CASE STUDY
Session 3: Creating & Using Rubrics to Improve Learning
CTLT Instructional Resource Commons, March 19, 2015, 1-2 p.m.

Context

Faculty in the Statistics program at Anyplace University (AU) have been engaging in conversations about what they want graduates to be able to do and know. All faculty in the program have a solid grasp of learning outcomes for their individual classes. Coming to an agreement about learning outcomes at the program or major level, however, has been historically problematic.

Over the years, the curriculum had gradually become somewhat disorganized and lacked coherent structure. Students may be asked to cover the same concepts in multiple classes. Additionally, little attention has historically been paid to the developmental nature of learning over time. Faculty teaching senior-level courses find students unprepared in many important concepts. Faculty in lower-level courses are uncertain about what concepts students should be introduced to, and don’t really know if students will have the opportunity to practice certain skills before moving on to more advanced senior-level work.

In order to address this, the chair worked with faculty to clarify program learning outcomes in one year, and spent the next year mapping learning outcomes to the curriculum. Now, faculty have a better understanding of how students learn statistics and progress through the curriculum.

Problem

One of the program’s learning outcomes focuses on communicating complex statistical ideas to a general audience through written communications, as in a report.

All students are required to write a research paper as part of their senior capstone project in the last year of their program. This occurs in Statistics 398. Because multiple faculty teach the capstone course, there is variability in terms of teaching methods and classroom environment. For example, one instructor includes an oral presentation component as part of the final research paper. Another instructor is a pure mathematician and has little expertise in communicating statistical results.

Because of this variability, faculty question whether it’s feasible or even practical to assess the communication of complex statistical ideas at the program level.