

Earth Science Students' Ability to Communicate Geological Concepts

Earth Science BA - College of Natural Sciences and Mathematics

Step 1: Student Learning Outcome

Communicate geoscience concepts to peers and/or public both orally and written

Step 2: Methods and Measures

Direct Measure: Poster presentation

Faculty evaluate senior student's practical skills using a rubric during poster presentations at Research Day, which takes place in spring of each academic year. The rubric is based on a 4 point scales with students rated as, Poor, Adequate, Good or Excellent on the following criteria;

- Hypothesis Tested /Nature of the Question
- Research Methods
- Quality of Data Interpretation
- Poster Organization and Arrangement
- Presenter's writing skills
- Quality of Figures, Tables, Graphs, Photos etc.
- Professionalism of Presenter
- Presenter's Ability to verbally Explain Study

Indirect Measure: Survey

Students self-assessed their learning via a survey given at Research Day. Students were asked to rate their level of confidence on a 4 point scales as, Very Well, Somewhat Well, Not Very Well, Not at All. Criteria included the following;

- Can you produce a physical/data/descriptive model of functions, interactions and trends of Earth Systems? (Geosphere, hydrosphere, cryosphere, atmosphere, biosphere)
- How confident are you in your geological interpretation/quality of your model?
- Could you explain the objective and function of your model to a non-geologist friend/family member?

Step 3: Criteria for Success

Direct Measure: 80% of senior students will earn 22 points or higher.

Indirect Measure: 80% of senior students will earn 17 points or higher.

Step 4: Results

Direct Measure: The SLO was met with 100% of students scoring 22 or higher (n=3).

Indirect Measure: The SLO was met with 100% of students scoring 17 or higher (n=3).

Step 5: Improvement Actions

Current instructional practices demonstrate student learning of the outcome and will continue in their current form. The SLO will also continue to be monitored for future improvements.