Beyond the One-Shot: Providing Course-Integrated Instruction for Large, First-Year University Classes

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Abstract

First year university students need basic information retrieval and evaluation skills to prosper in their academic journey. However, the large class size of most first year classes can be a daunting challenge to librarians teaching information literacy skills. At Queen's University, librarians have introduced a multi-faceted, collaborative, course integrated approach for large, first-year classes in Sociology (~500 students) and Biology (~800 students). In both courses, a combination of class/tutorial lecturing, online instruction, and tests in WebCT has been used to introduce students to the specific information skills they need for their assignments. In addition, the "library component" is a required, marked part of both courses.
This poster outlines the information literacy skills taught in these courses, how these skills are integrated with course assignments, and the ongoing assessment and evaluation of this instruction.

Introduction

Introducing students to the library research process early in their academic careers is a priority for both academic librarians and faculty at Queen's University. Collaborative, course-integrated instruction in the large first year Biology and Sociology courses enables the liaison librarians in these respective disciplines to reach out effectively to a large number of first year students and provide them with a solid foundation from which to build their information literacy skills.

The standards that serve as a resource for both information literacy instruction programs are:
Biology – "Information Literacy Standards for Science and Technology." 2006.
Sociology – "Information Literacy Standards for Anthropology and Sociology Students." Draft. 2007.

Information Literacy Learning Objectives: Biology

Biology 103: The assignment

Students write lab reports throughout the term based on experiments conducted in the lab. Reports are written using the same format as a scholarly science research article. Early in the term, students write partial reports. For example, the first lab report simply requires an introduction, results and literature cited section. Students progress to writing entire reports by the end of term. At least three primary scholarly science articles are required for each assignment.

Literacy Learning Outcomes

• Students will gain an understanding of the means by which scientists communicate and publish their research, including the difference between primary and secondary literature, and the scientific research process.
• Students will use BIOSIS and Web of Science to search for scientific literature. They will be aware of, and use when necessary, other biology-related databases. They will be aware that the library pays for access to these resources.
• Students will analyse their research question in order to construct good search strings.
• Students will be able to locate print and electronic resources using the library catalogue, and be able to locate items in the physical library (including course reserves).
• Students will gain an awareness of the many ways that librarians can help them with their research.
• Students will evaluate their search results and use them effectively for their lab assignments.

Information Literacy Objectives: Sociology 122

Sociology 122: The assignment

The first term assignment consists of two drafts of a term paper outline which forms the basis of the second term research essay. Students are required to use a variety of sources and media, including "sociological peer reviewed academic journal articles," books, educational films, and edited collections. Additional sources can include newspaper articles and videos.

Information literacy outcomes are embedded in the assignment guidelines, as is information about the information literacy instruction students will be receiving.
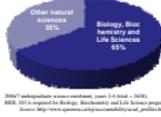
Literacy Learning Outcomes

• Students will access and use sociological material from a variety of sources. Students will consult background sources such as the Blackwell Encyclopedia of Sociology to gain familiarity with their topics.
• Students will learn to create effective search strategies using appropriate databases (the library catalogue and Sociological Abstracts) to locate scholarly books and articles.
• Students will apply appropriate evaluation criteria, learning to critically evaluate sources such as books, articles, web sites, and films, determining what information to incorporate and what to reject.
• Students will produce accurate citations using the ASA style guide produced by the Department.
• Students will demonstrate a respect for intellectual property, knowing when citation of sources is necessary and understanding what constitutes plagiarism.

BIOLOGY 103 (Introductory Biology of Organisms)

Liaison Librarian: Morag Coyne

BIOL 103 Quick Facts:
• ~800 students, Winter term course
• Required course for Biology, Biochemistry and Life Science students
• First year students are introduced to conducting university-level biology lab experiments and writing biology lab reports in this course.
• Lectures are taught by two faculty members; the labs sections are taught by TA's . A lab coordinator oversees the laboratory component of the course.

Other natural sciences 35%

Biology, Bioc hemistry and Life Sciences 65%

2006/7 undergraduate science enrolment, years 2-4 (total = 2658).
BIOL 103 is required for Biology, Biochemistry and Life Science programs.
Source: http://www.queensu.ca/irp/accountability/acad_profiles.htm

Information Literacy Integration, Winter 2008

Part 1: Online library guide for BIOL 103

This guide is linked to the course website. It is designed to help students with their lab research and the online library quiz.

Key components include:
• summary of primary vs secondary literature
• links to library catalogue and biology databases, and instructions for their use
• camtasia tutorial for analysing a research question and searching Web of Science
• links to library help

(Guide design by Janet Burgess)

Part 2: Co-lecture with BIOL 103 Lab Coordinator Rob Snetsinger

A joint library/lab research instruction session is conducted during the first lecture slot in the second week of class. The session is timed to coincide with the students' first lab assignment, due the next week. A demonstration of a scientific problem and how to gather research to investigate this query are given. The session is also designed to introduce the course web guide and WebCT library quiz.

How do I tell scholarly journals apart from science magazines?

Part 3: Library Quiz via WebCT

The quiz consists of 12 multiple choice questions designed to help students learn to use the library catalogue, locate items in the library, use biology databases, and differentiate between primary and secondary resources. Students download a copy of the quiz after the co-lecture, then have three days to answer the questions and enter the answers back into their WebCT accounts. The quiz was timed to ensure students had some grounding in library research before researching their first lab report.

Problem: According to an informal lecture survey 2/3 of the class had been in the library, but only 1/6 had ever signed out an item. Students needed to learn how to locate materials in the library or on reserve.

Quiz Question: Paper copies of the journal entitled *Current Biology* are kept in the Engineering & Science Library. Use the library catalogue (QCAT) to look up the call number for this title, and then locate the bound journal in the library. The outer covers of this journal are:
a. Red
b. Yellow
c. Blue
d. Green
e. Orange

Problem: Students may only cite primary journal articles for their labs. They need to be able to recognize the difference between primary articles and review articles.

Quiz Question: Find the following article: 'How does it feel to be like a rolling stone? Ten questions about dispersal evolution', published in *Annual Review of Ecology, Evolution, and Systematics*, vol. 38, 2007, pages 231-253. Which of the following best describes this article?
a. The article is a secondary source. It reviews the topic, summarizing the research of others.
b. The article is a primary source. It describes an experiment, including the hypothesis, methods, results and discussion.
c. None of the above.

Sample quiz question summary, as viewed in WebCT

Sociology 122

Liaison Librarian: Sylvia Andrychuk

SOCY 122 Quick Facts:
• ~500 – 600 students, Full academic year
• Required course for Sociology and one of the largest first year courses in the social sciences
• Course Description: SOCY 122 introduces students to the history of sociology, the main theoretical perspectives and how these are used, elaborated and changed by researchers seeking to understand society, particularly Canadian society
• Lectures are taught by the Department Head; tutorials are taught by TA's and coordinated by the TA coordinator
• Extensive use of WebCT (Web Course Tools)

Hybrid course delivery = hybrid IL delivery
Combination of lectures, tutorials and WebCT

Information Literacy Integration, 2007- 2008

Part 1:Face-to-Face Instruction

Every tutorial section (20 – 24 tutorial sections) is given a session in the library's electronic classroom. The purpose of the face-to-face sessions is to have the students meet a librarian and learn about the help available to them, to provide a general orientation to the library and to introduce them to key resources: the library catalogue, the Sociology Subject Guide, and Sociological Abstracts. Students are also introduced to the information literacy instruction embedded in their course WebCT site.

Part 2: Tutorial Activity

Scholarly vs. Popular?
An active learning activity designed to help students differentiate scholarly articles from popular magazine and newspaper articles.

Students are given a handout outlining the characteristics of each type of writing (and the types of publications in which they appear), and three writing samples. In small groups or individually, students are tasked with identifying which writing sample came from which type of publication: scholarly, popular or newspaper.

Part 3: Online Tutorial

Introduction to Library Research @ Queen's University: A Tutorial for SOCY 122

This web-based tutorial is accessed via the SOCY 122 course site in WebCT. The tutorial consists of a series of modules designed to instruct students in the research process – constructing effective keyword searches, using Boolean operators, searching for books in the library catalogue, finding articles in Sociological Abstracts, searching the Web, and the ethical use of information.

An optional survey using Surveymonkey.com administers student feedback and serves as an unobtrusive tool for gathering feedback.

Part 4: Quiz in WebCT

• Administered through WebCT and located within the SOCY 122 course WebCT site.
• Based upon material covered in the online tutorial, the quiz consists of 10 multiple choice questions, and is worth 5% of the final grade.
• Multiple attempts are allowed, only the students' highest grade will count. Questions are randomized so students will not be asked the same questions each time they attempt the quiz.

Sample Questions:

What is the citation style used in Sociology?
a. MLA b. ASA c. APA d. Chicago style

Which title is a book written by the author Judith P. Butler?
a. Gender Trouble: Feminism and the Subversion of Identity
b. Beyond Accommodation: Ethical Feminism, Deconstruction and the Law
c. Disciplining Foucault: Feminist Power and the Body
d. Femininity and Domination: Studies in the Phenomenology of Oppression

What is the call number for the following book : 'The Active Society Revisited'?'
a. HM101 .E77
b. HM891 .A38 2006
c. HD6080 .G46 2006
d. HV715 .P76t 2006

Assessment/Evaluation

Biology 103

Answers entered into the WebCT library quiz are graded using the WebCT software. WebCT generates reports that allow the instructor to see how marks are distributed. These findings are valuable for modifying next year's quiz questions. According to anecdotal evidence, the implementation of this information literacy integration has given students a better understanding of how to find and use library resources.

...we see the library as more than a separate resource, and more as an integral part of the course itself. I think that [integration] enhances student use of the resources. This is especially important, given the way information dissemination has changed in the last several years.

Rob Snetsinger, BIOL 103 Lab Coordinator

Sociology 122

This is the second year of this IL program. In both years, marks from the online quiz administered in WebCT were high (+90%) and the majority of students attempted the quiz more than once. While there is no way to determine how many students worked their way through the web-based tutorial prior to attempting the quiz, feedback received from students who filled out the online evaluation survey was very positive.

Thank you very much! This tutorial has been very helpful, not only for my research in this sociology class, but for all my other classes as well. I feel much more confident using the library now!

Christina Salavantis, Student, Sociology 122

Efforts undertaken in the last two years have made a noticeable impact. I have noticed that students take this instruction more seriously when it is integrated into the coursework and part of their course mark is based on it. It also allows the students to see the librarians as instructors that they can access for more assistance. More personal relationships between different types of instructors and students is important in such large classes.

*Christina Salavantis
SOCY 122 TA Coordinator*

Future Plans

Biology 103: As of Fall 2007, second year students were informally surveyed about their use of library resources during in-depth information literacy sessions integrated with their second year labs (to determine how much knowledge they retained from BIOL 103). Future plans include formalizing and expanding this survey in the second year biology program, and implementing a pre-BIOL 103 class survey.

Sociology 122: Next year students will be required to complete the web-based tutorial and online quiz prior to the face-to-face instructional sessions. It is hoped that this approach will free up time in the face-to-face classes for more active learning and student engagement. Future goals include extending the information literacy instruction program beyond the first year to other core courses in Sociology.

Sources and Suggested Readings

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