inquiry and Analysis” skills. However, when constrained by an abstract’s word limit, students did not perform as well (note: Method #1 and Method #4 consisted of different samples of students’ work). From the students’ perspective, it appears they are recognizing the value of undergraduate research in enriching their educational experience and feel supported as they engage in the process. In response to the assessment findings, ESSS department faculty will work more closely with students submitting abstracts to the ACSM Northland conference (and other conferences) and use the experience to further enhance the students’ “Inquiry and Analysis” skills.

As a department, we also learned that a variety of assignments may be used to assess the students’ “Inquiry and Analysis” skills. This year’s sample included more traditional undergraduate research presented in both manuscript and PowerPoint form, as well as case studies that involved inquiry and analysis. To adjust for the different types of student work, the bulleted items included in the assessment rubric were applied as suggested criteria, not requirements, for scoring. That flexibility allowed the rubric to be effectively adapted and applied in order to assess the variety of student work included.

Does your program anticipate making any adjustments to its curriculum, pedagogy, or assessment practice based upon the analyses presented above? If so, please describe them.

The ESSS department does not plan to make changes to the curriculum based on the Inquiry and Analysis assessment results.

In response to the assessment findings, ESSS department faculty will work more closely with students submitting abstracts to the ACSM Northland conference (and other conferences) and use the experience to further enhance the students’ “Inquiry and Analysis” skills.

The “Inquiry and Analysis” questions included in the exit survey provided to graduating ESSS students pertain exclusively to undergraduate research. However, a concerted effort is being made in the ESSS department to develop “Inquiry and Analysis” skills in a variety of ways, not just research. Therefore, the exit survey will be revised to include questions to assess the effectiveness of all methods used to develop Inquiry and Analysis” skills.