Wright College Academic Department/Program Assessment project #2 Final report Fall 2015

What?

The biology department is in the midst of assessing how we prepare our students in regard to reading, writing, speaking, and listening, and how our student learning outcomes (SLO's) are linked to the Colleges' educational mission. The first goal of this specific project was to survey what activities in each course build these skills in our students.

Why?

The biology department is currently examining how well our department SLO's link with the College SLO's. This year, we are examining how our students are prepared for reading, writing, speaking and listening when in a workplace or academic environment. Our long-term goal is to build a culture of assessment in our department so that we can implement meaningful change based on data. With this second assessment project, we surveyed each course for how our materials matched up with developing reading, writing, speaking, and listening. By surveying our courses, we can identify specific lectures, labs, etc, that might best assesses these factors. In doing so, we can design assessments that integrate fully into our courses and provide long-term data, rather than trying to layer on additional short-term assessments that might not be relevant from one course to another. Additionally, by identifying existing coursework as assessments, we avoid the risk that any given assessment may not be implemented from one year to another, which would negatively impact how we analyze our data.

How?

All full-time faculty met in September 2015, to discuss how to implement our departmental assessment project for the current year (College SLO #2 on reading, writing, speaking, and listening). We decided that rather than work on temporary assessment projects as the need arose, a better long-term goal would be to build a culture of assessment in our department that takes into account what our tests, labs, exams, and other instructional methods already assess. Each full-time and part-time faculty member for every biology course was asked to complete two surveys. The first survey asked faculty to list how many, or what percent, of their labs, lectures, etc developed reading, writing, speaking, and listening. The second survey asked faculty to discuss specific course work that related to the four skills contained in SLO#2. Faculty were given approximately two weeks to complete these surveys, which were then given to our department coordinator. Our coordinator read through and summarized each survey and grouped them according to course number.

In January 2016, our department will meet again to select activities on a course-by-course basis that can serve as assessment tools to examine these skills listed in SLO#2. We will also determine if every biology course is sufficiently building these skills in our students.

What we found

Across the department, there are a range of activities that develop reading, writing, speaking and listening to varying degrees. Across all courses it was felt that our tests, exams, and quizzes all developed reading and writing skills. However, there was quite some variation among faculty whether (or if) speaking and listening skills were also assessed in tests, exams, and quizzes. In Bio 114, 119, 121, Micro 233, and Botany 201 faculty reported that tests, exams, and quizzes exclusively developed reading and writing skills. In Bio 226, about 20-25% of tests were thought to also develop listening skills. A majority of tests, exams, and quizzes developed writing skills in Bio 120, but some faculty reported that about 10% developed listening skills.

In all classes and across all faculty, it was reported that labs developed reading and writing skills. In Botany 201, Microbiology 233, Bio 226 and 227, and Bio 121 it was also reported that labs helped develop speaking and listening skills since labs were done in groups, which required students to interact with each other. In Bio 114, it was reported that while labs developed reading, writing, and listening skills, they didn't develop or assess speaking skills. Bio 120 does not have a lab component so this part of the survey was not relevant. Specific lab work mentioned by some faculty have students put together either single or group presentations on an assigned subject. These presentation labs brought together all four elements of SLO#2 in one unit of course material.

To varying degrees faculty across all courses listed lectures as developing reading skills, but not all faculty reported that lectures developed writing skills. Across all courses, listening was also developed during lectures, while speaking ranged from about 20% of lectures to 100%. Many faculty reported various activities during lectures that facilitated speaking and listening, such as class discussions, think-pair-share questions, and "Jeopardy" style lecture sessions.

Take-home assignments and homework were quite variable across the department. Worksheets were listed in Bio 119 and Bot 201 as activities that developed reading and writing skills. In Bio 119, these worksheets are also presented and formed the basis of class discussions, which developed speaking and listening skills as well. Additional assignments also included listening and reporting on biology-themed podcasts and videos, forming study groups, working on flashcards and other course materials, and creating a report based on a visit to the Field Museum.

From these surveys, it was found that is there were a lot of class activities that developed reading, writing, speaking, and listening. In our department meeting in January, we will discuss how we can select specific activities in each course that can form the basis of an embedded assessment that can be used to measure this SLO going forward.