

2015-16 Report of the Assessment of the General Education Program

The following report, which details the assessment of UNCG's General Education Program for the 2015-16 academic year, was developed by the General Education Assessment Coordinator in conjunction with the General Education Council.

Information on General Education Program's mission and goals, assessment process, and assessment results from prior academic years may be found on the Office of Assessment and Accreditation's website at <http://assessment.uncg.edu/academic/GenEd/>. The current General Education student learning outcomes may be found at http://assessment.uncg.edu/curriculum/GEC/GEC_SLO.html.

Questions about the assessment of the General Education Program may be directed to David Carlone (david_carlone@uncg.edu), the Chair of the General Education Council, or to Teresa Brumfield (tebrumfi@uncg.edu), the General Education Assessment Coordinator.

Fall 2015 – Spring 2016

Natural Sciences (GNS)

Prior to 2015-16, GNS student learning outcomes were assessed using the Scientific Reasoning test (SR-9), a standardized test developed by James Madison University faculty for use at the program level. With the UNCG faculty review and revision of the GNS student learning outcomes in 2014-15, faculty had to re-examine the SR-9 to determine whether its continued use was appropriate for evaluating the GNS category.

In September 2015, GNS faculty, representing nine departments, were invited by the General Education Chair to attend a two-hour assessment workshop. The purpose of the workshop was to determine the most appropriate method for evaluating the GNS category given varied course content and large enrollment classes. Of the 43 invited faculty, 11 faculty attended, representing 8 departments.

After reviewing the results from the previous use of the SR-9, the majority of workshop attendees concluded that the SR-9 was unsuitable for assessing the new GNS student learning outcomes. Another test—the *Test of Scientific Literacy* (TOSLS)—was presented to the faculty for their consideration. The TOSLS appeared to fit one, and possibly two, of the three GNS student learning outcomes. The outcome of the workshop was that three faculty, from three departments, agreed to participate in the spring 2016 pilot of a revised assessment process.

The pilot involved using the TOSLS for assessing GNS SLO-1 and SLO-3, and using course work to assess GNS SLO-2. One of the purposes of the pilot was to determine whether the TOSLS category 1 questions aligned adequately with GNS SLO-1 and whether TOSLS category 2 questions aligned adequately with GNS SLO-3, keeping in mind *all* GNS courses. Approximately 190 Biology, 100 Chemistry, and 120 Geography students participated in the TOSLS pilot.

Figure 1 presents the combined results from the TOSLS category 1 questions (measuring GNS SLO-1). For the purposes of the pilot, the course faculty defined "proficient" (prof) as the number of category 1 questions answered correctly (cor) out of 14. Students who answered more questions correctly were considered "highly proficient"; those who answered fewer questions correctly were considered "not proficient".

2015-16 Report of the Assessment of the General Education Program

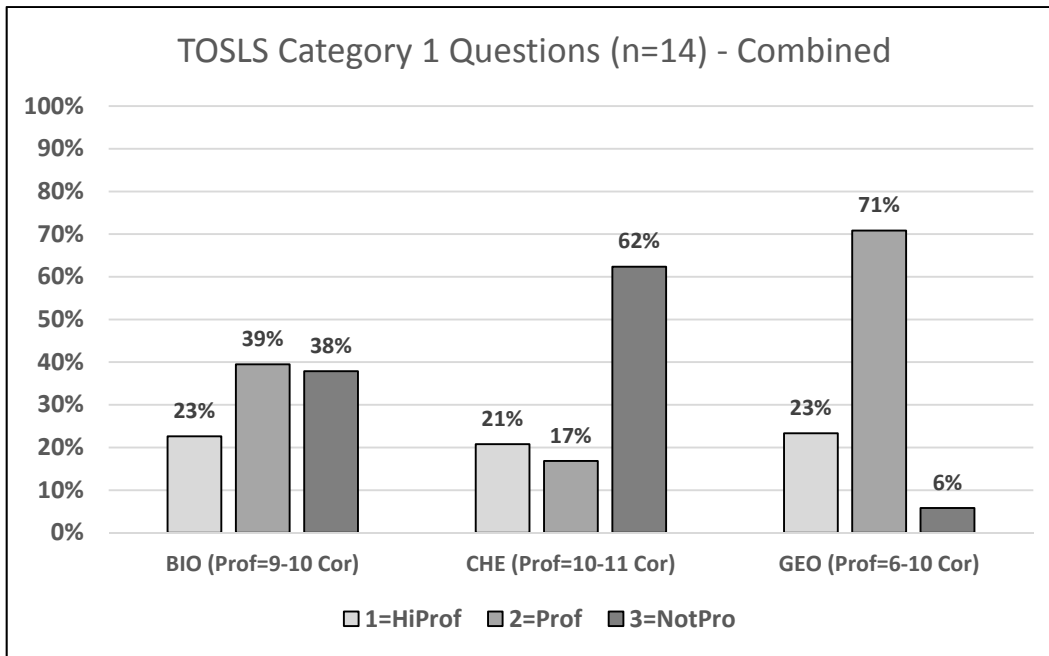


Figure 1. Summary results from TOSLS category 1 questions

Figure 2 presents the combined results from the TOSLS category 2 questions (measuring GNS SLO-3). Course faculty defined “proficient” (prof) as the number of category 2 questions answered correctly (cor) out of 14. Students who answered more questions correctly were considered “highly proficient”; those who answered fewer questions correctly were considered “not proficient”.

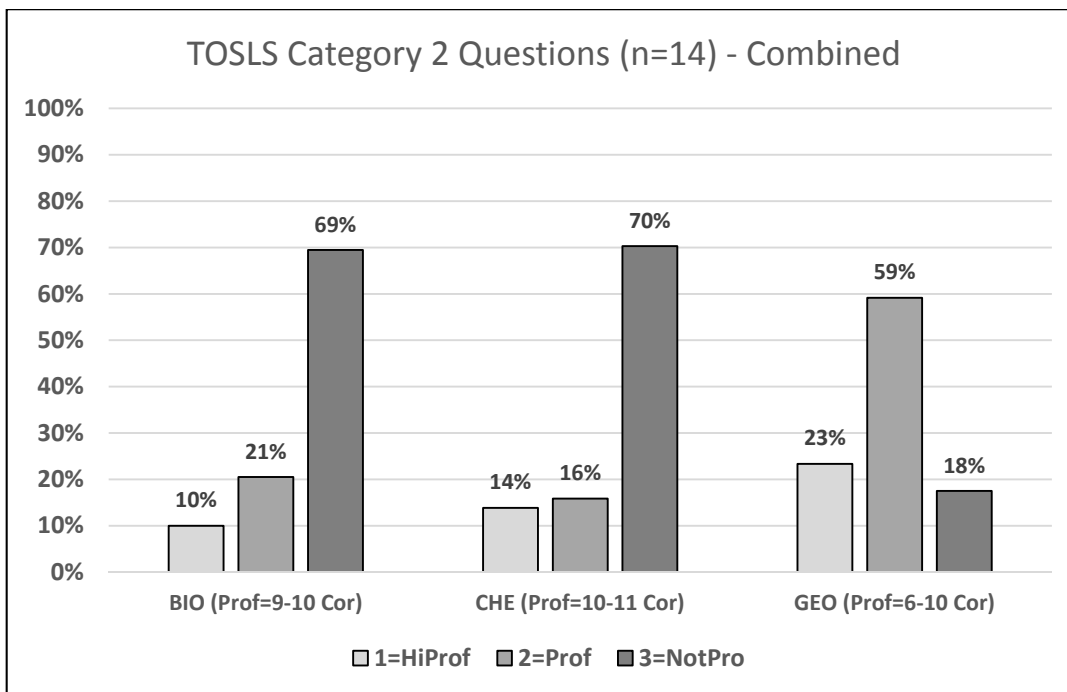


Figure 2. Summary results from TOSLS category 2 questions

Upon the completion of the pilot, a meeting was convened on May 10, 2016. Eleven faculty, representing seven departments, attended including those who participated in the pilot. Faculty reviewed and discussed

2015-16 Report of the Assessment of the General Education Program

the aggregated results from the pilot. A number of faculty indicated that the TOSLS was not a good fit for GNS courses in their department. At the conclusion of the meeting, the overall consensus was that faculty teaching GNS courses would use a course-embedded process to assess each of the GNS student learning outcomes.

Going forward, a process that reflects the assessment process used for all other General Education categories will be used. For GNS courses, instructors will identify their student work for assessing each GNS student learning outcome, e.g., whether a particular test was used, a group of questions from a test, a lab report, etc. In addition, the instructor will determine how s/he defined what a “proficient” student can do. At the end of the 2016-17 academic year, course faculty will complete a template for reporting GNS assessment results.

Mathematics (GMT)

In fall 2011, Math faculty pilot-tested an assessment process to collect data on every GMT class. This process included embedding five multiple choice questions in the final exam of every GMT class. Each of the five questions was intended to measure exactly one of the five (at that time) GMT student learning goals. The questions were identical for all GMT courses. Upon examination of the results, the Math faculty determined this process was unsuitable due to the variation of course content.

In spring 2012, Math faculty varied the initial assessment process by embedding questions into GMT class final exams, but this time the questions were based on course content. Math faculty made adjustments to the final exams to ensure that every GMT student learning outcome was adequately represented by a meaningful number of problems assigned to measure it. After they collected and reviewed the data, the Math faculty decided that this was the approach with which they would use going forward.

Using an agreed-upon assessment reporting template, the spring 2016 GMT assessment report follows:

Figure 3 summarizes the percentage of students who scored correctly the item sets for each of the GMT student learning outcomes.

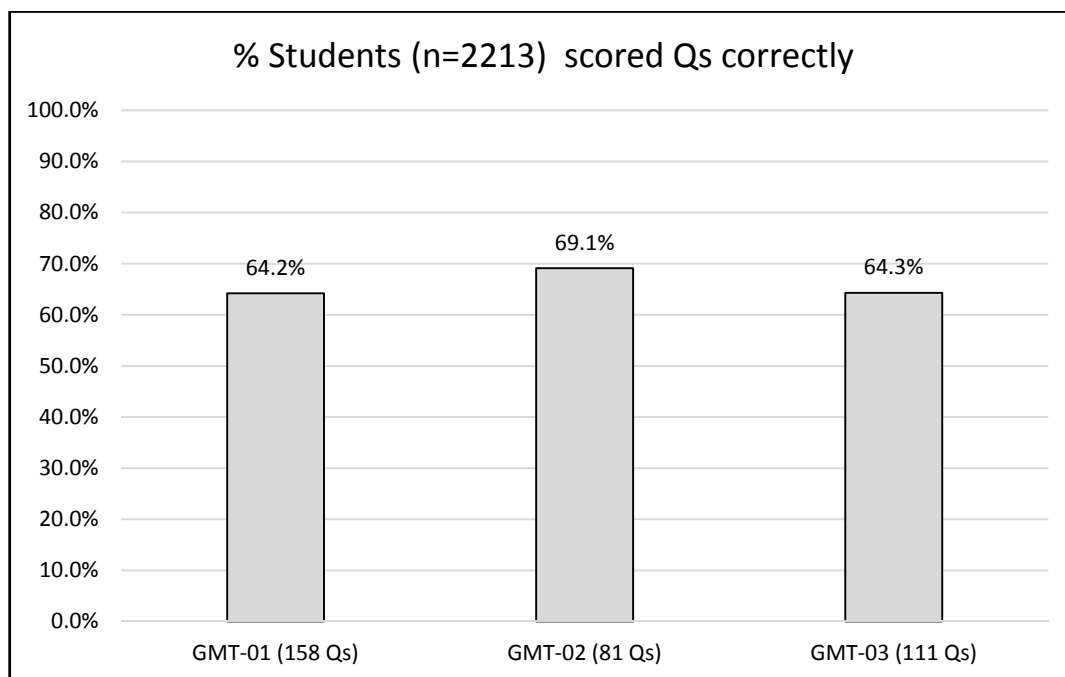


Figure 3. Summary of GMT results

2015-16 Report of the Assessment of the General Education Program

Discussion:

The results of each SLO-specific item set were consistent with overall student performance in the GMT classes. Only 58.1% of students tested in GMT classes achieved an average mastery of the course material by earning a grade of C or better. Thus students who demonstrated at least an average knowledge of the course specific subject matter also achieved each of the GMT student learning outcomes.

The Math Department significantly increased the number of problems corresponding to SLO-2 in STA 108, MAT 115, and MAT 120. Problems used to assess this particular SLO make up at least a third of the final exam in each of these classes. Math Department faculty found that students responded well to such problems since students are more likely to be interested in a problem when mathematics is put into a real world perspective.

Recommendations:

The Math Department is revising its MAT 112 course and plans to compare future GMT assessment results in this course to past results to ensure proper assessment for each of the three student learning outcomes.

The department's Math Placement Test was revised last year to better place students into the proper MAT class. Initial data suggested the placement test was working properly and that students placed into higher level MAT courses under the revised test succeeded in attaining each of the GMT student learning outcomes. The Math Department will continue to monitor the placement test data.

In each GMT course, feedback is given early enough in the semester to identify students "at-risk" of failing to meet each of the student learning outcomes. The Math Department will continue to recommend heavy utilization of the Math Help Center as a remediation measure for students that may be lacking some of the prerequisite skills for success in these courses.

In those GMT courses which use multiple choice tests, distractor analyses for each SLO item set should be used by course coordinators to determine those questions where the distractor receives more responses than the correct answer. Additionally, in certain GMT courses, such as MAT 190 and MAT 191, the number of questions used to assess SLO-2 is disproportionately small. The Math Department will review and reevaluate the course objectives to find possibilities to include a larger number of SLO-2 type problems consistent with the goals of the respective courses.

Spring 2016 Administration of ETS HEIghten *Critical Thinking and Written Communications* tests

In October 2015, the UNC General Administration notified each campus that the ETS HEIghten tests would be administered during February 2016. An expected examinee count was 100 students per campus for the Critical Thinking test and 100 for the Written Communication test. Of these 100 students, 60 were expected to be seniors, 25 to be freshmen, and the remaining 15 from any level.

After several efforts at UNCG to recruit students for testing, only 51 students volunteered to take the Critical Thinking test and 34 students volunteered to take the Written Communication test. Results from the Critical Thinking test indicated that 65% of the 51 students performed at proficient or above compared to the 2,520 students across all UNC institutions who performed at 52% proficient or above. Results from the Written Communication test indicated that 68% of the 34 students performed at proficient or above compared to the 2,162 students across all UNC institutions who performed at 51% proficient or above.

2015-16 Report of the Assessment of the General Education Program

Outcomes from the 2015-16 assessment of the General Education Program include:

1. GNS instructors selected in 2016-17 to participate in the assessment process will:
 - a. select course assignments to assess each GNS student learning outcome,
 - b. define what a “proficient” student can do for each GNS SLO,
 - c. complete a GNS course results report, and
 - d. meet within their departments to aggregate course results into a departmental results report to be submitted to the GE Assessment Subcommittee.

2. Based on its 2015-16 assessment of GMT, the Math Department plans to:
 - a. revise MAT 112 to ensure proper assessment for each of the GMT student learning outcomes in this course;
 - b. continue monitoring its Math Placement Test data to ensure that students are being properly placed in MAT classes;
 - c. continue emphasizing the use of the Math Help Center, particularly for students that may be at risk of failing to meet each of the GMT SLOs;
 - d. recommend that course coordinators use distractor analyses for each GMT SLO item set to identify questions where the distractor receives more responses than the correct answer; and
 - e. include a larger number of GMT SLO-2 problems in MAT 190 and MAT 191.