Scaffolding Information Literacy in a Liberal Arts Biology Curriculum

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The science librarian and the biology faculty at Muhlenberg College developed a scaffolded set of information literacy learning goals across the biology curriculum. The goals are scaffolded in that each course's set of learning goals build on the previous course's skills and knowledge. Using a multiple choice test, we assess students' information literacy knowledge second semester of their first year and at the end of their senior year. We use this assessment to determine which learning goals are being adequately addressed and which need more attention. Having information literacy learning goals written into the curriculum for each core class helps ensure that information literacy is addressed consistently despite differences in the faculty member teaching the class. It is also a helpful entry with new faculty, as they might not be familiar with separate information literacy learning objectives. Having these goals written into the curriculum highlights their importance and provides a shared set of aims. Each set of goals complements the course content of the corresponding core biology course.

Activities and Assessment

Biology I - Activities in Support of Learning Goals: Semester-long research project in recitation, active learning assignment focusing on parts of a primary article, types of sources, and scientific communication; Assessment: In-class assessment, multiple choice exams

Biology II - Activities: Article reading practice, search session; citation clinic; Assessment: Survey focused on article reading activity, citation review, student self-graded citation assignment, mid-test point survey, multiple choice test

Biology III - Activities: Use NCBI databases throughout semester for homework assignments, discussion about scholarly communication; Assessment: Homework assignments, exams

Biology CUE - Activities: Discussion focused on how to find everything on a topic for a comprehensive literature review, PubMed search sessions, embedded librarian; Assessment: Multiple choice test end of senior year