

Assessment Plan: GELOs in Biology Courses

PLNU General Education non-lab courses (BIO 102 and 104)

Learning Outcome: GELO 1c. Information Literacy: Students will be able to access and cite information as well as evaluate the logic, validity, and relevance of information from a variety of sources. This outcome will be measured yearly via direct, summative assessment.

Outcome Measure: Signature Assignment: Multiple choice questions on the final exam taken from the Test of Scientific Literacy Skills (TOSLS). The whole class was assessed.

Criteria for Success: At least 60% of the students will answer the questions correctly (an average of 60% for all of the questions). 60% was chosen since this is an introductory course for non-science majors. Questions from the TOSLS were chosen that specifically addressed information literacy and were appropriate for the content of each course.

Longitudinal Data:

| Class | SPRING, 2017 | | FALL, 2016 | |
|--------|--------------|--|------------|--|
| | n | % of Students Answering TOSLS Questions Correctly (Ave + S.D.) | n | % of Students Answering TOSLS Questions Correctly (Ave + S.D.) |
| BIO102 | NA | Not offered in Spring 2017 | 50 | 56 ± 28 |
| BIO104 | NA | Not offered in Spring 2017 | NA | Not offered in Fall 2016 |

Conclusions Drawn from Data: The students in BIO102 are close to meeting the criteria for information literacy.

Changes to be Made Based on Data: This is the first year we have used questions from the TOSLS exam, and we are quite pleased with the outcome. We will continue to use these questions for summative assessment in our GE courses.

Rubric: Gormally, C., Brickman, P., and Lutz, M. “Developing a Test of Scientific Literacy Skills (TOSLS): Measuring Undergraduates’ Evaluation of Scientific Information and Arguments.” C.B. E. Life Science Education 11(4): 364–377 (2012).

BIO102: Questions 9, 10, 12, 17, 22

BIO104: Questions 5, 9, 10, 17, 22, 27